

Investigating Meaning Making: Body Image and the College Athlete Experience

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Abstract

Four NCAA Division I female college athletes were interviewed about the meaning of the female college athlete experience and how each has come to view and treat her body as a female college athlete. Interview responses were assessed along Perry's (1970) scheme of cognitive development. Because of the established relationship between the internalization of the societal thin ideal and eating disorder (ED) symptomatology, an argument is made for promoting cognitive development along Perry's scheme to foster female college athletes' resilience to ED symptomatology. Implications for practice and research are discussed.

Keywords: *body image, female college athlete, Perry's scheme*

Following a review of the current issue of eating disorder (ED) symptomatology among college students and college women in particular, a sociocultural perspective on the issue is presented that highlights the unique pressures college women and female college athletes experience as a result of mass messages to adhere to socially prescribed body ideals. Understanding students' unique meaning making capacities, or positions of cognitive development, may inform counseling and prevention approaches that promote students' resilience to these pressures. Due to the lack of current literature examining the relationship between cognitive development theory and the ways in which female college athletes view and treat their bodies, a qualitative investigation was undertaken in order to ascertain the meaning making capacities

of four female college athletes in the context of sociocultural and subcultural pressures to adhere to body ideals.

Eating Disorder Symptomatology and the College Environment

Clinical eating disorders (EDs), including anorexia nervosa, bulimia nervosa, binge-eating disorder, and other unspecified EDs, marked by intense body dissatisfaction and compensatory behaviors of restriction and bingeing and/or purging, have close to the highest mortality rate of all disorders in the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association [APA], 2006; APA, 2013). With a median age of onset of 18-21 years old (Hudson, Hiripi, Pope, & Kessler, 2012), clinical EDs are estimated to affect approximately 10% of female college students (APA, 2013; Eisenberg, Nicklett, Roeder, & Kirz, 2011). Subclinical ED symptomatology, including body image dissatisfaction, dietary restraint, and bingeing and purging (bulimic pathology), are serious concerns that eventually combine to contribute to significant clinical EDs (Hensley, 2005). Unfortunately, researchers consistently find that ED symptomatology is prevalent amongst samples of female college students. For example, it is estimated that nearly 50% of female college students engage in binge-eating or compensatory behaviors at least once per week, 66% of first-year college women are estimated to be at risk for clinical ED development, and in one investigation of female college freshmen, only 8% reported not dieting at all (Berg, Frazier, & Sherr, 2009; Cohen & Petrie, 2005; Eisenberg et al., 2011; Krahn, Kurth, Gomberg, & Drewnowski, 2005). This prevalence may be largely due to the sociocultural pressures at play in the college environment as well as the unique developmental needs of college students (Barth, 2003; Keel, Forney, Brown, & Heatherton, 2013), but this connection has not yet been investigated.

Sociocultural Model of ED Symptomatology in the College Environment

The sociocultural model of ED development posits that societal and social pressures to adhere to unrealistic body ideals leads many individuals to experience a discrepancy between the real self and the socially prescribed ideal body (Striegel-Moore & Bulik, 2007). Pressures to adhere to body ideals from peers, family, and the media contributes to an internalization of these body ideals, which leads to a general over-evaluation of appearance as well as body dissatisfaction, placing individuals at risk for dietary restraint and bulimic pathology (Striegel-Moore & Bulik, 2007; Striegel-Moore, Silberstein, & Rodin, 1986). Some contexts, such as the college environment and subcultures of college athletics, have been suggested to espouse stronger or at least unique pressures to adhere to ideal body images than those of society in general, which combine to contribute significantly to the body satisfaction and eating behaviors of the individuals within these contexts (Galli, Petrie, Reel, Chatterton, & Baghurst, 2014; Hensley, 2005; Miles, 2009; Reel, Petrie, SooHoo, & Anderson, 2013). The internalization of societal body ideals, such as the overall societal thin ideal or sport-specific body ideals, and the pursuit of these ideals at the expense of personal health and internal beliefs, has been positively correlated with ED symptomatology amongst college women and female college athletes (Stice,

Presnell, Gau, & Shaw, 2007; Stice, Ziemba, Margolis, & Flick, 1996; Thompson & Stice, 2001). This is not to say that males are unaffected by disordered eating. However, prevalence rates and sociocultural pressures continue to be higher and stronger for college women than men (Eisenberg et al., 2011; Streigel-Moore & Bulik, 2007).

