
Body image and identity formation: the role of identity distress

Imagen corporal y formación de identidad: el papel del distress de identidad

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Cristi L. Kamps

Steven L. Berman

University of Central Florida, USA

Cristi L. Kamps & Steven L. Berman, Department of Psychology, University of Central Florida.

Correspondence concerning this article should be addressed to Steven L. Berman, Department of Psychology, University of Central Florida, 1200 W. International Speedway Blvd., Daytona Beach, FL 32114. E-mail to: sberman@ucf.edu

Abstract

This study explores the relationship between body image and identity development in a sample of 53 college students (mean = 26.45 years; *s.d.* = 7.36). College is an environment that promotes identity development, but it is also a time when many students face a heightened risk for weight gain, which could affect their body image. Previous studies have demonstrated relationships between body image and identity status. The purpose of this study was to build on that research by exploring the role of identity distress in the relationship between body image and identity status. It was hypothesized that those individuals who met for a DSM IV diagnosis of identity problem would exhibit more anxiety about their body image, and that identity distress would be a better predictor of body image than identity status alone. In this cross sectional study, participants in the moratorium identity status scored significantly higher on overweight preoccupation than those in the foreclosed identity status. Males had a significantly higher evaluation of their appearance than women did. Those who met DSM IV diagnosis for identity problem scored significantly lower in health orientation and body areas satisfaction. Identity distress was a significant predictor of appearance evaluation, body areas satisfaction, and overweight preoccupation, while a foreclosed identity status was a significant predictor

Resumen

Este estudio explora la relación entre la imagen corporal y el desarrollo de la identidad en una muestra de 53 estudiantes universitarios (media = 26,45 años; *DE* = 7.36). La universidad es un ambiente que promueve el desarrollo de la identidad, pero es también un lugar en el que muchos estudiantes enfrentan un creciente riesgo de aumento en el peso, lo que podría afectar su imagen corporal. Estudios previos han demostrado relaciones entre imagen corporal y estatus de identidad. El objetivo de este estudio fue ampliar esa investigación explorando el rol del distress de identidad en la relación entre imagen corporal y estatus de identidad. Se planteó la hipótesis que aquellos individuos que cumplían con el diagnóstico de problemas de identidad del DSM IV exhibirían más ansiedad con respecto a su imagen corporal, y que el distrés de la identidad podría ser un mayor predictor de la imagen corporal que el estatus de la identidad por sí solo. En este estudio transversal, los participantes con el estatus de identidad moratorio puntuaron significativamente más alto en obsesión con el sobrepeso que aquellos con el estatus de identidad hipotecada. Los hombres tuvieron una evaluación de su apariencia significativamente más alta que las mujeres. Aquellos que cumplieron con el diagnóstico de problema de identidad según el DSM IV puntuaron significativamente más bajo en orientación a

of fitness orientation. Implications for intervention and prevention programs are discussed.

Keywords: body image, identity development, identity distress.

Body image is a multidimensional construct that refers to the nature of persons' experiences of their body, especially its appearance. Body image incorporates evaluative self-perceptions, beliefs, attitudes, and cognitive, emotional and behavioral reactions to self-views of one's appearance (Cash, 2002). According to this author, body image contains two core facets that include evaluation (e.g. body satisfaction) and investment (e.g. the psychological importance one places on one's appearance). Additionally, an individual may form these attitudes based on overall appearance or with regard to specific physical characteristics, such as body weight or shape. These attitudes link body image and self-esteem (Allgood-Merten, Lewinson, & Hops, 1990).

In a longitudinal study of women, Gilbert and Meyer (2005) found that low self-esteem predicted an increase in body dissatisfaction. Likewise, Abell and Richards (1996) found that a decrease in self-esteem contributes to a poorer body image. Self-esteem, simply stated, is a judgment that shows how a person values him/herself. This valuing of oneself touches many aspects of one's life. For instance, Voss, Markiewicz and Doyle (1999) found a significant relationship between self-esteem and the quality of friendship and marital relationships for both men and women. In another study on self-esteem and body image, Huang, Norman, Zabinski, Calfas and Patrick (2007) found that adolescents showed an improvement in body image when they experienced weight loss or weight maintenance as compared to those who had experienced weight gain during the study, showing a link between body image and self-esteem.

