Body Art and Deviance among American College Students: A replication

An Honors Thesis (HONRS 499)

By

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Abstract

This study was performed to examine the relationship between body modification practices and deviant and positive social behaviors, as well as to look at the prevalence of body modification on a college campus. There were 291 participants who completed an online survey asking about personal body modification practices and behaviors. Significant positive correlations were found between tattoos and marijuana use, binge drinking, traffic violations and number of sexual partners. Piercings were significantly correlated with number of sexual partners, marijuana use and underage drinking. Both body modification practices were significantly correlated with only one positive social behavior, sexual intercourse with a regular partner. These results can be used to help further the literature on the relationship between body modification and deviant behaviors. Future research could be done on piercings alone, looking at different types, rather than at piercings as one single practice.

Acknowledgements

I would like to thank Dr. Thalia Mulvihill for advising me on this project. Her guidance helped me maneuver my way through a research study, and gave me practical experience for my future endeavors.
Body Art and Deviance among American College Students: A replication

Tattooing and other body modification practices have been around for many years. For 5000 years people have used ink and ash in an effort to decorate their bodies. These practices were often performed as part of a religious ceremony or a rite of passage, and have been seen in cultures all around the world, particularly in Pacific Island cultures, such as the Maori of New Zealand (Lemma, 2010). However, as the practice of tattooing and body modification spread to Western countries during the last couple centuries, a number of negative and derogatory stereotypes have replaced the honor and status that tattoos once held (Demello 2000).

The history of tattooing in the United States is an interesting one. In the early twentieth century in America, tattooing was seen as barbarous and very distasteful. This image was spurred on by the use of heavily tattooed persons being used in circus freak shows. By the mid-twentieth century, tattoos were seen as a direct challenge to the values of middle and upper class Americans. Tattooed persons came from such groups as sailors, prisoners and other distasteful deviant social groups (Sanders 2008). While much of America was settling into middle class culture and values after World War II, there was a new sub culture of tattooed persons emerging. These people got tattoos to challenge both middle class values and the previous style of tattooing (Demello 2000).

Prevalence

Many studies looking at tattooing and piercing have focused on college campuses. For the most part, the percentages seem to average out to roughly 25% of participants reporting that they have at least one tattoo (Adams 2009; Nathanson et al 2006; Tate & Shelton 2008; Koch et al 2005; Mayers et al 2002). Piercing appears to be more common with college students. In one study conducted by Tate & Shelton (2008) the prevalence of piercings was reported as 47% for
females and 46% for males. Aizenman and Jensen (2007) reported similar numbers stating that 40% of respondents reported having at least one piercing. With these numbers we can see that roughly half of all American college students have at least one piercing, while about one in four have at least one tattoo.

**Body Modification**

The term body modification can be used to describe several different procedures. Changing the appearance of the body through the use of cosmetics, branding, scarification, piercing or permanent inking of the skin all qualify for this definition (Tate & Shelton 2008).

For the purposes of this study, body modification will limited to tattoos and body piercings.

**Deviance**

Deviance has been associated with body modification in the United States since the early part of the twentieth century (Sanders & Vail 2008). In post-WWII America, tattooing popularity decreased among military men and instead became a symbol of deviance for outlaw bikers, gang members and convicts. This period solidified society’s negative view of tattooing, much of which continues today (Demello 2000). Research on this phenomenon became of interest to the psychological and sociological community during the 1950s and has continued to modern times. Briggs (1958) came to the conclusion that “the presence of a single meaningless tattoo mark suggests a prepsychotic or psychotic phenomena (sic) ... the appearance of multiple tattoos marks which differ greatly in motivation, which have no symmetry and which have no apparent connection is always diagnostic of severe psychoneurosis” (1039) and this was a commonly held belief among researchers (Sanders & Vail 2008). However, these studies had their methodological limitations. Many of the samples drawn for this research came from inmates in prisons and/or mental institutions, where deviance was pretty much a norm (Demello
By the end of the 1960s, tattooing began to spread beyond the deviant subculture. Despite this, “even as working people continued to get tattooed, tattooing increasingly became associated with deviants, criminals, and the socially marginal and this association was solidifying in the media, in scientific journals and in the popular imagination” (Demello 2000; 70).

