

This descriptive, correlational study surveyed 79 pierced and/or tattooed participants to determine reasons why people pierce and tattoo their bodies and to assess participants' knowledge of health risks involved in body alteration procedures. Participants queried represented a wide age range—between 19 and 55. Results showed that participants perceived few health risks involving piercing and tattooing and desired additional piercings and/or tattoos. Individual expression was an important body alteration motivation for both piercing and tattooing. These findings underscore the importance of health care professionals' maintaining nonjudgmental attitudes about those who alter their bodies, thereby facilitating important health education concerning related health risks. Suggestions for nursing applications are discussed.

Body Piercing and Tattooing Perspectives

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The practices of body piercing and tattooing reflect changing societal mores and are sometimes seen as behavior bordering on the fringes of proper conduct in the United States. If nurses do not understand the motivations of those with pierced and/or tattooed bodies, then they may be less likely to engage in therapeutic relationships with those patients. Knowing the patient is becoming an increasingly important concept in contemporary health care and is seen as essential to the development of full quality health care (Whittemore, 2000).

BODY PIERCING AND TATTOOING: INCREASING UNDERSTANDING

Tattooing and body piercing, ancient traditions of body alteration, have experienced major resurgence in popularity in the United States. Body piercing and tattooing, now considered to be mainstream activities (Lemonick, 1999), are no longer confined to prison populations, sailors, and gang members. Persons with tattoos and piercings now include adolescents (Armstrong & McConnell, 1994; Armstrong & Murphy, 1997; Farrow, Schwartz, & Vanderleeux, 1991), career women (Armstrong, 1991), and college students (Greif, Hewitt, & Armstrong, 1999). A growing base of research regarding the age and gender of people obtaining tattooing and body piercing (Armstrong, 1991; Armstrong & McConnell, 1994; Armstrong & Murphy, 1997; Houghton, Durkin, Parry, Turbett, & Odgers, 1996) indicates that males and females of various ages are modifying their bodies.

This fast-paced trend has resulted in a chasm between the health community and the public at large regarding body modification health risks (Balakrishnan & Papini, 1991; Budd, 1996; Farrow et al., 1991) and generally appears in the form of regulation versus unregulation. Because of possible adverse reactions to the increasingly large variety of pigments being used in the tattoo process as well as infections that occur from tattooing, the U.S. Food and Drug Administration (FDA) (2000) warned consumers to use caution when obtaining tattoos. The agency refrained, however, from regulating tattoo inks or the pigments used in these inks (Anderson, 1992; Larkin, 1993; FDA, 2000). State health boards also do not regulate tattoo pigments. In addition, sterilization of instruments and studio inspection are largely unregulated in tattoo/piercing studios (Anderson, 1992), leaving consumers generally to monitor safety precautions. Because tattoo/piercing practices are governed by local laws and local jurisdictions, some consumers may enter a tattoo/piercing studio with the perception that it is regulated and not realize that the extent of regulation depends on the location of the studio. Inconsistent regulation as well as inconsistent enforcement of existing regulations can provide a mixed public health message (Armstrong & Fell, 2000; Greif et al., 1999).

TATTOO AND BODY PIERCING PROCEDURES

The operational definition of tattooing is the injection of pigment particles underneath the epidermis that remains in the dermis to create a decorative design. Tattoos can be applied by professionals, amateurs, or self. Tattoo professionals inject tattoo pigments, which are usually metallic salts (Korn, 1996), into the dermis at a depth of 1 to 2 millimeters (Sperry, 1992) and at a rate of 50 to 3,000 times per minutes with an electrically powered, vibrating instrument (Freyenberger, 1998). Amateurs apply tattoos by using objects such as pens, pencils, knives, needles, or straight pins and inject substances such as India ink, carbon, charcoal, or mascara (Armstrong, 1995, 1997).

Body piercing, for the purpose of this study, is a piercing of any part of the body, with the exclusion of single ear piercing, by professionals or amateurs. A body part pierced with a hollow needle is accessorized by inserting body jewelry in the hole. There are many different types of body piercing jewelry, including barbell studs, rings, or clamps (Vale & Juno, 1989). They range from short barbells for the tongue to ampallangs (usually metal bars held in place with metal discs) placed through the head of the penis. In addition, there are rings or studs for the navel, rings for the labia, and various other adornments for both the male and female genital areas.