Pressures in the subculture of female college athletics. Thompson and Sherman (1999; 2010) outline unique factors that exist in the athletic environment that place college athletes at increased risk for the development of ED symptomatology. These include the belief that weight/body fat reduction will enhance athletic performance, a lack of consideration of weight loss efforts on health, body stereotypes for athletes, and the similarities between symptoms of EDs and desirable characteristics typically associated with being a good female athlete. It has been suggested that the pressure to adhere to societal and cultural standards for thinness and fitness may be two-fold for female college athletes, who receive the same societal messages and pressures to adhere to body standards as female college student non-athletes in addition to the pressures to adhere to particular sport-specific body standards as espoused by particular sport cultures (Becker, McDaniel, Bull, Powell, & McIntyre, 2012). The combination of these pressures often result in unrealistic standards to measure up against, as female college athletes are simultaneously pressured to adhere to stereotypical feminine traits as well as masculine traits that are inherently conflicting (Mesinger, Bonifazi, & LaRosa, 2007). The internalization of these conflicting standards has been related to increased ED symptomatology among female college athletes (Hart & Kenny, 1997).

Internalization of Body Ideals and Cognitive Development

The sociocultural model of ED development posits that it is not only the sociocultural pressures that contribute to ED symptomatology amongst female college athletes, but also the internalization processes by which these athletes make meaning of these pressures (Galli et al., 2014; Reel et al., 2013; Thompson & Stice, 2001). Internalization of the importance of meeting these ideals and taking behavioral measures to pursue these ideals at the expense of personal beliefs and health is a causal risk factor for the development of ED symptomatology (Thompson & Stice, 2001). College student development stage theories generally suggest that meaning making capacities fall along a continuum from lower to higher cognitive complexity (Evans, Forney, Guido, Patton, & Renn, 2010). Evans et al. also indicate that students move from lower to higher meaning making capacities through challenge, slight disequilibrium, and support through learning. College students with more cognitively complex meaning making capacities are better able to filter contextual influences and determine the effects that those influences will have on personal identity than those with less developed meaning making capacities (Abes & Jones, 2004; Abes, Jones, & McEwen, 2007). Higher levels of cognitive complexity have also been positively related to constructive coping mechanisms (Labouvie-Vief & Diehl, 2000). An understanding of the current meaning making capacities, or cognitive

developmental positions, from which college students operate, may inform approaches that college counselors and higher educators apply in their work with college women in order to promote growth in cognitive complexity and subsequent resilience to the internalization of these body ideals at the expense of personal beliefs and health (Evans et al., 2010; Stice et al., 2007). Existing developmental frameworks, such as Perry's (1970) scheme of cognitive development outlined in the next section, may help to inform these counseling and higher education practices.

Cognitive Development and Resilience to External Pressures

Perry's (1970) scheme of cognitive development, with its foundation in the college student population and its reference to epistemology as it relates to external influence and authority (Love & Guthrie, 2002), provides a framework for understanding female college athletes' level of cognitive complexity in terms of these external societal and subcultural influences and resulting capacities for coping. Extending from Piaget's theory of childhood cognitive development, Perry's (1970) scheme centers on the concepts of assimilation and accommodation to describe how individuals view the nature of knowledge, the self, and the world along a course of nine positions from lower to higher cognitive complexity: position 1: basic duality; position 2: multiplicity pre-legitimate; position 3: multiplicity subordinate; position 4: multiplicity correlate/relativism subordinate; position 5: relativism correlate, competing, or diffuse; position 6: commitment foreseen; position 7: initial commitment; position 8: orientation in implications of commitment; and position 9: developing commitments (Perry, 1970; Stonewater, 1988). These nine positions have typically been conceptualized into four major categories: dualism (positions 1 and 2), multiplicity (positions 3 and 4), relativism (positions 5 and 6), and commitment in relativism (positions 7 through 9) (Evans et al., 2010; Love & Guthrie, 2002; Perry, 1970; Stonewater, 1988).