In the early 1990s, a tattoo renaissance began to arise. During this time, the number of tattoo parlors increased and interest in tattooing among the middle class, especially women, grew (Pitts 2003). The reasons for acquiring tattoos evolved during this time from the deviant practices of rebellion and subculture acceptance (Hudson 2009). People began acquiring tattoos, and other body modification, as a form of personal or religious rites, as a form of personal expression, in honor or in memoriam, as a personal or political statement or to mark significant events in their lives (Hudson 2009). However, psychological research still tends to treat body modification as a symptom of a personality disorder and to consider body modification harmful or pathological (Sanders & Vail 2008; Atkinson 2003).

Nathanson et al. (2006) surveyed 279 undergraduate college students, 31% of whom had at least one tattoo or piercing. They found a significant association between body modification and misconduct, which they defined as number of arrests, drug use and violence. While the association was significant, the researchers could not determine a causal link between the two.

Adams (2009) telephone surveyed 500 adults between the ages of 18 and 50 years. From this sample, approximately 25% had at least one tattoo. Using several predictive models, they found that three or more days of jail time was a significant predictor of having a tattoo. However, they did not find that drugs and alcohol were a predictor. They also found that visible tattoos, such as those on the fingers, hands, face and neck, were a significant predictor of having spent three or more days in jail. In terms of demographics, they discovered that people with
tattoos were more likely to be younger adults, and have lower education and income than those without. These findings also suggest that there is some sort of link between deviant behavior and body modification.

Silver et al. (2009) conducted a longitudinal study using data from a larger study of adolescents (N = 13141). Roughly 3.6% of the adolescents acquired tattoos over the course of the study. The researchers found that adolescents who engaged in alcohol use, marijuana use, and nonviolent and violent delinquency were more likely to acquire a first tattoo. They also found that alcohol use, marijuana use and violent behavior were salient predictors of tattoo acquisition. While this study does seem to give a glimpse into the causal relationship between body modification and deviance, the percentage of the sample with tattoos was significantly less than those in previous studies.

Koch et al. (2005) looked at the relationship between tattoos and sexual activity. Using a two question survey, they looked at 450 respondents, 22.2% of whom were tattooed. They found that having a tattoo was a significant predictor of sexual activity. They found that 96.1% of tattooed men engaged in regular sexual activity versus 72.4% of non-tattooed men. For females, 94.6% of tattooed engaged in regular sexual activity versus 68.1% of non-tattooed. However, the researchers themselves admitted that due to the prevalence of sexual activity inherent to a college campus, these results could be somewhat skewed.

In 2010, Koch et al. looked at how tattoos and piercings were related to several deviant behaviors. They were looking for relationships between body modification and behaviors such as academic dishonesty, sexual activity, binge drinking, marijuana use, other drug use and arrests. In this study, roughly 14% percent of the 1,753 respondents were tattooed and 37% were pierced. They found that piercings were significantly correlated with monthly marijuana use,
other illegal drug use, and arrests. They were not correlated with academic dishonesty, sexual activity or binge drinking. Tattoos on the other hand, were significantly correlated with sexual activity, binge drinking and illegal drug use. They were also very significantly correlated with having had 9 or more sexual partners, monthly marijuana use and arrests. In general, the more tattoos a person had, the more deviant they were likely to be. While this is very persuasive data connecting body modification and deviance, it still lacks causal evidence.

Manuel and Sheehan (2007) examined whether or not college students with tattoos and piercings were more extreme in their personality and behaviors. They used the Personality Research Form (PRF) – Form E in order to measure several personality traits. They found that both men and women with tattoos scored higher in autonomy than non-tattooed persons. Women with tattoos also scored higher in impulsivity. Men and women with piercings were found to be higher in exhibitionism and lower in harm avoidance. Women with piercings were also higher in social recognition. While these differences are significant, it is important to note two other findings from this study. Both tattooed and non-tattooed college students reported similar attitudes towards body modification and felt that it was a more mainstream practice. In addition, no differences were found on questions about deviant behavior such as ‘Do you drink too much?’ or ‘Do you engage in unprotected sex?’ So, while students with tattoos and piercings tend to have more extreme personalities, their behaviors are not significantly different than their non-tattooed and non-pierced counterparts.

