

Tattoos, Religiosity, and Deviance among College Students

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ABSTRACT

For much of U.S. history, tattoos carried a stigma. The perception was that tattoos marked gang members and prisoners, not respectable church-going citizens. In recent decades, tattoos have become mainstream, even for some religious people. We analyze the number and content of tattoos in relationship to religiosity and deviance. We test four hypotheses with survey data from 3,525 students at 12 American colleges and universities. Number of tattoos is largely unrelated to religiosity, but tattoo quantity is associated with binge drinking, marijuana use, and having multiple sexual partners. As expected, students with religious tattoos claim a stronger faith, pray more, and attend religious service more than students with no tattoos or non-religious tattoos. However, both religious tattoos and non-religious tattoos are associated with marijuana use and multiple sexual partners in contrast to those with no tattoos. To conclude, we offer a theory of sensation seeking to explain this irony.

INTRODUCTION

This research is a brief but nuanced examination of the relationship between religion and deviance. Our backdrop is the emerging normative appropriation of tattoos as expressions of identity and the prevalence of tattoos among U.S. adults has increased dramatically. Today nearly a third (29%) have at least one tattoo. This is double the prevalence ten years prior. For those “Millennials” born after 1985, nearly half have at least one tattoo (Harris Poll 2016). Thus, for those entering college since the early 2000s, tattoos are a common adornment. The increasing prevalence of tattoos challenges previous assumptions of tattoo wearers as rebellious or non-conformists. The purpose of our study is to extend previous research on tattoos by examining their relationship to religiosity and deviance among college students, with particular attention to religious tattoos. Three research questions guide us: Are college students with tattoos less religious than their untattooed peers? Are tattooed students more prone to deviance? Are college students with religious tattoos different from their peers in religiosity and/or deviance?

This study utilizes data from a sample of 3,525 students at 12 colleges and universities across the United States. Despite limitations, these data allow us to test associations for being tattooed and a variety of measures of religiosity and deviance. These data also identify tattoos that are explicitly religious. Thus, our study adds to what we have learned about tattoos and religion separately by examining how these salient aspects of identity intertwine. Moreover, our work invites speculation as to the overarching social and emotional factors that link tattoo interest and acquisition with religion. Both are visually and kinesthetically vivid and evoke socio-emotional sensations; both are vectors for acquiring and expressing emotional energy (Atkinson 2003; Wellman et al. 2020).

BACKGROUND

In the most nominal sense, tattoos are an art form (Rees 2016). The human body becomes a canvas permanently adorned with visual expressions of emotion and passion. These visual expressions have been widely appropriated to signify sub-cultural identity, prominently – and perhaps stereotypically – by outlaw bikers, prisoners, and sex workers, as well as returning combat soldiers (Armstrong et al. 2000; DeMello 2000; Rees 2016; Rozicky et al. 2011). For much of U.S. history, religious prohibitions have kept tattoos on the fringe of acceptable society. The Judeo-Christian Old Testament (Torah) cautions: “Do not cut your bodies for the dead or put tattoo marks on yourselves. I am the LORD” (Leviticus 19:28, New International Version).

A negative stigma toward tattoos seems to persist among many religious Americans. General findings suggest that religious believers and practitioners are at least somewhat less likely to be tattooed (Dougherty and Koch 2019b; Koch et al. 2004). Among college-aged adults, national, longitudinal data likewise reveal that highly religious people are unlikely to wear tattoos. Smith and Snell (2009) call these highly religious emerging adults “Committed Traditionalists.” Constituting about 15% of emerging adults, Committed Traditionalists have strong beliefs, regular religious practices, and behave in other ways that largely follow conventional normative standards.

Beyond tattoos, religion suppresses other forms of deviance. Decades of research show consistently negative associations for religious salience and religious behavior with substance use and premarital sex (Bock et al. 1987; Cochran and Akers 1989; Cochran et al. 2004; Nelson and Rooney 1982; Regnerus 2003; Welch et al. 2006). Notable in this research is that claiming a religious tradition or believing in God is rarely enough to alter a person’s behavior. The example of teen sexual activity is illustrative. Teens who delay or forego sex are those for whom religion

is salient and practiced (Regnerus 2005). The same is true for college-age emerging adults. Self-reported importance of religion and religious service attendance are far stronger predictors of sexual inactivity than religious tradition (Regnerus and Uecker 2011).

