Introduction

Tattooing and body piercing are flourishing, and the new innovations of branding and scarification continue to develop. Even more evident is the advent of cosmetic tattooing, advertised boldly in the newspapers and phone books as permanent makeup for a beautiful personal investment. While no national databases are available to provide an accurate picture of body art recipients, findings from several small, recent studies are consistent. They include published rates of 19 to 23 percent for tattooing among young adults 18 to 25 years of age and rates of 33 percent for body piercing (Armstrong, Roberts, Owen, & Koch, 2004; Drews, Allison & Probst, 2000; Forbes, 2001; Mayers, Judelson, Moriarty, & Rundell, 2002). A recent Ohio University poll found that about one of every seven adults was tattooed, with young adults (18 to 34 years of age) 10 times more likely to have the decorative designs (Hargrove & Stempel, 2003).

Another way to look at the presence of body art is to examine the number of studios in a state; the figures then become phenomenal. In Texas, with a population of 21 million people, almost 900 tattooing studios were registered in the state as of January 2004, with over half that number listed as beauty salons or spas performing cosmetic tattooing. Of the 599 body-piercing studios registered in Texas, approximately 300 combine both tattooing and body piercing. If one estimated that body-piercing studios average five piercings weekly, then over 155,000 yearly would be produced in just one state; the number of tattoos would be over 234,000.

Body art is an invasive procedure: For body piercing, jewelry is inserted into a tract; for tattooing, non-FDA-approved pigment is introduced into the skin by multiple punctures to produce indelible designs; and for permanent cosmetics, pigment is inserted into the eyelids, eyebrows, and lips (Tope, 1995a). Branding is a specific method of scarification resulting in a deliberate keloid formation. In each procedure, there is a release of serosanguinous fluid “accompanying the repetitive puncturing of tattooing, the puncture wounds of body piercing, and the application of heated steel,” predisposing the patron to local infections and systemic illness such as bloodborne diseases (Armstrong & Kelly, 2001, p. 16).

The public may assume that state regulations exist for body art, with regular inspections protecting the client, and that if there are problems with a studio, the state will automatically close it. Often it is not until a body art complication occurs and is reported to state health officials that the public begins to realize just how strong or weak these statutes can be for client safety. In reality, it may take over two years for the due-process procedures to work before a studio is shut down, if it even happens.

The purposes of this article are a) to provide a brief historical perspective of body art regulations, b) present the current status of state statutes as of September 20, 2003, and c) identify continuing concerns for further legislative regulations. While some believe people who get body art get what they deserve (Ferguson, 1999) and would therefore just leave them alone and let the customers have their own problems, effective body art
regulations do provide several important guidelines. They
• provide guidance to the artists in safe practices,
• give advice for protection to the public, and
• provide some recourse, if there are complications.
Most reputable body art artists support these enforceable regulations and even work to help create them, as the regulations lend legitimacy to their practice (Armstrong & Fell, 2000; Armstrong & Kelly, 2001; Tope, 1995b).

A Brief Historical Perspective on Body Art Regulations
Tattooing and piercing have been around for thousands of years. While the popularity and acceptance of body art has waxed and waned, many injunctions, laws, and regulations have been implemented. Very early “regulations” included Moses’ remarks in Leviticus 19:28 forbidding any cuttings in the flesh or the printing of any marks. Also, there were the decrees banning tattooing by the Roman and Japanese Emperors, and the French 1869 national laws.

In the United States, the only federal agency that has examined elements of tattooing is the Food and Drug Administration (FDA); its concerns are the ingredients in tattoo pigment. These pigments were listed in the Food, Drug, and Cosmetic Act of 1938 as “color additives” and intended for topical use. The agency has considered better inspection of the pigments, but has never proceeded to undertake that review. Tattoo pigment for intradermal injection has never been approved (Tope, 1995a; Larkin, 1993).

For a time in the 1950s, several states passed tattooing regulations allowing only physicians to tattoo. Florida’s original statute still remains, although the state now has added doctors of osteopathy and dentists to the list of those allowed to administer tattoos. Also in the 1950s, there was a dramatic increase of hepatitis cases that caused the New York City health officials to close tattoo parlors and ban tattooing. Officials in that metropolitan area wrote that “tattooing was neither necessary, useful, or desirable, often associated with a morbid or abnormal personality” (Silvers & Gelb, 1991, p. 308).

