



Published in final edited form as:

J Am Acad Dermatol. 2012 January ; 66(1): e13–e14. doi:10.1016/j.jaad.2010.11.038.

A Web-based Survey of Non-Medical Tattooing in the USA

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Keywords

tattoo; health behavior survey; women's health

To the Editor. In the United States, recent surveys suggest an increasing prevalence of non-medical tattooing in younger age cohorts compared to surveys performed only a few years earlier¹. Given the high use of the internet by young adults, we sought to estimate the current national prevalence of non-medical tattoos using a widely disseminated on-line health assessment system called HowsYourHealth.org² open to researchers. This system asks individuals to answer questions about their health status, symptoms, concerns, management of chronic diseases, health care experiences, and self-care. During the period from September–November, 2008 we posted two additional questions on the website for respondents aged 14–69 years: (1) Have you ever had a tattoo on any part of your body? and (2) How old were you when you had your tattoo? A total of 452 respondents from 43 states responded. Using the survey data, we examined the prevalence of being tattooed by age and gender. We then compared health, social environment, and behavioral risk factors obtained from the survey between those who reported having had tattoo and those who had not tattooed. We used logistic regression and evaluated the potential confounding effects due to other factors.

The prevalence of having a tattoo shows strikingly different age patterns. In contrast to the relative stability of adult male tattooing (i.e., among men between the ages of 18–49 years a prevalence of 18% and 50–69 years a prevalence of 16%), tattoos in women aged 18–49 years (a prevalence of 29%) appeared to be roughly 5 times higher than women aged 50 to 69 years (a prevalence of 7%) (Chi-squared $p < 0.001$). The table lists the relationships between these women's health and their social environment and behavioral risks. Of the 13 variables related to having had a tattoos among women 18–49 years of age, three were statistically significant after adjustment for level of education -- sick day, poor relationships, and smoking; these variables would remain below a p-value of 0.05 if corrected for the 13 comparisons using the Bonferroni method.

Our data are exempt from IRB review because no personal identifiable data is stored, and item completion rates are >95%, making this site a unique and inexpensive resource for

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Conflicts of Interest: None declared.

researchers. With consent, individuals could be enrolled into epidemiologic studies. A recognized limitation of web-based surveys is that they only include those using the internet, and in the present study, the website for our study. The main advantage, however, is the efficiency with which such data can be ascertained in an era of high internet use. Our survey suggests a rise in non-medical tattooing among younger women in the USA.

Acknowledgments

Funding Sources: Funding in part by P42 ES007373, P20 ES018175 and R01 CA057494 of the National Institutes of Health.

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Table I

Health, social environment, and behavioral risks related totattooing among women 18 to 49 years

	No Tattoo (n=147)	Tattoo (n=61)	Adjusted P value ^a
<i>Health</i>			
More than 1 chronic disease	20%	21%	NS
Bothersome emotional problems	13%	13%	NS
Bothersome pain	13%	20%	NS
BMI 30 or higher	20%	30%	NS
Sick day in past 30 days	19%	37%	0.004
<i>Social Environment</i>			
Concern about violence or abuse	2%	8%	NS
Poor social support	11%	20%	NS
Poor relationships- risk for domestic abuse	9%	28%	0.02
<i>Behavior</i>			
Not good general health habits	23%	41%	NS
Told to cut back alcohol	6%	18%	NS
Smoker	8%	31%	0.002
Not regular exercise	61%	72%	NS
Not confident in illness self-management	48%	65%	NS

^aBased on logistic regression adjusted for level of education.