Involvement with religious groups raises the salience of faith. Religious parents, religious peers, and a church youth group can operate as mutually reinforcing agents of socialization that lead young adults to internalize faith and follow their faith convictions (Smith and Denton 2005). These overlapping influences create a plausibility structure of meaning and moral order for individuals (Berger 1967). Plausibility structures are consequential for human behavior. Teens embedded in religious plausibility structures are less sexually active (Regnerus 2005). Involvement with a religious group also provides people a reference group that reinforces religious convictions. The emphasis on religious references groups as a deterrent to deviance is the basis of a popular theory known as the Moral Communities Hypothesis. The basic argument of this theory is that people surrounded by a majority of others who are actively religious will be less likely to participate in deviance (Stark 1996). In short, a religious reference group provides a “moral community” that guides individual behavior in law-abiding ways. Empirical support for the consistent negative associations between religion and non-conformity in national and purposive samples of varied ages validate the Moral Communities Hypothesis (Adamczyk, 2009; Cheadle and Schwadel 2012; Eitle 2011; Ford and Kadushin 2002; Gault-Sherman and Draper 2012; Koch et al. 2021; Regnerus 2003; Rivera et al. 2018; Sturgis and Baller 2012; Sturgis 2010).

The same reasons that tattooed people may not participate in traditional religion may make them open to other forms of non-conforming behavior. Research consistently shows that having even one tattoo is positively associated with underage drinking, marijuana use, early

onset of sexual intercourse, and having multiple sex partners (Brooks et al. 2003; Burger and Finkel 2002; Drews et al. 2000; Dukes 2016; Gueguen 2012; King and Vidourek 2013; Koch et al. 2005). However, research also suggests that a threshold of four or more tattoos is more commonly associated with more consequential deviance such as illegal drug use or having an active arrest history (Koch et al. 2010). Whether illegal activities are associated with one tattoo or many, a connection between tattoos and deviance continues to exist.

There is very little research published to date on those who are tattooed with explicitly religious symbols, or symbols that are implicitly religious to them (Dougherty and Koch 2019a; Jensen et al. 2000; Koch and Roberts 2012; Maloney and Koch 2020). For some people, tattoos are visible expressions of faith. Nearly one in five tattoo wearers report that having a tattoo that they consider to religious makes them feel more spiritual (Harris Poll 2016). Today, it is not hard to find examples of celebrities “wearing” quotes from sacred scriptures or displaying explicitly religious symbols through visible religious tattoos. Cross tattoos adorn the upper left arm of singers Justin Timberlake and Mary J. Blige, the right leg of actress Drew Barrymore, and the lower back of actress Eva Longoria. Actress Angelina Jolie has a Buddhist prayer tattooed on her left shoulder blade. Soccer star David Beckham has multiple tattoos of Jesus and angels on his upper body.

Some scholars have mentioned religious tattoos as an emerging trend, especially for Evangelical youth (Jensen et al. 2000; Griffith 2004). As far as we know, little else was done on this topic until Koch and Roberts (2012) somewhat whimsically linked motivation for religious tattoos to the Protestant Ethic. Maloney and Koch (2020) added depth and evidence to the idea that religious tattoos express reverence and evoke the memory of loved ones. Dougherty and Koch (2019a) also drew the parallel that interest and acquisition for religious tattoos are

remarkably similar for tattoos in general – affiliation, identity, transformation. However, the content of those socio-emotional affects was explicitly religious.

In sum, religious tattoos are something of a theoretical paradox. While acquiring a tattoo of any type suggests an orientation toward individualism and non-conformity, we suspect that the obvious religiousness of those marking their faith permanently on their bodies corresponds with different behavioral choices than seen among those with non-religious tattoos. We formalize our expectations with four hypotheses.

Hypothesis 1: There is a negative association between tattoo wearing and religiosity.

Hypothesis 2: Tattoo wearers are more likely to engage in deviance such as binge drinking, marijuana use, and sex with multiple partners.

Hypothesis 3: As compared to persons with no tattoos or non-religious tattoos, religious tattoos are associated with elevated religiosity.

Hypothesis 4: As compared to persons with no tattoos or non-religious tattoos, religious tattoos are associated with lower rates of binge drinking, marijuana use, and sex with multiple partners.

