Tattoos, Body Experience, and Body Image Boundary among Violent Male Offenders

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The author compared a measure of body image boundary and medically significant bodily experiences between 21 tattooed and 24 nontattooed men incarcerated for violent crimes. Although the tattooed and nontattooed subjects had no significant differences in their body boundary concepts or most other bodily experiences, the tattooed men were found to have a different distribution of scars on their bodies. Upon more detailed examination, it seemed that these different distributions could be explained by the observation that the tattooed subjects were the only ones with self-inflicted cuts. This finding further supports the notion that tattoos, despite their ostensibly decorative quality, may be a form of self-mutilation.

Tattoos have been commonly observed on criminals since the early writings of Lombroso.[1] He reported that "9% of adult criminals and 40% of minors are tattooed; whereas, in normal persons the proportion is only 0.1%" (p.46). In this century, investigators have found that anywhere from around 15 percent[2,3] to 65 percent[4] of incarcerated adult male offenders have at least one tattoo.

Tattoos are obtained usually when the offender is a youth, seeming to parallel the onset of criminality. Verberne[5] found them at a rate of around 33 percent among delinquent boys. Hamburger[6] reported that the median age by which prison inmates obtained their first tattoo was 14 years, whereas Haines and Huffman[7] found that the mean age for acquiring tattoos was 19 years.

Increasing numbers of tattoos also seem to be associated with an increasing degree of criminality. Haines and Huffman[7] suggested that there existed a positive relationship between the number of tattoos and the number of prior commitments to penal and correctional institutions. This relationship has generally been confirmed in several studies comparing tattooed and nontattooed mental patients[8-10] and comparing tattooed and nontattooed sailors[11,12] and military inductees.[13]

Criminals apparently obtain tattoos for various overt and latent reasons. Again, Lombroso[1] wrote that "[t]attooing often reveals the psychology, habits, and vices of the individual" (p. 232). Later observations by Parry[14] concern-

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ing the tattoos of prostitutes and "perverts," many of whom were considered criminals of the day, suggested that masochistic-exhibitionistic drives and protective, magical, and homosexual urges were common motivators. These intrapsychic attributes were also found by Bromberg[15] in his study of an unspecified number of tattooed prisoners referred by the court for evaluation. He believed that such marked men were emotionally and sexually immature and impulsive and that they used their tattoos to compensate for feelings of inadequacy.

It was later suggested that the tattooed offender was in part expressing his "ideas of self" by his skin markings,[7] and that persons having certain self-concepts would be more likely to get tattooed.[16] Subsequent authors generally seem to have agreed with and accepted these notions. More recently, Newman[2] observed that "[t]he essential aspect of tattooing, it appears, is to identify. The tattoo is a statement of identity made by a person to society at large, or to his inner group, or to himself" (p. 231).

At least one line of research has attempted to better understand the "ideas of self" intended and perceived via tattoos. Popplestone[17] reviewed his anecdotal personal observations, the limited unpublished research, and the popular media to suggest that tattoos, among other behaviors, are intended to convey a defensive posture in which the wearer sees the world as threatening. Hawkins and Popplestone[18] subsequently studied the impressions recorded by male and female observers of drawings of a tattooed or nontattooed forearm holding an "ambiguous object." Although it may be somewhat difficult to generalize from their results, they concluded that the presence of a tattoo is interpreted as being associated with more "stereotyped masculine attributes of physical strength and psychological aggressiveness." In their words, "Observers perceive the implications which the tattoo wearer intends" (p. 500).

Another perspective on the self about which the tattoo probably comments is its wearer's body image.[19] Mosher *et al.*[20] studied aspects of body image among 62 inmates of a federal reformatory. Half of their subjects had no tattoos, while the other half had two or more tattoos that had been applied professionally before entering the institution. The subjects had similar criminal histories and socioeconomic backgrounds. They all were incarcerated for a variety of offenses, a high proportion of which included interstate auto theft. Several projective instruments, including the Holtzman Inkblot Test, were used as the bases of comparison. Mosher *et al.*[20] found that the tattooed prisoners had significantly higher "barrier" scores (i.e., a greater definiteness of the boundary with which the subject discriminated physical self from non-self) on the Holtzman than on the nontattooed prisoners.

