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Abstract

Using the major format identified for successful prevention and intervention work, five “W” questions: what, why, whom, where, and who, plus one: how, this article first summarizes the current body art literature. Then, educational strategies specifically regarding the topic of tattoos and body piercing are presented for school nurses. These strategies can be used to create applicable, realistic information for young students before they are faced with decisions related to body art. The school nurse might be the first and only credible source of information the students receive related to body art in an education/health environment. Curriculum emphasis is on the decision making leading up to the action, and the major purposes, rather than on the markings or jewelry associated with procurement. Reducing decisional conflict while promoting positive development in the areas of empowerment, self-esteem, and maturing can help achieve stronger informed decision making.

Keywords

tattoos, body piercing, early education, elementary, middle school, adolescence education

Almost 20 years ago, a series of research articles published in this journal discussed the phenomenon of adolescent tattooing and/or body piercing, collectively known as body art (Armstrong, Ekmark & Brooks, 1995; Armstrong & McConnell, 1994a, 1994b). Three years later, Another study and sample 3 years later (Armstrong & Pace-Murphy, 1997) confirmed the findings about adolescent body art. Yet, the authors believe very few ever felt that the presence of body art would remain as strong and prevalent today, now found as a national mainstream activity within our culture, not just for the outliers (Tate & Shelton, 2008). Based on the author team’s sustained record of body art research and school nursing, the twofold purpose of this article is to first summarize the current body art literature. Second, this article emphasizes the importance of early education and reduction of decisional conflict by providing targeted suggestions specifically for the topics of tattoos and body piercing as school nurses construct applicable realistic information that promotes informed decision making. The five “W” questions, what, why, whom, where, and who, plus one, how format, identified as major criteria for successful prevention and interventions studies, are used to present the information (Wallace & Rogers, 2010; Yirmiya, 2010).

Why: Prevalence

With the limited study access to school-age children today, there is virtually no body art prevalence data from elementary

and middle, or even high, school students in the United States. Yet, the readers of this journal who assess skin certainly know it exists. In 1997, one cross-sectional high school sample from eight states cited a 10% rate of tattooing and over half of the students (55%) expressed an interest in getting a tattoo (Armstrong & Pace-Murphy, 1997); one subject reported creating his first tattoo at 8 years of age. Currently, there are over 1,370 licensed tattoo studios just for the state of Texas (Keith Waterman, personal communication, January 2, 2013). The most consistent and clearest contemporary picture of those in the United States with body art is among 18- to 25-year-olds; the presence of tattoos ranges from 20% to 25% and for body piercing it is 33% to 50% (Armstrong, Koch, Saunders, Roberts, & Owen, 2007). Males and females equally obtain body art. The present day statistics continue to be confirmed

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by national polls (Corporate Communication: Harris interactive, 2012; Pew Research Center The Databank, 2010).

What: The Nature of Body Art

Purpose

Historically, regardless of the type, body art has often been viewed as risqué and carefree behavior by the potential wearer (Armstrong, 1991; Armstrong & McConnell, 1994b; Armstrong et al., 2007). Body piercing is considered a simplistic form of body art as the piercing tract is quickly created and no body location has escaped. The jewelry can be removed at any time, and the site closes, often without a hint of the previous puncture or even residual scar tissue (Armstrong et al., 2007; Koch, Roberts, Armstrong, & Owen, 2010). Tattooing takes more commitment in terms of procedural time and pain as well as permanency (Koch et al., 2010; Tiggemann & Hopkins, 2011). Yet, over two decades of evidence-based research associated with both tattooing and body piercing repeatedly cites the major purposes for body art procurement are more than the design or jewelry; the essence is in individuality and identity, followed closely by an affirmation for group affiliation and religion (Armstrong et al., 2007; Koch et al., 2010; Miller & Fitzpatrick, 2010). Skin markings and/or jewelry ornaments provide a way to emphasize their perceived distinctive outward appearance, while reflecting inner feelings. In other words, tattoos and body piercing are visible emotional expressions. Subject participants have told us many times that body art helps them feel special and unique (Armstrong, 1991; Armstrong et al., 2007; Koch et al., 2010; Miller & Fitzpatrick, 2010).