The meaning making capacities of students in the dualism positions are marked by low cognitive complexity and the view of authority as all knowing (Knefelkamp, 1999; Perry, 1970). A female college athlete operating from a dualistic position may expect that the way one should view and treat one's body should be determined by authority or external influences, such as coaches, media, peers, athletic communities, and society at large that hold the right answers on the matter. Next, Perry (1981) stated that multiplistic thinking occurs when "diversity of opinion and values is recognized as legitimate in areas where right answers are not yet known. . . . No judgments can be made among them so 'everyone has a right to his own opinion; none can be called wrong'" (p. 80). Female college athletes operating from these positions would be expected to have come to the realization that authority figures do not always hold the answers about how one should view and treat one's own body. These students would be able to recognize the different ways that one may view and treat one's own body but would be unable to recognize either the faulty or strong evidence behind each method.

The positions of relativism represent critical shift in students' thinking

wherein students no longer believe that the world is essentially dualistic and are instead able to view multiple perspectives as contextual and relative (Stonewater, 1988). In these positions, students are able to understand themselves as legitimate sources of knowledge with authority figures as a resource (Pavelich & Moore, 1996). Female college athletes operating from the relativistic positions would be expected to be able to weigh the relative evidence of each method of viewing and treating one's body as well as turn to themselves as a source of knowledge rather than strictly to external sources.

Perry described the next positions, commitment in relativism, as more of an initiation of ethical development than a continuation of cognitive development (as cited in Evans et al., 2010). Movement through these later positions represents a number of qualitative changes in the ways that students develop identities and stick to commitments. It is through such commitments that students are able to elucidate some confusion that exists during relativism (Stonewater, 1988). The way these female college athletes may understand how one should view and treat one's body would be based on the student athletes' own knowledge, experiences, and commitments with which the student would weigh external suggestions against.

The current study sought to examine the meaning making capacities of four current female college athletes on the same Division I team as related to body image and athletic experience through this cognitive developmental framework. The aim of this investigation was to shed light on the possibility that more complex meaning making may be reflected by a greater capacity for rejecting pressures of society and sport culture to adhere to unrealistic body ideals at the expense of health and internal beliefs. Cognitive development was assessed cross two domains; the experience of being a female college athlete and how each woman perceived she should view and treat her own body as a female college athlete. Informed by the responses of these four athletes and college student developmental theory, suggestions are provided for professionals to consider adopting developmental approaches in ED prevention programming.

Method

Selection and Participants

In order to select as homogeneous of a sample as possible, as is recommended for qualitative analyses, a purposive sample of female athletes on the same team was selected due to the variability of athletic experiences and sociocultural pressures for body ideal across athletic teams (Becker et al., 2012). All female college athletes on the same northeastern NCAA Division I cross-country team were contacted via email to request participation in an interview "about your thoughts and experiences on being a female student athlete and your perceptions about body image." Four volunteers responded (50% response rate) to the request and chose aliases to conceal actual identities. Other identifiable information has been changed in the current manuscript to protect the privacy of these participants. Participants included Ann, a 19-year-old sophomore sociology major; Patty, a 20-year-old junior physical education major; Molly, a 20-year-old

junior pre-law major; and Kate, a 21-year-old junior sociology major.

Procedure

The researcher emailed all participants with a preview of the structured interview questions before they consented to partake in the interview. Interviews were conducted individually with each athlete via an online video chat portal. Afterward, participants received a debriefing statement including demographic questions and a list of local counseling referrals.