Unfortunately, the investigation by Mosher *et al.*[20] had several major problems that limit its applicability. First, they studied inmates with only professionally applied tattoos. Several studies have shown that prisoners more often apply their tattoos themselves or have

associates do it[4,16,21] than go to professional tattooists. Second, they examined a group of inmates convicted of a variety of offenses, presumably violent and nonviolent. The relationship between violence and tattoos has not been elucidated clearly. Studies by Butler and Trice,[22] Britt *et al.*,[23] and Newman[2] suggest that tattoos may be positively associated with violent crimes, whereas an investigation by Howell *et al.*[24] points to the opposite conclusion. Unfortunately, those studies relied on different sampling techniques and methodologies that preclude a definite answer to this question. Third, hostility and violence seem to have an ill-defined relationship to variations in body image boundary. Investigations by Fisher and Cleveland[25] and Cavallin and Houston[26] have found higher barrier scores on projective instruments, whereas studies by Megargee[27] and Lester and Perdue[28] have the opposite findings. As with the studies of the relationship between tattoos and violence, sampling and methodological variations between these investigations prohibit a definite answer to this question. Additionally, none of the previous investigations examined or compared other medically significant bodily experiences of tattooed and nontattooed subjects. Such a comparison might permit us to begin understanding tattooing in the broader context of other bodily encounters.

In an attempt to address these difficulties, this author decided to quantitatively investigate aspects of the body experience and body image among a group of tattooed and nontattooed male offenders. In this inquiry, he studied men incarcerated for violent crimes and compared those having any tattoos, whether applied professionally or nonprofessionally, with those having no tattoos. Only violent men were examined to minimize the uncertain relationship between violence, tattoos, and body image. Such a study is important because it gives us a glimpse of one way in which certain violent offenders with tattoos—visible and distinctive attributes—conceptualize themselves.

Methods

The author evaluated 45 incarcerated adult violent male offenders consecutively referred by the State Board of Probation and Parole. He is the only psychiatrist in the state who conducts such evaluations.

Each evaluation consisted of a detailed review of each offender's institutional record and a semistructured psychiatric interview. The author then administered Fisher's Body Distortion Questionnaire,[29] an instrument developed to assess quantitatively various aspects of a subject's body image boundary. The instrument consists of 82 questions forming seven scales: larger, smaller, boundary loss, blocked openings, skin, dirt, and depersonalization. The scales then can be grouped into those dealing with self-perceived distortions of size (larger, smaller), boundary definiteness (boundary loss, blocked openings), boundary attention (skin, dirt), and identity (depersonalization).

The author recorded each man's age, race, number of months incarcerated on

the present offense by the time of the interview, number of prior arrests, index offense(s), and DSM-III psychiatric diagnoses. Multiple index offenses and diagnoses were permitted.

As an estimate of the rate of their other bodily experiences, the author also recorded each offender's number of illnesses and injuries requiring medical attention and their number of surgical operations, hospitalizations, transfusions, and allergies. He recorded whether each man had ever attempted self-harm by any means. He then carefully noted the number and positions of any scars on each man. Tattoos were then counted, their positions were noted, and they were classified according to the criteria of Ferguson-Rayport *et al.*[30]

The author compared the variables of those men with and without tattoos. Categorical data were compared by either the chi-square or Fisher Exact Probability test, where appropriate. The Mann-Whitney *U*-test was used to compare ordinal data. All tests were two-tailed, and a $p < .05$ was used as the level of statistical significance.

Results

The mean age of the subjects was 34.9 years. There were 29 white and 16 nonwhite men, and only six of the inmates were married. These men had been incarcerated for a mean number of 95.44 months by the time of the index evaluation. They had a mean number of 3.38 arrests before the present incarceration.

Twenty-one (46.6%) of these subjects were tattooed. There were no significant differences in the mean age, racial distribution, marital status, number of prior arrests, or number of months incarcerated between the tattooed and nontattooed inmates.

The types of tattoos on these men are displayed in Table 1. Most of them were of the bombastic/pseudoheroic or romantic types.

The most common sites of tattoos were the forearms and upper arms (19 at each site), followed by four on the chests, three each on the backs and lower legs, two each on the necks and hands/fingers, and one on the abdomen. There were 30 scars on forearms, 19 on hands/fingers, 16 on faces, 14 on upper legs, eight on upper arms, five on chests, four each on backs, abdomens, and feet, and one on a lower leg. Table 2 shows the somatic distributions of the tattoos and scars on these men.