DATA AND METHODS

Data for this project were gathered from late 2010 through 2013. A survey of religion, body art, deviance, and well-being was administered in introductory sociology courses at 12 colleges and universities across the United States. Six of these schools were public; six were private. Of the six private schools, three were explicitly Christian and three were not religiously affiliated. Participating schools were located in the Northeast, Southeast, Midwest, Mid-south, Northwest, and Southwest. Each public school was geographically proximal to one private school.

Procedurally, the first author and a research partner travelled to participating schools with copies of the survey instrument and scantrons for recording responses. We travelled to two schools per academic year from 2010 to 2013. Having obtained prior IRB approval at each school, printed questionnaires were distributed and collected during a class session set aside for us by generous faculty colleagues. The aggregated data set included 3,525 students. This rather expensive and time-consuming process led to a robust 77% response rate, calculated as the proportion of surveys returned in relation to each class enrollment.

Variables

Central to our study are the number and content of college students' tattoos. The survey asked: "How many tattoos do you presently have?" Students could answer none to six or more. The vast majority of respondents (84%) had no tattoos. Because only two percent had three or more, we collapsed the variable so that its range was 0 = none to 3 = three or more. A separate question asked: "Is your tattoo (or at least one of your tattoos) a depiction of a religious symbol?" (Yes/No). Using the two tattoo questions, we coded respondents into three groups: no tattoo (84% of the sample), one or more non-religious tattoos (12%), and one or more religious tattoos (4%).¹

The survey likewise included multiple measures of religiosity. Recognizing the multi-dimensionality of religiosity, we incorporate three variables that encompass religious salience, private religious behavior, and public religious behavior. The religious salience variable is based on the question: "In general, would you consider your current religious faith to be..." Response

¹ For respondents with a religious tattoo, the survey asked them to describe the image in a textbox. Eighty-five students provided a description. The most common images were Christian symbols, such as the cross, dove, or Bible verses.

options were non-existent (coded 0), very weak (coded 1), moderately weak (coded 2), moderately strong (coded 3), and very strong (coded 4). Two other measures of religiosity are common religious behaviors. Prayer represents a private religious behavior. The survey asked, “About how often do you pray?” Responses range from 0 = never to 5 = several times a day. Attendance is our variable of public religious behavior. The survey asked, “How often do you attend worship services now?” Responses range from 0 = never to 5 = weekly or more often. The three religiosity variables are broadly applicable across religion traditions. Unfortunately, the survey did not ask for a respondent’s religion or denomination.

Three deviant behaviors serve as dependent variables in our analysis. A set of questions asked students about their uses of alcohol and marijuana. Respondents reported yes (coded 1) or no (coded 0) to the question: “In the past month, have you consumed five or more alcoholic drinks on one occasion?” Regarding marijuana, the survey asked: “How often do you use cannabis (marijuana) recreationally each month?” Response options were never, 1-10 times, 11-20 times, and more than 20 times. We recoded marijuana use into 0 = never and 1 = once or more per month.² Our final measure of deviance comes from the survey item: “Approximately how many sexual partners have you had in the past year?” We recoded the variable to focus on two or more sexual partners in the past year (coded 1) in contrast to students who self-reported no partners or one partner (coded 0).

The survey allows us to control for demographic characteristics of students and university type. Demographic control variables in our models are age (ranging from 18 to 23+), gender (1 =

² We consider marijuana use as a measure of deviance in this study because recreational marijuana use was illegal at the time of data collection in all of the states where the survey was administered.

female, 0 = male), and race/ethnicity (white, black, Hispanic, Asian or Pacific Islander, or other). We also control for university type (public, private non-religious, or private religious) with private religious universities representing an implicit test of the Moral Communities Hypothesis. Appendix A provides descriptive statistics for all variables included in this study.

Plan of Analysis

Our sample of 3,525 students from 12 universities represents nested data. Consequently, we employ multilevel modeling to account for two levels of analysis: students (level 1) and universities (level 2). Multilevel models are an improvement over single-level regression techniques for nested data because they take into consideration that individual-level responses are not independent and may be partially or largely explained by group membership (level 2) (Snijders and Bosker 2012). We estimated random intercept models with all non-binary variables (strength of faith, pray, attend, and age) centered at their grand mean. Preliminary analysis of null intercept-only models (not shown) justify multilevel modeling. Intraclass correlation coefficients (ICC) exceed .10 in every model. For example, ICC values reveal that university explains 22% of the variance in students' prayer, 27% of the variance in religious service attendance, and 13% of the variance in binge drinking and marijuana use.