Risks

Body art participants readily admit to being risk takers. While risk taking is a normative developmental phase of elementary and middle school students, findings of both physical and psychosocial concerns have surfaced in those with body art. First is the presence of mostly localized infections that can occur due to poor procedural or the lack of skin care (Armstrong et al., 2007). The most documented complication rates (17–25%) occur due to body piercing. A few cases of infective endocarditis (IE) after body piercing have been reported, which is thought to be caused by the normal site flora, a buildup of bacteria surrounding the jewelry, and or various organisms such as *Staphylococci* that were stimulated by the piercing, which can seed various areas of the heart (Armstrong, DeBoer, & Cetta, 2008).

Tattoos usually have more procedural responses such as allergies or sensitivities to pigments (Armstrong et al., 2007). While historically tattooing procedures and pigments have had limited surveillance from the Food and Drug Administration (FDA), recent concerns related to contaminated pigments have stimulated more momentum for considering federal regulations, especially in the manufacturing

and standardization of tattoo inks (Drage, Ecker, Orenstein, Phillips, & Edson, 2012, Kennedy et al., 2012).

Second, there are the twofold psychosocial risks, namely the negative responses body art wearers can receive from others and the higher than usual negative behaviors that those with body art report (Armstrong, Roberts, et al, 2008). Most body art research has been conducted on easily accessed college student populations (Armstrong et al., 2007; Koch et al., 2010; Miller & Fitzpatrick, 2010; Tate & Shelton, 2008; Tiggemann & Hopkins, 2011). While these findings cannot be generalized, the extensive literature and its proliferations suggest there might be application, even for elementary and middle school students. Self-esteem, depression, suicide, abuse, alcohol, sexual activity, drugs, and eating disorders have been investigated in those with and without body art. Koch, Roberts, Armstrong, and Owen (2010) recently quantified the amount of tattoos and body piercings in a convenience sample of almost 2,000 college students from four different universities and found statistically significant differences in those with small and escalating amounts of body art. Well-being, similar to those with no body art, was present in those with one tattoo and less than four piercings, whereas those with four or more tattoos and or seven or more piercings described higher risk behaviors.

Removal

While piercing removal is usually a simple task, erasing tattoos continues to be more challenging. In earlier studies, 10–20% report dissatisfaction with their tattoos, yet less than 7% usually sought removal (Armstrong, Stuppy, Gabriel, & Anderson, 1996; Armstrong, Roberts, et al., 2008). Today, improved accessibility to removal services, refinement of laser technology, experimentation of single removal sessions featuring multiple treatments, and deescalating procedural costs are increasing the amount of tattoo removals. Yet it is interesting that accessibility to removal can also stimulate more body art procurement as it moves the permanency of tattoos to a belief that if one does not like it, he or she can always have it removed.

In a recent Harris poll, 86% of respondents say they have never regretted getting their tattoo (Corporate Communication, 2012). Findings from the few studies examining motivation for removal cite the major reasons for regret as impulsive decision making, maturity, employment, and change in life factors (Armstrong et al., 1996; Armstrong, Roberts, et al., 2008). These data also reveal that removal can reflect more than just pigment elimination. For example, those who do not like their tattoo location or feel they have a poorly executed design may still adhere to the major body art purpose of individuality and self-identity. While individuals may seek tattoo removal, later they pursue further tattoo procurement because the poor design/site was the concern they wanted to remove; they still enjoy the major

purposes or personal benefits of having the tattoo (Armstrong et al., 1996; Armstrong, Roberts, et al., 2008).

Whom: Elementary and Middle School Children and Their Decision Making

Children and adolescents can exhibit immature coping responses and associated risky, impulsive decision making, so helping them delay their own immediate pleasures to make real-world decisions about their ongoing care is important. These decisions rarely stand alone, are often dependant on previous thoughts and activities, seem to impact their lives more with age, and are often linked to self-perceived future aspirations (Worthy, Gorlick, Pacheco, Schnyer, & Maddox, 2011). Paulson, Platt, Huettel, and Brannon (2011) believe that these risky behaviors could be part of seeking new sensations or even a tendency to consider many different types of new adult opportunities or experimentation, rather than just narrowing it down to only deviant behavior. Thus, school nurses continue to have an important role in helping students make life decisions, healthy choices, and seeking applicable, encouraging health holistic perspectives (Armstrong & McConnell, 1994a).

