

# Tattoos as a Window to the Mind: Is the “Body Graffiti” Skin Deep or Deeper?

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**ABSTRACT:** *Tattoos and other forms of body modification have been practiced by mankind for thousands of years. The last 100 years or so, have witnessed a substantial rise in the prevalence of these phenomena. They served different purposes throughout our history, and society’s reaction to them have also changed from experimenting, banning and stigmatizing to acceptance and tolerance. Tattoos were employed to deter evil spirits, to identify tribe members and identify royalty. Their status descended to low levels of becoming a tool to mark slaves, prisoners and criminals. In modern society they became glorified at times or not so glamorous when they cause some serious medical complications. Psychiatrists and psychologists and allied professionals grasped the opportunity of this change and launched their investigative instincts to try and understand the motivation behind them. They are also trying to see if they can establish a link between these phenomena and psychological disorders especially that they easily lend themselves to this enterprise. So far some findings e.g. alcohol & substance use disorders, impulsivity, risk-taking behavior, self-harm and personality disorders, association with deviance and criminality are increasingly being accepted as reasons for further study.*

**KEYWORDS:** *Tattoos, Body Modification, Criminality, Alcohol & Substance Use Disorders*

## INTRODUCTION

A tattoo is defined as a form of body modification where a design is made by inserting ink, dyes and pigments, either indelible or temporary, into the dermis layer of the skin to change the pigment. A permanent tattoo is created by inserting a pigment just below the dermal–epidermal junction of the skin with a needle or a similar implement. The pigment is attacked by the immune system and sits in macrophages and fibroblast cells, producing permanent coloration of the skin. (Vivek, Verghese, & Harvey, 2010).

There is a consensus that the word tattoo originated from the Polynesian word “*tatua*” meaning artistic (Ferguson-Rayport, Griffith, & Straus, 1955) although other references quote the meaning as “to write”. The first use of the word is attributed to Captain Cook, the British explorer and cartographer, and his men, when they first visited the Hawaiian Islands and Eastern Australia and encountered and became fascinated by locals who wore tattoos and had some on themselves (1768-1780). But mankind has practiced tattooing for thousands of years before that encounter and the following is a timeline of the often quoted dates in scientific literature:

- 12 000 BC. Among early nomadic tribes. (Palermo, 2004).
- 6000 BC. Evidence of the practice found in caves in Portugal and France. (Levy, Sewell, & Goldstein, 1979).

- 3,250 BC. Two oldest known tattooed mummies, found embedded in glacial ice in the Alps. (Deter-Wolf, Robitaille, Krutak, & Galliot, 2016).
- 2000 BC. Egyptian Middle Kingdom (Malloy, 1989).
- 1100 A. D. South American Incan civilization. (Ferguson-Rayport, Griffith, & Straus, 1955).
- 250–1000 AD. Mayan civilization (Vale, 1989).

The earliest attempt to classify tattoos can be found in an attempt by Ferguson-Rayport, where 7 groups were identified:

- Identification tattoos (service emblems; personal information; key life events).
- Love tattoos (Idealized, sentimental or maternal love; pornographic images).
- Bombastic and pseudo-heroic tattoos (Skull and crossbones, ‘Death before Dishonour’, powerful animals).
- Inveighing fate (e.g. Horseshoe with ‘Good Luck’).
- Religious and commemorative.
- Private symbols (Of significance only to the individual).
- Miscellaneous (Animals, birds, flowers. (Ferguson-Rayport, Griffith, & Straus, 1955).

More recently, The American Academy of Dermatology distinguishes five types of tattoos:

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- Traumatic tattoos, resulting from injuries;
- Amateur tattoos;
- Professional tattoos, with two subtypes cultural and modern.
- Cosmetic tattoos: these can be used to replace a nipple after breast surgery, for example, or camouflage skin conditions like vitiligo, or to cover an undesired tattoo.
- Medical tattoos: commonly used to delineate permanent landmarks for radiation therapy and is placed by a physician. (Cronin, Jr, 2001).

It is worth differentiating between tattoos, mentioned above and two other body modifications types, namely body piercing and scarification. Body piercing, where usually jewelry is worn through the skin, commonly involves the ears and navel but can also be on the eye brows, nipples, lips, tongue and genitals. Scarification on the other hand, involves designs placed on the skin by permanent scars. These can be made by burning or cutting the skin, or inserting inert material under the skin for example for sexual enhancement. (Cronin, Jr, 2001).

### Motivations for Body Modification by Tattoos

The motivation for acquiring a tattoo could have tracked *Homo sapiens* evolution from hunter-gatherer, forager, and farmer to the present day humans, to meet the need of each stage. So as we evolved we could have used tattoos as a mark of identity or belonging to a group and the tattooed marks, such as animals, snakes, birds, were usually totemic in nature (Palermo, 2004). One has to wonder if the high prevalence among criminal gangs in prison populations is a mark of a retreat to an earlier evolutionary stage. Tattoos were used as a social status statement and a sign of royalty. Along the way they were used as a sign of beauty, an alarm to turn away invaders, an initiation rite and a rite of passage, a kind of conversion experience, a mark of independence from parents and conformity.