Table 1
Classification of Tattoos Found on 21 Violent Men

Bombastic and pseudoheroic	23
Love	12
Miscellaneous	9
Religious and commemorative	4
Identification	3
Inveighing against fate	2

Table 2
Somatic Distributions of Tattoos and Scars on the Bodies of 45 Violent Male Offenders*

Body Mark	Visibility of Somatic Area		
	Readily Seen†	Sometimes Seen‡	Usually Unseen§
Tattoos	4 (7.3)¶	25 (40)	29 (52.7)
Scars	35 (33.3)	35 (33.3)	35 (33.3)

* Statistically significant difference: Chi-square = 13.9; $df = 2$; $p < .001$.
† Readily seen areas: hands, fingers, faces, necks.
‡ Sometimes seen areas: forearms, lower legs, feet.
§ Usually unseen areas: upper arms, chest, back, abdomen, upper legs.
¶ Numbers in parentheses, percentage.

Although the numbers of scars on the bodies of the tattooed and nontattooed subjects were not significantly different, there were differences in somatic distributions. There were 21 scars on the forearms of the tattooed men, eight on their faces, six on their upper legs, five on their hands/fingers, four each on their upper arms, chests, and feet, three on backs, and two on abdomens. The most common sites of scars on the nontattooed men were hands/fingers with 14, followed by upper arms with nine, eight each on upper legs and faces, four on upper arms, two on abdomens, and one each on a chest, back, and lower legs. The regional scar distributions on the tattooed and nontattooed men is shown in Table 3.

Five of the 21 tattooed men but none of the 24 nontattooed men had ever intentionally cut themselves, a significant difference (Fisher's Exact Probability: $p = .033$; $df = 1$). All seven of their self-inflected cuts were on forearms, a "sometimes seen" place. If we excluded from consideration these self-inflicted cuts, 13 (26%) of scars on the bodies of tattooed men were "readily seen," 18 (36%) were "sometimes seen," and 19 (38%) were "usually unseen." The distributions of the nonself-inflicted scars were nonsignificantly different (chi-square = 4.82; $df = 2$; $p > .05$).

The numbers of offenders convicted of different types of crimes are shown in Table 4. Each of these men was serving time for at least one violent crime, although he may have committed other types of crimes as well. This sample comprised mostly murderers, rapists, assailants, and robbers. There were no significant differences in any offense type between the tattooed and nontattooed prisoners.

The numbers of inmates having diagnoses in different DSM-III categories are shown in Table 5. These men mostly had diagnoses of alcoholism, drug abuse, or personality disorders. Tattooed inmates more often had diagnoses of drug abuse than did nontattooed inmates (chi-square = 6.28; $df = 1$; $p < .025$).

There were no significant differences in the numbers of illnesses, injuries, surgeries, hospitalizations, transfusions, or allergies between the tattooed and nontattooed prisoners. Although the tat-

Table 3
Somatic Distributions of Scars on 21 Tattooed and 24 Nontattooed Violent Male Offenders*

	Visibility of Somatic Area		
	Readily Seen†	Sometimes Seen‡	Usually Unseen§
Tattooed	13 (22.8)	25 (43.9)	19 (33.3)
Nontattooed	22 (45.8)	10 (20.8)	16 (33.3)

*Statistically significant difference: Chi-square = 8.29; $df = 2$; $p < .025$.
† Readily seen areas: hands, fingers, faces, necks.
‡ Sometimes seen areas: forearms, lower legs, feet.
§ Usually unseen areas: upper arms, chest, back, abdomen, upper legs.

Table 4
Types of Offenses among Tattooed and Nontattooed Subjects

Offense	Tattooed	Nontattooed
Homicide	9	9
Assault	4	5
Robbery	3	4
Weapons	2	2
Kidnapping	2	3
Rape	6	6
Other sex crimes	2	2
Drugs/alcohol	1	0
Burglary	1	2
Larceny	1	2
Other property crimes	1	0

Table 5
DSM-III Diagnostic Groups among Tattooed and Nontattooed Subjects

Diagnosis	Tattooed	Nontattooed
Alcoholism	17	12
Personality disorder	15	14
Drug abuse*	12	5
Intellectual impairment	3	3
Organic brain syndrome	3	2
Psychosexual disorder	3	2
Affective disorder	2	6
Psychosis	2	5
Other disorder	2	3

* Chi-square = 6.28; $df = 1$; $p < .02$.

tooed men had significantly more self-inflicted cuts, there were no significant differences in the total numbers of self-harm incidents from all causes among the two groups.

The Body Distortion Questionnaire's mean scale scores for the groups of tattooed and nontattooed violent men are shown in Table 6. (Although the Mann-Whitney *U*-test does not directly compare means, these values are displayed to give the reader an impression of these groups' respective data.) There were no significant differences in these scores between the two groups.

