

BODY MODIFICATIONS IN COLLEGE STUDENTS: CONSIDERING GENDER, SELF-ESTEEM, BODY APPRECIATION, AND REASONS FOR TATTOOS

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Body modifications are becoming mainstream as more individuals are becoming tattooed. Using a convenience sample of college students, participants with and without tattoos were compared on measures of body appreciation, self-esteem, and need for uniqueness. Among these central Texas students 44% had at least one tattoo. Women, compared to men, were significantly more likely to have tattoos and also a facial piercing (other than ears) but scored lower on body appreciation and self-esteem. Body appreciation and self-esteem were correlated for both men and women together as well as separately. Top reasons given for getting tattooed included "To express myself," "To be an individual," and "To be unique." As tattoos become more common, fewer differences between college students with and without tattoos will be found; tattoos may be one mode of expressing individuality rather than a connotation of deviance.

Key words: body modification, tattoos, body appreciation, self-esteem

Introduction

Body modification, altering the body via adornments such as tattoos and piercings, have evolved over the last century into a more mainstream cultural experience (Featherstone, 1999; Laumann & Derick, 2006; Swami, 2011). At one point, tattoos were markers of out-groups of individuals considered deviant from society and affiliated with criminal activity (Demello, 1993; Swami, 2011). Sailors branded themselves to display conquests and experiences out at sea while inmates used modification to show affiliation with gangs, mobs, and to express ranking within an organization (Demello, 1993; Sanders, 2008). From an underground activity origin, tattoos have developed into a commonplace form of

art in alternative lifestyles and pop culture (Swami, 2011; Swami & Harris, 2012; Wohlrab, Stahl, & Kappeler, 2007).

Although the application of sub-cultural identity theory to body modifications (Koch, Roberts, Armstrong, & Owen, 2010) may be relevant for individuals identifying with deviant social groups, social learning theory may be more applicable for explaining the more mainstream acquisition of and acceptance of tattoos. According to Bandura, learning occurs through modeling and imitation (Bandura, 1977). The media, as one source of highly acclaimed models, has had a hand in influencing body modifications. Popular and admired individuals like celebrities may be revered as role models and their behaviors imitated by

others. In addition, in the entertainment field body modifications are a common trend, and individuals who hold role models with tattoos in high regard may be more likely to imitate their behavior by obtaining tattoos themselves.

Modeled behaviors which have positive consequences are likely to be repeated. The act of body modification may be reinforced by the positive reactions individuals receive after copying the behavior (e.g. obtaining a tattoo), which then evokes feelings of pride and identity. Media and celebrities endorsing modifications or modeling body modification lifestyles then help to bridge the gap from an alternative lifestyle by popularizing and thus normalizing the obtainment of tattoos. In fact Laumann and Derick (2006) reported a 24% tattoo rate in a national sample in the U.S.

Even though celebrities have contributed to the popularization of tattoos, Swami and Harris (2012) describe other factors that have played a role as well, including better safety, more options in design, and greater numbers of available artists. Older individuals may be less likely to obtain tattoos, and women, compared to men, may have more concerns about pain and health risks associated with obtaining tattoos (Dickson, Dukes, Smith, & Strapko, 2014). However, some recent research with college student samples has reported a higher percentage of females than males with tattoos (King & Vidourek, 2013; Nathanson, Paulhus, & Williams, 2006) although men in a German sample had a greater number of tattoos than women (Wohlrab, Stahl, Rammsayer, & Kappeler, 2007).

Popular reasons for getting tattooed include self-expression and representations of bonds/connections with friends or family (Dickson, Dukes, Smith, & Strapko, 2015; King & Vidourek, 2013). Although "aesthetic self-distinction" was listed as a reason by 13% of Dickson et al.'s (2015) sample, about 15% of King and Vidourek's (2013) sample disagreed with the statement that they got a

tattoo "to be fashionable." Although neither Dickson et al. (2015) nor King (King & Vidourek, 2013) report gender differences, perhaps traditional gender roles could impact individuals' reasons. Perhaps women would be more likely to get tattoos for aesthetic or appearance enhancement reasons, fitting Wohlrab and colleagues' (Wohlrab, Stahl, & Kappeler, 2007) "beauty, art, and fashion" category, while males would consider getting tattoos for reasons related to risk or toughness, perhaps related to a "physical endurance" category (Atik & Yildirm, 2014; Wohlrab, Stahl, & Kappeler, 2007).

