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How Do Families Represent the Functions of Deliberate Self-Harm? A Comparison between the Social Representations from Adolescents and Their Parents

Eva Duarte, Maria Gouveia-Pereira, Hugo S. Gomes, and Daniel Sampaio

Research has recognized the importance of understanding the social representations about the functions of deliberate self-harm, particularly in the context of clinical intervention. In addition, parents can play a relevant role in the rehabilitation of adolescents with these behaviors. However, there are few studies that focused on the description and comparison of the social representations about these functions, particularly in families. This article aimed to analyze the social representations about the functions of deliberate self-harm from adolescents and their parents. We developed two sets of analyses: first we compared the social representations from adolescents without a history of deliberate self-harm and their parents, and secondly we compared the social representations about the functions of deliberate self-harm from adolescents with a history of these behaviors and their parents' social representations. Results revealed significant differences between both groups of families, implying that the groups of participants represent the functions of deliberate self-harm differently. Overall, parents emphasized interpersonal functions and devalued intrapersonal functions. These differences were heightened in the families of adolescents with deliberate self-harm. The present article provides important insights regarding the social representations about the functions of deliberate self-harm and the differences between parents' social representations and their children experiences and social representations.

Keywords adolescents, deliberate self-harm, family, functions, parents, social representations

INTRODUCTION

Deliberate self-harm is quite prevalent among adolescents and young adults, being nowadays considered a public health problem. During the last decades, the rates of these behaviors have increased (e.g., Hawton, Saunders, & O'Connor, 2012),

with a lifetime prevalence in adolescents ranging between 7.3% and 30% (Brunner et al., 2014; Calvete, Orue, Aizpuru, & Brotherton, 2015; Carvalho, Motta, Sousa, & Cabral, 2017; Gonçalves, Martins, Rosendo, Machado, & Silva, 2012; Gouveia-Pereira, Gomes, Santos, Frazão, & Sampaio, 2016; Guerreiro, Sampaio, Figueira, & Madge, 2017; Jacobson & Gould, 2007; Muehlenkamp, Claes, Havertape, & Plener, 2012). Deliberate self-harm encompasses various self-aggressive behaviors, regardless of suicidal intent (Guerreiro et al., 2017; Hawton et al., 2012; Madge et al., 2008), namely cutting, burning, biting, consuming psychoactive substances (such as alcohol or drugs), ingesting medication, and others.

The knowledge about the functions of deliberate self-harm is one of the most important factors in this context, since it can contribute to the understanding of this phenomenon's etiology, as well as to its classification, prevention, and treatment (Klonsky, 2007). Regarding treatment, understanding deliberate self-harm's functions can be an essential factor to select which treatment is most appropriate to each individual according to their experience of these behaviors, as well as to design specific intervention strategies (Bentley, Nock, & Barlow, 2014; Muehlenkamp, 2006; Nock & Prinstein, 2004; Nock, Teper, & Hollander, 2007; Washburn et al., 2012).

Family, specifically parents, have been recognized as an important factor within the context of deliberate self-harm (e.g., Arbuthnott & Lewis, 2015; Hasking, Rees, Martin, & Quigley, 2015; Mojtabai & Olfson, 2008; Santos, 2007). Family seems to occupy a central role in clinical intervention and research suggests that it is necessary to incorporate family therapy into treatments, particularly interventions that work towards strengthening communication and emotional support (Muehlenkamp, Brausch, Quigley, & Whitlock, 2013). In addition, a caring and affectionate family environment, where space for the discussion of these behaviors exist, can favor the adolescent's rehabilitation process (Arbuthnott & Lewis, 2015). Similarly, poor family functioning is related to the presence of deliberate self-harm (Crowell et al., 2008; Kelada, Hasking, & Melvin, 2016) while better family functioning is related to recovery (Kelada et al., 2016).

Understanding the functions of deliberate self-harm is crucial for supportive and effective responses to individuals' disclosures of self-harm (Muehlenkamp et al., 2013). For example, if friends and family members have an inaccurate understanding of these functions (e.g., believing the behavior to be an act of manipulation instead of a form of support-seeking), it may lead to responses that inadvertently aggravate the frequency and severity of the behaviors (Bresin, Sand, & Gordon, 2013). Hence, understanding how family members represent the functions of deliberate self-harm can be a crucial factor to promote clinical interventions and to involve the family in the treatment process.