Although the earlobe and ear cartilage are believed to be the most frequently pierced sites, piercings can also appear on the eyebrow, lip, nose, tongue, nipple, navel, and assorted genital sites (Freyenberger, 1998). Healing time varies according to site and may range from 6 to 8 weeks for the ears, eyebrows, nose, lips, and tongue to 8 to 38 weeks for the navel, nipple, and genitals (Armstrong, Ekmark, & Brooks, 1995).

HEALTH RISKS

There are multiple serious health risks associated with nonsterile tattooing practices, including the blood-borne infectious diseases of HIV (FDA, 1995), syphilis (Christensen, Miller, Patsdaughter, & Dowd, 2000), hepatitis B virus (Long & Rickman, 1994; Tope, 1995), hepatitis D virus (Tope, 1995), and hepatitis C (Ko, Ho, Chiang, Chang, & Chang, 1992). In

addition, there are increased risks of hematoma formation and neuroma (Wright, 1995).

HIV has been associated with only two nonconclusive tattooing cases. Although not directly associated with HIV, HIV risk is present in the tattooing process because blood can be transmitted (FDA, 1995; Long & Rickman, 1994).

Less serious infections associated with tattoos are generally superficial pyodermas (Long & Rickman, 1994). Local infections can become systemic if healing does not proceed well (McCance & Huether, 1998). Because bacteria can enter the skin at any break, there are several hazards associated with piercing, including staphylococci and streptococci (Tweeten & Rickman, 1998). Viral infections such as warts have also been documented (Long & Rickman, 1994).

Skin reactions to tattoo pigments include photosensitivity to cadmium (yellow dye) (Armstrong, 1991; Goldstein, 1967) and hypersensitivity to cinnabar (red pigment) (Armstrong, 1991; Armstrong & McConnell, 1994). There is potential for allergic reactions as well as infection and metal toxicity from exposure to other substances in tattoo pigments such as aluminum, titanium, iron, cobalt, selenium, chromium, zinc, or copper (Tope, 1995).

Metals typically used in body piercing include noncorrosive metals such as surgical stainless steel, niobium, or titanium. Sterling-silver, gold-plated, and gold-filled jewelry are not used for fresh piercings because of the risk of allergic reactions. Some individuals form allergic reactions to even nonreactive metals, however, such as niobium (Miller, 1997).

Other problems include keloid scars and abscesses. Keloid scars can be treated with a laser, whereas abscesses are best treated with a topical or systemic antibiotic so that surface and deep healing can occur (Armstrong, 1998). In addition, scar tissue resulting from piercing the areola can constrict a duct during lactation (Tweeten & Rickman, 1998).

There are particular risks associated with oral piercings, such as dental fractures (Botchway & Kuc, 1998) and speech impediment (Reichl & Dailey, 1996). Aspiration is also considered a risk because those with mouth piercings may play with the jewelry, thereby dislodging it (Reichl & Dailey, 1996).

PIERCING/TATTOO REMOVAL

Piercing is not generally considered a permanent procedure because holes close after jewelry is removed. Some individuals allow piercings to close on the recommendation of their health providers due to problems with the piercings such as abscesses and scar formation (Christensen et al., 2000; Tweeten & Rickman, 1998).

There are numerous accounts of those who desire to have their tattoos removed (Balakrishnan & Papini, 1991; Hall-Smith & Bennett, 1991). Tattooed individuals seek to remove their tattoos for various reasons, including to improve self-image (Armstrong, Stuppy, Gabriel, & Anderson, 1996), correct immature judgment and/or an amateurish tattoo (Balakrishnan & Papini, 1991), get out of a gang (Freyenberger, 1998), and move on from a failed relationship (Korn, 1996).

In the event individuals decide to eliminate a tattoo, there are procedures available for the removal of some tattoos. Most can be removed to some extent with standard laser treatment (Kilmer, Lee, Grevelink, Flotte, & Anderson, 1993; Taylor et al., 1990). Other forms of tattoo removal include dermabrasion, salabrasion, chemical cauterants, surgical resection (Korn, 1996; Sperry, 1992), excision, infrared coagulation, grafting, and cryosurgery (Wright, 1995). Some tattoos are particularly resistant to eradication, however, such as those with green and yellow dyes (Armstrong et al., 1996) and in some cases black dyes (Korn, 1996). Double tattoos (i.e., tattoos overlaid with second tattoos) are also difficult to remove and appear to be associated with an increased risk of scarring (Alora, Arndt, & Taylor, 2000).