They could have been very useful during religious ceremonies, practicing magic and for the superstitious man. Some insightful analysis suggest they are used as means of non-verbal communication and a window to the inner world. Skin is a media for communicating with the outside world. It defines self-territory and its modification is a statement to others. In the same line of thought it could be an exoskeletal defense and a defense mechanism against negative emotions.

An often quoted reason in females, is the use of tattoos to enhance the feminine image, a fashion statement, or intended as social resistance. (Atkinson, 2002). In the former case, the tattoos were generally subtle and hidden, whereas they were generally bold and on exposed parts of the body in the latter. Association with sexual immaturity, rebellion problems with identity and need to assert independence.

One possible explanation for a teenager's decision to get tattoos is explained by the psychological terms 'individuation' and 'identity formation', which is referred to as 'identity versus role confusion' by Erik Erikson. Finally, emotional processing deficits, such as Facial Emotion recognition (FER) has been reported in Alcohol & Substance Use Disorders (AUDs/SUDs) and would be interesting to study the association with tattoos.

### Health Risks and Complications of Tattoos

Although not an exhaustive list the following are listed as complications of tattoos. Human Immunodeficiency Virus (HIV), Hepatitis B (HBV), Hepatitis C (HCV), Osteomyelitis, Cirrhosis, Tuberculosis, Pruritus, other infections, regret, dermatological complications.

### Is the Body Graffiti Skin Deep or Deeper?

There has been a marked change in the general perception of tattoos that has gathered pace in the last century. From the evolutionary perspective and serving, a protective role to a symbol of beauty or resistance is indeed a long way to a booming industry in many countries around the world, sought by celebrity and common folk alike. In some cultures, it was considered a stigma, for example in China and Japan. The Japanese banned it for 70 years till 1948, and it became associated with the Yakuza organized crime gangs. Even currently, in the city of Osaka, the ban was reinstated among government employees since 2012. Tattoos are ubiquitous and as we saw above from ancient civilizations to present day parlors, we have not stopped modifying our skin appearance. The bedwin of Iraq do it, the Berber of North Africa do it, the tribes of west Africa (prone to form Keloids), the Middle East, in Persia, in fact it is rare to find any part of the world where it has not been practiced. This is despite some religious teachings at times banning it. The symbols hidden in tattoos are fascinating and a good read about the subject would be, Danzig Baldayev, Russian Criminal Tattoo Encyclopedia, in which he documented the body art of prison inmates.

So whether defensive, offensive or just passive aggressive, finding tell-tale signs of mental illness in tattooed individuals is proving to be very challenging. Maybe there is an association or maybe there isn't. It is best if we let the reader into the current debate and assist them with listing both sides of the argument and see if they would agree with our conclusions or make their own. The evidence for the significance of tattoos in diagnosing some psychiatric disorders comes from the following studies:

1. (De los Santos 1985), showed that psychiatric patients with tattoos are more likely to be emotionally immature and have psychosexual disturbances.
2. (Gittleston, Wallen, Dawson-Butterworth, 1969), states that in a minority of cases, psychotic experiences (for example, auditory hallucinations and passivity phenomena) have led individuals to seek a tattoos.
3. (Atkinson, 2002; Manuel 2002) reported the acquisition of tattoos following a traumatic event such as rape or by patients with post-traumatic stress disorder.
4. (Brooks, Woods, Knight & Shrier, 2003) adolescents showed an association between tattoos and risk-taking behaviour and impulsivity. This was also confirmed by (Varma 1999).
5. (Lander 1943; Post 1968; Measey 1972; Buhrich 1982; Raspa 1990; Inch 1993, (Goldstein 1979; Buhrich 1982 all reported higher rates of alcoholism, drug misuse, impulsivity, risk-taking behavior, personality disorders, history of self-harm in both men and women).

6. (Lander 1943; Ferguson-Rayport 1955; Gittleson 1969, 1973; Williams 1998) all found a higher prevalence of tattoos in psychiatric populations than in general populations and ranges from 15 to 39%.
7. Ferguson-Rayport et al (1955) found that tattooed individuals in psychiatric settings have a high prevalence of personality disorders up to 57 %, and 10% of those with tattoos had schizophrenia.
8. Gittleson and colleagues (1969) 48% of male psychiatric admissions to an acute ward reported prevalence of personality disorder among tattooed patients.
9. Buhrich & Morris (1982), in a study of in-patient admissions, reported a prevalence of more than 30% for both schizophrenia and personality disorders among those with tattoos.
10. Birmingham et al (1999) in a study of remand prisoners, reported an association between visible tattoos and lifetime prevalence of schizophrenia.
11. Inch & Huws (1993) found an association between psychiatric symptoms, borderline personality characteristics as well as increased alcohol use, childhood sexual abuse, reported more often in women with tattoos.
12. (Borokhov, 2006) found that it was not uncommon for individuals misusing drugs to acquire tattoos either generally or specifically related to the drug misuse, a tattoo in the cubital fossa could be made to hide scars of sclerosed veins.
13. (Perrin, 2017) recommended that in a forensic setting, antisocial personality disorder must be carefully ruled out in those forensic patients who possess large numbers of crudely applied or self-made tattoos or who have a large area of their body covered by tattoos.
14. (Cardasis, 2008) in a study of 36 male forensic patients conducted by revealed that significantly more patients with tattoos had a diagnosis of antisocial personality disorder compared with patients without tattoos.

