The European Proceedings of
Social & Behavioural Sciences
EpSBS

ISSN: 2357-1330

https://doi.org/10.15405/epsbs.2019.07.102

PSYRGGU 2019
Psychology of subculture: Phenomenology and Contemporary Tendencies of Development

ADOLESCENT CUTTERS' ATTITUDINAL AND CONCEPTUAL ASPECTS OF BODY IMAGE

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Abstract

Body image study has important implications for understanding self-harm phenomena in teenagers. It links principal tasks of adolescent development and the dissemination of cultural practices that make an accent on body modification and enhancement in order to exert an impact on subjective reality. The attitudinal and conceptual aspects of body image and their relationships to depressive symptoms of 25 girls with repetitive self-harm were studied and compared to a control group. MBSRQ questionnaire was used to assess attitudinal aspects and Sensations Sorting Task (SST) – to assess conceptual aspects of body image. CDI was used to assess depression level. Girls from clinical group scored lower on all evaluation and fitness and health orientation scales of MBSRQ, revealing more negative and passive attitudes towards body. The conceptual structure of bodily experiences had marked differences and was characterized by over-inclusiveness and unconventionality. The patterns of relationships between body image measures and CDI scales were different in clinical and control group, demonstrating higher impact of affect on body image distortions and weak protective function of body image in girls with self-harm. The analysis of the descriptors used to represent bodily sensations of self-harming reveals allows revealing some personal issues in girls with self-harm.

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Keywords: Self-harm, body image, adolescence, NSSI.

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1. Introduction

The growing preoccupation by the mental health professionals with the non-suicidal self-harm phenomena (self-cutting, scarifications, burnings, etc.) is reflected in the inclusion of the corresponding entity in Section III, Conditions for further study, of the 5th edition of Diagnostic Statistical Manual (DSM). The problem however has not only medical, but also a social and cultural dimension. Self-cutting was described under various terms (Favazza & Rosenthal, 1993), but it was regarded predominantly as an individual clinical syndrome. Now it appears as a widespread, if deviant, social practice, specially in adolescent population (Adler & Adler, 2011). Teenagers learn about the ways to reduce the mental pain by hurting themselves from Internet support groups and forums, or by modelling the peer's behavior. They share the images of inflicted wounds, along with the stories of their sufferings or without them. Some hide the signs of self-harm but know that they are not the same person as they appear to surrounding people. Some identify themselves with the 'cutters', a particular adolescent community. Some have suicidal ideation, others don't. Some want to cease the self-destructive activities, but can't, others take pride for what they are doing. In a recent psychotherapy session led by one of the authors a girl confessed that she was afraid of pain and learned how to imitate the cuts with a pen, and now along with her sister she makes regular postings on teenagers' forum. No doubts most adolescents who self-harm may have behavioral or mental health problems that require a professional attention, but it is not necessary the same problem.

The spreading of self-harm evokes comparison with other practices that are linked to body, including disordered eating and dieting, body modifications, plastic surgery. Their common point is an attempt to use body image as a mean of modification and enhancement of inner reality. It is also important that linking self-harm to body image in a study accounts for the role the principal tasks of psychological development may play in occurrence of these behaviors.

2. Problem Statement

There are different ideas about how the distortions of body image are be related to self-harm and suicidal attempts. Most studies are concerned with body dissatisfaction, and specifically, with perceived overweight problems in adolescent self-harm (Greydanus & Apple, 2011). Among others, Orbach (1996) pointed to the role the dissociation from body and Law, Khazem, Jin, & Anestis (2017) to pain persistence. In this study we place an emphasis on conceptual aspects of bodily experiences in accordance with cultural-historical model that supposes that body image is formed as a result of interiorization and appropriation of cultural meanings, norms, ideals and values. These conditions the role developed body plays in regulating psychological functioning and behavior, including regulation of affects, self-esteem and mediation of communicative strategies.

3. Research Questions

The study was aimed to study the attitudinal and conceptual aspects of body image and was addressed to answer the following questions:

1. Whether there is a difference in attitudes toward body between self-harming girls and their counterparts?

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2. Whether there are differences in how the bodily experiences are perceived and described?
3. How the particularities of body image and attitude are related to depressive symptoms?
4. How the self-injures are experienced?

4. Purpose of the Study

Study was aimed to understand the role different aspects of body image play in self-harm.

5. Research Methods

5.1. Participants

The clinical group (N=25) consisted of adolescent girls (age 13-17) with repetitive self-harm (self-cutting), observed in G.E. Sukhareva Centre for Mental Health of Children and Adolescents stationary. The diagnoses included affective disorders (F31.30, F32.1, F32,2, F32.3), and emotional and behavioural disorders (F98.8). 4 cases were diagnosed as schizoaffective (F25.18) and schizotypal (F21.8) disorders, but none had an acute psychotic state nor signs of severe thought disorders or negative symptoms as revealed by the results of assessment held by stationary psychologist.