As in a previous study by Pavelich and Moore (1996), which used Perry's (1970) model to assess engineering students' cognitive and ethical development, each interview began with a question about the athlete's perception of a purpose related to the college experience. Then, follow up questions were targeted toward understanding how the athlete came to that perception. The first structured question was about the athletes' view of the purpose of the college athlete experience (Female College Athlete Experience): "What do you view is the purpose of your experience as a student athlete in college?" and, "How did you come to believe this?" The second structured question asked how each athlete came to determine how to view and treat her body as a female college athlete (Body Image): "How have you come to view and treat your body as a female college athlete?" Further questions about the nature of each athlete's reasoning followed.

Through the interviews it was revealed that Ann had recently been diagnosed with the Female Athlete Triad, which is a form of an ED specific to athletes that includes amenorrhea (the absence of menstrual cycles for a minimum of three months), signs of osteoporosis, and disordered eating (Thompson & Sherman, 2005). Although with each additional interviewee the interviewer was provided with more knowledge of a diagnosed ED on the team, the question of whether or not each athlete was aware of a diagnosis on the team was never asked of the participants directly. Each athlete shared her perceptions of this issue with the interviewer at different levels of depth that were each honored at the chosen level of disclosure. As was true in Perry's (1970) original research and Pavelich and Moore's (1996) methodology, each athlete's perceptions were followed by questions that asked for elaboration on that perception but did not probe for information. Because of this, it was not determined whether or not all of the women were provided with formal information regarding Ann's clinical ED or if the information was gathered by virtue of the athletes' close-knit team experience and Ann's choice to share with certain teammates.

Evaluation

Evaluation of interviewee responses was based on the Alverno Criteria for Judging Student Performance on the Perry Scheme of Intellectual and Ethical Development (Mentkowski, Moeser, & Strait, 1983). Mentkowski and colleagues (1983) developed the Alverno Criteria for Perry's positions 1-6 for assessors to use in judging student essays. Mentkowski and colleagues (1983) chose to design the Alverno criteria to assess for Perry's positions 1-6 only, due to the finding that college students rarely show evidence of meaning making capacities beyond

position 6. Based on the criteria that Mentkowski and colleagues list for each of Perry's positions 1-6 (see Table 1), the assessor judges the essay's fit into one of those six positions with a three-digit number, which indicates either a single position or a combination of positions from which the student appears to make meaning. For example, the assigned rating for an essay that contains virtually all evidence of criteria reflecting position 3, the assessor would code the rating as 333. If there is some evidence of position 2 but predominant evidence for position 3 in the essay, the assessor would code the rating as 233. For application to the current study, the transcribed interview dialogues were evaluated in this way by the researcher. Following transcription, each statement made by participants in the interview was individually evaluated and assigned to one of the six positions with evidence from one or more Alverno criteria. The modal position determined the evaluation for each of the participants' transcriptions.

Results

Based on the Alverno criteria, Ann's responses met criteria for 233-Female College Athlete Experience and 223-Body Image, while Patty's responses met criteria for 233-Female College Athlete Experience and 233-Body Image. In addition, Molly's responses met criteria for 222-Female College Athlete Experience and 444-Body Image, and Kate's responses met criteria for 555-Female College Athlete Experience and 555-Body Image. Table 1 provides a number of selected quotations from the participants as well as selected Alverno criteria that helped to determine these evaluations.

Individual Responses and Perry's Scheme

Upon being asked the question about body image, Ann prefaced her response with, "Well, that's [an] interesting story," and proceeded to describe her recent ED diagnosis and treatment. When asked about her current understanding and how she may have come to it, Ann relayed seeing younger runners at a particular event: "I was just looking at them like, 'Oh my God, they're perfect.' . . . I was like I wanted to be like that because if [they] can be like that, then a Division I college athlete should be able to be like that." Then Ann spoke to a period of disequilibrium for her: "I just took it way too far in eating healthy and I started getting faster and feeling so much better for a long time and then all of a sudden it just crashed and it stopped and I felt like crap." Ann reported doing better now than she was before, but admitted she continues to struggle. "It's like I have an ED voice on one side and the healthy voice on the other side. The healthy voice is like, 'You can eat that if it's good for you,' and the ED voice is saying, 'You don't need it, you'll be fine without it.' . . . it's conflicting inside my head." At the time of the interview, Ann said that she viewed her body as weak. When asked what she perceived would strengthen her "healthy" side, Ann described the "downward spiral" of "feeling like crap" that led to her having to go home from school and take more serious care of herself. Ann said that doing well at a cross-country meet after some time at home had given her motivation to try to "work hard" to "get past this." Ann's dissonance is reflective of a student moving from the position of dualism to multiplicity along Perry's scheme.