When: As Early as Possible

Certainly there is awareness of the time constraints on school nurses for all levels of students and the multitude of topics needing health education, along with all of the other responsibilities. However, school nurses can incorporate information about body art in other important health presentations such as when speaking about the standard health curriculum content within blood-borne pathogens or infectious diseases. This might be the first and only credible information students receive related to tattoos and body piercing in an education/health environment. Rest assured, information from the school nurse about the topic of body art is not the first exposure, thoughts, or sights students have had, as it is everywhere, already! Tattoo designs can be obtained from the student's favorite clothes, of actors/actresses, sport figures, and even their parents; they observe the tattoo designs adorning their toys, dolls, school supplies, bicycles, and even their cell phones. Body art can be obtained from friends or from studio artists in school neighborhoods, from their home, from a mobile van, from flea markets, or even during professional hockey games (McCarthy, 2011). Internet sites are extremely graphic, demonstrating the basic and latest procedures as well as the trendy creative designs and skin ornaments.

Starting interventional conversations about body art with young students removes some of the mysticism of the topic. Without any intervention, the student's body art interest/desire could be growing. Several of Bandura's (1993) studies have noted the relationship between the amount of personal interest and the increased tendency to action; in other words, strong interest in body art could produce tendencies for procurement. Kelo, Martikainen, and Erickson

(2011), in an integrative review of 22 studies of self-care enhancement in school-aged children with diabetes, documented the empowering role of education by school nurses along with parental support, school environment, peers, and the health care team. When Cegolon, Xodo, Mastrangelo, and others (2010) queried Italian adolescents, they found the students who expressed indifference or no interest in obtaining body art had a higher knowledge of body art and its associated risks. Whereas in another study the students were extremely interested and sought out body art but could not find a studio artist to do the procedure, and so they applied their own tattoo or self-inflicted body piercings or found a friend to perform these functions, regardless of the risks, regulations, parental concern, or cost (Armstrong & McConnell, 1994b; Armstrong et al., 2008). Could the key element be the amount of body art education that lowered the interest? Hopefully awareness information about tattoos and body piercing could be implemented as soon as after the first grade, with open and specific discussions each progressive school year before these young students are faced with decisions related to body art. This early educational information could be assistive with their decisional interest and or conflict that tends to surface when the student is introduced, and/or notices, body art on their athletes, musicians, parents, and heroes, without any apparent negative consequences and wants to emulate them (Miller & Fitzpatrick, 2010). When the educator postpones the opportunity, or waits until they are older, in the intervening time students would have already explored the topic, observed their role models with tattoos, absorbed their identity self-talk, and be closer to procurement.

How: Educational Strategies and Specific Content

Personally there could be reluctance to talk about body art or a belief that the discussion will give them more ideas to procure body art rather than help them with better decision making (Armstrong et al., 2008). Effective educational information increases health knowledge as well as pique attitudes toward healthier behavior, whether realistically the student's decision is dissuasion, postponement, or information to decrease their procurement risks (Armstrong et al., 1995). School nurses need to be proactive and avoid waiting for students to start the conversation so that a strong message can be sent to them that school nurses are knowledgeable and willing to talk about the subject. School nurses are to speak in terms the students will understand. The addition of a few statements about body art on a general health assessment questionnaire provides an opening to which students see the school nurse as an accepting and valid source of information with realistic solutions.