MOTIVATORS

Increased popularity of tattooing and body piercing combined with potential health risks underscore the need for examination of motivations related to body-altering techniques. It is important to realize that if programs are to succeed at educating the public about body modification health risks, attention must be directed toward both acknowledgment of the popularity of the movement and the public's perceptions of health risks involved in body-altering procedures (Fried, 1983).

In addition, consciousness of demographics, such as age, gender, and ethnic background, as they relate to body alteration decisions can assist health practitioners in understanding the scope of patients' health risks.

A few common themes for modifying bodies in the West include image management (Langford, 1996; Miller, 1997), sexual expression/sexual enhancement (Fried, 1983; Langford, 1996; Malloy, 1989; Steward, 1990; Vale & Juno, 1989; Wright, 1995), and individuation (Armstrong, 1991, 1995, 1996; Vale & Juno, 1989). Reasons for body alteration are elusive, however; for example, one tattoo practitioner and historian noted, "A tattoo is never just what the appearance is, anyway. . . . Tattoos are indicators, or little vents to [the owner's] psyche" (Hardy, 1989, p. 60).

The body can be considered a metaphor of political and social order (MacRae, 1975; Turner, 1991). The skin can designate one's social status, ideas of beauty, and at times, psychic conflict. Changes in the fabric of the skin can reflect a multiplicity of images designed to weave mystery, beauty, sexual fulfillment, and inner sanctum into one's internal and external image. The outer body image reflects the management of impressions as well as personal control of the body within society (Featherstone, 1991). As expressed by Cazazza (1989), "If you don't have any identity, you try to re-create your life in such a way that you think you have some. How do you do that? Tattoo some weird design on your stomach" (p. 128). Control of appearance is often a reflection of the establishment of identity within culturally defined standards (McKinley, 1999).

Body alteration also often reflects individuals' expression of the changing mores of sexuality (Vale & Juno, 1989). Sexuality is one way in which a person may define herself or himself within an impersonalized society (Petras, 1978). Individuals can express personal control by acknowledging their own sensuality within the current social structure and may do so by sexual modification of the body. For instance, by modifying genitalia, individuals can experience as well as control private sensations within cultural restraints (Vale & Juno, 1989).

For health professionals, knowing the pierced/tattooed patient involves understanding motivations for piercing and tattooing, learning about associated health risks, and grasping

an idea of the type of people who pierce and/or tattoo their bodies. The current research purposes were threefold. First, we sought to explore the reasons for body piercing and tattooing. Although a few studies have addressed motivations for tattooing (Armstrong et al., 1996; Farrow et al., 1991) and body piercing (Armstrong, 1996; Vale & Juno, 1989), motivation needs to be further explored to gain further understanding of the reasons for the rising trend in body alteration. Because health risks regarding piercing and tattooing are plentiful, our second goal was to discern participants' awareness of health risks involved in body-altering processes. Third, we wanted to examine how body-piercing and tattooing behavior varied according to such factors as age, gender, and ethnic background. Because piercings and tattoos are becoming increasingly mainstream, we hypothesized that for this study's sample there would be no relationships between (a) age and number of piercings and tattoos, (b) gender and number of piercings and tattoos, and (c) ethnic background and number of piercings and tattoos.

METHOD

This was a descriptive correlational study primarily designed to gather information and discern relationships, if any, between selected variables.

PARTICIPANTS

A total of 81 participants were recruited through tattoo and body art parlors in Florida and Louisiana by employees of the facilities between October 1998 and February 1999. Two of the participants omitted all survey responses other than demographic information and were excluded. Data, then, from a total of 79 participants were included in the analyses. The sociodemographic characteristics of the study population include age (mean = 25; range = 19 to 55), employment status (79% employed), ethnicity (81% Caucasian), gender (57% female), marital status (70% single), sexual orientation (75% heterosexual), and educational level (63% college educated).

SURVEY INSTRUMENT

The Body Art Survey, a self-report questionnaire, was developed by the investigators. Items intended to assess participants' encounters and personal observations with piercings and tattoos were based on a review of the literature, interviews with piercing and tattoo artists, and investigators' clinical experience. Face and content validity were established by consulting with three body art/tattoo artists, a physician, a nurse, and a counselor. Seventeen body-piercing questions and 18 tattoo items were developed, and the instrument was separated into two sections. An additional eight items were used to assess demographics, including participants' race, gender, age, employment status, marital status, sexual orientation, educational level, and place of residence. Items were in a varied format, including Likert style, multiple choice, and open ended.