Table 1

Interview Responses Along Perry's Scheme Using the Alverno Criteria

Female College Athlete Experience	Body Image
	Patty
2-19 A structured, traditional, formal process (what the student is familiar with) is expected and preferred; <i>"I've just always been on a team."</i>	2-20 Sees self as passive, the receiver of knowledge (rather than an actor) in the learning situation; "My cousin told me to write it down . . ."
2-21 View of authority as giver, and the party who is responsible for the learning.	2-19 A structured, traditional, formal process is expected and preferred.
3-54 Peers may be noticed as part of the process; <i>"Working towards something as a group and reaching those goals brings you so much more satisfaction."</i>	3-77 Begins self-processing; <i>"I just try to keep an eye on it. Like make sure I'm feeling good."</i>
3-116 May use buzzwords without developing them beyond a superficial, non-personal sense; <i>"I'm just fortunate enough."</i>	3-46 View of authority loosens further, because knowledge is not known yet; <i>"I've started to learn to take what people say with a grain of salt. Like I take what they say and file it and wonder what they meant or how I should take it..."</i>
	Ann
2-20 Sees self as passive, the receiver of knowledge (rather than an actor) in the learning situation.	2-63 Sees choice in terms of one outcome that is either right or wrong. <i>"If they could be like that then a Division I athlete should be able to do that."</i>
2-36 May talk about enjoying (simplistically).	2-39 Authority is sole source of information; <i>"My sports psychologist tells me..."</i> and, <i>"My nutritionist tells me..."</i>
3-79 May begin to use qualifiers and modifiers, showing a break with absolutes.	2-37 Takes first tentative steps toward individual responsibility which is forced by authority.
3-54 Peers may be noted as part of the process.	2-57 May feel confused, out of it, or immature, as if she is missing out entirely, because she is aware that others seem to be understanding the theorizing and interpretation that she regards as needless confusion or fuzziness.
	3-9 May sense that there is 'something out there' that she does doesn't know, understand, or can't do yet.
	3-51 May see self as allied with Authority in search for truth that will sometime be discovered; <i>"Just talking to different people, doing my own research..."</i>
	3-111 Can do compare and contrast tasks, since the student can see multiples. Deals with compare and contrast multiplicatively rather than relativistically; <i>"I've got the ED on one side...and the healthy voice on the other side."</i>
	Kate
5-1 Existentialism—search for meaning in life—begins at 5; student is trying to make sense out of confusion, realizing the legitimacy of diversity; <i>"you have to keep pushing this program forward and now we have an effect on these people that is pretty important. And I feel important."</i>	5-32 Breakdown of old identity, balanced by a realization of growth; <i>"I remember [thinking to myself] like, 'Well, you know what, no matter what it is, you know you wouldn't be doing this, you wouldn't be getting better' so whatever, you had your ice cream. It obviously didn't hurt your time because you still got better."</i>
5-9 Is provided by Relativism with a ground for detachment and objectivity.	5-19 May endorse and can deal with ambiguity; <i>"But I think sometimes for a couple of those girls those strengths bring them down, they make them scared, they make them go to extremes and hurt themselves."</i>
5-48 Has an awareness of and takes responsibility for consequences, including those of own actions.	
	Molly
2-58 Might mention peers in a simple, unelaborated fashion; <i>"It also teaches you how to work with a team."</i>	4-39 May espouse a particular method which she feels is the most appropriate; <i>"I look at some of the girls that I run against and they just look like skeletons to me and it's like, that doesn't look good at all; it doesn't look healthy at all. And I just think healthy looks good."</i>
2-20 Sees self as passive, the receiver of knowledge (rather than an actor) in the learning situation; <i>"Being an athlete teaches you a lot about time management. . . . it definitely teaches that which is important to have in your life."</i>	4-40 May center on her own perspective, missing or discounting perspectives other than her own; <i>"So when the girls say 'I can't eat that' it's just annoying to me. It's like you're going to burn it off anyway, what does it really matter."</i>
2-19 A structured, traditional, formal process is expected and preferred. <i>"I couldn't see myself not playing a sport because I always had."</i>	

