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# **REVIEW ARTICLE**

## SIGNIFICANCE OF TATTOO MARKS IN FORENSIC PSYCHOLOGY: A REVIEW

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#### ABSTRACT

Tattoos as a form of non verbal expression have gone mainstream from a stigma or taboo during last few decades. Once used only by sailors and prostitutes, now a day you can see tattoos on any person regardless of age, sex, race, occupation and geography. Reasons for getting tattoos can be: attention, self-expression, artistic freedom, rebellion, a visual display of a personal narrative, reminders of spiritual/cultural traditions, sexual motivation, addiction, identification with a group or even drunken impulsiveness. However tattooing has become common but it has always been a bit controversial because of association of tattooing with so called deviant minds. The objective of this review of literature is to get an insight into the world of tattoos and to look for association between the tattoos and the psychology of the bearer in forensic scenario.

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#### INTRODUCTION

A tattoo is a non verbal form of expression that has been in use since antiquity, the oldest preserved evidence dating back to 6000 BC. But tattoos were absent from the European culture for more than a millennium unless their reentry in Europe from Polynesian countries by Thomas Cook and his fellow sailors in late eighteenth century. The word 'tattoo' is a modification of Polynesian word 'tattaw or tatau' which means 'to mark'. The ultimate purpose of tattooing has always been identification. Undoubtedly, tattoos function to draw distinctions between people who have them and those who do not and thus can be seen as physical markers indicating belonging to or separation from certain social or cultural groups.

In modern society tattoo has some additional meanings. For example, tattoos may express individualism, defiance, affection, risk-taking, alliance, sexual preference, beauty, fantasies, freedom, etc. It wasn't long when tattooing was associated with sailors, prostitutes, slaves and lower class labourers. However during the last three decades the tattooing has undergone dramatic redefinition and has shifted from a form of deviance or stigma to an acceptable form of expression. The idea of popularity of tattooing in current generation can be assessed by the fact that 10% percent to 16% of adolescents age 12 to 18 and 3% to 9% percent of the general population in US are reported to have permanent tattoos.

Though the popularity of tattooing for body modification has increased, the psychosocial data about tattooing behaviour are few and controversial. However the studies are limited but almost all of them are of view that there might be a possible

relationship between the tattooing and high risk behaviours which very often lead to criminal behaviours. In fact the tattoos are classified as 'criminal tattoos' and 'non criminal tattoos' based on the content of the tattoo if it reflects some conflict with law or not respectively. These behavioural correlates of tattooing have led to a suggestion by some physicians that finding a tattoo during physical examination should alert to the possibility of an underlying wide range of psychopathological conditions.

## Review of Literature

In 1955, Ferguson-Rayport and colleagues proposed that the subject of the tattoo has a special, personal meaning to the bearer. Extending this idea, they suggested that the tattoo's content has diagnostic significance for particular psychiatric conditions. For example, in their analysis, a tattoo with tumbling dice or a deck of cards signifies "fate"--a tattoo subject commonly displayed by "psychopathic deviants." The authors described other tattoos as schizophrenic in content. If their theory were correct, a diagnosis could be achieved easily by categorizing the tattoo.

A study by Farrow *et al.* (1991), which included adolescents from a substance abuse treatment center and a detention center, found that tattooing was associated with drug abuse. In adult male inmates, drug and alcohol misuse was found to be associated with the presence of visible tattoos (Birmingham *et al.* 1999).

Sergei Vasiliev (1993) and Russia's iconic tattoo icono grapher Arkady Bronnikov photographed & studied the tattoos of inmates from various Russian prisons and reported that these tattoos had very little to do with aesthetics rather these tattoos were used as a very highly coded form of

communication, where every drawing had a specific meaning hinting at the past criminal activities. They regularly helped solve criminal cases across Russia by using their collection of tattoos to identify culprits and corpses.

Drews et al. (2000) and Antoszewski et al. (2010) found that tattooed subjects rated themselves as more adventurous, creative, artistic, individualistic, attractive and risk-takers than those without tattoos. Tattooing was also found to be associated with a wide range of impulsivity-related behaviours such as: violence, weekly alcohol consumption, illicit drug use, dropping out of school, greater numbers of lifetime sexual partners, unprotected sex, suicidal attempts, deaths by homicide and shoplifting.

A study by Braithwaite *et al.* (2001) reported that alcohol, marijuana, antidepressants and sedatives were significant correlates of having tattoos in adolescent detainees. Marijuana and alcohol being reported in 62% and 54% tattooed detainees respectively.