Motivations for body modification may also be related to personality characteristics that are associated with having one or more tattoos. Individuals with tattoos may be higher in risk taking tendencies, including legal (multiple sexual partners) and illegal (being arrested, drug use) activities (Deschesnes, Finns, & Demers, 2006; Koch et al., 2010; Roberts & Ryan, 2002). Using a sample of students from the University of British Columbia, Nathanson and colleagues (Nathanson et al., 2006) reported that deviance markers, including tattoos, were positively associated with openness to experience and subclinical psychopathy but negatively associated with self-esteem.

Additional personality traits differentiating those with body modifications from those without have been considered (Swami, 2012; Swami, Pietschnig et al., 2012; Tate & Shelton, 2008; Wohlrab, Stahl, Rammsayer et al., 2007). Swami and colleagues (Swami, Pietschnig et al., 2012) reported that, in a central European sample, individuals with tattoos scored higher, compared to those without, on need for uniqueness, extraversion, and experience seeking (subscale of sensation seeking). Others have also reported higher levels of sensation-seeking (Wohlrab, Stahl, Rammsayer et al., 2007) and need for uniqueness (Swami, 2012; Tate & Shelton, 2008; Tiggemann &

Golder, 2006; Tiggemann & Hopkins, 2011) in tattooed versus non-tattooed individuals. In addition, Tate and Shelton (2008) reported that individuals with tattoos, compared to those without, scored lower on conscientiousness and agreeableness although others (Swami, Pietschnig et al., 2012;) using Big Five personality measures did not find these differences.

Although differences have been reported related to need for uniqueness, research comparing tattooed and non-tattooed individuals on appearance investment (Tiggemann & Golder, 2006; Tiggemann & Hopkins, 2011) or on the perception of one's body's attractiveness (Wohlrab, Stahl, Rammsayer, et al., 2007) has not found significant differences. However, in prospective research comparing individuals before obtaining tattoos and after obtaining tattoos (immediately and three weeks later), Swami (2011) reported a significant increase in body appreciation and self-esteem at the three weeks testing time, compared to the initial testing, as well as a gender difference with men having higher body appreciation than women.

As tattooing continues to become more mainstream, especially among college students, we wanted to examine possible individual differences between those who do and do not choose to modify their body as well as possible reasons for such modifications. In addition, gender differences related to body modifications, body appreciation, self-esteem, uniqueness, and reasons for body modification were considered.

In line with the literature just reviewed, we hypothesized the following:

1. Individuals with tattoos, compared to those without, will score higher on need for uniqueness (Tate & Shelton, 2008; Tiggemann & Golder, 2006; Tiggemann & Hopkins, 2011) but lower on self-esteem (Nathanson et al., 2006) and body appreciation.
2. Consonant with societal gender roles, we predicted that women would score lower on body appreciation (Swami, 2011; Tylka, 2013) and self-esteem (Sprecher, Brooks, & Avogo, 2013) and that women would more often give reasons related to appearance for body modifications. Men, on the other hand, would be more likely to give reasons related to risk-taking and toughness.
3. A significant interaction between gender and tattoo presence was predicted, with women, but not men, with tattoos scoring lower on body appreciation and self-esteem since women may be more likely to use tattoos to impact their appreciation of their bodies.

Method

Participants

College students (88 male, 212 female) in a teaching theater, lifespan development psychology class at a central Texas public university participated by completing an anonymous questionnaire for a small amount of extra credit following an exam. Among these students, the largest number (120, 39.7%) were liberal arts majors, followed by health professions (54, 17.9%), applied arts (51, 16.9%), science (46, 15.2%), and business (23, 7.6%). The classifications of students included freshmen (9, 3.0%), sophomores (88, 29.1%), juniors (121, 40.1%), seniors (82, 27.2%), and graduate students (1, .3%). The majority (54.0%) identified their ethnicity as Caucasian, with 30.1% identifying as Hispanic, 8.3% as African American, 3.3% as Asian American, and 4.0% as other.

Materials and Procedure

Participants initially provided demographic information related to their age, gender, ethnicity, classification, college major, and

GPA. Participants then completed the Rosenberg Self Esteem Scale (RSES; Rosenberg, 1965), followed by items assessing reasons for having tattoos (Tiggemann & Golder, 2006), four items assessing uniqueness preference (Lynne & Harris, 1997), and the Body Appreciation Scale (BAS; Avalos, Tylka, & Wood-Barcalow, 2005). At the end of the survey participants were asked if they had tattoos and if so, how many pieces of art they had on their body. An item assessing whether or not the students had facial piercings (other than ears) was also included.