Over the past 25 years, there have been many documented changes nationwide to the regulations regarding body art, especially tattooing. In 1979, Goldstein (1979) reported that only three states (California, Hawaii, Maine) had standards or inspections in their regulations, and seven states (Connecticut, Florida, Kansas, Massachusetts, Oklahoma, South Carolina, Vermont) prohibited tattooing. Many states (n = 36) did not report statutes of any type, although 10 of those states (Arkansas, Kansas, Kentucky, Maryland, Montana, New Jersey, New Mexico, New York, Oregon, Virginia) reported local tattooing ordinances in their larger cities. Goldstein makes the following comments about individual states: “Connecticut had no tattoo ‘parlors’ in the state” and that “the one tattoo parlor in District of Columbia was ‘regularly inspected for sanitary practices’ even though there is no law about tattooing” (Goldstein, p. 913). Montana reportedly had “rules governing tattooing race horses, but not people.”

Newspapers also have published articles about the conditions of tattooing. In 1988, one headline in a Fort Worth paper read, “Tattoo artists of Tarrant County (TX) are not answerable for cleanliness.” The article described “the lack of regulations for sanitation” and suggested that “this was disconcerting despite a two year old warning from the national Centers for Disease Control and Prevention (CDC) that a dirty tattoo needle can spread infectious diseases such as AIDS or hepatitis” (Polilli, 1988). At that time the only tattoo regulation in Texas was that the client be 21 years of age.

By 1989, 16 states had statutes of some form, requiring either licensing of the studio or licensing of the artist, while 31 states and the District of Columbia still did not have regulations (Stauber, 1989). Five of the 16 states (Connecticut, Florida, Indiana, Massachusetts, Vermont) still permitted only doctors or dentists to either perform or supervise the tattooing. At the same time, model legislation for disease prevention from tattooing was being proposed. While more states were enacting further legislation, a continued increase in both tattooing and body piercing was occurring, as well as the advent of the AIDS epidemic, the introduction of cosmetic tattooing (1984), and use of laser therapy for tattoo removal (Tope, 1995a). Backinger (1989) also raised concern about “personal service workers,” a term (which included tattoo artists) coined by CDC, and personal service workers’ close personal contact with clients, their exposure to contaminated blood or blood products, and the absence of a “system to ensure that appropriate infections control measures were being employed” (p. 31). Anderson (1992), a dermatologist who had had many patients with poor tattoos, agreed, stating that there was “little or no regulation of the training of tattooists, the sterilization of tattooing instruments, the screening of customers, or the inspection of tattoo parlors” (p. 207).

In that same year, the American Academy of Micropigmentation, an independent, non-profit organization, was founded by a physician to help physicians, nurses, and derma technicians disseminate new techniques and methods in the field of cosmetic tattooing. A monthly newsletter, a journal, and an opportunity to take the certification examination are all part of membership.

Six years later, Tope (1995a) reported that 17 states had modified their tattoo regulations in the past 15 years, with some states issuing comprehensive regulations for infection control provisions. Using both written and phone inquiries, he obtained information to document 27 states still without tattooing regulations, six states (Alabama, Kansas, Maryland, New Jersey, New Mexico, Montana) with local ordinances, and four states consistently prohibiting tattooing (Massachusetts, Oklahoma, South Carolina, Vermont). Oregon’s legislation was lauded as the most comprehensive program because it included artist training, an examination, and mandatory continuing education for tattoo artists. Tope also advocated “more mandatory inspections of tattoo facilities and apprentice- ships and licensing for cosmetic and artistic tattoo providers” (p. 796). Body piercing was not discussed in Tope’s article as it was just beginning to become popular.

Following Tope’s regulatory review, Muscarella (1995) questioned the need for further regulations if there was a “low documented incidence of reported complications from tattooing” (p. 1058). Tope’s (1995b) response to this editorial question focused on the poor documentation of tattooing complications, the concerns of artists exposed to contaminated body fluids, and the infrequency with which artists were being vaccinated against hepatitis B virus. Tattooing was still banned in the same four states (Massachusetts, Oklahoma, South Carolina, Vermont) (Barad & Brown, 1997) in 1997.