To achieve behavior change, avoid education that raises fear or frightens the student (Armstrong & McConnell, 1994a, 1994b; Armstrong et al., 2008; Wight & Abraham,

2000). Consistent health promotion messages support positive development rather than instruction that focuses on risks and or complications (Apsler, Formica, Fraster, & McMahon, 2006). This is an important concept hopefully threaded throughout any information about body art as the topic evokes many subjective thoughts. Family Physician Editor Susman (2007) reminds us that body art is only present on the skin's surface, yet our negative characteristics about people with body art can stimulate stereotypical remarks that are much more internally damaging. Awareness of judgmental language, such as neutral phrasing, tone, and body language when asking or answering questions, is important. These concerns may especially surface upon being surprised or even disgusted by what students are expressing.

One strategy may be to integrate self-assessment body art quizzes into health lessons or to develop a few questions related to body art for the standard question box that offers anonymity at the end of sensitive health topic presentations. Asking about the student's interest in body art would be one important question to query. These questions in the form of small quizzes become stimulants for student's safe discussion, a way to preassess what is known, what are misperceptions, what has been observed, and a means to promote an effective group interaction tool. The questions direct the conversation, while also becoming a vehicle for presenting healthful and correct dialogue about the topic. Student responses on body art can also be incorporated into parental and staff presentations, within a variety of topics.

Other strategies include using posters in the clinic to stimulate conversations with waiting students. Many sports and media celebrities promote healthy lifestyles related to nutrition and activity but choices related to body art may send contradictory messages to students. Additionally, the school nurse is often dependent upon other staff members to observe and refer students. Art teachers may observe students creating tattoo designs in projects or even drawing on their body. Physical education/health teachers and coaches may observe new tattoos and piercings—all could provide opportunities for brief classroom presentations that would enhance group interaction, promote questions, and assist in the sharing of credible resources for information.

Displacement for the Body Art Motive

When body art is discussed provide it factually, to the point, and believable, then move on to the emphasis of your information, that is on empowerment and self-esteem; content that will be more important to help students respect themselves as they have more confidence about their self-worth and health decisions (Vanston & Scott, 2008). As a health class project, the school nurse could work with the students to help them develop their own decision-making examples that could be applied to many situations, including body art. Students could test their decision examples using a variety of scenarios, from risky behavior to healthy choices.

Emphasize How They Will Change

Students at any age need encouragement to understand that as they continue to grow and experience different life situations, they will change physically and psychosocially; this will produce different perspectives, and hopefully, with further dialogue and continued healthy decisions (Armstrong et al., 1995). For example, emphasizing the school nurse's decision not to obtain body art rather than voicing the thought of regret as one gets older. Many students cannot fathom or project what they will be like in the future. It is the older person speaking with experience and they do not have that yet. Thus, developing positive student decision making means promoting many different ideas and thoughts to assist the students believe they have control over their lives (Apsler et al., 2006). Some age-appropriate strategies could be included such as applying some of the developmental tasks of childhood and adolescence to body art situations.

Uniqueness

When students do not feel confident and self-worth, they look at others and think they are different from their peers. There can be a heightened, perhaps even an unhealthy, sensitivity to the way they think others view them, and this can produce stigmatization or negative effects in their social, affective, and cognitive worlds. When their egocentrism becomes fully focused on their immediate needs and desires; they tend to redirect or displace their self-concerns and begin to search for something that will create more personal distinctiveness or uniqueness. From the students' perspective, this feeling of displaying something unique to them is seen as positive, which is achieving their need to be different, when they compare themselves to other people. Tiggemann and Hopkins (2011) conducted two studies documenting tattooing as providing those with body art a means to achieve self-distinctiveness, again validating that having body art is more than just about skin markings or body jewelry. Thus, educational objectives need to displace this motivation to obtain body art, that they believe will help them attain self-differentness. Other suggestions on how this distinctiveness can be achieved is with art, literature, including poetry, or writing music, athletics, and interests/clubs/leadership opportunities. This is where the school nurse works with the campus team as individual teachers can identify the student's strengths, whether it be academic, creative, or extracurricular activities, which can be enhanced and emphasized. It provides opportunities within the campus life for the student to practice and showcase his or her strengths, talents, and interest in a safe environment.