The RSES (Rosenberg, 1965) is a ten-item scale measuring the amount of self-worth an individual has. The RSES uses a 4-point Likert scale with possible responses ranging from "strongly disagree" (1) to "strongly agree" (4). Some questions listed in the RSES related to self-esteem include, "I feel that I am a person of worth, at least on equal plane with others," "I feel that I have a number of good qualities," and "I take a positive attitude toward myself." Reliability for the RSES items was .87 among these participants. Mean scores on the RES were computed for each individual.

The reasons for obtaining tattoos measure lists 19 items describing possible motivations/reasons for obtaining tattoos (Tiggemann & Golder, 2006). For simplicity we asked participants to either agree or disagree with the statement listed (e.g. yes or no) rather than using a Likert-scale. Some of the statements listed included obtaining tattoos "Because they look good," "Because I like taking risks," "To look attractive," "To be unique," and "To look tough."

The four uniqueness items come from Lynn and Harris's (1997) Self-Attributed Need for Uniqueness Scale (SANUS); an example is, "I prefer being different than other people." Items were rated using a 5-point Likert scale and had a Cronbach's alpha of 0.79 in our data.

The BAS (Avalos et al, 2005) includes 13 items measuring body image. Item examples are "I respect my body" and "On the whole, I am satisfied with my body"; items are rated using a 5-point Likert scale ranging from 1-"never" to 5-"always." BAS items were scored by totaling the 13 items for each participant, with higher scores indicative of a more positive body image. In this sample the BAS had a Cronbach's alpha of 0.91.

Results

Out of 300 participants, 134 reported having tattoos (44%). In addition, of the participants who had tattoos, 61 individuals (46%) reported having tattoos on visible parts of the body (arms, hands, face, neck, legs). In terms of numbers of tattoos, 68 participants indicated they had one tattoo, 32 indicated two tattoos, 15 indicated three tattoos, and 19 indicated having four or more tattoos. Furthermore, 42 participants (14%) reported having facial piercings other than ear piercings.

Frequencies by gender for the most popular reasons for obtaining tattoos are given in Table 1. All other reasons were checked by fewer than 40 people, with the least frequently indicated item, "Because my friends are tattooed," only chosen by six individuals.

To compare frequencies for men and women having a tattoo (no tattoos versus having one or more tattoos), having a visible tattoo, and having facial piercings, three 2 X 2 chi squares were performed. A higher percentage of females (51%) than males (31%) indicated that they had one or more tattoos, $\chi^2(1) = 10.08, p < .01, \Phi = .19$; similarly, a greater proportion of women (19%) than men (5%) had facial piercings (other than ears), $\chi^2(1) = 8.04, p < .01, \Phi = .18$. However, of those individuals having tattoos, women (44%) and men (41%) were not significantly different in the proportion with visible tattoos.

Six chi square analyses were also conducted to examine the gender difference in

Table 1 Frequencies by Gender: Reasons for Obtaining Tattoos

Reason	Frequency (%)	
	Males	Females
To express myself	27 (77%)	100 (88%)
To be an individual	23 (66%)	74 (66%)
To be unique	23 (66%)	70 (62%)
They celebrate an occasion/person	19 (53%) ¹	74 (65%)
To be creative	19 (54%) ¹	72 (64%)
Because they look good	16 (46%)	56 (50%)
To feel independent	17 (47%)	51 (46%)
To control my body	11 (31%)	44 (39%)
Because I like to take risks	13 (38%)	39 (35%)
To look attractive	10 (29%)	42 (38%)

¹Percentages are slightly different because of different numbers of people completing the question.

hypothesized reasons for obtaining tattoos ("to look attractive," "to be fashionable," "because they look good," "because I like to take risks," "to have a beauty mark," "to look tough"). Two of the six comparisons were significant with 6% of the men and 22% of the women indicating that "to have a beauty mark" was a relevant reason for them, $\chi^2(1) = 437, p < .05, \Phi = .17$; and 21% of the males, versus 2% of the females, indicating that "to look tough" was a reason for them to acquire a tattoo, $\chi^2(1) = 16.10, p < .001, \Phi = .33$

To compare male/female means as well as means for those with and without tattoos, a MANOVA was performed on self-esteem, body appreciation, and need for uniqueness scores, with participant and tattoo presence (no tattoos, one or more tattoos) as the factors. The only significant effect was for participant sex, $F(3,275) = 3.42, p < .02, \eta_p^2 = .04$. Participant sex was significant for both self-esteem, $F(1,277) = 7.04, p < .01, \eta_p^2 = .03$; and body appreciation, $F(1,277) = 8.87, p < .01, \eta_p^2 = .03$. The presence of tattoos did not differentiate participants on these variables nor were

there any significant interactions between participant sex and the presence of tattoos. Descriptive data for these comparisons are given in Table 2.