The control group of girls without self-reported self-harm (N=19) was formed to match the age characteristics of the clinical group and was observed in school settings.

5.2. Instruments

1. Multidimensional Body-Self Relations Questionnaire, MBSRQ (Brown, Cash, & Mikulka, 1990; Cash, 2018) was chosen to assess the attitudinal aspects of body image. The original conceptual scales in the Russian translation were used since the Russian norms for factor scales are not ready. Scales account for evaluation (positive for high scores) and orientation (personal importance for high scores) in three body image areas – appearance (AE and AO), fitness (FE and FO) and health (HE and HO). Three additional scales include Body areas satisfaction (BASS), overweight preoccupation (OWP), self-classified weight (SCW).

2. Sorting of sensations task, SST (Tkhostov & Efremova, 1989) was used to study conceptual aspects of bodily sensations. In the modified version, based on the previous applications of SST to patients with skin-related psychopathological syndromes (Rupchev, Vinogradova, Malyutina, Tkhostov, & Ryzhov, 2017), the respondents are given 80 cards with printed words, denoting bodily and interoceptive sensations, painful and illness-related sensations, emotions and affective states, exteroceptive stimuli, more or less suitable for use as metaphors for bodily experiences. Tasks given to the subject include to select cards that represent (a) bodily sensations in general (GEN), (b) bodily sensations known from personal experience (PER), (c) bodily sensations in childhood (INF), (d) bodily sensations in states of depressive mood, (e) bodily sensations when cutting or injuring self (for clinical group only).

Interpretation of the results includes evaluation of several indices as well as qualitative analysis. Total number of descriptors used for each sorting task (No) and frequencies of particular descriptors are calculated for each group. To assess the intra-individual consistency of the sortings the overlap index, OL was calculated, either for pairs of tasks – OL(PER-INF), in example, or a total OL measure. OL measures were calculated with the following formula proposed by Rafaeli-Mor, Gotlib, & Revelle (1999):

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OL=(SUM_i($SUM_j C_{ij}$)/T_i/*n**(*n*-1), where C is a number of common descriptors in two sorting tasks, T is a number of all descriptors in sorting, n is a number of sortings, and *i* and *j* vary from 0 to *n*. OL measures range from 0 (no overlap) to 1 (complete similarity of groups).

3. The Child depression inventory, developed by Kovacs, in the Russian version (as cited in Belova, Malykh, Sabirova, & Lobaskova, 2008), was used to assess the level of depressive symptoms on following scales: overall score, CDI(T), negative affect, CDI(A), interpersonal difficulties, CDI(B), anhedonia, CDI(C), school ineffectiveness, CDI(D), negative self-esteem, CDI(E).

6. Findings

6.1. Differences in attitudinal aspects of body image

The clinical group scored significantly lower on all of the MBSRQ subscales, excerpt for Self classified weight (SCW), where they scored significantly higher and Appearance Orientation (AO) and Overweight Preoccupation (OWP), where they scored not-significantly higher (Table 1).

Table 01. MBSRQ scores in clinical and control group (Mean scores and Standard deviations in parenthesis)

Group	AE	FE	HE	AO	FO	HO	BASS	OWP	SCW
Self-harm	2.73 (1.14)	3.06 (1.13)	2.95 (0.77)	3.62 (0.81)	3.07 (0.94)	2.65 (0.6)	3.11 (0.89)	3.21 (1.2)	3.58 (0.92)
Control	3.49 (0.55)	4.35 (0.69)	3.44 (0.47)	3.54 (0.51)	4.29 (0.53)	3.34 (0.46)	3.74 (0.41)	2.96 (0.83)	2.97 (0.54)
Student's t	-2,674 p<0.05	-4.376 p<0.001	-2.429 p<0.05	0.392	-5.060 p<0.001	-4.137 p<0.001	-2.870 p<0.01	0.772	2.553 p<0.05

While a general tendency towards a more negative appraisal of their body image in clinical group is predictable and confirms the data presented in literature, the lower importance (orientation scales) attributed to body (excerpt for appearance) is somewhat surprising. This may reflect avoidance and passivity in relation towards own body. Two observations support this idea. First, the differences in either evaluation and orientation are most marked in the fitness area, where the active efforts to improve one's physical are readily available. Second, two additional scales also illustrate this relationship: girls that self-harm at the same time report a subjective overweight but deny their preoccupation with it.