Using multilevel modeling, analysis proceeded in four phases. Phase 1 tests the significance of number of tattoos on religiosity. We use the *mixed* command in Stata 16 to estimate multilevel mixed-effects linear regression models for our interval-level religiosity variables. Phase 2 tests the significance of number of tattoos on deviant behaviors. We use mixed-effects logistic regression (*melogit* in Stata) to estimate models for our dichotomous measures of deviance. Phase 3 tests the significance of tattoo type (no tattoo, non-religious tattoo, or religious tattoo) on religiosity using mixed-effects linear regression. Phase 4 estimates

mixed-effects logistic regression for deviant behaviors regressed upon tattoo type, personal religiosity, personal demographic characteristics, and university type.

RESULTS

Tattoos and Religiosity

Despite long-standing perceptions that religious people eschew tattoos, Table 1 reveals that tattoos have no connection to religiosity among respondents in our sample. Having one or two does not distinguish respondents from those with no tattoos on strength of faith, frequency of prayer, or frequency of religious service attendance. The only way that tattoos seem to matter for religiosity is that students with three or more tattoos attend religious services less than students with no tattoos. Overall, these findings fail to support hypothesis 1. Much stronger predictors of religiosity are gender, age, race/ethnicity, and university type. Female students are more religious than male students in our sample. Student age is negatively associated with strength of faith and attendance. Black students are more religious than white respondents, while Asians are less religious than whites. Compared to public universities, students at private non-religious universities are significantly less religious and students at private religious universities are significantly more religious. Log Likelihood, Akaike's information criterion (AIC), and Bayesian information criterion (BIC) statistics indicate that the three models are comparable in their model fit. The same is true in all subsequent tables as well.

(Table 1 about here)

Tattoos and Deviance

Table 2 shows that tattoos and deviance appear to fit together, with deviant behaviors increasing in likelihood as the number of tattoos increases. The pattern is most apparent for marijuana use and multiple sexual partners. With each additional tattoo, the odds ratio is

successively larger in predicting the behavior. For respondents with three or more tattoos, the odds that they binge drink or smoke pot is twice as high as for respondents with no tattoos and over five times higher for having two or more sexual partners in the past year. Taken together, this set of results is consistent with our expectations stated in hypothesis 2.

Supporting prior research on emerging adult religiosity, more frequent religious attendees are less likely to binge drink, less likely to smoke pot, and less likely to have two or more sexual partners in the past years. Prayer is also negatively associated with binge drinking, marijuana use, and multiple sexual partners. Strength of faith is not significantly correlated with any of the deviant behaviors. The practice of faith through private prayer and attending public services creates plausibility structures that more directly guide human behavior. Religious universities seem to operate as moral communities that likewise reinforce religious plausibility structures for individuals. Private religious universities are negatively associated with binge drinking, marijuana use, and multiple sexual partners. Among the other control variables, female respondents and Asian respondents seem to steer clear of most of these deviant behaviors.

(Table 2 about here)

Religious Tattoos and Religiosity

Next, we consider tattoo type. Table 3 shows the religiously tattooed are highest in all three measures of religiosity. Respondents with religious tattoos report stronger faith, more frequent prayer, and more frequent religious attendance than do respondents with no tattoos. Conversely, respondents with non-religious tattoos are significantly lower in their self-reports of strong faith, prayer, and attendance as compared to those with no tattoos. These findings support hypothesis 3. The control variables significant in Table 1 are significant in Table 3.

(Table 3 about here)

Religious Tattoos and Deviance

Finally, Table 4 reports associations for tattoo type and deviance. Contrary to hypothesis 4, respondents with religious tattoos do not eschew these deviant behaviors. Those with religious tattoos are like those with no tattoos only in regard to binge drinking. For all other forms of deviance examined, respondents with religious tattoos and non-religious tattoos both significantly differ from those with no tattoos. Despite reporting the highest levels of religious faith and practice among subgroups, those with religious tattoos stand out from the non-tattooed in marijuana use and sexual activity. The results for multiple sexual partners are most dramatic. The odds of have two or more sexual partners in the past year is 2.5 times higher for respondents with religious tattoos than those with no tattoos. The odds ratio for respondents with non-religious tattoos is even higher at 4.3. In fact, odds ratios for students with non-religious tattoos are higher than for students with religious tattoos on every outcome variable in Table 4. Nevertheless, religious tattoos are significantly related to deviance in a way that non-tattooed students are not. High levels of religiosity do not automatically translate into “safe practices” regarding marijuana or sex for those with religious tattoos. The same control variables significant in Table 2 are significant again in Table 4. Most importantly, the effect of religious tattoos cannot be explained away by personal religiosity, demographics, or university type.

