

SHORT REPORT

## *The body as a reflection of relations with others*

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### BACKGROUND

Corporeality is an important element of the self structure. Tattoos have been associated with self-esteem, identity diffusion, and aggression.

### PARTICIPANTS AND PROCEDURE

Convicted modified ( $n = 78$ ; 78.8%) and non-modified men ( $n = 21$ ; 21.2%) completed the following research tools: the Aggression Severity Scale from the Inventory of Personality Organization (IPO), the Group Identification Scale, the Identity Fusion Scale, a measure of identity fusion, and an agency scale.

### RESULTS

Body modifications were a weak predictor (5%) of aggression intensity among male prisoners. About 20% of the

study participants, regardless of having a body modification, presented aggression characterized by severe personality pathology.

### CONCLUSIONS

Nowadays, body modifications should not be treated as an indicator of severe psychopathology and more aggressive relations with others, including among convicted men. In prisoners who presented high levels of aggression, identity diffusion was observed and treated as a form of adaptation, characteristic for borderline personality integration.

### KEY WORDS

aggression; prisoners; personality organization; body modifications

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## BACKGROUND

The modified body in contemporary culture is often associated with a variety of “aggressive treatments” – such as surgical/aesthetic procedures or tattooing/piercing, which share an objective purpose to change the appearance and/or shape of the body (Swami, 2012). However, motivation prior to intentionally driven behavior, and satisfaction with modification effects, are mediated through affect (Kernberg & Caligor, 2005). Swami (2011) conducted a study in which he found that immediately after obtaining a tattoo, an increase in the perceived attractiveness of one’s own body was observed. Furthermore, at re-measurement, several weeks after the body modification procedure, women were more likely to have higher perceived physical social anxiety, while men reported lower anxiety. Therefore, some of the internalized social role expectations may in turn intensify experienced anxiety (Gilbert et al., 1995; Kernberg & Caligor, 2005). On the other hand, the individual meaning of body modification, realized through the need for transformation, can be extremely diverse (Swami, 2012).

Over the centuries, the tattoo has become a typical bodily symbol that, from a social perspective, has been associated with specific social groups, for example warriors, soldiers or prisoners (Friedman et al., 2018; Haas, 1990; Neitzel & Welzer, 2012). However, for the individual, the corporeality provides a medium for self-expression, creation of self-image and symbolic social communication, in accordance with felt needs. The social normativity of body modifications changes over time and depends on: 1) the frequency of its occurrence in society (Swami, 2011), and 2) the severity of the invasiveness of the preferred procedure.

Heterogeneous social perceptions of body modification in society have been reflected in the approach among researchers (Giles-Gorniak et al., 2016; Stanescu & Romascanu, 2020; Swami, 2011, 2012; Vizgaitis & Lenzenweger, 2019; Zrno et al., 2015). The studies of the relations of body modification (such as tattoos or/and scarifications) with psychological and behavioral aspects of human functioning are summarized in Table 1. Studies have shown associations of body modifications with the need for stimulation, self-esteem, risky behaviors, and even with features of borderline personality disorder (identity diffusion) or severity of antisociality.

As a community, we need aggressive individuals who are willing to use violence and fight for their group; however, that refers to war/fight situations (Haas, 1990). By over-identifying (weak sense of self), some people are able to engage in extreme behaviors and function (as one body) during dangerous situations to more effectively protect themselves from danger (Swann et al., 2009). Tattoos might sym-

bolically commemorate events/persons, providing (in some cases) a specific social message about the group status and/or role (e.g., military/prison subcultures). Body modifications can provide social attention, treated as an opportunity for social dominance (Gilbert et al., 1995). However, the procedure of body modification enables an intense bodily experience at the same time (Swami, 2011).

## PARTICIPANTS AND PROCEDURE

### PROCEDURE

The implementation of the project was preceded by obtaining the necessary formal approvals for its implementation in the institutions assigned to the District Inspectorate of Prison Service in Gdansk (Poland). The research was approved by the Ethics Committee of the University of Gdansk (decision: 9/2018).