Correlations were performed for body appreciation, self-esteem, and uniqueness scores. Body appreciation was positively correlated with both self-esteem, $r(284) = 0.59, p < .001$; and with total need for uniqueness score, $r(291) = .16, p < .01$. Need for uniqueness and self-esteem were also correlated, $r(290) = .21, p < .001$. In addition, correlations were performed by sex. Body appreciation was still correlated to self-esteem for both women, $r(206) = 0.61, p < .001$, and men, $r(77) = 0.53, p < .001$. Need for uniqueness also correlated with self-esteem for both men, $r(80) = 0.31, p < .01$; and women, $r(209) = 0.19, p < .01$. However, need for uniqueness and body appreciation were significantly correlated for men only, $r(81) = 0.33, p < .01$.

Table 2 Descriptive Data By Gender and Tattoo Presence for Self-esteem, Body Appreciation, and Uniqueness Scales

Scale	Mean (SD)			
	Females		Males	
	Tattoo	No Tattoo	Tattoo	No Tattoo
Self-esteem	3.22 (.52)	3.22 (.46)	3.41 (.57)	3.40 (.43)
Body Appreciation	45.61 (8.96)	46.07 (9.23)	50.73 (9.15)	48.60 (8.52)
Uniqueness	11.87 (2.84)	11.82 (2.68)	12.04 (3.18)	11.81 (2.48)

Note. Scores for Body Appreciation and Uniqueness represent total scores whereas the individual mean Self-esteem scores were used.

Discussion

In this central Texas college student sample, 44% of the participants had tattoos, providing support that tattoos have become more common, accepted, and mainstream. Females were significantly more likely than males to have both tattoos and facial piercings (other than ears) in agreement with some previous research (King & Vidourek, 2013; Nathanson, Paulhus, & Williams, 2006).

However, contrary to previous research (Nathanson, et al., 2006; Tate & Shelton, 2008; Tiggermann & Golder, 2006; Tiggermann & Hopkins, 2011), our data did not support the hypothesized differentiation of need for uniqueness, self-esteem, and body appreciation by the presence of tattoos. Perhaps as tattooing becomes more common among college students, such differences are diminishing. Even though the need for uniqueness did not differentiate those with and without tattoos, the two most frequently given reasons for obtaining tattoos, "To express myself" and "To be an individual," suggest that wanting to be unique is a common reason for obtaining tattoos.

We did not find significant interactions related to the constructs of self-esteem and body modification by participant sex, but we did find the predicted differences between males and females in self-esteem and body appreciation, as has been previously reported (Sprecher et al., 2013, Tylka, 2013). Females overall had lower scores than males on the Body Appreciation Scale and on the Rosenberg Self-Esteem measure.

Of the six gender comparisons related to hypothesized reasons for obtaining tattoos, two reasons, "to look tough" and "to have a beauty mark," were significant, with men indicating the former reason more frequently and women indicating the latter reason more frequently. On three of the four appearance-related reasons, the proportion of men and women were not significantly different.

Perhaps appearance-related reasons are a factor for both men and women these days; 46% of the men and 50% of the women indicated that "because they look good" was a reason they obtained a tattoo. Similarly, Swami (2011), comparing before/after tattooing scores, reported that both men and women had lower appearance-related anxiety and higher body appreciation after obtaining tattoos.

Some limitations of the research conducted in this study include the sampling size and related demographics, including the smaller proportion of males in the sample. The sampling population of college students from a central Texas university may not necessarily be generalizable to other college students in the U.S and beyond.

In spite of these sampling limitations, this research contributes by examining body modification through a modern lens based on its rising popularity among college students in the 21st century, using gender comparisons to explore issues related to body appreciation, self-esteem, need for uniqueness, and reasons for obtaining tattoos. In this sample, women compared to men were lower in body appreciation and self-esteem, but they were significantly more likely than men to have a tattoo and facial piercing other than ears. Women, compared to men, were also more likely to indicate that having a beauty mark was a reason they got a tattoo. Perhaps for some women having tattoos is an act of rebellion against conforming to appearance norms, appreciating their own bodies in unique ways. As Western societies change, exploring body modification motivations and correlates will help us better understand the bi-directional process of creating and responding to appearance-related expectations for both women and men.

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