Recognizing a need for better guidelines for governing the body art industry, the National Environmental Health Association (NEHA) gathered a task force of 21 members comprising representatives from three body art organizations, physicians, nurses, health
drafted and approved new regulations. (N. Ridley, personal communication, January 23, 2001; University of South Carolina, 2002) tested the lack of state tattooing regulations under the First Amendment, maintaining that it was a form of art and expression (N. Ridley, personal communication, January 23, 2001; University of South Carolina, School of Law, 2002). In South Carolina, the state successfully argued that tattooing posed a risk to public health, and the motion was denied (University of South Carolina, School of Law, 2002), whereas in Massachusetts, the superior court agreed that the statute did violate the First Amendment (N. Ridley, personal communication, January 23, 2001). Subsequently Massachusetts has drafted and approved new regulations.

Current Status of State Regulations
In September 2003, a table was prepared by the author to document the regulations of the 50 states and the District of Columbia for the three common types of body art (tattooing, body piercing, cosmetic tattooing), as well as for branding. The table, which is too large to be printed here, can be found at http://www.nursing.ttuhs.c.edu/armstrong/StateRegulationsArticle.pdf. Much of the information was verified through telephone inquiries to the specific state agencies since some of the initial Internet sources tended to perpetuate old information.

Three major factors seemed to emerge as this table was completed: 1) remaining current with the latest regulations is challenging as some states seem to be changing their response to body art safety each legislative session, 2) the strength of these regulations still varies widely, and c) almost 36 states have changed their body art legislation since 1998.

As of September 2003, 34 states have regulations for both tattooing and body piercing, 39 states for tattooing only, and 35 states specifically for body piercing. Some (Michigan, New Jersey, Oklahoma—for body piercing only—Massachusetts, and Mississippi) passed their legislation in 2003, and Kentucky's went into effect in 2004. Four of these states (California, Indiana, Minnesota, and South Dakota) report that they have limited regulations while their cities or counties have developed more stringent local ordinances. In another three states (Connecticut, Florida, and South Dakota), a physician, dentist, or doctor of osteopathy still supervises tattooing. While the language varies, statewide regulations commonly address the definition of body art, the procedures needed for sanitation and sterilization, procedures for single-use items, competency requirements for personnel, infection control, client records and retention, preparation and care of the body art area, and the enforcement measures and prohibitions related to the services. In addition, state laws address concerns that patrons should have skin free from active disease and should not be under the influence of alcohol or drugs at the time the body art is administered.

Of interest are some state regulations that mention branding (n = 19), implants (n = 4), and scarification (n = 4); the newest procedure of tongue splitting is listed and prohibited in two states (Florida and Texas). Three states require that signs disclosing risks be posted in studios (Alabama, Louisiana, and Minnesota), whereas others states (Alabama, Colorado, Delaware, and Louisiana) require a detailed client history, especially with respect to medical conditions like diabetes, blood disorders, and epilepsy. Client records need to be maintained at a studio for two to three years in 26 states, while one state (Alabama) requires six years. Rhode Island mandates a criminal history of the artists and mandatory reporting of body art complications to the health department, but this reporting is being done on a limited basis; two others states (New Hampshire and Hawaii) require that artists have a medical examination before registration. While eight states (Alaska, Connecticut, Kansas, Maryland, Minnesota, New Jersey, Ohio, and Tennessee) describe specific numbers of hours for apprenticeships, others require a specific body of knowledge (and examination) covering content such as bloodborne disease (15 states), sanitation (three states), CPR (three states), and anatomy/physiology (Alaska, Massachusetts); the requirement may relate to tattooing, body piercing, or both. Texas will not implement its recently passed bloodborne-disease course requirement because of budgetary constrains and significant cost impacts. Hepatitis B vaccinations of all body art personnel are required in only eight states (Alabama, Colorado, Connecticut, Delaware, Louisiana, South Carolina, Tennessee, and West Virginia). Written examinations and mandatory continuing education are required in the two states that have the most comprehensive regulations (Kansas, Oregon); Alaska’s new regulations are similar.

The age of the patron at the time of the body art also varies. Eighteen states are firm that patrons must be at least 18 years of age. Another 22 states cite the age of 18 as a guide line, then use language to include parental/guardian consent, notarized signatures, or both, providing latitude for younger patrons to obtain body art. Five other states (Arizona, Florida, Hawaii, Tennessee, and Wisconsin) allow patrons younger than 18, whereas South Carolina maintains that no body art may be administered until the patron is 21 years of age. Several states also stipulate that the body art artist must be at least 18 years of age.