In the body-piercing section of the survey form, participants were asked their number of piercings, age of first piercing, and anatomic locations of piercings. They were also asked who performed the procedure, the location of the procedure, and type of object used in the procedure. Participants' perception of safety regarding previously obtained piercing was assessed by three questions (e.g., "How safe would you consider the procedure of body piercing that you obtained?"). Three items assessed participants' possible exposure to health risks with the procedure of body piercing (e.g., "In your opinion, how clean was the facility where you first obtained body piercing?"). To evaluate participants' motivations for piercing, 11 choices were presented, including a write-in *other* option. Satisfaction with piercing was assessed by Likert-type queries and an open-ended question (e.g., "How is it [the piercing] helpful to you?").

In the tattoo section of the survey form, questions paralleled the questions in the first section with the exception of tattoo-related queries replacing body-piercing questions. There was one additional question wherein participants indicated in a yes/no format whether the tattoo instrument was sterilized.

Prior to the main analyses, the survey instrument was checked for internal consistency as a measure of its reliability. Cronbach's alpha for the entire measure was .71. Reliability analyses revealed the body-piercing portion of the survey to

have internal consistency, with $\alpha = .70$ for the body-piercing survey items and $\alpha = .72$ for the tattoo items. Two raters coded responses to the open-ended questions. Interrater reliability was established by computing Cohen's kappa coefficient for each case. The average kappa coefficient for the four recoded cases was .85.

PROCEDURE

Approval was obtained from the University of South Alabama's Institutional Review Board. After discussing confidentiality requirements with participating body art/tattoo studio owners, surveys were mailed to Orlando, Florida, to two body art/tattoo parlors and hand delivered to body art/tattoo parlors in New Orleans, Louisiana, and Mobile, Alabama. Those 19 years and older seeking tattoos and/or body piercing at the studios were recruited by studio employees. Study eligibility was further defined on the survey form by defining *tattoo* as a permanent mark or design rather than a temporary decal. *Body piercing* was referred to as a hole placed anywhere in the body other than one-hole ear piercing. Participants were notified of their right to refuse to participate. Individuals who were both pierced and tattooed were asked to complete the demographic portion of the instrument and the following two sections on body piercing and tattooing. Pierced individuals were asked to respond to demographic queries and questions in the piercing section only. Tattooed individuals without piercings were requested to respond to demographic questions and the tattoo portion of the survey form. Instrument completion took about 10 to 15 minutes.

All responses were anonymous and returned by mail in sealed packets to the researchers. Two hundred surveys were distributed, 50 to each of four locations, including The Hole Experience in Orlando, Florida, Body Graphics in Orlando, Florida, Rings of Desire in New Orleans, Louisiana, and L.A. Body Art in Mobile, Alabama. Body Graphics in Orlando, Florida, went out of business, and L.A. Body Art declined to participate. Of the two participating sites, we received responses from 81 people, a response rate of 81%.

STATISTICAL METHODS

Data were analyzed with the SPSS statistical package for Windows 6.1 (Norusis, 1993). Characteristics for both body-piercing and tattoo populations were summarized using frequency distributions. Pearson correlation coefficients were then computed to assess the relationships among age, gender, and ethnic background in number of both piercings and tattoos.

RESULTS

The first purpose of our study was to investigate motivations for body piercing and tattooing. In the subjects who had their bodies pierced, the most important reasons for body piercing were individual expression (62%) and art (43%). Less important reasons included perception of sexiness, celebration, beauty, mystical or religious symbol, control, friends have it, symbol for group membership, fashion statement, and symbol of commitment to romantic relationship. A large percentage of those tattooed reported that they were motivated to receive tattoos because of individual expression (40%) and art (23%). Other reasons reported included group membership, mystical/religious experience, celebration, perception of sexiness, friends have it, symbol of commitment to romantic relationship, control, beauty, and fashion statement.

Our second purpose was to assess participants' perception of health risks related to their body piercing and/or tattooing. Regarding piercing, 88% of participants believed their piercing procedures to be safe. The remaining 12% reported a concern with piercing safety. Of those tattooed, the majority (73%) perceived that procedures used to tattoo them were safe. Twenty-two percent expressed concern with the safety of tattooing procedures, whereas 5% were not sure of the safety risks.