Discussion

This investigation has found that tattooed and nontattooed violent male inmates have no significant differences in their body boundaries as measured by the Fisher Body Distortion Questionnaire. The result directly opposes that of Mosher *et al.*,[20] who found that professionally tattooed prisoners had a heightened sense of barrier definiteness on the Holtzman Inkblot Test. Although the methods used in these two studies are different, the present research suggests that the occurrence of tattoos does not reflect a difference in the body image boundary of violent men.

Although no difference in body image boundary was found, this should not be interpreted to imply that there is no difference in self-concept among tattooed prisoners. Verberne[5] studied 80 adolescent male offenders, 26 of whom had at least one tattoo. In that investigation, the IPAT High School Personality Questionnaire was used as the basis of comparison. Verberne found little support for the generally accepted "identity hypothesis" but noted that these tattooed delinquents were significantly more insecure and had more depressive tendencies. Howell *et al.*[24] used the Bipolar Personality Inventory to study 101 tattooed and 70 nontattooed prisoners. Howell *et al.* went on to suggest that the tattoos may have been acquired previously to compensate for self-perceived inadequacies.

There is some support for the notion of Howell *et al.* in the literature. Burma[16] reported that about one half of the tattooed delinquents in his study "stated as

Table 6
Means and Mann-Whitney *Z*-Scores of the Body Distortion Questionnaire Scale Scores of the Tattooed and Nontattooed Subjects

Scale	Tattooed	Nontattooed	*Z*-Score
Total	6.19 (38.5)	9.08 (63.6)	1.27
Larger	1.00 (1.8)	1.04 (2.3)	0.02
Smaller	0.29 (0.51)	0.33 (0.58)	0.51
Boundary Loss	0.95 (0.95)	1.38 (3.1)	0.59
Blocked Openings	0.76 (1.29)	1.42 (2.1)	1.73
Skin	0.67 (0.93)	1.21 (2.1)	1.47
Dirt	1.19 (1.66)	1.29 (1.52)	0.96
Depersonalization	0.52 (1.06)	1.04 (2.82)	0.92

* Numbers in parentheses, variances.

their immediate reaction to the tattooing that they 'felt good,' were proud, or felt 'tough'" (p. 344).

The general distribution of tattoos on the bodies of these offenders (arms > chest > back > legs) is similar to that reported in two studies each of offenders[31,32] and mental patients.[9,10] It was also found that only the tattooed men in this study intentionally cut themselves. That observation overlaps with one by Virkkunen,[33] who found that prisoners with antisocial personality disorder who slashed themselves were more often engaged in tattooing in prison than were a diagnostically similar group of prisoners who did not slash themselves. This author is inclined to believe that these observations suggest a differentially lower self-esteem among the tattooed versus nontattooed men in this study. He also believes that these findings reinforce the notion that tattoos are a form of self-mutilation, despite their sometime beauty.

It may be speculated that the body image boundary of the violent nontattooed man who will become tattooed may be different from the boundary of the violent man who will not become tattooed. Proving such an hypothesis would involve systematically studying subjects before their tattooing. Unfortunately, there has not been such a study; and the present one did not address this problem. Tattooed and nontattooed offenders may also have differences in their body images other than those relating to their body boundaries. These possibilities should be explored.

The tattooed men in the present investigation more often received a diagnosis of drug abuse than did the nontattooed men. Most prior studies have found an increased occurrence of personality disorder among tattooed men[3,6,9,10] and have attributed tattooing to increased impulsivity. Some have believed tattoos to be somewhat characteristic of the drug abuser.[34,35] This author speculates that the finding of more drug abuse among tattooed violent prisoners in this study reflects greater impulsivity among these men.

The author urges caution in the acceptance and generalization of these findings. They are based upon a small selected sample of incarcerated men. Although the tattooed and nontattooed subjects were found not to have significantly different body image boundary concepts, these men had a seemingly important difference in body experience. The tattooed men were the only ones to have sustained self-inflicted cuts, thus supporting the notion that tattoos are somewhat related to self-mutilation. This suggests that tattooed violent men may have some difference in self-concept when compared with nontattooed violent men. Further research should examine other aspects of body image and self-concept of the tattooed violent offender.