In contrast, seven states (Illinois, Nebraska, New Mexico, North Dakota, Pennsylvania, Virginia and Wyoming) have no statewide regulations and still elect to use either city or county ordinances as enforcement tools. In four states, the business licensing of tattooing is emphasized rather than sanitation (Maryland, Pennsylvania, Washington, and the District of Columbia). Only two areas (Idaho and the District of Columbia) have no regulations or ordinances for tattooing, body piercing, or cosmetic tattooing, while Oklahoma still maintains a total prohibition on tattooing.

The popularity of permanent cosmetic tattooing seems to correspond to the amount
of industry regulation addressing the procedure. Twenty-nine states mention permanent makeup in their body art regulations, with most of them referencing their original tattooing rules. Five of these states have chosen to separate their cosmetic-tattooing rules from the tattooing and body-piercing regulations. Georgia maintains that only a physician or doctor of osteopathy can tattoo within one inch of the eyes, whereas South Carolina and Hawaii permit only physicians to tattoo on the face. Two states (Maine and New Jersey) use successful completion of the American Academy of Micropigmentation Certification exam as the qualification requirement for those performing permanent makeup. Oklahoma has created its own micropigmentation examination; Nevada and Pennsylvania prohibit permanent cosmetic tattooing in beauty salons; and in New Hampshire, cosmetologists have to consult with physicians regarding their permanent makeup practice.

What Still Needs to Be Done
For many years, the presence of body art was ignored, often because the studios were located “on the other side of town” and only “certain types” of individuals obtained it. It was a service without accountability and scrutiny, commonly referred to as an “artist-customer regulated business” (Armstrong & Kelly, 2001, p. 13). Today, those studios are closer to residential areas, located in local beauty salons, across the street from schools, in the malls, or at fraternity parties. Except in a few states, there are still no specific curriculum, training, or mandatory continuing-education requirements for the artists performing these invasive procedures. Anyone with $300 can purchase a kit from a trade journal, complete with the equipment and procedural videos needed to get started, and become an artist. Creativity abounds with respect to where a body art studio may be established.

The need for up-to-date regulations remains important. While it is commendable that the number and depth of state regulations for body art have risen dramatically over the past 25 years, concerns still remain (Anderson, 1992; Stauter, 1989; Tope, 1995a). More work is needed to protect the public. Areas in which further protection is needed are outlined below.

Standard Precautions
With every body art procedure that is performed there is exposure to contaminated body fluids, yet not all patrons of body art are vaccinated against hepatitis B virus, and few states require vaccinations of the body art personnel. Presently less than half of the states require an examination or even annual attendance at bloodborne-disease courses, or adequate education in sanitation, sterilization, or procedural precautions beyond an initial registration process with the state. In addition, body art artists come from all socioeconomic and educational backgrounds, so use of a variety of teaching methodologies for this education is important.

In some states, a course on standard precautions given by any organization is accepted to fulfill course requirements, with no specification as to content or length of course. Standard-precautions courses should be industry specific so that body art artists can readily apply the information to their practices—in contrast to course content that contains broad sweeping statistics and information. A novel idea is to use reputable body art artists to help plan, provide, and evaluate the content of standard-precautions courses; NIOSH personnel, in cooperation with OSHA, are presently developing such courses. This approach will certainly stimulate participation. Course regulations should especially cover artists who provide body art in temporary locations such as mobile vans, flea market booths, and rock concert venues, given the questionable surroundings and lack of proper sanitation facilities in these locations.

Documentation of Complications
While most body art continues to be administered without problems, there is a potential for local, as well as systemic, diseases with any break in the skin (Barad & Brown, 1997; Haley & Fischer, 2001; Haley & Fischer, 2003; Hellard, Aiiken, Mackintosh, Ridge, & Bowden, 2003; Larkin, 1993; Long & Rickman, 1994; Tope, 1995b). Only one state (Rhode Island) mandates reports of complications to its health department, and this requirement has produced limited results. Overall, there are no states or national databases that effectively collect information on the number of complications arising from body art when and if complications are presented to a health provider. In 2000, among seven children or young adults (10 to 19 years of age) who had received high-ear piercings from a spring-loaded piercing gun, an outbreak of Pseudomonas aeruginosa resulted in hospitalization, surgery, and several cosmetic ear deformities; an additional 18 infections were suspected. This occurrence was documented in a state that already had stringent body art regulations and became known because it occurred in a small community (Keene, Markum, & Samadpour, 2004). Importantly, health officials quickly employed effective investigative techniques to report the common-source outbreak; organisms were traced to a single-use disinfectant spray bottle that was being re-used and a sink where the solution had been mixed.