Patty and Ann were assessed similarly on both topics in terms of Perry's scheme. Both students fell into categories of dualism and early multiplicity. Although Ann revealed in the interview that she had developed an ED, Patty did not indicate that she personally or previously struggled with ED symptomatology. Though Perry's (1970) scheme has not yet been applied to EDs, based on the connection between EDs and external influence, Patty's similar scores to Ann's may be concerning. One particularly concerning multiplistic statement was made after Patty stated that she knew certain teammates of hers went to "extremes." Upon being asked for elaboration on this perception, she responded, "I don't think that they're doing it better, I just think that everyone has their own way of monitoring themselves and what works for them works for them and what works for me works for me and that's just the way it is." Without the ability to weigh which methods are better than others, Patty may not be able to adequately prevent herself from viewing and treating her body like Ann does.

Molly's responses to the two topics were the most dissimilar of the four athletes. While her responses to the Female College Athlete Experience were dualistic, her responses to the Body Image topic were reflective of a student within Perry's (1970) position of relativism. Molly described her experience of being a female college athlete as something of which she was a recipient: "It teaches you a lot about time management because you have to figure out like, studies versus practices versus time being away from school. . . . It also teaches you how to work with a team . . . and that's good to apply for any kind of profession that you're going into to have those leadership skills and be able to communicate with others. . . . I [also] feel like it forces me to take time out of my day to exercise." However, when it came to how she viewed and treated her body, she explained her more active meaning making position on the matter: "The girl that won the race that we were in, she was . . . just skin and bones. And she was wicked fast so I think that a lot of people would say, 'Okay, she's really fast and she's really skinny like those two things automatically must go together.' . . . And I look at that and I think, 'Oh my God, you look disgusting. You look so unhealthy.' I just would not want to ever look like that. Ever, ever." Molly said that she admires a healthy-looking body and has a hard time understanding why someone would not treat her body well. She felt that her parents and former teachers helped contribute to this perception.

Across the two topics, Kate's responses reflected more relativistic positions along Perry's (1970) scheme. To the Female College Athlete Experience topic, one of Kate's responses took an almost existential tone. "I feel like I hope in ten years from now that I hear really great things about the team from what we've done with it. And I think about where we started. . . . We have gone through so much together, [we] are passing on something—I guess toughness in the end. And teaching the younger girls how you have to be strong and you have to keep pushing this program forward and now we have an effect on these people; that is pretty important. And I feel important." With respect to the Body Image topic, like all of the women, Kate referred to her ability to run as a reference point from which to determine whether or not she was treating her

body right. But like Patty, Kate spoke about learning to treat her body better by noticing what she had been doing wrong: “And by seeing how other things got so bad, I was like, well, that’s not working, let’s try something else now.” Kate explained how her perception changed as well. “I think I realized how absurd I was sometimes . . . I could have had a really bad day and not felt good about how I ate or exercised [and] looked in the mirror and thought that I was in worse shape. Or I could have had a really good day and not worried about how I ate or exercised and said, ‘Wow, I’m in great shape,’ and there’s no way I could have had this huge change in my body from day to day. Now I realize it’s really just a change in my perception.” Kate pointed to this period of disequilibrium in regard to the Body Image topic as a motivation to learn to engage in healthier behaviors based on her own terms. This is reflective of a relativistic position. In contrast, when Patty and Ann pointed to periods of disequilibrium, they both referred to the way they currently viewed and treated their bodies based on information that they were told either by authority figures or peers, which was reflective of their positions in dualism potentially edging into early multiplicity.