The study group consisted of male adults with body modifications, who were serving prison sentences during that period. The criteria for considering bodily changes as modifications were that they were done voluntarily, intentionally and not accidentally. In the respondents, these were tattoos and/or scarifications.

All study participants were informed that participation was voluntary and anonymous. During the study, men completed self-report questionnaires and pictorial scales, and basic sociodemographic data were obtained.

Difficulties were observed in obtaining equal sizes of study groups and a frequent lack of motivation for the study among prisoners. About 20-30% of completed questionnaires had to be rejected due to major data omissions.

### PARTICIPANTS

The group size was calculated *a priori* for the planned statistical analyses, which was determined using the G\*Power 3.1 program (Faul et al., 2007). Assuming a large effect size and satisfactory test power ( $1 - \beta = 0.8$ ), the minimum total sample size was to be 97 individuals.

The study participants were men ( $N = 99$ ), whose mean age was 34.53 ( $SD = 9.77$ ). No differences in age distribution were revealed between the analyzed groups ( $U(99) = 690.00$ ,  $p = .269$ ). The study group consisted of male inmates who had body modifications ( $n = 78$ ), while the control group included prisoners without such body modifications ( $n = 21$ ). Study participants were brought up in: a rural area (19.2%), a small town (7.1%), a city (49.5%), a large city (19.2%) or a very large city (5.1%).

**Table 1***Relations between body modifications and psychological and behavioral aspects of human functioning*

Author(s)	Year	Body modification (BM)	Variables	BM correlated with
Swami, V.	2011	Tattoo	Body appreciation, distinctive appearance investment, self-ascribed uniqueness, social physique anxiety, and self-esteem	<ul style="list-style-type: none"> <li>• ↑ body appreciation</li> <li>• ↑ distinctive appearance investment</li> <li>• ↑ self-ascribed uniqueness               <ul style="list-style-type: none"> <li>• ↑ self-esteem</li> </ul> </li> </ul> *After 3 weeks women declared ↑ social physique anxiety, men ↓ anxiety
Swami, V.	2012	Tattoo	Big Five personality factors, sensation seeking, need for uniqueness, distinctive appearance investment, attitudes to authority, and sociosexual orientation	<ul style="list-style-type: none"> <li>• ↓ conscientiousness</li> <li>• ↑ extroversion</li> <li>• ↑ frequency of noncommitted sexual relations               <ul style="list-style-type: none"> <li>• ↑ sensation seeking</li> <li>• ↑ need for uniqueness</li> </ul> </li> <li>↑ distinctive appearance investment</li> </ul>
Zrno, M., Frencl, M., Degmecic, D., & Pozgain, I.	2015	Tattoo	Aggression, emotional profile, control, depression, drug abuse, committed traffic offences	<ul style="list-style-type: none"> <li>• ↑ frequency of drug abuse</li> </ul> ↑ frequency of traffic offences committed
Giles-Gorniak, A., Vandehey, M., & Stiles, B.	2016	Tattoo or/and piercing	Mental health history and social, health, alcohol and substance, and sexual behaviors	<ul style="list-style-type: none"> <li>• ↓ frequency of risky behaviors</li> <li>• ↓ frequency of reported mental health problems</li> </ul> ↑ social and health behaviors
Vizgaitis, A., & Lenzenweger, M.	2019	Piercing, tattoo, scarification, pubic hair removal, cosmetic surgery	Borderline personality disorder/features	<ul style="list-style-type: none"> <li>• identity diffusion</li> <li>• low self-concept clarity</li> </ul> *Features of borderline personality disorder have been positively associated with the amount of body modifications
Stanescu, D., & Romascanu, M.	2020	Tattoo	Dark Triad of personality	<ul style="list-style-type: none"> <li>• subclinical psychopathy</li> </ul> *An increased number of tattoos correlated with a higher level of anti-sociality

**MEASURES**

*Aggression Severity Scale from the Inventory of Personality Organization (IPO)*. The tool is used to identify problematic aspects of personality structure (Izdebska & Pastwa-Wojciechowska, 2013). For the purposes of the study, the Aggression Intensity Scale was used. The scale consists of 18 items to which the respondent refers on a five-point scale from 1 (*never true*) to 5 (*always true*). The aggression scale refers to aggressive attitudes and behaviors, which may

include different forms of aggression: initiating aggression towards others, aggressive reactions to perceived provocation from others and aggression towards oneself. The above tool has a satisfactory reliability index. The value of Cronbach's  $\alpha$  of individual scales varies between .78 and .91.