This facet of body image, dissatisfaction with one's body shape and weight, has been associated with many psychological problems from eating disorders to depression

la salud y satisfacción con áreas corporales. El distress de identidad fue un predictor significativo de la evaluación de la apariencia, satisfacción de áreas corporales y obsesión con el sobrepeso, mientras que el estatus de identidad hipotecada fue un predictor significativo de orientación al buen estado físico. Se discuten las implicaciones para programas de intervención y prevención.

Palabras clave: imagen corporal, desarrollo de identidad, distress de identidad.

(Gilbert & Meyer, 2005). In a 2-year longitudinal study of adolescent girls, Attie and Brooks-Gunn (1989) found that initial levels of body dissatisfaction predicted an increase in eating disturbance at the end of the 2-year period. Likewise, in a 3-year longitudinal study of adolescent girls, Cattarin and Thompson (1994) found that body image dissatisfaction was predictive of eating disturbance. Similarly, Shea and Pritchard (2007) found that a negative correlation exists between self-esteem and disordered eating in college students.

Identity and body image

College is a time when students are in an environment that encourages the development of their identity because of the wide variety of experiences available to them. Waterman (1982) believes that this environment stimulates questioning of identity issues and personal growth. However, it is also a time when many of these students face a heightened risk for weight gain, which could affect their body image. Previous research suggests a link between identity development and body image. According to Dittmar et al. (2000.), body image has a major influence on adolescents' self-esteem and both female and male adolescents place more importance on their appearance than adults and report higher levels of dissatisfaction, implying that appearance is a highly significant aspect of adolescent identity.

Identity status

Erikson's psychosocial theory (1959, 1968, 1980) describes eight stages of psychological development through the life span, set in a social context. In an effort to empirically investigate Erikson's work, Marcia (1966) operationalized one of these stages (i.e. identity v. role confusion) into four

identity statuses as points along a developmental continuum of ego-identity formation. Marcia based these statuses on the dimensions of commitment and exploration. According to Marcia (1994), exploration characterizes the search for a sense of self through the investigation of alternatives in various areas, such as occupation, religion, values, political affiliation, dating relationships, friends, gender roles and family, while commitment represents the choice to pursue a certain alternative and reject others (e.g., decide on a career, select one's religious beliefs). The four statuses are diffusion, foreclosure, moratorium, and achievement.

Low exploration and low commitment characterizes the identity status of diffusion. Individuals in this identity status tend to demonstrate a pattern of disinterest, apathy and a lack of direction. According to Marcia (1966), the diffused individual has difficulty in making a commitment to any single view of the self because of his inability to integrate the various roles he plays (e.g. student, worker, son, etc.). Archer and Waterman (1990) consider this the least sophisticated and adaptive identity status due to this lack of exploration and commitment. Hamchek (1988) characterized the behaviors and mindset typical to identity diffused individuals to include an unstable self-concept, trouble establishing long-range plans, high susceptibility to peer pressure, and low levels of self-acceptance. This uncertainty in oneself and lack of commitment correlate with a host of psychological ills, such as anxiety, depression, and maladaptive functioning (Archer, 1989).

To develop out of diffusion, one can choose either to explore or to commit prematurely. Those who do the latter are said to be in foreclosure. The identity status of foreclosure refers to low exploration and high commitment. These individuals retain the goals, values, and beliefs from their parents or other authority figures without much critical thought. Archer and Waterman (1990) deem this status as unsophisticated due to the lack of examination of alternatives to help create their sense of self. This identity status yields mixed results in terms of psychological health and symptoms. In a study with 86 college males, Marcia (1966) found that the most outstanding characteristic of those in the foreclosed status was their endorsement of authoritarian values such as obedience, strong leadership, and respect for authority.

Those who do not commit prematurely may decide to explore their identity options. These people are said to be

in moratorium. High exploration and low commitment characterizes the third identity status of moratorium. The focus of those in the moratorium identity status is seeking and self-construction. Archer and Waterman (1990) consider this a more sophisticated status because they are in a process of examining information and engaging in activities that contrast several options in order to choose one that best fits their needs. While those in the moratorium status are classified as being in a sophisticated status and show an almost equally positive profile, as those in the achieved status and a more positive profile than both diffused and foreclosed individuals do, Meeus (1996) found that this pattern does not hold true for the dimension of psychological well-being. According to Meeus, those in moratorium were the least happy and most depressed. According to Marcia (1966, 1987), the distinguishing characteristics of moratorium individuals are high anxiety, which is most likely associated with the lack of direction in their life and a conflicting need for both rebellion and guidance.