Tate and Shelton (2008) conducted a study to examine personality differences between college students with body modification and students without. Out of the 1375 participants, 25% of males and 26% of females had at least one tattoo, and 47% of males and 46% of females had at least one piercing. Using measures of the Big Five personality traits, they found some
statistically significant differences between the two groups, but the effect sizes were small enough that the researchers didn’t believe that these differences were outside of the norm. Their conclusion was that “when up to 25% of middle class college students possess permanent tattoos…it is untenable to refer to tattoos, per se, as signs of social deviance or personality and character flaws. The same can be said for body piercings” (284).

Present Study

The current study is an attempt to replicate Koch et al. (2010). One particular limitation of this study was their sample. Of the 1,753 participants, only 13% of respondents reported having one or more tattoos and only 37% reported having one or more piercings. Previous studies comparing tattooed and non-tattooed persons have found significantly higher percentages; on average about 25% of the sample tattooed and 45% pierced (Mayers et al 2002; Koch et al 2005; Nathanson et al 2006; Aizenman & Jensen 2007; Tate & Shelton 2008; Adams 2009). It is hoped that with a separate sample, a more normal representation can be found. With greater normalization, a better understanding can be had of the link between body modification and deviance. The hypothesis of this study predicts there will be a higher amount of body modification among participants than previous studies and that with greater normalization, levels of deviance will not be significantly correlated with body modification. This study will also observe the link, if any, between body modification and more positive social behaviors.
Method

Participants

Participants for this study were recruited from a medium-sized Midwestern university. They were recruited through an e-mail sent out to the student body. The e-mail contained the details of the study and a link to the online survey. To participate, they had to be 18 years of age or older and currently enrolled in a university. All data was kept anonymous. A total of 292 participants completed surveys. One participant began the survey, but failed to input any responses and so this person’s data was removed, leaving 291 surveys, a return rate of 99.6%. Eighty percent of participants were female, and 92.8% were between the ages of 18 and 23. Eighty-nine percent of the participants identified themselves as Caucasian (See Table 1 for other ethnicities).

Survey Instrument

The survey used for this study consisted of four sections. The first section asked about demographic information, including age, gender, ethnicity, GPA, class standing, etc. The second section asked about tattoo and piercing history. This included questions about whether or not the participant had any tattoos or piercings as well as ascertaining the number and location of each, if they had them. The third section was about attitudes towards people with tattoos and piercings. Participants were asked if they had friends or family with tattoos, and then asked to rate their general attitude towards tattooed and pierced people on a three point scale: 1) Positive, 2) Neutral, and 3) Negative.

The fourth section asked about the main dependent variables, deviant and positive social behaviors. This section was further divided into two sub-sections. The first sub-section asked
about activity in the past six months. Participants rated the incidence of behaviors with a five point Likert Scale (1 = Never, 2 = Rarely, 3 = Occasionally, 4 = Frequently, 5 = Everyday). Deviant behaviors asked about in this section included marijuana use, other illicit drug use, binge drinking (drinking five or more alcoholic beverages on one occasion), unsafe sex practices, anonymous/near-anonymous sexual intercourse, academic dishonesty and underage drinking. Positive behaviors in this section were sexual intercourse with a regular partner and physical fitness practices. The second sub-section asked about behaviors occurring in the past year. Deviant behaviors asked about in this section were arrests, traffic violations, number of sexual partners, and number of illicit behaviors committed without an arrest. Positive behaviors listed were donations to charitable organizations, and volunteer work. For the full survey, see Appendix A.

Data Collection

Participants were given a link to the survey via an e-mail sent through the university Communication Center. The survey was hosted on the site SurveyMonkey.com. They were first presented with the consent document (see Appendix B) and asked if they agreed to participate in the study. Once they agreed, they were directed to the remainder of the survey. Once completed, they were thanked for their participation and could close the website.
Findings

The purpose of this study was to determine the relationship, if any between body modification and several deviant behaviors, as well as between body modification and positive social behaviors. Body modification was further broken down by looking at tattoos and piercings separately in terms of deviant behavior. The prevalence of body modification practices on a college campus was also looked at.