*Group Identification Scale*. The tool allows one to estimate the intensity of identification with the group (Jaśkiewicz & Besta, 2014). The reference group was adjusted to refer to prisoners. The above scale consists of six items, for example: "When some-

one criticizes Poland, I feel personally offended”, “When I speak about Poland, I use the word we more often than they”. These were modified for the purposes of the study – “When someone criticizes my fellow prisoners, I feel personally offended”, “When I speak about my fellow prisoners, I use the word we more often than they”. The participant has the possibility to answer on a six-point scale from *strongly disagree* to *strongly agree*. The scale has a high reliability index. Cronbach’s  $\alpha$  was .88 and it is a popular tool used by identity fusion researchers.

*Identity Fusion Scale.* The tool enables one to reveal the intensity of identity fusion with the group (Besta et al., 2014). It was modified for the purposes of the study and concerns fusion with a group of fellow inmates. The scale consists of seven items containing statements such as “My country is me”, “My emotional ties with my country are very strong”. These have been adapted to the current situation of the respondents – “My fellow prisoners are me”, “My emotional ties with my fellow prisoners are very strong”. Answers are given on a six-point scale. The scale has a high reliability index. The value of Cronbach’s  $\alpha$  was .91.

*Measure of identity fusion.* The tool by Swann and colleagues (2009) is a pictorial measure. For the purposes of the study, it was reformulated to refer to the perceived relationship with 1) fellow inmates and 2) family. The respondent has a choice of bond strength presented as increasingly overlapping circles, resembling a distribution on a five-point scale – from the lowest intensity to the highest intensity of the variable. The circles in the first option are arranged independently, next to each other, then increasingly towards each other, so that eventually one of the circles is inside the other. It is assumed that the strongest relationship presented indicates the possibility of identity fusion being experienced in relation to the indicated group.

*Agency scale.* The tool by Gómez and colleagues (2017) is used to determine individually perceived sense of agency. The subject identifies his own anticipated power to influence the future in two cases:

1) as an individual and 2) as a member of a group (one of the prisoners). The man’s body behind bars is presented on a five-point graphic scale, which gradually increases from the lowest to the highest. The task is to indicate the intensity of the subjectively perceived sense of agency in prison conditions on such a five-point graphical scale.

## RESULTS

Body modifications significantly differentiated the severity of aggression among male prisoners  $U(99) = 1109.50$ ,  $z = -2.49$ ,  $p = .013$ ,  $r_g = .25$ ). Convicts without body modifications had lower aggressiveness ( $Me = 25.00$ ,  $IQR = 10$ ) than those with body modifications ( $Me = 27.00$ ,  $IQR = 12$ ). A moderate effect size of the demonstrated difference in aggressiveness was observed (Coe, 2002). Body modifications have not been shown to be associated with a more frequent occurrence of identity fusion ( $p = .269$ ) and/or a significant sense of identification with prisoners ( $p = .870$ ). Aggressiveness, on the other hand, was correlated with identity fusion with inmates ( $r = .33$ ,  $p < .001$ ), while identity diffusion was associated with intensity of identification with a group of prisoners ( $r = .73$ ,  $p < .001$ ). Body modifications were found to be insignificant for sense of belonging to the group (all  $p > .41$ ) or sense of agency (all  $p > .41$ ).

Prisoners’ identity was shown to be linearly related to their aggressiveness (Table 2), but body modifications did not prove to be a reasonably good predictor of high aggressiveness severity.

