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Tattooing practices in the migrant Latino farmworker population: Risk for blood-borne disease

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Tattoos raise several medical concerns, including the potential for spreading blood-borne infection. Infection control measures typically used by professional tattooists include changing gloves between clients, hand and skin cleansing, and sterilization or single-use equipment (e.g. needles, tattoo guns, and ink supplies)¹ however, such behavior is highly operator-dependent. The lack of aseptic technique in amateur tattoos results in greater risk of exposure to blood-borne diseases, including hepatitis B, hepatitis C, HIV, syphilis, warts, tuberculosis, and others.^{1–6} While the prevalence of people with amateur tattoos is unknown, the number of virulent community-acquired pathogen outbreaks (e.g., methicillin-resistant staphylococcus infection) associated with amateur or unlicensed tattooists or to poor adherence to aseptic tattooing techniques is increasing.¹

Migrant Latino farmworkers are one group of particular concern for the spread of blood-borne infection. Farmworkers live away from their home communities and families in crowded conditions that are conducive to the spread of infectious disease.⁷ Traditional beliefs about self-medication involving reuse and sharing of injection needles adds to the potential risks of spreading contagion in this population.^{8,9} We conducted an observational analysis of migrant Latino farmworkers to assess the prevalence and type (i.e. amateur) of tattooing in this immigrant population.

During the 2005 agricultural season, 304 farmworkers residing in 45 camps in nine North Carolina counties were interviewed. A standard set of 10 digital images was made of each farmworker and reviewed by a single research assistant to assess the frequency and type of tattoos in this population. Amateur tattoos were defined by the presence of a single blue-

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black color and broad lines with indistinct borders (figure 1). Professional tattoos were identified by their use of multiple colors, fine lines and details, and sharp, distinct borders.¹⁰

In our study, participant age ranged from 18 to 45 years, years of education varied from 1 to 12. There was a broad range of Mexican state of origin (Figure 2), and the study population included individuals with and without H2A visas. Tattoos were identified in 19 (6%) of the participants. Three workers (1%) had only professional tattoos, thirteen others had only amateur tattoos (4.3%, figure 1), and three workers (1%) had both types. Farmworkers with tattoos had no distinguishing personal characteristics (Table 1). Only two farmworkers with tattoos (10.5%) spoke an indigenous language.

Discussion

Our analysis revealed that 1 in 15 migrant Latino farmworkers has a tattoo. More importantly, over 1 in 20 migrant farmworkers has an amateur tattoo, representing 84% of those with tattoos. Tattooing, especially when performed by unlicensed artists, risks spread of blood-borne infectious disease.¹ This transmission risk is complicated by the cultural practice common in Latino farmworkers of lay person medicinal injections. The associated needle sticks may result in transmission of blood-borne illnesses (i.e., HIV and hepatitis B) at relatively high rates among Latino farmworkers.^{8,9} In a study of needle sharing, many migrant farmworkers were initially found to have limited knowledge of the infectious risks related to needle sharing. However this behavior was found to be modified or completely abandoned after proper education.⁹

The common practices of amateur tattooing and other forms of lay injections in the migrant farmworker population, especially with the additional risk of needle sharing, represent a public health concern. This risk behavior can be reduced by education and is therefore a good target for mitigating transmission risks. Clinicians caring for migrant farmworkers, health educators and health outreach workers can help educate farmworkers about the dangers of this practice, with emphasis placed on the potential for the unintentional infections of spouses who remain in the community of origin. Farmworkers with amateur tattoos should be screened for infectious diseases.

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Figure 1. Amateur tattoo. Amateur tattoos are generally simple in appearance, without complex colors or design features. The lines within amateur tattoos tend to be thicker and less distinct than lines in professional tattoos.

Figure 2.

Map of Mexican States with the relative distribution of tattooed farmworkers. For two states, Zacatecas and Tlaxcala, two types of tattooing patterns exist.

Table 1

Personal Characteristics of Migrant Latino Farmworkers with Tattoos.

Type of Tattoo	Age	Years of Education	State in Mexico *	Indigenous Language	H2A Visa
Professional	19	9	Mexico	No	No
Tattoo Only	21	3	Chiapas	No	No
	21	4	Tamaulipas	No	Yes
Amateur	45	6	Nayarit	No	Yes
Tattoo Only	31	1	Durango	No	Yes
	34	6	Coahuila	No	Yes
	18	9	Puebla	No	No
	27	10	Hidalgo	No	Yes
	27	6	Michoacán	Putepecha	Yes
	27	6	Zacatecas	No	Yes
	19	6	Queretaro	No	No
	41	3	Tlaxcala	No	Yes
	30	1	Michoacán	Putepecha	Yes
	24	12	Guerrero	No	No
	37	3	Guerrero	No	No
	38	6	Nayarit	No	Yes
Professional	29	9	Tlaxcala	No	Yes
and Amateur	23	10	San Luis Potosi	No	No
Tattoos	24	9	Zacatecas	No	No

* A map of Mexican States can be found at http://www.statemuseum.arizona.edu/edu/resources/santos_diablos/_images/map_mexico.gif, accessed August 19, 2007.