Body Modification

Out of the 291 participants, 119 (about 41%) reported having at least one tattoo. The number of participants with more than one tattoo was only about 57 (19.9%), most of the participants had only one or zero tattoos. The number of participants with at least one piercing was significantly higher at 217, about 75% of participants. The number of participants with four or more piercings was also very high, at 93 (32.3%). Only 24.7% of respondents reported having no piercings at all (See Table 2). There was also a significant positive correlation found between the number of piercings a participant had and the number of tattoos that they had ($r = .245, p < .01$).

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Insert Table 2 here

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Deviance

Tattoos. To observe the relationship between body modification and deviant behaviors, a correlation was conducted between number of tattoos or piercings, and the frequency of deviant behaviors over the past six months. The number of tattoos a participant had was significantly positively correlated with frequency of marijuana use in the past six months ($r = .279, p < .01$), frequency of binge drinking in the past six months ($r = .228, p < .01$), the number of traffic
violations in the past year ($r = .236, p < .01$), and number of sexual partners in the past year ($r = .313, p < .01$).

In addition to the above, they were also less strongly correlated with frequency of other illicit drug use in the past six months ($r = .142, p < .05$), frequency of unsafe sexual intercourse in the past six months ($r = .120, p < .05$) and number of illicit behaviors engaged in without an arrest in the past year ($r = .126, p < .05$). A negative correlation was also found between the frequency of academic dishonesty in the past six months and the number of tattoos ($r = -.119, p < .05$). No significant correlations were found for frequency of anonymous sexual encounters in the past six months, or number of arrests in the past year (See Table 3).

**Piercings.** The number of piercings was strongly correlated with the number of sexual partners in the past year ($r = .194, p < .05$). The number of piercings was also less significantly correlated with the frequency of marijuana use in the past six months ($r = .119, p < .05$), and frequency of underage drinking in the past six months ($r = .149, p < .05$) (See Table 3).

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Insert Table 3 here
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**Positive Social behaviors.** In addition to deviant behaviors, a number of more positive social behaviors were also looked at in relation to body modification practices. The only significant positive correlation found was between frequency of sexual intercourse with a regular partner in the past six months and number of tattoos ($r = .307, p < .01$) and the same variable with the number of piercings ($r = .144, p < .05$). A significant negative correlation was found between number of tattoos and the number of times a participant volunteered in the past year ($r = -.133, p < .05$) (See Table 4).
These results help to show that there are several significant correlations between the number of tattoos and piercings and deviant behaviors, despite the high prevalence. They also highlight the fact that few positive social behaviors were correlated with body modification practices, and are in fact negatively correlated with some. These findings suggest that people who engage in body modification practices tend to engage in deviant behaviors more frequently and in more positive social behaviors less frequently.

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Insert Table 4 here
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Discussion

The purpose of this study was to replicate Koch et al (2010) with a more representative sample. By studying a sample that is more representative of the population, we can better generalize our results. It provides us with a better understanding of the link between body art and deviant behaviors. This study also looked at the link between body art and more positive social behaviors. It was predicted that there would be a higher amount of body art among participants than in previous studies and that with this greater normalization, the levels of deviance will not be significantly correlated with body art.

The sample of this study had a significantly higher percentage of tattooed and pierced people than previous studies. Other studies found that roughly 25% of their sample had at least one tattoo and about 50% had at least one piercing (Adams 2009; Nathanson et al 2006; Tate & Shelton 2008; Koch et al 2005; Mayers et al 2002; Aizenman & Jensen 2007). This study, however, found that about 41% of participants had at least one tattoo and 75% had at least one piercing. That is a significantly higher percentage of body art among this sample than others, which supports the hypothesis. This could be due to a higher degree of mainstream acceptance of body art, or another unknown factor.

The second hypothesis predicted that levels of deviant behavior would not be significantly associated with body modification. This prediction was not supported by the evidence gathered in terms of tattoos. The number of tattoos was related to frequency of marijuana use and number of sexual partners, frequency of binge drinking, frequency of illicit drug use, frequency of unsafe sexual practices and number of traffic violations. The positive correlation between the number of sexual partners and number of tattoos is similar to results found by Koch et al (2005). They found that sexual activity was higher in tattooed men and
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women than in the non-tattooed. Even though the incidence of tattoos is almost 1 in 2, the frequency of deviant behaviors is still fairly high. Number of piercings was related to much less deviant behaviors. The only significant correlations were found with frequency of marijuana use and number of sexual partners. This, however, could have more to do with the college environment than with the piercings. So, as the prevalence of piercings grew to nearly 3 out of 4, the amount of deviant behaviors decreased.