(Table 4 about here)

DISCUSSION

A growing number of religious people, even conservative religious people, are using tattoos of religious symbols or scriptural texts as a way to convey the sacred. We provide the most comprehensive analysis to date on the implications of these religious tattoos. Though clearly idiosyncratic in its scope, this research adds to the study of tattoos, religion, and their

behavioral correlates in three ways that answer our three research questions. First, are college students with tattoos less religious than their untattooed peers? We find very little evidence that tattoo wearers in college are irreligious. Having tattoos, even multiple tattoos, show scant association with religious faith or religious practice. Only among students with three or more tattoos did we see lower attendance at religious services as compared to non-tattooed students. If tattoos carry a stigma in contemporary religious organizations, the stigma must be weak and/or only felt by those with substantial body art. Our findings in this regard support previous research that it is a multitude of tattoos, not just tattooing, that now distinguish conformity and deviance (Koch et al. 2010).

Second, are tattooed students more prone to deviance? We offer qualified support that tattoos correspond with binge drinking, pot-smoking, and sexual activity to a greater degree than among the non-tattooed. Thus, our findings support previous work documenting an inverse relationship among dimensions of religion, substance use, and sex.

Third, are college students with religious tattoos different from their peers in religiosity and/or deviance? Herein lies the biggest contribution of our study. We report new information concerning those with religious tattoos. Not surprisingly, these respondents were the most religious of any sub-group. It seems likely on its face that expending time, enduring pain, and incurring expense to so prominently display one's connection to religion would be motivated by a salient, active faith. Moreover, once these permanent marks of faith are on one's body, they may themselves become motivation for a sustained, salient, active faith. On the surface, these appear to be the type of committed traditionalists described by Smith and Snell (2009). Yet, we see a startling irony when we look at other forms of behavior. Despite higher levels of religiosity, students with religious tattoos were remarkably similar to those with non-religious tattoos with

respect to pot-smoking and having multiple sexual partners. Only on binge drinking were students with religious tattoos different from their peers with non-religious tattoos. In sum, they are more like the deeply religious with regard to religious salience and practices; they are more like the heavily tattooed with regard to social behavior. We offer a theory of sensation seeking to account for this irony.

Religion can provide a sensory experience to adherents that is compelling. Recent work on American megachurches emphasizes this point. Wellman et al. (2020:1) write:

(W)e make the case that the desire for emotional energy is at the heart of religion. Humans seek emotional energy, and this energy is the drug or force that catalyzes sociality. This force-feeds humans' fundamental needs – not only for energy, but also the emotional satisfaction of joining with others, all the while remaining oneself.

This quote essentially begins an extensive ethnography of twelve megachurches, all of which offer an opportunity to get *High on God*. Highly skilled musicians, clergy, teachers, and orators orchestrate high-energy worship and offer a wide array of emotionally enticing programs. It works. Masses flock to experience the energy. Similarly and with respect to tattoos, Atkinson (2003:194) reports: “... tattoo enthusiasts regularly speak of how tattooing can be liberating emotionally, a way of venting emotions publicly through the body.” Moreover, emotions emerging from more varied rituals, traditions, and group identities conceptually connect religion, tattoos, and even drinking and drugging (Becker 1953; Collins 2010; Koch et al 2010).

It seems the emotional content and practices associated with tattoos and religion may parallel each other in very specific ways. Religion and tattoos signify belonging, identity, commemoration of birth and death, restoration and celebration (DeMello 2000; Dougherty and Koch 2019a, 2019b; Koch et al. 2010, 2015; Koch and Roberts 2012; Maloney and Koch 2020; Yuen-Thompson 2015). All of those incidents and emotions are especially evident in the lives of those who hold strongly religious beliefs and experience high-energy worship (Griffith 2004).

We also suspect using tattoos – religious and otherwise -- to present one-self (and be received) as an attractive intimate partner generates positive and pleasurable sensations (Beck-Dincher 2020).

In short, tattoos and religion are *sensation-al*.