Research has focused on the risk factors associated with parents, help-seeking from parents, interventions involving parents, and impact on parent well-being (Arbuthnott & Lewis, 2015). Also, several studies explored the views and attitudes of parents of adolescents who self-harm (Ferrey et al., 2016; McDonald, O'Brien, & Jackson, 2007; Oldershaw, Richards, Simic, & Schmidt, 2008; Rissanen, Kylmä, & Laukkanen, 2008, Rissanen, Kylmä, & Laukkanen, 2009), but did not focus on the representations of these

behaviors' functions. Oldershaw et al. (2008) concluded that parents commonly suspected and spotted self-harm prior to disclosure or service contact, but also concluded that communication difficulties and underestimating significance led to delays in addressing the behavior. The study developed by Ferrey et al. (2016) found that, after the discovery of self-harm, parents described initial feelings of shock, anger and disbelief, and later reactions of stress, anxiety, feelings of guilt, and in some cases the onset or worsening of clinical depression. Also, parents frequently emphasize their difficulties, struggles, and uncertainties in understanding and coping with their child's deliberate self-harm (McDonald et al., 2007; Oldershaw et al., 2008).

Regarding the functions of deliberate self-harm, it is known that these behaviors can serve diverse functions that can occur simultaneously (Lloyd-Richardson, 2008; Nock, 2009; Saraff, Trujillo, & Pepper, 2015). According to Klonsky (2007), the most frequently studied functions include: Affect Regulation, Anti-Dissociation, Anti-Suicide, Interpersonal Boundaries, Interpersonal Influence, Self-Punishment, and Sensation-Seeking. Nonetheless, there are also other less common functions, such as Autonomy (Klonsky & Glenn, 2009), Peer Bonding (Klonsky & Glenn, 2009), Revenge (Klonsky, 2007; Rabi, Sulochana, & Pawan, 2017; Rodham, Hawton, & Evans, 2004), or Self-Care (Klonsky & Glenn, 2009).

In order to systematize the many functions of deliberate self-harm, Nock and Prinstein (2004, Nock & Prinstein, 2005) proposed the Four Function Model. According to this model, deliberate self-harm serves four primary functions that differ along two dichotomous dimensions: automatic/intrapersonal versus social/interpersonal, and positive (i.e., followed by the presentation of a favorable stimulus) versus negative (i.e., followed by the removal of an aversive stimulus) (Nock, 2008). Hence, automatic negative functions reduce tension or other negative affective states, while automatic positive functions increase or generate a desirable physiological or affective cognitive state (Kortge, Meade, & Tennant, 2013; Nock & Prinstein, 2004, Nock & Prinstein, 2005). On the other hand, social negative functions allow escape from interpersonal interactions or task demands, while social positive functions contribute to gain attention or access to materials, or to trigger some reaction from others (Kortge et al., 2013; Nock & Prinstein, 2004, Nock & Prinstein, 2005). Recently, research has recognized the importance of the interpersonal functions, although they are less common than the intrapersonal functions (Heath, Ross, Toste, Charlebois, & Nedecheva, 2009; Muehlenkamp et al., 2013).

Social representations are a modality of knowledge that produce and determine behaviors because they define the nature of the stimuli that surround us and the answers we give them (Moscovici, 1961). These representations can be understood as dynamic sets that aim at the production of social behaviors and interactions, and not only as the mere reproduction of these behaviors and interactions as reactions to external stimuli (Sampaio et al., 2012). Hence, social representations are simultaneously a product and a process (e.g., Jodelet, 1984; Valsiner, 2003) that allow us to interpret aspects of reality to further react to them (Wachelke & Camargo, 2007). Therefore, the representations about the functions of deliberate self-harm from adolescents with and without a history of these behaviors and from parents may have important implications for clinical

interventions and prevention programs, particularly in terms of social support.