Finally, achievement, marked by high exploration and high commitment, is described as a consolidation of a sense of self following a period of exploration (Marcia, 1994). Marcia grounds his work in the idea that identity development mediates certain mindsets and skills, such as the experiencing of anxiety (Marcia, 1966), performance under stress, vulnerability of self-esteem, and vulnerability to a multitude of pathologies (Marcia, 1987). Marcia implies that having a developed identity “usually makes a positive difference in how one feels about oneself” (1987, p. 168). Additionally, both Erikson (1959) and Marcia (1966) unequivocally link the ego identity development process to the psychological well-being of the individual. Hamchek (1988) characterized the behaviors and mindset typical to identity achieved individuals as including a stable self-concept, less susceptibility to peer pressure, high levels of self-acceptance, optimistic attitude, and responsible behavior.

Identity status and body image

In a study on identity status and weight preoccupation, Herzog (1997) found a significantly higher weight preoccupation in the women who had not yet committed to an identity than for those who had. Likewise, Cawood (1999), using a sample of 204 college women, found that those who were in the identity statuses of moratorium or diffusion

showed higher levels of disordered eating than those who were in the foreclosed or achieved identity statuses. Furthermore, Cawood (1999) found that a substantial majority of participants reported a desire to lose weight, a fear of weight gain, and that their weight and/or body shape influenced how they felt about themselves. This supports previous findings of Cash and Deagle (1997) that body dissatisfaction is one of the best predictors of eating disorders and that self-esteem is associated with this variable (Fisher, Pastore, Schneider, Pegler, & Napolitano, 1994). Whether these relationships also hold for men, however, has not been investigated.

While research demonstrates that an association exists between body image, specifically weight preoccupation, and identity development, variations in the adjustment within the identity statuses suggest that other factors may affect this relationship. One such factor might be identity distress. The term identity distress refers to “severe subjective distress regarding [the] inability to reconcile aspects of the self into a relatively coherent and acceptable sense of self” (American Psychiatric Association, 1980, p. 65). It is the core feature of Identity Problem in DSM IV (American Psychiatric Association, 1994). Although relationships between identity formation and mental health have been found, these associations may be largely a function of identity distress symptoms. Berman, Weems, and Petkus (2009) found that identity distress predicted psychological symptom scores beyond level of identity formation, and identity formation accounted for substantially less variance in psychological symptom severity when controlling for identity distress. A similar relationship might exist between identity status and body image, whereby these associations may be largely a function of identity distress symptoms.

The intended purpose of this study is to explore the role of identity distress in the relationship between body image and identity status. It is hypothesized that those individuals who meet for a DSM IV diagnosis of identity problem will exhibit more anxiety about their body image. Furthermore, it is hypothesized that identity distress will be a better predictor of body image than identity status alone.

An additional aim of this study is to determine if the findings of Herzog (1997) can be replicated, in regard to whether women in the identity statuses which have not yet committed to an identity (diffused and moratorium)

will have a significantly higher weight preoccupation than those in the identity statuses who have committed to an identity (foreclosed and achieved). Whether men have a similar relationship between identity status and weight preoccupation will also be investigated.

Finally, it is hypothesized that women will have less satisfaction with their bodies than men will. Prior research provides some support for this hypothesis (Frederick, Forbes, Grigorian, & Jarcho, 2007; Frederick, Peplau, & Lever, 2006).

Method

Participants

Twenty-three psychology students and thirty nursing students, all juniors and seniors, participated in this study at a large metropolitan public university in the South Eastern United States. Gender distribution included females ($n = 40$), males ($n=12$) and one who did not report his/her gender. The age of the participants ranged from 20 to 49 years, ($M = 26.45$ years, $SD = 7.36$). Participants were predominantly Caucasian (67.9%), with 9.4% Asian, 7.5% African American, 5.7% Hispanic, 7.6% mixed or other and 1.9% (1 participant) who did not report their ethnicity. Additionally, 73.6% of participants were single; 15.4%, married; 7.7%, divorced, and 1.9%, (1 participant) widowed.