Finally, we hypothesized that age, gender, and ethnic background would not be associated with number of body piercings and/or tattoos. As expected, gender and race were not associated with number of body piercings. Regarding tattooing and contrary to our expectation, age was positively associated with

number of tattoos ($p < .01$). That is, increases in age resulted in increases in the number of tattoos for each individual. Gender and ethnic background were not associated with number of tattoos, as anticipated.

PIERCED PARTICIPANTS

Of the 79 subjects, 77 had body piercing. The mean age of the respondents was 25 years (range = 19 to 55), and mean age of first piercing was 18 years (range = 1 to 39). Sixty-five percent of those pierced had some college education; 6% stated that they had either received a graduate degree or had received some graduate education. Seventy-eight percent indicated that they were employed. The majority (80%) were Caucasian, most (72%) were single, and a little more than half (58%) were female. Seventy-three percent reported that they were heterosexual, 20% stated that they were homosexual, and 7% indicated that they were bisexual.

The two most important reasons for choosing the person who performed the piercing were recommendation and safety (81%). Among the more frequent of other miscellaneous responses were best price and friendly atmosphere. The majority (74%) of those pierced were performed by a professional artist, 9% by a friend or family member, 7% by another amateur, 5% by self, 1% by a physician, and 3% by unidentified persons.

Among the most popular body-piercing sites reported were multiple ear holes (74%), tongue (61%), nipple (58%), navel (41%), nose (33%), and genital area (28%). Other areas mentioned were the upper lip, lip, eyebrow, tragus (cartilage in front of ear opening), and various facial areas. Nine individuals with nipple and/or genital piercings listed sexual stimulation/gratification as reasons they enjoy these piercings (e.g., "Much more physical stimulation during sexual activity, wider foreplay possibilities, multiple orgasms").

TATTOOED PARTICIPANTS

More than half of the study subjects (52%) were tattooed prior to data collection. The tattooed individuals had a mean age of 27 (range = 19 to 55). The mean age of their first tattoo was 21 (range = 14 to 40). A majority (64%) had some college education; most (74%) were employed. Eighty-two percent

were Caucasian, more than half (55%) were male, 54% were single, and 88% were heterosexual. The majority (52%) had multiple tattoos. Forty-eight percent had four or more tattoos.

Among the tattooed subjects, almost all (98%) reported that they believed they were tattooed in a clean facility. The majority (93%) reported that the tattoo instrument had been sterilized. Most subjects (81%) demonstrated an awareness of the difficulty of tattoo removal. There were 11 (25%) respondents who indicated that they did not like something about their tattoos. Three (7%) previously tattooed participants reported that they intended to have one or more tattoos removed.

The most important reasons listed for choosing the person who performed the tattoo were recommendation and safety, respectively. Other reasons included friendly atmosphere and convenient location. Of those tattooed, the most popular sites were the back (55%), shoulder (43%), leg (40%), arm (38%), and ankle (21%). Other frequently tattooed sites included the chest/breast area (19%), stomach (17%), and buttock (10%). Less prevalent sites included the wrist, side, neck, inner lower lip, knuckles, elbow, and thigh.

DISCUSSION

We found evidence that those pierced and tattooed enjoy their body modifications. Most intend to obtain more piercings and/or tattoos. The majority of people in this study were employed, Caucasian, and heterosexual. More than half were female, single, and college educated. This study's results supported Korn's (1996) premise that females are increasingly being tattooed as well as Armstrong's (1991) findings that pierced individuals include career women. In addition, these results respond to Greif et al.'s (1999) question of whether women might be more interested in body art than men. It could be speculated that more studies of females desiring piercing and tattooing might yield increasingly stronger piercing and tattooing trends among career women, particularly Caucasians.

Self-image as reflected in sexual expression through body alteration appears to be an upcoming trend in North American society. Because individual expression, art, perception of sexiness, celebration, and beauty were listed as the top five motiva-

tions for piercing and tattooing, it is reasonable to surmise that individuals use these procedures, particularly piercing, to embellish their appearance, express their sexuality, and enhance their sexual functioning. For instance, an explanation given by some participants in relation to reasons given for genital/nipple piercings was increased sexual arousal. More than half of the pierced females had nipple piercings, and more than one fourth had genital piercings, with many of them listing sexual gratification as a reason for the procedures.

It is likely that health professionals will see more instances of piercings and tattoos in intimate locations. Because motivations for body alteration appear to be related in most instances to self-image and require sensitivity of health professionals as they come upon these body alterations, it is important for future research to explore the nature and scope of this alternative form of sexual expression, particularly for women.