References

1. Lombroso-Ferrero G: Lombroso's Criminal Man. Montclair, NJ, Patterson Smith, 1972
2. Newman G: The implications of tattooing in prisoners. J Clin Psychiatry 43:231–234, 1982
3. McKerracher DW, Watson RA: Tattoo marks and behavior disorder. Br J Criminol 9:167–172, 1969
4. Hamburger E, Lacovara DJ: A study of tattoos in inmates at a federal correctional institution: its physical and psychological im-

plications. Mil Med 128:1205–1211, 1963
5. Verberne TJP: The personality traits of tattooed adolescent offenders. Br J Criminol 9:172–175, 1969
6. Hamberger E: Tattooing as a psychic defense mechanism. Int J Soc Psychiatry 12:60–62, 1966
7. Haines WH, Huffman AV: Tattoos found in a prison environment. J Soc Therapy 4:104–113, 1958
8. Yamamoto J, Seeman W, Lester BK: The tattooed man. J Nerv Ment Dis 136:365–367, 1963
9. Gittleson NL, Wallen GDP, Dawson-Butterworth K: The tattooed psychiatric patient. Br J Psychiatry 115:1249–1253, 1969
10. Gittleson NL, Wallen GDP: The tattooed male patient. Br J Psychiatry 122:295–300, 1973
11. Earls JH, Hester R: Tattooed sailors: some sociopsychological correlates. Mil Med 132:48–53, 1967
12. Measey LG: The psychiatric and social relevance of tattoos in Royal Navy detainees. Br J Criminol 12:182–186, 1972
13. Lander J, Kohn HM: A note on tattooing among selectees. Am J Psychiatry 100:326–327, 1943
14. Parry A: Tattooing among prostitutes and perverts. Psychoanal Q 3:476–482, 1934
15. Bromberg W: Psychologic motives in tattooing. Arch Neurol Psychiatry 33:228–232, 1935
16. Burma JH: Self-tattooing among delinquents: a research note. Sociol Soc Res 43:341–345, 1959
17. Popplestone JA: A syllabus of the exoskeletal defenses. Psychol Rec 13:15–25, 1963
18. Hawkins RE, Popplestone JA: The tattoo as an exoskeletal defense. Percept Mot Skills 19:500, 1964
19. Grumet GW: Psychodynamic implications of tattoos. Am J Orthopsychiatry 53:482–492, 1983
20. Mosher DL, Oliver WA, Dolgan J: Body image in tattooed prisoners. J Clin Psychol 23:31–32, 1967
21. Wells RS: Amateur tattoos, emotional immaturity and delinquents. Br J Clin Pract 18:227–230, passim, 1964
22. Butler JR, Trice J: Diagnostic significance of the tattoo in psychotic homicide. Corr Psychiatry J Soc Ther 14:110–113, 1968
23. Britt BE, Panepento PA, Wilson IC: The incidence of tattooing in a male criminal population. Behav Neuropsychiatry 14:110–113, 1968
24. Howell RJ, Payne IR, Roe AV: Differences among behavioral variables, personal characteristics, and personality scores of tattooed and nontattooed prison inmates. J Res Crime Delin 8:32–37, 1971
25. Fisher S, Cleveland SE: Body Image and Personality. New York, Dover, 1968, pp 132–134
26. Cavallin BA, Houston BK: Aggressiveness, maladjustment, body experience and the protective function of personal space. J Clin Psychol 36:170–176, 1980
27. Megargee EI: Relation between barrier scores and aggressive behavior. J Abnorm Psychol 70:307–311, 1965
28. Lester D, Perdue WC: Body image of murderers. J Gen Psychol 90:187–189, 1974
29. Fisher S: Body Experience in Fantasy and Behavior. New York, Appleton-Century-Crofts, 1970, pp 632–636
30. Ferguson-Rayport SM, Griffith RM, Straus EW: The psychiatric significance of tattoos. Psychiatr Q 29:112–131, 1955
31. Drtil J: Rozbor tetovazi u skupiny autoagresoru. Cesk Psychiatr 63:252–258, 1967
32. Diligent MB, de Ren G, Petiet G: Du tatouage a la personnalite du tatoue: aspects medico-legaux, criminologiques et psychopathologiques. Med Leg Dommage Corpor 6:234–249, 1973
33. Virkkunen M: Self-mutilation in antisocial personality (disorder). Acta Psychiatr Scand 54:347–352, 1976
34. Bennahum DA: Tattoos of heroin adicts in New Mexico. Rocky Mt Med J 68:63–66, 1971
35. Anonymous: Symbols: tattoos on teen-age cadavers. Med World News 14:109–110, 1973