Measures

The questionnaire included measures that assessed identity status, identity distress, and body image.

The Ego Identity Process Questionnaire (EIPQ; Balistreri, Busch-Rossnagel, & Geisinger, 1995), a 32-item survey, has two subscales: exploration and commitment. The questionnaire assesses these aspects in eight identity domains (occupation, political affiliation, religion, values, friends, gender roles, family, and dating relationships). A 5-point rating Likert-type scale was used for each item (e.g., “I have definitely decided on the occupation I want to pursue”) ranging from strongly disagree (1) to strongly agree (5). Balistreri et al. (1995) reported internal consistency reliability of .80 for commitment and .86 for exploration and test-retest reliability of .90 for commitment and .76 for exploration. In the current study, internal consistency reliability was .78 for the commitment subscale and .77

for the exploration subscale. The EIPQ also provides a categorical index of identity status as defined by Marcia (1966). Using the median splits provided by Balistreri et al. (1995), participants were assigned into one of four identity statuses. Low scores on exploration and commitment were assigned a “diffused” status, low in exploration but high in commitment; a “foreclosed” status, high in exploration but low in commitment; a “moratorium” status and high in both exploration and commitment an “achieved” status.

The Identity Distress Survey (IDS: Berman, Montgomery, & Kurtines, 2004) measures distress associated with unresolved identity issues. The survey was modeled on the DSM-III and III-R criteria for Identity Disorder, but it can also be used to assess DSM IV criteria for Identity Problem. The survey asks participants to rate on a 5 point scale (Not at all, mildly, moderately, severely, very severely) the degree to which they have been recently upset, distressed or worried over the following identity issues: long-term goals, career choice, friendships, sexual orientation and behavior, religion, values and beliefs, and group loyalties. It also includes an assessment of how long they have been experiencing distress over these issues and to what degree the symptoms are interfering with daily functioning. Internal consistency has been reported as 0.84 with test-retest reliability of 0.82, and the survey has demonstrated convergent validity with other measures of identity development (Berman et al., 2004). Significant associations have also been found between identity distress and both internalizing and externalizing symptoms (Hernández, Montgomery, & Kurtines, 2006). The measure can be scored as a continuous symptom score measure (average distress ratings across domains listed above) or used to derive a DSM diagnosis (Identity Disorder or Identity Problem). In the current study, the IDS demonstrated a high internal consistency reliability of .89.

The Multidimensional Body-Self Relations Questionnaire (MBSRQ; Cash & Pruzinsky, 1990), a 69 item self-report inventory, assessed the self-attitudinal aspects of the body-image construct (e.g. “Before going out in public, I always notice how I look”). The MBSRQ uses a Likert type rating scale for each item ranging from definitely agree (1) to definitely disagree (5) with each statement. The MBSRQ assesses cognitive, affective, and behavioral components of body image on multiple dimensions (Brown, Cash, & Mikulka, 1990). As detailed

in its manual (Cash, 2000) and reviewed by others (e.g., Thompson, Heinberg, & Tantleff-Dunn, 1999), the MBSRQ is a well-validated assessment of specific facets of body-image attitudes. It has been used in national surveys (Brown et al, 1990; Cash & Henry, 1995; Cash, Winstead, & Janda, 1986) and numerous empirical studies (Cash, 2000). The MBSRQ subscales show test-retest reliabilities ranging from .74 to .91 for females and .71 to .89 for males (Cash, 1994). In this study, internal consistency reliability ranged from .68 to .93, with the exception of fitness evaluation, which was .50.

Procedure

Surveys were administered in classroom settings with both the instructor and the researcher in attendance. Before beginning the survey, the researcher explained the general nature of the study in that it would survey participants’ feelings about their sense of self and their bodies, but all survey responses would remain anonymous. Those who wanted to participate were given an internal review board (IRB) approved consent form to sign. The participants received a battery of measures, which included a demographic questionnaire that assessed the sex, age, grade level, ethnicity, and marital status of each student, all of the surveys listed above, a scantron bubble sheet, and a pencil to record their responses.