Against;

1. Gittleson 1969, 1973; Buhrich 1982), found no significant differences in motivations for getting tattooed between psychiatric and non-psychiatric populations.
2. (Perrin 2017) reported that studies in broader groups of patients have generated some challenge to long-promulgated diagnostic links between body modification and personality disorders.
3. (Rooks and colleagues 2000) were unable to find a correlation between possession of a tattoo and the reason for presentation to the hospital.
4. (Hohner and colleagues 2014) examined the link between the presence of borderline personality traits and body modification in a sample of 289 women with body modifications, a group manifesting borderline personality traits was compared with the remaining women who did

not manifest these same personality traits. No difference was found in the number or nature of body modifications between the two groups.

## CONCLUSIONS

The classic teaching in medicine trains physicians to inspect first before proceeding to examination. The fact that corporal paintings and other forms of body modification are non-invasive and could be a window to the mind is great opportunity for clinicians to register the signs and make use of them together with other findings later. This is an important area of study and research and we are bound to have more publications dedicated to it. A warning is necessary though, none of the findings so far exempts us from disciplined neutrality and being unprejudiced when examining a tattooed individual. The only use of the associations found so far is to meticulously rule out certain disorders.

## REFERENCES

- Andrew, JP. (2017). Body modification and personality: Intimately intertwined? *Am J Psychiatry Resid J*, 12(8): 6-8.
- Atkinson, M. (2002). Pretty in ink: Conformity, resistance, and negotiation in women's tattooing. *Sex Roles*, 47: 219-235.
- Borokhov, A., Bastiaans, R., & Lerner, V. (2006). Tattoo designs among drug abusers. *Isr J Psychiatry Relat Sci*, 43: 28-33.
- Brooks, TL., Woods, ER., Knight, JR., & Shrier, LA. (2003). Body modification and substance use in adolescents: Is there a link? *J Adolesc Health*, 32: 44-49.
- Buhrich, N., & Morris, G. (1982). Significance of tattoos in male psychiatric patients. *Aust N Z J Psychiatry*, 16: 185-189.
- Cardasis, W., Huth-Bocks, A., & Silk, KR. (2008). Tattoo and antisocial personality disorder. *Personal Ment Health*, 2: 171-182.
- Castellano, F., Bartoli, F., Crocamo, C., Gamba, G., Tremolada, M., Santambrogio, J., et al., (2015). Facial emotion recognition in alcohol and substance use disorders: A meta-analysis. *Neurosci Biobehav Rev*, 59: 147-154.
- Coe, K., Harmon, M.P., Verner, B., & Tonn, A. (1993). *Hum Nat*, 4: 199-204.
- Danzig, B. (2007). Russian Criminal Tattoo Encyclopedia.
- Deter-Wolf, A., Robitaille, B., Krutak, L., & Galliot, S. (2016). The world's oldest tattoos. *J Archaeol Sci Rep*, 5: 19-24.
- Ferguson-Rayport, SM., Griffith, RM., & Straus, EW. (1955). The psychiatric significance of tattoos. *Psychiatry Q*, 29(1): 112-113.
- Gittleson, NL., Wallen, GD., & Dawson-Butterworth, K. (1969). The tattooed psychiatric patient. *Br J Psychiatry*, 115(528): 1249-1253.
- Hohner, G., Teismann, T., & Willutzki, U. (2014). Tattoos and piercings: Motives for body modification from borderline symptomatology. *Psychother Psychosom Med Psychol*, 64: 63-69.
- Inch, H., & Huws, R. (1993). Tattooed female psychiatric patients. *Br J Psychiatry*, 162: 128-129.
- Lander, J., & Kohn, HM. A note on tattooing among selectees. *Am J Psychiatry*, 100: 326-327.
- Levy, J., Sewell, M., & Goldstein, N. (1979). A short story of tattooing. *J Dermatol Surg Oncol*, 5: 851-856.

- Malloy, D. Body piercings, in *Modern Primitives*. (1989). Edited by Vale V, Juno A. San Francisco: Re/Search Publications, 25-26.
- Palermo, GB. (2004). Tattooing and tattooed criminals. *J Forensic Psychol Pract*, 4: 1-25.
- Rooks, JK., Roberts, DJ., & Scheltema, K. (2000). Tattoos: Their relationship to trauma, psychopathology, and other myths. *Minn Med*, 83(7): 24-27.
- Terrence, AC., Jr., (2001). *Dermatology Nursing*. 13(5).
- Vale, V., & Juno, A. (1989). *Modern Primitives*. San Francisco, Re/Search Publications.
- Vivek, K., Verghese, J., & Harvey, G. (2010). Tattoos: What is their significance? *Adv Psychiatr Treat*, 16: 281-287.