The correlational analysis of MBSRQ scales reveals that in clinical group all evaluation scales are related (Pearson's r ranges from 0.55 to 0.71, $p<0.005$), while in control only AE and FE do so ($r=0.47$, $p<0.05$). Body areas self-satisfaction scale is also significantly related with all scales except for AO, while in control group it only has a significant negative correlation with OWP scale. This means the clinical group has less differentiated criteria for estimation of their bodies, with a predominant negative or positive attitude being the only determinant.

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6.2. Patterns of relationships between the attitudes to body and the level of depressive symptoms in self-harm and control groups

Correlational analysis held separately in both groups reveals marked differences. In self-harm girls most CDI scales, including total score, correlate significantly and explainable with MBSRQ scales: lower the satisfaction and evaluation of appearance, health, fitness, body parts and weight are, higher are the self-reported depressive features. In control group there are only two significant correlations. Depressive symptoms and negative and passive body attitudes are related in self-harming girls, and this differentiates them from the control group. It is not the matter that the correlations don't reach the significance because of smaller size of the control group: the differences in most cases are substantial, like r=-0.681 and r=-0.187 for total CDI score and AE scale.

6.3. Differences in conceptual aspects of bodily experiences

The performance on the Sensations Sorting Test of clinical group was also quite different, suggesting differences in conceptual structure related to body experiences (Table 2). First of all, they selected a distinctively larger number of descriptors, specially in the first two tasks, for bodily sensations in general and for personally experienced, choosing 1.5 times more descriptors in average (32.6 for clinical group, and 19.8 for control one in the first task). One possible explanation is that this is due to the fact that the clinical group tends to include the descriptors associated with depressive mood in other sortings. This explanation is challenged however by other observations. The self-harm group in general uses wider range, literally, all descriptors (in the first task), with a single descriptor being used only once. In contrast, in control group 14 descriptors were never used and 9 were used only once. Omitted descriptors include exteroceptive sensations, and emotional terms describing feelings or dynamic states ('appetence', 'satiation').

Table 02. Mean number of descriptors used and Overlap measure for different task of SST (see description in "Methods" section)

Group	No of descriptors				OL					
	GEN	PER	INF	DEP	TOT	GEN-PER	PER-INF	PER-DEP	DEP-INF	PER-CUT
Self-Harm	32.6	34.1	18.0	18.3	1.06	0.71	0.61	0.58	0.3	0.37
Control	19.8	20.3	11.2	14.9	0.96	0.63	0.54	0.45	0.34	
Student's t	3.22, p<0.01	3.28, p<0.01	2.35 p<0.05	1.09	1.166	1.212	1.027	2.296, p<0.05	-0.82	

The clinical group did not differ significantly from the control group on the frequencies of most popular descriptors for bodily sensations: 'numbness', 'burning', 'pain', 'tremble', 'shiver', 'itching', etc. Significant differences (at p<0.05 and p<0.01) were found for 24 descriptors, all more frequent in clinical group, including some imprecise negative emotional or psychomotor states, like 'insensibility' (chosen by 13 in clinical group vs. 2 in control), 'unbearable' (8 vs. 1), 'stupor' (12 vs. 1), 'devastation' (8 vs. 0,), external causes of sensations, like poisoning (15 vs. 5), 'elastic' (14 vs. 3), 'shaggy' (8 vs. 0), wet (17 vs. 6), unpleasant bodily sensations, like 'chill' (19 vs. 6, chi-square), 'beating' (17 vs. 6, chi-square), exteroceptive sensations that can be associated with states of tension and anxiety: 'loud' (5 vs. 0), ring (5

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eISSN: 2357-1330

vs. 0). However, without statistical significance, the control group used somewhat more frequently a number of descriptors, that were not directly related to bodily sensations, but could be used as metaphors like ‘flickering’, as well as, quite surprisingly, some denominations of concrete emotions: ‘sadness’, ‘sorrow’, ‘anxiety’.

The overlap (OL) measures did not show significant differences between self-harm and control groups, excerpt for Personal-Depression overlap being predictable higher in the clinical group (Table 2). This is an important finding, suggesting there is the same continuity in the way self-harming girls t sort descriptor as in the control group. The order by proximity of sortings is also similar in both groups. For clinical group, the closest are general and personally known sortings of descriptors, next are personal and infantile (Student’s t, $p<0.01$), then go personal and depressive, personal and associated with self-injury ($p<0.001$), depressive and self-injurious, and depressive and infantile.

How similarly do the participants of both group perform on each task? This was assessed by calculating the intra-group distances (Table 3), that reflects the number of descriptors two girls disagree on. In all the tasks the girls that self-harm were making less similar choices.

Based on OL and subject’s similarity measures, we can point to the effect of the task: more concrete the sorting is, less descriptors are chosen, less similar become the intra- and inter-group differences. The experiences of depression, or self-cut result in more precise and well defined conceptual structure of relevant bodily experiences. The task to choose personal descriptors has an opposite impact, and it is more significant in self-harmers group.