Results

Descriptive and preliminary analyses

The identity status distribution of the participants was 24.5% diffused, 47.2% foreclosed, 13.2% moratorium, and 15.1% achieved. A Chi-Square analysis revealed no significant differences by age, gender, ethnicity, or marital status. Likewise, looking at the continuation scores of exploration and commitment, age, gender, ethnicity, or marital status yielded no significant differences. In regard to diagnostic status, 18.9% qualified for a DSM IV diagnosis of Identity Problem. There were no significant differences by age, gender, ethnicity, or marital status for Identity Problem diagnosis or for average identity distress rating.

There was one gender difference in body image. Males had a significantly higher evaluation of their appearance than females ($t=2.07, p=.044$). Neither ethnicity nor marital status yielded a significant difference, however there was

a negative correlation between age and fitness orientation ($r = -.31, p = .025$).

Body image and identity. A one-way analysis of variance showed a significant difference between identity status groups on overweight preoccupation ($F(3, 49) = 3.77, p = .016$); however none of the other MBSRQ subscales were significantly different. For overweight preoccupation, the most preoccupied were those in the moratorium identity status, followed by achievement, diffused, and then foreclosed. However, Scheffe Post Hoc analyses indicated that the only significant difference between groups was between those in moratorium and those in the foreclosed status groups, the two extremes in overweight preoccupation ($p = .020$).

As can be seen in Table 1, identity commitment was positively correlated with appearance orientation ($r = .28, p = .047$), and identity exploration was positively correlated with fitness orientation ($r = .35, p = .009$). The average identity distress rating was positively correlated with overweight preoccupation ($r = .35, p = .011$), and negatively correlated to appearance evaluation ($r = -.38, p = .005$) and body areas satisfaction ($r = -.54, p < .001$). Those who met criteria for a DSM IV diagnosis of Identity Problem scored significantly lower in health orientation ($t = 2.06, p = .044$) and body areas satisfaction ($t = 2.55, p = .014$).

Table 1
Summary of correlations of body image variables and identity variables

	Identity exploration	Identity commitment	Identity distress
Appearance evaluation	-.10	.26	-.38**
Appearance orientation	.05	.28*	.02
Fitness evaluation	.01	.11	-.16
Fitness orientation	.35**	-.10	.12
Health evaluation	.13	.12	-.25
Health orientation	.21	.15	-.17
Illness orientation	-.12	.23	-.02
Body areas satisfaction	.01	.17	-.54***
Overweight preoccupation	.26	-.23	.35*
Self-classified weight	.11	-.18	.25

* Significant at $p < .05$.
** Significant at $p < .01$.
*** Significant at $p < .001$

The main hypothesis of this paper was that identity distress would be a significant predictor of body image above and beyond identity status alone. To test this hypothesis, several multiple regression analyses were calculated with the demographic variables of sex and age entered in the first step, identity status (dummy coded into three yes/no status variables, although there are four identity statuses, only three variables are used due to multi-collinearity

Table 2
Betas for the Independent Predictors and the Values of R2 for the Third Step of each Body Image Subscale Regression Analysis

MBSRQ Subscales	Sex	Age	Diffusion	Foreclosure	Moratorium	Identity Distress	R ²
Appearance Evaluation	-.29*	-.15	-.23	-.24	-.26	-.34*	.26*
Appearance Orientation	.16	-.12	-.38	-.26	-.14	-.01	.12
Fitness Evaluation	-.07	.08	-.23	-.10	-.17	-.23	.10
Fitness Orientation	-.25	-.30*	-.38	-.49*	-.03	.02	.25*
Health Evaluation	-.19	-.06	-.19	-.25	.03	-.29	.12
Health Orientation	-.05	.11	-.21	-.23	.07	-.15	.07
Illness Orientation	.06	-.11	.06	.31	.12	.05	.08
Body Area Satisfaction	-.29*	-.14	-.27	-.29	-.14	-.56***	.40***
Overweight Preoccupation	.22	.00	-.10	-.14	.26	.31*	.33**
Self-Classified Weight	.10	.24	.25	.28	.30	.28	.19

* Correlation is significant at the 0.05 level (2 tailed).
** Correlation is significant at the 0.01 level (2 tailed).
*** Correlation is significant at the 0.001 level (2 tailed).