An over-arching quest for sensation-seeking may explain our finding incongruently high incidence of marijuana use and sexual activity, as well as very high levels of religious salience and practice, for those with religious tattoos despite religious proscriptions against such practices. Therefore, the decision by a religious emerging adult to get a Christian fish symbol, Jewish Star of David, or Islamic crescent inked onto their body seemingly indicates willingness to side-step group norms for purposes of self-expression, emotional satisfaction and release, as well as enhanced sub-cultural identity.

Intriguing findings have emerged from this research that will require further investigation. After all, our study is limited to U.S. college students in introductory sociology courses on 12 campuses. We cannot generalize our findings to all college students or any other larger population. Generalizable results must wait for a probability survey with questions on tattoos, tattoo content, and religiosity. Likewise, our measures of religiosity do not allow us test for differences by religion or denomination. The survey question on religious tattoos (“a depiction of a religious symbol”) is another limitation. This question wording may miss other tattoos with religious or spiritual significance. It also fails to account for how many tattoos on an individual have religious or spiritual significance. Are people tattooed only with sacred symbols different from those with exclusively non-religious tattoos or a mix of religious and non-religious tattoos? Given the relatively small number of people with religious tattoos (4% in our sample), a very large national sample or an oversample of tattooed respondents may be necessary to adequately answer such a research question.

Another useful extension to this research would be to analyze the function of tattoos by race/ethnicity or gender. Although we control for these demographic variables in our statistical models, we recognize the relationship of tattoos to religiosity and deviance may not be identical for men and women or for different racial/ethnic groups. The conceptual and behavioral linkages among tattoos, religion, religious tattoos, and deviance are worthy of future study.

Finally, one more implication emerged from this research in the form of an anecdote. Over the course of three years collecting survey data, many respondents also engaged us in casual or informal conversation. We learned that, by and large, those with especially visible tattoos like to talk about them, and to tell their backstories. While not frequent enough to measure, a noticeably repeated story emerged. Several respondents told us either they, or someone they knew, chose their first tattoo to be religious. While steeped in faith to be sure, the fact that they planned to initiate this form of expression with a religious symbol was a selling point, and perhaps appeasement, to parents and others who might not initially approve. This raises the specter of interest-based as well as strictly faith-based motivation when considering whether to get a tattoo, and of what type. It also dovetails with Koch and Roberts (2012) research indicating some respondents obtained their religious tattoo as a sign of atonement for past misdeeds and/or with a look ahead to raising the chances of inheriting eternal life. Many more stories are yet to be told about the complex social meaning of religion and body art.

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Appendix A: Descriptive Statistics

Variable	Mean	Std Dev	Min	Max
Number of Tattoos				
No tattoos	.84		0	1
One tattoo	.09		0	1
Two tattoos	.03		0	1
Three or more tattoos	.03		0	1
Type of Tattoo				
No tattoo	.84		0	1
Non-religious tattoo	.12		0	1
Religious tattoo	.04		0	1
Strength of faith	2.37	1.24	0	4
Pray	2.19	1.72	0	5
Attend	2.64	1.82	0	5
Binge drink	.52		0	1
Marijuana use	.23		0	1
Multiple sexual partners	.61		0	1
Female	.62		0	1
Age	19.36	1.33	18	23
White	.67		0	1
Black	.09		0	1
Hispanic	.09		0	1
Asian or Pacific Islander	.10		0	1
Other race/ethnicity	.04		0	1
Public university	.68		0	1
Private non-religious university	.11		0	1
Private religious university	.22		0	1

Table 1: Mixed-effects linear estimates of religiosity regressed on number of tattoos and control variables

	Strength of Faith	Pray	Attend
One tattoo ^a	-.04	-.06	-.10
Two tattoos ^a	-.08	-.12	-.24
Three or more tattoos ^a	-.12	-.22	-.37*
Female	.17***	.30***	.21**
Age	-.04*	-.04	-.11***
Black ^b	.47***	.72***	.51***
Hispanic ^b	.12	.02	.07
Asian ^b	-.26***	-.21*	-.18
Other race/ethnicity ^b	-.06	.21	.01
Private non-religious university ^c	-.53*	-.57*	-.92**
Private religious university ^b	.77***	1.43***	1.51***
Constant	-.27	-.49**	-.38*
Log Likelihood	-5338.98	-6403.07	-5846.33
AIC	10705.96	12834.13	11720.65
BIC	10791.95	12920.17	11805.07
N Students	3,437	3,447	3,071
N Universities	12	12	12