Sexual intercourse and gang membership among young adolescents had the strongest relationships with tattooing. Tattooed adolescents were 4 times more likely to have ever had sexual intercourse and almost thrice more likely to have been initiated into a named gang in the last year compared with adolescents without tattoos (Timothy A. Roberts and Sheryl A. Ryan, 2005). Interpersonal violence and school failures are commonly associated with tattooed subjects as compared to their non tattooed peers.

Borokhov *et al.* (2006) studied tattooed male subjects with history of substance abuse to explore the possible relationship between tattoo design & locations and the abused drug. Their findings show that there are tattoos related to drug use and that some of them have standard locations. For example, tattoos on the cubital fold may have multiple functional purposes: on the one hand indicating the spot where injections may easily be made, and on the other hand masking Scartissue and sclerosed veins.

They found that certain images (poppies, spiders, syringes) have close relationships with specific drugs and the ways in which they are used. Some researchers reported that some tattoos (such as "spiders," "syringes" and "images of death") and their location (fingers and antecubital area) indicate that its owner belongs to a certain group, that he prefers a specific drug and/or a specific method of drug use; the desirable or expected drug effects may also be indicated. For example, a signet ring with spider or the number "13" indicates that the subject prefers cannabinoids.

Based on these associations of tattoo designs with drugs they divided the tattoo images into criminal, non-criminal or combined tattoos. Criminal tattoos are defined as those images which reflected conflict with the law (criminal violations, number of years served in prison), using covert or obvious symbols, and/or demonstrated rank in a criminal hierarchy.

These images are drawn on the skin either voluntarily or forcibly. Non-criminal tattoos are characterized by absence of content regarding conflict with the law and reflect the individual worldview of the subject; they have usually been voluntarily acquired. Combined tattoos include images from both of the above groups.

Cardasis *et al.*, (2008) explored the relationship between tattoos and the Antisocial Personality Disorder (ASPD) in forensic psychiatric patients. They found that significantly more forensic psychiatric inpatients with tattoos had ASPD than inpatients without tattoos. Conversely, subjects with ASPD also had higher number of tattoos, covering greater percent of body surface area and having more visible locations of the tattoos. In addition tattooed subjects with or without ASPD were significantly more likely to have histories of substance abuse, sexual abuse and suicide attempts. These findings are consistent with few existing

studies examining tattoos and personality disorders in psychiatric and prison populations by Buhrich & Morris, (1982); Gittleson *et al.* (1969); Manuel & Retzlaff (2002).

Koch (2010) reported that more heavily tattooed people are more deviant than the people who are less tattooed or not tattooed. Results of the study indicate that respondents with four or more tattoos, were substantially and significantly more likely to report regular marijuana use, occasional use of other drugs, and a history of being arrested for a crime. Less pronounced, but still significant in many cases, was an increased propensity for those with higher incidence of body art to cheat on college work, binge drink and report having had multiple sex partners over the course of their lifetime.

Kertzman *et al.* (2013) studied the Interactions between risky decisions, impulsiveness and smoking in young tattooed women and found that tattooed women showed significantly higher scores in both risk taking and high impulsivity test as compared to non-tattooed women. A significantly higher rate of smoking was observed in the tattooed women.

Bhargava and Singh (2016) explored the relationship between tattoo designs and type of drug abused among drug addicts. This study suggested that a certain type of tattoo designs can be linked to the category of drugs. The tattoo design might be a symbolic interpretation of the effects of the drug.

## **CONCLUSION**

Up until a few years ago tattoos were studied for their historical and cultural aspects and to some extant for the medical complications arising after getting a tattoo. But during the recent years tattoos and tattooed persons are being studied and assessed for psychoanalysis in forensic backdrop. As per literature survey, the permanent tattoos are strongly associated with high-risk behaviours such as substance abuse, violent nature, sexual abuse and anti-social personality disorders.

Although a single tattoo may be no more than body ornamentation, with little psychopathologic significance, it may also be an indication of underlying psychiatric problems. Given these strong links between tattooing and high risk behaviours, the tattooing can serve as a useful, easily visible and clinical marker that may identify people who are at a higher risk for engaging in illegal deeds. That is why; the presence of a tattoo noted during any sort of examination of associated persons should prompt an in-depth assessment by a psychiatrist or forensic psychologist.

## Conflict of Interest

No conflict of interest exists.

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