This research shows that while the prevalence of tattoos may be growing on college campuses, it is still significantly related to deviant behaviors. This helps to broaden the knowledge base about body art and confirms some of the findings of Koch et al. (2010). Having tattoos would seem to be related to deviance; however, this study does not imply a causal relationship between the two. From the evidence, it cannot be determined whether people who get tattoos tend to become more deviant, or if deviant people are more likely to get tattoos.

This study can help to change some views on piercings, however. Piercings were related only to number of sexual partners and frequency of marijuana use, which is significantly fewer deviant behaviors than other studies have found (Koch et al 2010). Due to the high percentage of college students with piercings, we should perhaps separate it from other body modification practices when researching deviance. It seems to be becoming more of a social norm in the college environment, and thus can no longer be treated as a sub-culture.

One possible avenue for future research could be to split up piercings into separate categories. As ear lobe piercings have become fairly common, among females especially, it may be beneficial to exclude them in any research concerning body modification. Using other types of piercings, such as those in the genitals, navel, or other areas, as well as less common types of
ear piercings, such as gauges, we may be able to find a more definitive relationship between deviance and this kind of body modification.

One of the major limitations of this study was the gender discrepancy. Only 20% of the participants were male. This could have made a significant impact on the results, especially those concerning piercings, as ear piercings are fairly common among females. Other gender differences could also skew results one way or the other. Another limitation was the sample size. Koch et al (2010) surveyed a sample of 1,753 from several Texas universities. This study was limited to one Midwestern university, and consisted of only 291 participants. This significant difference in number of participants could make the results of this study less able to be generalized to the greater population. A third limitation was that the frequency of deviant/positive social behaviors were only asked about for the past six months and year. Many of the participants were freshman, new to college, and this could have caused a number of the behaviors to increase or decrease. If the time line were extended, it may have shown a difference in the incidence of these behaviors.
References


Appendix A
Survey

1. Gender
   a. Male
   b. Female

2. Age
   a. 18
   b. 19
   c. 20
   d. 21
   e. 22
   f. 23
   g. 24+

3. Ethnicity
   a. Caucasian (Non-Hispanic)
   b. Black/African-American
   c. Asian/Pacific Islander
   d. Hispanic/Latino
   e. Other: Please Specify
   f. Prefer not to answer

4. Class Standing
   a. Freshman
   b. Sophomore
   c. Junior
   d. Senior
   e. 5th year or more

5. What is your major?

6. What is your estimated GPA?
   a. Prefer not to answer

7. Do you have any tattoos?
   a. Yes
   b. No
8. How many tattoos do you have?
   a. 0
   b. 1
   c. 2
   d. 3
   e. 4+

9. Where are your tattoos located? (Mark all that apply)
   a. Don’t have any
   b. Arm
   c. Chest
   d. Stomach
   e. Face
   f. Neck
   g. Back
   h. Leg
   i. Foot
   j. Hand
   k. Other (please specify)

10. Do you have any body piercings?
    a. Yes
    b. No

11. How many piercings do you have?
    a. 0
    b. 1
    c. 2
    d. 3
    e. 4+

12. Where are your piercings located? (Mark all that apply)
    a. Don’t have any
    b. Ear
    c. Nose
    d. Navel
    e. Lip
    f. Eyebrow
    g. Genital
    h. Other: Please specify

13. Are you now, or have you ever been an active member of the United States Armed Forces?
    a. Yes
    b. No
14. Do you have any friends or family with tattoos?
   a. Yes
   b. No

15. Do you have any friends or family with piercings?
   a. Yes
   b. No

16. Are your attitudes towards tattooed people generally...
   a. Positive
   b. Neutral
   c. Negative

17. Are your attitudes towards pierced people generally...
   a. Positive
   b. Neutral
   c. Negative

Please answer the following questions (#13-21) using a scale of 1-5. 1 = Never, 2 = Rarely, 3 = Occasionally, 4 = Frequently, 5 = Everyday

In the past six months, how often have you...