Increased aggressiveness among male prisoners was associated with enhanced identification with the inmate group ( $R^2 = .20$ ,  $F = 12.21$ ,  $df = 2$ ,  $p < .001$ ,  $f^2 = .25$ ), particularly identity diffusion ( $R^2 = .30$ ,  $F = 7.78$ ,  $df = 1$ ,  $p = .012$ ,  $f^2 = .43$ ). Large effect sizes were observed.

Body modifications have been linked to aggression ( $p = .017$ ,  $f^2 = .06$ ). However, they are not a significant predictor of higher severity of aggression severity in the inmate group.

**Table 2**

*Predictors of aggression severity (bootstrapping 10000 samples,  $N = 99$ )*

Variable	Model	<i>B</i>	<i>SE</i>	$\beta$	<i>p</i>	95% CI
Intensity of aggression	Constant	27.35	1.43	–	< .001	24.25-30.54
	Identification with prisoners	–0.36	0.18	.66	.041	–0.69-0.01
	Fusion with inmates	0.63	0.15	.65	< .001	0.32-0.85
↑ Intensity of aggression	Constant	45.09	1.75	–	< .001	41.74-48.52
	Fusion with inmates	0.23	0.09	.55	.030	0.04-0.41

*Note.* *B* – non-standardized regression coefficient;  $\beta$  – standardized regression coefficient; 95% CI – confidence interval for *B*.

## DISCUSSION

Body modifications were associated with aggressiveness among male convicts. However, the occurrence of body modification in the prison population was common. The intensity of aggression among prisoners was comparable to its typical intensity in the general male population (Izdebska & Pastwa-Wojciechowska, 2013). Among these participants, the aggression necessary to establish and negotiate the terms of membership of a certain group appeared not to be diametrically opposed to socially accepted behaviors directed at establishing one's status/role in the community (Gilbert et al., 1995). Moreover, reactive relational aggression was associated with higher anxiety, whereas no such effect was revealed in proactive overt aggression (Drnas et al., 2020).

Body modifications should not be taken as an indicator of a higher intensity of aggression. Significant predictors of increased aggression among prisoners were the severity of their identification with fellow prisoners and identity diffusion. The data obtained seem to support the assumption that identity dispersal and functioning in a state of fusion with the group may enable "warriors" to cope when difficult situations occur (Haas, 1990; Swann et al., 2009). In addition, identity diffusion is characteristic for borderline personality organization (Cierpiałkowska et al., 2018; Kernberg & Caligor, 2005). It was also highly possible that among those inmates who were characterized by the highest levels of aggressiveness, it would be possible to identify high levels of antisocial traits and even a clinical diagnosis of psychopathy (Cierpiałkowska et al., 2018; Kernberg & Caligor, 2005; Stanescu & Romascanu, 2020).

Tattooing, not only among male convicts, cannot be considered as a predictor of deep psychopathology, but rather a form of differentiation from the community and an expression of personal individualism (Swami, 2011). This study provided data on the association of body modification with aggressiveness, but also the relation between intensity of aggression and increased identification (or fusion) with a group in a male prison population. However, this unrepresentative sample ( $N = 99$ ) should be carefully generalized to the general population of male prisoners. Furthermore, in future research, it would be useful to verify the significance of the motives or content and character of body modifications in a group of prisoners. Perhaps modifications that are a symbolic expression of being a member of a criminal group and/or prison subculture would allow the issue to be explored more thoroughly.

## CONCLUSIONS

Based on the results obtained in this study, the following conclusions were drawn:

1. Body modifications should not be considered as predictors of increased intensity of aggression among male convicts.
2. The intensity of aggression presented by most inmates was comparable to the commonly observed aggressiveness in a group of men from the general population.
3. Aggression characteristic for severe personality disorder was found to occur in only about 20% of prisoners.
4. A predictor of severe intensity of aggression among prisoners was intensity of identification with inmates, especially the identity fusion with the group.
5. In future research it is worth estimating the most frequent motives for body modifications (for tattoos and their content) and to categorize their nature, i.e. the potential deviancy of selected body transformations.

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