There are several limitations to the current knowledge concerning the representations about the functions of deliberate self-harm from adolescents and parents, since most studies focused on the attitudes about deliberate self-harm and relied on samples of adolescents and/or parents that had direct contact with these behaviors. Moreover, we did not find any studies that compared the social representations and experiences from adolescents with and without deliberate self-harm and their parents. The few studies that compared the perspectives about the functions of deliberate self-harm of participants with and without a history of these behaviors focused on the views of college students (Batejan, Swenson, Jarvi, & Muehlenkamp, 2015; Bresin et al., 2013). The study from Batejan et al. (2015) concluded that the groups did not differ in their views of the relevance of intrapersonal functions, although non-injuring participants appeared to stress some interpersonal functions slightly more than individuals with a history of deliberate self-harm did. Furthermore, the study conducted by Bresin et al. (2013) concluded that there was little differentiation among functions between groups.

THE CURRENT STUDY

The objective of the current article focuses on the comparison of the social representations about the functions of deliberate self-harm from families (adolescent, mother, and father) of adolescents with and without deliberate self-harm. We developed two sets of analyses: a) the first one compares the social representations about the functions of deliberate self-harm from adolescents without a history of these behaviors and their parents' social representations; b) the second one compares the functions mentioned by adolescents with a history of deliberate self-harm and their parents' social representations about these functions. Our main goal is to explore the possible differences regarding the social representations about the several functions of these behaviors (such as Affect Regulation, Anti-Dissociation or Interpersonal Influence) and the two dimensions where these functions can be organized (interpersonal and intrapersonal).

Research has shown the global incomprehension of parents regarding the motivations and functions of deliberate self-harm (e.g., McDonald et al., 2007; Oldershaw et al., 2008). Also, a previous study (Batejan et al., 2015) concluded that participants without deliberate self-harm appeared to value some interpersonal functions more than participants with a history of these behaviors did. For the first set of analyses, we hypothesize that there will be no significant differences between adults and adolescents concerning the interpersonal dimension, and that significant differences will emerge in the intrapersonal dimension, where adolescents will emphasize these functions (H_1). Also, previous findings suggest that mothers maintain closer relationships with their children (e.g., Collins & Russell, 1991; Doyle, Lawford, & Markiewicz, 2009; Markiewicz, Lawford, Doyle, & Haggart, 2006; Mojtabai & Olfson, 2008; Tsai, Telzer, & Fuligni, 2013), and communicate more with their children when compared to fathers (e.g., Bhushan, 1993; Hurd, Wooding, & Noller, 1999; Noller & Bagi, 1985). Since these factors can modify and influence the building of representations, we present a second hypothesis for this set of analyses. If differences

emerge between the parents of adolescents without deliberate self-harm, we hypothesize that mothers' social representations will be more similar to the adolescents' social representations (H_2).

For the second set of analyses, previous studies revealed that intrapersonal functions are more common among adolescents with deliberate self-harm (e.g., Klonsky, 2007) and that participants without these behaviors tend to value interpersonal functions (Batejan et al., 2015). Hence, the social representations based on the experience of these behaviors' functions should be different from parents' social representations. We hypothesize that adolescents with a history of deliberate self-harm will emphasize their experience of intrapersonal functions and, on the contrary, parents will value more interpersonal functions than these adolescents (H_3). Similarly to the first set of analyses, we defined one more hypothesis based on the assumption that mothers maintain closer relationships with their children (e.g., Collins & Russell, 1991; Doyle et al., 2009; Markiewicz et al., 2006; Mojtabai & Olfson, 2008; Tsai et al., 2013) and communicate more with their children compared to fathers (e.g., Bhushan, 1993; Hurd et al., 1999; Noller & Bagi, 1985). Hence, if differences emerge between the parents of adolescents with deliberate self-harm, we hypothesize that mothers' social representations will be more similar to the adolescents' experiences (H_4).

METHODS

Participants

The participants in this study are part of a bigger sample collected during a doctoral thesis investigation. In order to allow the comparison of the representations of family triads, we selected families in which all three elements had completed the questionnaire (adolescent, mother, and father). Hence, the present sample consisted of a total of 609 participants: 203 adolescents, 203 mothers and 203 fathers.