18. Used marijuana?
   a. 1
   b. 2
   c. 3
   d. 4
   e. 5

19. Used other illicit drugs (cocaine, ecstasy, heroin, etc.)?
   a. 1
   b. 2
   c. 3
   d. 4
   e. 5

20. Consumed five or more alcoholic beverages in a single occasion?
   a. 1
   b. 2
   c. 3
   d. 4
   e. 5
21. Engaged in physical fitness/workouts, or sports activities?
   a. 1
   b. 2
   c. 3
   d. 4
   e. 5

22. Engaged in sexual intercourse without using a form of birth control/STD protection (condom, pill, etc.)?
   a. 1
   b. 2
   c. 3
   d. 4
   e. 5

23. Engaged in sexual intercourse with someone you just met or hardly knew?
   a. 1
   b. 2
   c. 3
   d. 4
   e. 5

24. Engaged in sexual intercourse with a regular partner (boyfriend, girlfriend, etc.)
   a. 1
   b. 2
   c. 3
   d. 4
   e. 5

25. Cheated on college work (exam, paper, homework assignments, etc.)?
   a. 1
   b. 2
   c. 3
   d. 4
   e. 5

26. Helped someone to cheat on college work?
   a. 1
   b. 2
   c. 3
   d. 4
   e. 5
27. Engaged in consumed alcohol as a minor?
   a. 1
   b. 2
   c. 3
   d. 4
   e. 5

In the past year...

28. How many times have you been arrested?
   a. 0
   b. 1
   c. 2
   d. 3
   e. 4
   f. 5+

29. How many times have you received a speeding ticket, parking ticket or other traffic violation?
   a. 0
   b. 1
   c. 2
   d. 3
   e. 4
   f. 5+

30. Have you donated to a charitable organizations (religious institutions, Salvation Army, Goodwill, etc)?
   a. Yes
   b. No

31. How many sexual partners have you had?
   a. 0
   b. 1
   c. 2
   d. 3
   e. 4
   f. 5
   g. 6
   h. 7+
32. How many times have you participated in volunteer work?
   a. 0
   b. 1
   c. 2
   d. 3
   e. 4
   f. 5
   g. 6
   h. 7+

33. Engaged in an illicit behavior without an arrest (other than drug use) including
vandalism, shoplifting, drunken driving, etc.?
   a. 0
   b. 1
   c. 2
   d. 3
   e. 4
   f. 5
   g. 6
   h. 7+
Appendix B
Consent Document

Study Title
Body art, deviance and the American college student: A replication

Study Purpose and Rationale
The purpose of this study is to replicate a previous study examining the relationship between body modification and deviant behaviors. Specifically, I will be looking at tattoos and piercings. The study to be replicated, conducted by Koch et al. (2010) entitled "Body art, deviance, and the American College Student", had some limitations which I wish to correct in order to gain a better understanding of the topic. The previous study showed a sample which was significantly different from what much of the other research on the same topic shows, so it is hoped that a more normal sample can be gathered and analyzed. I expect to find a small, but statistically significant, correlation between the possession of body art and deviant behaviors. I will also be exploring the link between body art and altruistic behaviors of college students.

Inclusion/Exclusion Criteria
Participants must be 18 years or older and currently enrolled in a college or university to participate.

Participation procedures and duration
For this project, you will be asked a series of questions about body art such as tattoos and piercings, and deviant behaviors. It will take approximately 20-40 minutes to complete.

Anonymity
The data collected will be anonymous. No personally identifiable information will be associated with the responses. Access to the online survey will be through a secure website and will only be accessible by members of the research team.

Risks or Discomforts
There are no perceived risks for participating in this study.

Who to Contact Should You Experience Any Negative Effects from Participating in this Study
Counseling services are available to you through the Counseling Center at Ball State University (765-285-1376) if you develop uncomfortable feelings during your participation in this research project. You will be responsible for the costs of any care that is provided [note: Ball State students may have some or all of these services provided to them at no cost]. It is understood that in the unlikely event that treatment is necessary as a result of your participation in this research project that Ball State University, its agents and employees will assume whatever responsibility is required by law.

Benefits
There are no direct benefits for participating in this study.

Voluntary Participation
Your participation in this study is completely voluntary and you are free to withdraw your permission at anytime for any reason without penalty or prejudice from the investigator. Please feel free to ask any questions of the investigator before signing this form and at any time during the study.