Health risks as related to body piercing and tattooing were not seen as a threat to most participants. The majority of respondents reported that they believed they were pierced and/or tattooed in a safe, clean environment. Those tattooed, however, reported less assurance with safety than did pierced participants. Perhaps the perceived safety risk is greater with tattooed individuals because tattooed persons are subject to being tattooed with unregulated pigments as well as unregulated instrument sterilization methods, whereas pierced individuals may be only exposed to unregulated instrument sterilization.

A wide variety of people now pierce and tattoo their bodies. It was expected and found through our results that gender and ethnic background were not related to number of body piercings and/or tattoos. Contrary to our expectations, we found that age was positively related to the number of tattoos; that is, older individuals were more likely to have more tattoos. This seems reasonable because older people have had more time to accumulate tattoos. It is important to recognize that although adolescents are increasingly becoming tattooed (Armstrong, 1995; Armstrong & McConnell, 1994; Armstrong & Murphy, 1997), the tattooing trend continues to be strong with middle-aged adult populations as well.

Inconsistent with Korn's (1996) statement that individuals often regret their tattoos, most participants in this study indi-

cated that they were satisfied with preexisting tattoos and desired more. It is likely that this is not representative of all of those tattooed, however, because the participants in this study were those indicating a new or continued interest in body art just by their inclusion in the study. No information was obtained on the span of time from first tattooing/piercing.

There are inherent limitations to this study, such as response errors as related to possible nonattitudes or willful lying. Because this is a correlational study, only inferences may be drawn rather than conclusions concerning behavior.

Results cannot be generalized beyond the restricted target population. Participants were those who entered body art/tattoo parlors and requested body alteration. Therefore, those who were approached by studio employees and who agreed to respond may have self-selected themselves. Additional research is needed to verify the representativeness of the sample in this study.

Further research efforts could also be targeted toward discovering length of time individuals spend in deciding whether to have their bodies pierced or tattooed. Such information could be helpful in targeting health risk education regarding piercing and tattooing.

IMPLICATIONS FOR PRACTICE

Because both body piercings and tattoos are seen by many to be part of their identity, it is important for nurses to respect individuals' body modification as an inherent part of the person. Perceiving that people generally maintain condemnatory attitudes toward body modification, pierced and tattooed individuals may not feel comfortable in disclosing a health problem wherein the piercing and/or tattoo might be displayed. It is important to encourage patients to disclose their tattooing and/or piercing history so that risks may be identified.

The majority of participants in this study perceived no health risks related to body piercing and tattooing. Health risks, however, are inherent in many of the procedures and range from rather serious blood-borne diseases to minor irritations. Health education, then, may pose a challenging task for nurses and may best be considered as both preventive and ter-

tiary care. Nurses can provide education about body piercing and tattooing in secondary and college settings as well as in general medical practices via brochures, presentations, and confidential counseling. One preventive education measure to be considered might include body alteration brochures in health offices that address relevant health issues and corresponding appropriate treatment for common problems related to body art. For those who then identify themselves as considering body piercing and/or tattoos, nurses could offer personal counseling to include relevant educational health care components about appropriate care and risk factors for body piercings and tattoos. Nurses can also encourage individuals to obtain procedures only in those locations that recognize universal precautions against infection. Tertiary care could include education about wound care and systemic infection. In addition, Korn (1996) suggested encouraging individuals to keep a record of the color name and pigment of the tattoo obtained in case they would like it later removed. To assist practitioners in patient advocacy, there are various educational resources regarding body art available.¹

In summary, this investigation describes survey findings on body piercing and tattooing. The number of body piercings and tattoos were not related to gender or ethnic background of the participants. Age, however, was related to number of tattoos, with older individuals more likely to have more tattoos. Overall, participants expressed satisfaction with their piercings and tattoos, and most indicated that they would acquire additional body alteration procedures. Management of self-image was a primary motivator for body alterations. More than half of the pierced females had nipple piercings, and more than one fourth had genital piercings, with some offering comments linking these piercings to sexual expression and/or sexual stimulation. Findings from this study help demystify body piercing and tattooing, thereby assisting health practitioners in offering appropriate preventative and tertiary educational interventions for those considering these procedures.

NOTE

1. Body art educational resources are available. A tattoo video for health education can be obtained from the Texas Tech University Health Sciences Cen-

ter of Nursing (FAX: 806-743-1622). A standardized body art regulations promotional code, *Model Body Art Code*, is available by contacting the National Environmental Health Association (303-756-9090).

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