Include the Parents

Providing early body art information for the students is important and so are separate parental sessions. The father's influence, especially in relation to educational achievement,

became a significant factor in those Italian adolescents that reported body art indifference or noninterest (Cegolon et al., 2010). Channeling and directing parental emotional awareness and concerns into effective and applicable sound bites assist the parent–child communication at home. Parents can then continue to emphasize, and even more specifically amplify, the major intervention points the school nurses provided in their educational sessions, to their children. Havighurst, Wilson, Harley, Prior, and Kehoe (2010) (as cited in Yirmiya, 2010) used a multiweek parental intervention program called *Tuning in to Kids* to provide early health information related to specific concerns; one of these sessions could be body art.

Many district health service departments have webpages within their websites that provide health education information and credible resources. Just as some sites have information about immunizations, communicable diseases, puberty, and bullying, webpages could be created to address the developmental aspects of healthful decision making and body art issues.

With the older students, perhaps parents would consider designing a body art field experience. The exposure should be enlightening for the parent as well as the student, with many possible teachable moments during that visit. First, suggest parents seek out a body art studio and talk to the proprietor/artist before taking their son or daughter to the establishment. One should also choose a time when the artist would be free to talk with the student and the establishment is not crowded with other patrons who might influence the student in ways the parent might not find acceptable. The parent would also need to ensure the business has met all the health codes of the city and follows best practices related to body art procedures.

Having just advocated for parental information, recent body art studies also document the student influence of strong peer support for tattoos and body piercing from friends, with or without body art, as compared to parental influence (Armstrong et al., 2007; Koch et al., 2010). As a point of clarification, this support is not peer pressure to obtain one but support in the form of affirmation and attention after the student procures the body art. This may be because parents are reluctant to openly talk about the topic as compared to the frequent conversations they have with friends, or it could be a low-priority conversation, or one that only receives attention when there is an opportunity, incident, and situation that brings the issue into the home.

Where: Clinics, Classrooms, Parent Teacher Association

School nurses will attest that informal clinic conversations can be one of the most effective ways to provide personal health education. However, the school nurse can guide the push for effective information by working with other campus staff to create or participate in frequent

informal focus group discussions within or outside the classroom to discover students' knowledge and misperceptions regarding body art. As the attention span for younger students is short, targeted and repeated health information, especially in visual format, with different venues is important. Brochures in the clinic or counselors' waiting areas, posters providing credible Internet resources, referral sites for tattoo and body art removal, and even campus e-mails and newspapers with self-help columns can provide authoritative and nonbiased objective information for all student ages.

Strategies for Reporting Body Art Risks

If you believe that a student may have a body art–related infection obtained at the studio, the Drug Administration (FDA) recommends the following (Consumer Updates, August 24, 2012):

- 1) Have them contact their physician if the student presents with:
 - a) a possible pigment problem of red rash with swelling accompanied by itching or pain in the area within 2–3 weeks after tattooing;
 - b) or a possible IE problem of “unexplained fever, night chills, weakness, myalgia, arthralgia, lethargy, or malaise” from 2 weeks to 9 months, especially with congenital heart disease and after a body piercing (Armstrong, DeBoer, & Cetta, 2008, p. 222).
School nurse note: Be sure to follow up on referrals; most students are minors and parents must be contacted in order for the physician visit to occur. The school nurse can facilitate the conversation with the parent and should be prepared to deescalate the emotional situation, especially if the body art is a shock to the parent, while maintaining the dignity and privacy of the student.
- 2) Report the problem to the tattoo artist as well as to the local health department. Additionally, discuss with the health department who will report to the actual regulatory licensing and evaluative authority for body art studios in your location, whether it is a city, county, or state agency.
- 3) The school nurse should tell the parent and the student that the concerns will also be reported to Med Watch, on the FDA website, or at 1-800-332-1088; or contact FDA's consumer complaint coordinator in the area. Parents could be contacted by Med Watch for additional information.

Summary

School nurses are in an ideal position to assist their students to achieve better health outcomes. Designing and

implementing early appropriate educational information regarding tattooing and body piercing that targets students, staff, and parents is important. While this topic may not be rated as essential, valuable positive points found in the health curriculum have application to body art also. Promoting positive development with education on empowerment, self-worth, and self-esteem can help achieve informed body art decision making.

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