issues) entered in the second step, and average identity distress rating entered on the third step, with each of the body image subscale scores as the dependent variable. Results indicated that the overall model was significant for appearance evaluation, fitness orientation, body areas satisfaction, and overweight preoccupation (See Table 2). For appearance evaluation $R^2 = .26$, Adjusted $R^2 = .16$, $F(6, 43) = 2.57$, $p = .032$. At step 3, the change in R-square was significant [change in $F(1, 43) = 6.23$, $p = .016$; change in $R^2 = .11$] with standardized beta coefficients reaching significance for gender ($\beta = -.29$, $t = -2.02$, $p = .050$) and for average identity distress rating ($\beta = -.34$, $t = -2.50$, $p = .016$). For fitness orientation $R^2 = .25$, Adjusted $R^2 = .15$, $F(6, 43) = 2.41$, $p = .043$. At step 3, the change in R-square was not significant however, standardized beta coefficients reached significance for the foreclosed identity status ($\beta = -.49$, $t = -2.28$, $p = .028$) and age ($\beta = -.30$, $t = -2.09$, $p = .043$). For body areas satisfaction $R^2 = .40$, Adjusted $R^2 = .32$, $F(6, 43) = 4.82$, $p = .001$. At step 3, the change in R-square was significant [change in $F(1, 43) = 20.79$, $p < .001$; change in $R^2 = .29$] with standardized beta coefficients reaching significance only for average identity distress rating ($\beta = -.56$, $t = -4.56$, $p < .001$) and sex ($\beta = -.29$, $t = -2.28$, $p = .027$). For overweight preoccupation $R^2 = .33$, Adjusted $R^2 = .24$, $F(6, 43) = 3.60$, $p = .006$. At step 3, the change in R-square was significant [change in $F(1, 43) = 5.67$, $p = .022$; change in $R^2 = .09$] with standardized beta coefficients reaching significance only for average identity distress rating ($\beta = .31$, $t = 2.38$, $p = .022$).

Discussion

The present study examined the relationship between identity development and body image, which includes body satisfaction and investment. When looking at the overall correlations between the various factors, the best predictors for appearance evaluation, which include the feelings of physical attractiveness or unattractiveness, as well as satisfaction or dissatisfaction with one's looks, were identity distress and gender. Consistent with the literature (Frederick et al, 2006), women were found to have a general unhappiness and were more concerned with their physical appearance than men.

Interestingly, the fitness orientation subscale, which measures the extent of investment in being physically fit or athletically competent, showed that those in the foreclosed identity category and the older participants do not value

physical fitness, thus are less likely to regularly incorporate exercise activities into their lifestyle.

The best predictors for the body areas satisfaction (BASS) subscale of the MBSRQ were identity distress and gender. While the BASS is similar to the appearance evaluation subscale, it isolates satisfaction with discrete aspects of one's appearance. This study indicates that not only are females unhappy with the size or appearance of several areas of their body, but they also exhibit more distress regarding those areas. This echoes the findings of previous research (Halliwell & Dittmar, 2003) that men are more likely to conceptualize the body as a single unit, whereas women tend to have a multifaceted assessment and view of the body as consisting of many parts, which may lead to gender differences with body areas satisfaction.

Finally, the best predictor of the subscale overweight preoccupation, which assesses a construct reflecting fat anxiety, weight vigilance, dieting, and eating restriction, was identity distress. In other words, participants exhibited concern or preoccupation with being overweight.

Overall, the results of this study suggest several things. First, identity distress seems most strongly related to appearance evaluation, body areas satisfaction, and overweight preoccupation. Second, whereas gender differences were noted in appearance evaluation and body areas satisfaction, they were not found in health or fitness orientation (the extent of investment in a physically healthy lifestyle). This suggests that while women exhibited more concern or anxiety regarding feelings of attractiveness and satisfaction with their body areas and bodies as a whole, they were not working as hard on the investments or effort needed to affect their appearance with their bodies. Additionally, results indicated that the older participants were less fitness oriented, suggesting that they did not value physical fitness or regularly incorporated exercise activities into their lifestyle. These results may be attributed to age, a general disregard to fitness and appearance or because they may have more obligations, such as families or full-time jobs and simply lack the time to invest. Further investigation would be warranted to determine which, if any, would be the cause.