^aComparison group is no tattoo

^bComparison group is white, non-Hispanic

^cComparison group is public university

*p<.05, **p<.01, ***p<.001

Table 2: Mixed-effects logit estimates (and odds ratios) of secular sensory behaviors regressed on number of tattoos, religiosity, and control variables

	Binge drinking	Marijuana use	Multiple sexual partners
One tattoo ^a	.32* (1.37)	.56*** (1.75)	1.18*** (3.26)
Two tattoos ^a	.68** (1.97)	.64** (1.90)	1.34*** (3.81)
Three or more tattoos ^a	.77** (2.16)	.76** (2.14)	1.70*** (5.46)
Strength of faith	.07	-.03	-.06
Pray	-.19*** (.83)	-.16*** (.85)	-.15*** (.86)
Attend	-.14*** (.87)	-.18*** (.83)	-.23*** (.80)
Female	-.51*** (.60)	-.75*** (.47)	-.12
Age	.09** (1.10)	-.06	.16*** (1.17)
Black ^b	-1.09*** (.33)	.06	.13
Hispanic ^b	-.22 (.75)	-.27 (.71)	-.10

Asian ^b	-1.02*** (.36)	-.59** (.55)	-1.09*** (.34)
Other race/ethnicity ^b	-.29 (.65)	-.13	-.16
Private non-religious university ^c	-.06	.26	.11
Private religious university ^b	-.95** (.38)	-.77** (.46)	-.63** (.53)
Constant	.60**	-.90***	.55***
Log Likelihood	-1704.52	-1380.87	-1711.12
AIC	3441.04	2793.74	3454.25
BIC	3536.24	2889.87	3550.38
N Students	2,836	3,006	3,006
N Universities	12	12	12

^aComparison group is no tattoo

^bComparison group is white, non-Hispanic

^cComparison group is public university

*p<.05, **p<.01, ***p<.001

Table 3: Mixed-effects linear estimates of religiosity regressed on tattoo type and control variables

	Strength of Faith	Pray	Attend
Non-religious tattoo ^a	-.24***	-.34***	-.38***
Religious tattoo ^a	.44***	.55***	.33*
Female	.18***	.31***	.22***
Age	-.04*	-.04	-.12***
Black ^b	.47***	.72***	.51***
Hispanic ^b	.14	.04	.08
Asian ^b	-.26***	-.21*	-.18
Other race/ethnicity ^b	-.05	.22	.02
Private non-religious university ^c	-.53**	-.57*	-.92**
Private religious university ^b	.75***	1.40***	1.50***
Constant	-.28*	-.50**	-.39*
Log Likelihood	-5320.63	-6386.83	-5838.53
AIC	10667.26	12799.66	11703.06
BIC	10747.11	12879.55	11781.45
N Students	3,437	3,447	3,071
N Universities	12	12	12

^aComparison group is no tattoo

^bComparison group is white, non-Hispanic

^cComparison group is public university

*p<.05, **p<.01, ***p<.001

Table 4: Mixed-effects logit estimates (and odds ratios) of secular sensory behaviors regressed on tattoo type, religiosity, and control variables

	Binge drinking	Marijuana use	Multiple sexual partners
Non-religious tattoo ^a	.55*** (1.74)	.64*** (1.90)	1.47*** (4.37)
Religious tattoo ^a	.29	.56* (1.75)	.95*** (2.57)
Strength of faith	.07	-.03	-.06
Pray	-.19*** (.83)	-.16*** (.85)	-.15*** (.86)
Attend	-.14*** (.87)	-.18*** (.83)	-.23*** (.80)
Female	-.52*** (.59)	-.76*** (.47)	-.13
Age	.09** (1.10)	-.06	.16*** (1.17)
Black ^b	-1.06*** (.35)	.07	.14
Hispanic ^b	-.23	-.28	-.11
Asian ^b	-1.02*** (.36)	-.59** (.56)	-1.08*** (.34)
Other race/ethnicity ^b	-.29	-.13	-.16

Private non-religious university ^c	-.06	.26	.11
Private religious university ^b	-.95**	-.77**	-.62**
	(.39)	(.46)	(.54)
Constant	.61**	-.90***	.56***
Log Likelihood	-1705.61	-1381.07	-1710.22
AIC	3441.21	2792.15	3450.44
BIC	3530.46	2882.27	3540.56
N Students	2,836	3,006	3,006
N Universities	12	12	12

^aComparison group is no tattoo

^bComparison group is white, non-Hispanic

^cComparison group is public university

*p<.05, **p<.01, ***p<.001