Table 03. Similarity of subjects in the choice of descriptors for each task, measured by mean distances (city-block)

Group	GEN	PER	INF	DEP	CUT
Self-harm	32.5	33.9	25.0	21.5	17.0
Control	24.4	25.2	16.3	17.2	
Student’s t	9.12 p<0.001	9.61 p<0.001	9.60 p<0.001	6.28 p<0.001	

To summarize, the girls in clinical group select more descriptors, use a wider range of descriptors, including those that are not completely appropriate, make less similar sortings. In general, the conceptual system for bodily sensations in self-harming girls can be described as over-inclusive and unconventional.

The correlational analysis of relationships with MBSRQ and CDI scales indicates differences between groups. They are concerned with two tasks DEP and INF, both positively ($p<0.05$) related in number of descriptors to CDI total, anhedonia, negative affect and self-esteem scales, and negatively to all the evaluation and orientation scales of MBSRQ. While for depressive task this may be interpreted as resulting from of familiarity of depressive states, the role of fixation on infantile experiences needs a further attention, specially since in control group there is an inverse significant correlation between number of infantile descriptors and negative affect. For INF task the clinical group uses more frequently the descriptors, that are illness or pain related (‘ache’, ‘anxiety’, ‘wet’), but at the same time they are more prone to use some of a rather positive descriptors, probably revealing a fixation of some girls from this group on past: ‘caress’, ‘easy’, ‘tickle’ (chi-square, $p<0.05$), and are significantly less likely to use the most frequent descriptor for infantile bodily sensations in control group – ‘fatigue’.

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6.4. Descriptions of bodily experiences of self-cutting

The OL measures suggest that the choices for self-harm descriptors are least similar with all other sortings, excerpt for the lowest overlap between infantile and depressive descriptors. It is also the most strictly defined sorting, with mean number of descriptors used being only 10.8, significantly ($p<0.001$) lower than in other tasks. Most frequently used descriptors are referring to:

- painful sensations and activities, associated with injury, such as 'pain' (13 times), 'scratch' (12), 'burning' (11), 'ache' (6),
- negative, usually acute, emotional states: 'despair' (9), 'insensibility' (9), 'feel bad' (8), 'discouragement' (8), 'depression' (7), 'tremble' (7), 'anxiety' (6), 'tormenting' (6);
- positive emotional states, including either feelings of relief and pleasure: 'lightness' (9), 'pleasant' (6), 'joy' (6), 'peace' (6).

The study of association of different descriptors by cluster analysis reveals seven low level clusters. First includes all omitted descriptors, including exteroceptive, gustatory and special visceral ones ('hunger', 'tasty', 'movement'…). Second cluster is composed by negative, illness or anxiety related descriptors ('burn', 'anxiety', 'tension', 'suffocation'…). Third cluster encompasses some illness related descriptors, similar to previous group, along with those representing excitation, usually with symbolic content ('fever', 'excitation', 'prick', 'exhaustion', 'appetence', 'pierce'…). Forth cluster includes different somatic and emotional descriptors, that are representative of depressive mood or ideas ('apathetic', "depression', 'devastation', 'dark' 'adverse', 'weak', 'gravity', 'chill', 'fatigue'…). The last two clusters include most frequently used descriptors. Fifth deals exclusively with negative, tormenting emotions ('sorrow', 'inhibition', 'tormenting', 'feel bad', 'despair'…), and the last one combines expressions of pain ('pain', 'burning', 'scratch', 'ache', 'hot'…) and of pleasure ('pleasant', 'joy', 'peace'…).

To summarize: the sorting of descriptors for bodily experiences of self-harm is most definite and legible, and it reveals in some cases typical personal content referred to: (a) depressive experiences, (b) association of pain and pleasure, (d) transparent symbolism with sexual connotation.

7. Conclusion

The results of the study shows that girls with self-harm differ in both attitudinal and conceptual aspects of their body image. Negative attitudes and passive position towards body prevail. Conceptual structure can be characterized as over-inclusive and unconventional. The relationships between depressive symptoms, negative attitudes towards body and deviations of conceptual aspects of bodily experiences are stronger in clinical group. This conforms to the findings by Muehlenkamp & Brausch (2012) that body image plays a mediating role in linking the negative affect and self-harm. Engaging in self-injurious activity, hypothetically, may be conceived as an attempt to make the bodily experiences more precise and to strengthen the defensive function of body image, that normally should help to maintain some stability of self-perception and self-esteem.

The results also help to delineate some prospects of future research, with the study of recollections of infantile bodily experiences being potentially one of the key moments for understanding the peculiarities of self-cutter's body image.

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