This study revealed an unexpected distribution, in which only 15.1% of the participants were in the achieved identity status. Considering that the mean age of the

participants was 26.45 years, the relatively low proportion of identity-achieved individuals was surprising. However, this might be partially attributed to the fact that many of these participants were non-traditional students returning to school after spending some time in the workforce and/or as a parent, and still developing their career goals. Furthermore, although identity formation is generally considered to be an adolescent issue, only about one third of college graduates have substantially resolved identity issues associated with integrating into society by their late 20's, while about 20% exhibit significant developmental delays (Côté & Roberts, 2003). Côté (2000) suggests that the transition to adulthood is often prolonged due to an inadequacy in economic opportunities for self-sufficiency in conjunction with an inadequacy of social institutions in providing a normative structure for a shorter transition to adulthood. In fact, this trend of later identity commitments has resulted in some researchers identifying a new culturally defined, developmental period, often referred to as "emerging adulthood" (Arnett, 2000). Even after the identity "crisis" is supposedly resolved, many adults will continue to re-explore and re-define their identity commitments over their lifetime (Kroger, 2007; Stephen, Fraser & Marcia, 1992).

In regard to the specific hypotheses of this study, they were mostly confirmed. For instance, it was hypothesized that women would have less satisfaction with their bodies than would men, and that was confirmed. Next, it was hypothesized that those in the non-committed identity statuses (diffused and moratorium) would have a significantly higher weight preoccupation than those in the committed identity statuses (foreclosed and achieved), and this was partially confirmed. Those in moratorium had a significantly higher weight preoccupation than those in the foreclosed status, but those in the achieved and diffused statuses were not significantly different from any of the other statuses. Thus, the previous findings of Herzog (1997) were only partly replicated. In this study, overweight preoccupation was more closely related to identity distress than to identity commitment. Identity commitment has been found to be negatively correlated to identity distress (Berman et al., 2004; Berman et al., 2009). Perhaps it is not that lacking a firm sense of identity leads to weight preoccupation, nor that weight concerns necessarily hinder identity commitments, but rather lacking a firm sense of identity tends to generate anxiety (identity distress), and this anxiety and distress accentuates concern over all aspects

of the self, including the physical aspects. This theoretical proposition was explored in the final two hypotheses. It was hypothesized that those individuals who meet for a DSM IV diagnosis of Identity Problem would exhibit more anxiety about their body image. Indeed, those who met criteria for Identity Problem did score significantly lower in health orientation and body areas satisfaction. Furthermore, identity distress was a significant predictor of appearance evaluation, body areas satisfaction, and overweight preoccupation. In these cases, as hypothesized, identity distress was a better predictor of body image than identity status alone. However, not all subscales of the MBSRQ were related to identity distress. For instance, it was not found to be related to fitness evaluation and orientation, nor to illness orientation. Further investigation of which aspects of body image are most related to identity (distress and otherwise) and why is clearly warranted to better understand this complex relationship.

This study also has important clinical implications. Ferrer-Wreder et al. (2002) have suggested that the concept of identity has been an important focus in the creation of positive development programs aimed at fostering positive adjustment and optimal functioning (e.g., Berman, Kennerley, & Kennerley, 2008; Kurtines et al., 2008a; Kurtines et al., 2008b). Likewise, targeting identity issues should be an important part of treatment programs for eating disorders, as well as for prevention programs aimed at promoting healthy eating and lifestyle habits.

In closing, although this study revealed significant findings, a number of limitations with respect to this study need to be noted. First, the relations identified in this study are correlational and not causal. In other words, it is unknown whether the lack of an established identity causes poor body image or vice versa or if one or more other unknown variables might be influencing both of these things. Second, the sample size of this study was small. Additionally, it included few men. Future studies might want to replicate these findings with a larger and more gender-balanced sample to insure that the results can be generalized to the larger population. Third, the results of this study were derived solely from self-report measures and may be subject to error. Future studies may want to add additional measures that are more objective, such as independent raters and body measures such as height, weight, body mass index (BMI), etc. Finally, a convenience sample consisting of nursing and psychology

college students participated in this study, which included mostly Caucasian participants, so it may not be applicable to the general population. Thus, future studies in this area will benefit from exploring the relations between identity development and body image in samples collected from diverse populations (such as ethnic minority groups and adults who are not college students). Despite the limitations of this study, the reliability and consistency of the findings provides an empirical foundation that hopefully will foster further research in this area and inform intervention and prevention programs aimed at promoting positive mental and physical health.

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