Further examination and scientific research should be undertaken regarding the specific body-piercing instrumentation of spring-loaded piercing guns, especially in relation to upper-ear cartilage piercings. No accurate documentation of complications has been undertaken to characterize the far-reaching effects of this equipment. Meanwhile, the equipment has been associated with numerous reports of infections both with ear lobe and upper-ear cartilage piercings, whether the problem is the blunt trauma predisposing the surrounding pierced tissue of patrons to potential infections, the ability to properly disinfect the equipment, the poor training of shopping-mall employees in the use of the equipment, or improper use of the equipment (Armstrong & Kelly, 2001; Armstrong & Fell, 2000; Keene et. al., 2004; Long & Rickman, 1994; More, Seidel, & Bryan, 1999).

In addition, as more people have their body art for longer periods of time, more long-term effects could be noted. One example already observed is the long-term effect of tongue piercings on the gums and teeth (Smith, Wang, & Sidal, 2002). When body art patrons do encounter problems, most clients initially seek advice from the studio artist rather than from health providers, so many problems are not even known in the health community. Many medical personnel do not take the time to publish. Only a few complications (and often the unusual) are published, and publishing cycles can be slow, giving an incomplete picture.

Uniform Regulations
State lawmakers who believe that prohibiting body art, emphasizing business licensing, or pushing for limited regulations can be the way to deal with this phenomenon are being extremely unrealistic. They are denying their citizens quality protection by not proposing a more comprehensive regulatory approach. In Northern Texas and Central Arkansas, tattoo studio artists are extremely pleased that Oklahoma continues to prohibit tattooing—it keeps their business brisk. Oklahoma also
has a large body art equipment business in the state. While wishful thinking might hope that body art will go away, the opposite has occurred in the last 20 years, as seen by the sheer number of studios and body art, and the development of further instances of creativity such as branding, scarification, implants, and tongue splitting. Next could be a recent Netherlands trend of implanting tiny pieces of jewelry in the mucous membrane of an eye, a style called “JewelEye” (Reuters, 2004).

Enforcement
While having state regulations is important, the key element is the enforcement of the legislative mandates. Often, the amount of enforcement depends not on the quality of the regulations, but on the human, time, and financial resources of the departments and on the commitment of individuals to making the body art industry safe (Armstrong & Kelly, 2001). For example, in Texas, when the body-piercing regulations were passed, no moneys were appropriated for carrying out any surveillance of the studios. Moneys had to be redirected from tattooing surveillance if there were problems. This statute has since been corrected, but few inspections in body-piercing studios were carried out during that time, even though regulations were in place and complaints were being received.

Unannounced, periodic visits to body art studios would be ideal; unfortunately most states still respond only reactively, to complaints. Interagency cooperation (health departments cooperating with police departments) is also important, as well as the types of infractions for which the regulations provide. Police do not want to waste their time, so “with stiffer penalties with violations, they are more cooperative to assist during enforcement” (Armstrong & Kelly, 2001, p. 15).

Conclusion
This report has provided some history, as well as a current overview, of state regulations for tattooing, body piercing, branding, and cosmetic tattooing. Overall, many states have taken a proactive stance, but more work is needed. The NEHA model code and guidelines (Body Art Model Code Committee, 1999) should continue to be an excellent example for states and local jurisdictions that need to review effective guidelines for both tattooing and body piercing. Environmental health personnel can play an important, proactive educative role in obtaining more legislation based on effective rationale for client safety; body art, in its many forms, is not likely to go away for a long time.

Acknowledgements: The author acknowledges the special assistance of Abbie Cox, B.A., as well as partial funding of this work by the Texas Tech University Health Sciences Center School of Nursing Research and Practice Committee.

Corresponding Author: Myrna L. Armstrong, Professor and RN-BSN Coordinator, School of Nursing, Texas Tech University Health Sciences Center, TTU-Highland Lakes, Marble Falls, TX 78654. E-mail: myrna.armstrong@ttuhsc.edu.

Copyright © 2005, National Environmental Health Association (www.neha.org)

REFERENCES


