

Pilot study for understanding the present situation of decorative tattoos

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Background

Tattoos are classified as traumatic tattoos, decorative tattoos, permanent make up, and medical tattoos. Currently the tattooing is considered a medical practice in Korea. Thus, it is illegal for anyone other than medical practitioners to tattoo others. However, tattooists rather than medical doctors perform most decorative tattoos. Therefore, requirements for establishing tattooist licence regulations have been consecutive since 2007.

Objective

We performed a pilot study. This study aimed to develop a research plan to assess the actual condition of decorative tattoos. The pilot study consisted of three parts: a structured literature review investigating adverse events, a review of tattoo regulations/legislation in foreign countries, and a survey of tattooists.

Methods

We used a structured strategy to perform a literature review. Specifically, three domestic and seven international databases were selected for inclusion in the literature search. Additionally, tattoo-related regulations/legislation in the United States, France, Japan, Taiwan and the Philippines were reviewed. Based on interviews with tattooists, a survey questionnaire was developed. Subsequently, an anonymous web-based survey was conducted.

□ Results

- Tattoo-related adverse events involved redness/pain, infection, immune-related diseases, and neoplasm.
- Tattoo regulations included conducting tattooist/tattoo parlor, hygiene, tattooing minors, and tattoo ink.
- License regulation establishment, safety regulation establishment, and sanitary education are needed.

I. Structured review of tattoo-related adverse events

The Literature search was primarily conducted utilizing Ovid MEDLINE, Ovid EMBASE, and PubMed. Domestic databases (KoreaMed, KISS, RISS, Kmbase, Korean National Assembly Library, KISTI, and the National Library of Korea) were also used. A total of 77 studies were included (60 international studies, 17 domestic studies). Adverse events were categorized into redness/pain/infections/immune diseases/neoplasms/other. Infections were divided into acute and chronic infections (e.g., hepatitis type B, human immune virus, syphilis). Immune diseases consisted of pseudolymphoma, sarcoidosis, and granuloma. Neoplasms included events such as melanoma, squamous cell carcinoma, and basal cell carcinoma. Interactions with magnetic resonance imaging (MRI) were also reported.

In most studies, the causes of adverse events were not clarified. The suspected reasons included tattoo ink contaminated with bacteria, heavy metals in tattoo ink, needle reuse, poor sanitation, and poor practitioner training.

II. Review of tattoo regulations/legislation

We reviewed the tattoo regulations/legislation in the United States, France, Japan, Taiwan, and the Philippines. The reviewed tattoo regulations/legislation contained the following: conducting tattooist/tattoo parlor, hygiene, tattooing minors, and tattoo ink. In the United States, no tattoo ink pigments have been approved by the FDA (Food and Drug Administration). Other tattoo regulations/legislation were state codes. On

February 20, 2008, the Committee of Ministers at the Council of Europe adopted a negative list of tattoo ink ingredients (Resolution ResAP(2008)1). As result of this resolution, many European countries considered developing tattoo-ink regulations. In France, tattoo regulations were established in 2008, including tattooist/tattoo parlor regulations, hygiene regulations, prohibition of tattooing minors, and tattoo ink regulations. There were no tattoo regulations/legislation in Japan and Taiwan. Tattooing was also considered a medical practice in Japan. In the case of Taiwan, tattooing was a gray area and was deemed to a service contract. Tattooing minors was illegal because they are not perceived as capable of making legal decisions. However, the health department of the city government provided health and safety education. In the Philippines, established tattoo regulations included tattooist/tattoo parlor regulations, hygiene regulations, and prohibiting tattooing minors. Additionally, the law restricted pregnant women and others who are not allowed to get a tattoo.

III. Tattooist survey

We performed an anonymous web-based survey for tattooists from August 8 to August 17, 2014, in cooperation with the Korea Tattoo Artists Association (KTAA) and the Korea Tattoo Association (KTA). The questionnaire domains consisted of areas such as motivations to learn how to tattoo, contents of the training course, and conditions of the tattoo business. etc. A total of 1,004 tattooists participated in the survey and data from 537 tattooists were analyzed who completed the questionnaire.

A large number of respondents replied the motivation to learn how to tattoo was sparked by artistic interest (67.4%). Most tattooists learned to practice tattooing from domestic tattooists (71.0%), and through self-education (15.1%). The major sanitary problem was the general disposal of single use waste (47.9%). Respondents also indicated that the requirements for a safer tattoo practice were establishment of a tattoo license regulation (33.0%), safety regulation establishment (27.2%), and sanitary education (14.9%).

□ Conclusions

The practice of tattooing is invasive, and involves penetrating the skin and injecting ink pigment. Therefore, there is a possibility of adverse events. Many countries have tattoo regulations/legislation related to practicing tattooing. The regulations/ legislation consists of conducting tattooist/tattoo parlor, proper hygiene, prohibiting tattoos for minors, and contents of tattoo ink.

Key words

tattoo, tattooist, adverse event, regulation, legislation, survey