**IRB Contact Information**
For questions about your rights as a research subject, please contact Office of Research Integrity, Ball State University, irb@bsu.edu; (765) 285-5070.

**Study Title** Body art, deviance, and the American College Student: A replication

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Table 1

*Ethnicity percentages of sample*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Percentage of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian</td>
<td>89%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>4.10%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>1.40%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>3.10%</td>
</tr>
<tr>
<td>Multiracial</td>
<td>1.70%</td>
</tr>
<tr>
<td>Native American</td>
<td>0.30%</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>0.30%</td>
</tr>
</tbody>
</table>

*Note. an = 291*

Table 2

*Prevalence of Body Modification in sample with Percentages*

<table>
<thead>
<tr>
<th>Prevalence</th>
<th>0 (58.4%)</th>
<th>1 (21.7%)</th>
<th>2 (10.5%)</th>
<th>3 (4.5%)</th>
<th>4+ (4.9%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tattoos</td>
<td>167</td>
<td>62</td>
<td>30</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Piercings</td>
<td>71 (24.7%)</td>
<td>28 (9.7%)</td>
<td>74 (25.7%)</td>
<td>22 (7.6%)</td>
<td>93 (32.3%)</td>
</tr>
</tbody>
</table>

*Note. an = 291*
## Table 3

Correlations of number of tattoos and piercings and frequency of deviant behaviors

<table>
<thead>
<tr>
<th>Deviant Behaviors</th>
<th>Number of Tattoos</th>
<th>Number of Piercings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijuana Use</td>
<td>0.279**</td>
<td>0.119*</td>
</tr>
<tr>
<td>Other illicit drug use</td>
<td>0.228*</td>
<td>0.033</td>
</tr>
<tr>
<td>Binge Drinking</td>
<td>0.120*</td>
<td>0.055</td>
</tr>
<tr>
<td>Unsafe Sex</td>
<td>0.1</td>
<td>-0.062</td>
</tr>
</tbody>
</table>

*p < .05  **p < .01

## Table 4

Correlations of number of tattoos and piercings and frequency of positive social behaviors

<table>
<thead>
<tr>
<th>Positive Social Behaviors</th>
<th>Number of Tattoos</th>
<th>Number of Piercings</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPA</td>
<td>-0.088</td>
<td>-0.035</td>
</tr>
<tr>
<td>Physical Fitness</td>
<td>0.075</td>
<td>0.144*</td>
</tr>
<tr>
<td>Charitable Donations</td>
<td>0.307**</td>
<td>0.194**</td>
</tr>
<tr>
<td>Volunteer Work</td>
<td>-0.144*</td>
<td>-0.091</td>
</tr>
</tbody>
</table>

*p < .05  **p < .01

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BODY ART AND DEVIANCE

28
Institutional Review Board

DATE: October 23, 2012
TO: Tyler Lehman
FROM: Ball State University IRB
RE: IRB protocol # 383325-1
TITLE: Body art, deviance and American college students: A replication
SUBMISSION TYPE: New Project
ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: October 23, 2012

The Institutional Review Board reviewed your protocol on October 23, 2012 and has determined the procedures you have proposed are appropriate for exemption under the federal regulations. As such, there will be no further review of your protocol, and you are cleared to proceed with the procedures outlined in your protocol. As an exempt study, there is no requirement for continuing review. Your protocol will remain on file with the IRB as a matter of record.

Editorial notes:

Exempt level review

While your project does not require continuing review, it is the responsibility of the P.I. (and, if applicable, faculty supervisor) to inform the IRB if the procedures presented in this protocol are to be modified or if problems related to human research participants arise in connection with this project. Any procedural modifications must be evaluated by the IRB before being implemented, as some modifications may change the review status of this project. Please contact Jennifer Weaver at 765-285-5034 or jmweaver@bsu.edu if you are unsure whether your proposed modification requires review or have any questions. Proposed modifications should be addressed in writing and submitted electronically to the IRB (http://www.bsu.edu/irb) for review. Please reference the above IRB protocol number in any communication to the IRB regarding this project.

Reminder: Even though your study is exempt from the relevant federal regulations of the Common Rule (45 CFR 46, subpart A), you and your research team are not exempt from ethical research practices and should therefore employ all protections for your participants and their data which are appropriate to your project.