Discussion

The four athletes’ interview responses varied along Perry’s scheme, ranging from dualistic to relativistic positions in response to the prompts of the meaning of the female college athlete experience and how each athlete has come to view and treat her body. One of the four women interviewed revealed that she personally struggled with an ED and two of the three remaining women spoke about their struggle to make meaning of what they described as a difficult situation having a teammate with a known ED. With societal pressures for thinness on women in general as well as pressures from the athletic—particularly running—community, each woman spoke about external influences playing some role in how she had come to view and treat her body as a female college athlete. A point each woman impressed upon the interviewer was the importance of teammates, both in terms of making the female college athlete experience meaningful and in respect to how each woman viewed and treated her body. These strong mutual relationships along with the development of cognitive complexity may be the two essential pieces to female college athletes’ resiliency to the development of EDs, as connection with the self and others is paramount to the healthy growth and development of young women (Miller & Stiver, 1997; Surrey, 1991; Walker & Rosen, 2004). Lack of mutual connection as well as adherence to externalized standards at the expense of internal beliefs has been historically related to the development of EDs (Surrey, 1991).

Implications for Practice

Because of the varying levels of meaning making and resilience to external standards, what is concerning to any professional working with a team such as the one in the current investigation would be the extent to which these athletes negatively influence one another in terms of ED symptomatology (Thompson & Sherman, 2005). Ann and Patty struggled to make meaning of authority’s suggestions for how they should view and treat their bodies, while

Molly and Kate rejected unhealthy ideas. Kate even showed some motivation to understand the perspectives of others. The athletes' varying meaning making positions will require some flexibility within an ED prevention program that targets the entire team. In the *NCAA Coaches Handbook: Managing the Female Athlete Triad*, Thompson and Sherman (2005) addressed "behavioral contagion," which may occur when one or more teammates with ED symptoms influence the rest of the individuals on the team (p. 25). To intervene, Thompson and Sherman suggest that a health-care professional with experience in treating athletes with EDs meet with the team to provide information and answer questions. Given the developmental vulnerabilities and relational needs of this population, a simple informational session may not be adequate to address this sensitive issue.

Recently, an efficacy trial of an Athlete-Modified Dissonance Based Program (AM-DBP) resulted in significant reductions in ED symptomatology for female college athletes (Becker et al., 2012). The theoretical justification behind the AM-DBP is that engaging female college athletes in activities that critique the thin ideal results in psychological discomfort that motivates the reduction of thin ideal internalization in order to restore cognitive consistency (Stice et al., 2007). This is essentially the process of accommodation and adaptation that results in movement through Perry's (1970) scheme. Given the differences between athletes' meaning making capacities along Perry's scheme as found in the current investigation, the application of a developmental framework to programs such as AM-DBP would serve to meet each individual at a personal level of meaning making and may promote the overall structural cognitive development of each athlete. Such a program would not only aim to reduce ED symptomatology but would also allow the professional to meet each athlete at his or her developmental level in order to promote cognitive development and promote resiliency to adhere to societal and athletic body ideals.

Implications for Research

The findings of the current investigation are inherently limited in generalizability due to the qualitative nature of the study and the small sample size. Therefore, as in all qualitative analyses, the observed relationship between the athletes' meaning making capacities as related to body image and the college athlete experience is limited to this sample of female college cross country runners and their particular team. However, these findings do provide preliminary support for further investigation on the association between college students' cognitive development and ED symptomatology, as it particularly relates to the processes of internalizing body ideals at the experience of personal beliefs and health. It is recommended that future research includes qualitative analyses of interviews with female and male athletes from other sports and college students in general, as well as quantitative analyses of variables that may be generalizable to a larger population. Researchers conducting further qualitative analyses may also consider purposively selecting a female athletic team where one or more members have struggled with clinical or subclinical EDs. This will allow for a more in-depth study of the subjective experiences of having a teammate with an ED.

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