The sample of adolescents comprised 203 participants, 51 (25.1%) of which reported deliberate self-harm. From this total, 110 participants (54.2%) were female and 93 (45.8%) were male, and their age ranged from 12 to 19 years ($M = 14.70$, $SD = 1.78$). Most adolescents were Portuguese ($n = 201$, 99%); did not fail any school year ($n = 182$, 89.7%); had one sibling ($n = 124$, 61.1%), two siblings ($n = 31$, 15.3%); or no siblings ($n = 34$, 16.7%); and had married parents ($n = 170$, 84.2%).

Parents were aged between 33 and 60 years old ($M = 46.02$, $SD = 5.49$); were mostly Portuguese ($n = 403$, 99.3%); had a college/university degree ($n = 130$, 32%), studied from 10th to 12th grade ($n = 117$, 28.9%) or from 7th to 9th grade ($n = 79$, 19.4%); were married ($n = 357$, 87.9%); and had an average of two children ($M = 2.11$, $SD = 0.99$). Regarding their child's deliberate self-harm behaviors, 102 parents (25.1%) had children who reported having these behaviors. Nonetheless, only eight parents (2% of the total sample) stated they had knowledge that their child self-harmed (five mothers and three fathers).

Measures

Inventory of Deliberate Self-Harm Behaviors. The Inventory of Deliberate Self-Harm Behaviors is currently being validated for Portuguese adolescents and has revealed good psychometric properties.

This inventory presents 13 different self-harm behaviors: cutting, biting, burning, pulling hair, scratching until the skin is wounded, consuming drugs with a self-aggressive intent, inserting needles in the skin, ingesting dangerous substances with a self-aggressive intent, drinking alcohol with a self-aggressive intent, banging/hitting, ingesting medication with a self-aggressive intent, ingesting medication with a suicidal intent, and attempting suicide. The respondent is asked to sign the lifetime frequency of each method of self-harm ("No," "Yes – 1 Time," "Yes, 2–10 Times," "Yes, More than 10 Times").

In the current study, we also utilized this instrument to assess parents' awareness about their child's deliberate self-harm behaviors. Therefore, parents were asked to assign the lifetime frequency of each method of self-harm for their children.

Questionnaire of Representations about the Functions of Deliberate Self-Harm. This questionnaire has two versions, one for adolescents (Duarte, Gouveia-Pereira, Gomes & Sampaio, in press) and another one for adults (Duarte, Gouveia-Pereira, Gomes & Sampaio, n.d.), which were both used in the current investigation. The questionnaires were validated to Portuguese adolescents and adults and presented acceptable psychometric properties.

The questionnaire for adolescents comprises 35 items that evaluate the representations about 11 functions of deliberate self-harm, which can be categorized according to two dimensions (interpersonal and intrapersonal functions). The interpersonal dimension includes Autonomy & Toughness (e.g., item 24 "Demonstrating they are tough or strong"), Interpersonal Boundaries (e.g., item 1 "Creating a boundary between themselves and others"), Interpersonal Influence (e.g., item 7 "Seeking care or help from others"), Peer Bonding (e.g., item 11 "Trying to fit in with others"), and Revenge (e.g., item 14 "Trying to hurt someone close to them"). The intrapersonal dimension includes Affect Regulation (e.g., item 10 "Reducing their anxiety, frustration, anger, or other emotions"), Anti-Dissociation (e.g., item 27 "Inflicting pain in order to feel something"), Escape Mechanism (e.g., item 19 "Escaping from problems"), Introspective Mechanism (e.g., item 17 "Organizing their ideas"), Replacement of Suffering (e.g., item 18 "Creating physical pain to forget the psychological pain"), and Self-Punishment (e.g., item 25 "Doing it because they feel guilty").

The questionnaire for adults presents 49 items that assess all the functions aforementioned, as well as three additional intrapersonal functions. Hence, the interpersonal dimension includes Autonomy & Toughness (e.g., item 29 "Demonstrating they are autonomous or independent"), Interpersonal Boundaries (e.g., item 22 "Establishing a barrier between themselves and others"), Interpersonal Influence (e.g., item 17 "Seeking care or help from others"), Peer Bonding (e.g., item 36 "Trying to belong to a group of friends/colleagues"), and Revenge (e.g., item 10 "Getting revenge from someone"). The intrapersonal dimension includes Affect Regulation (e.g., item 1 "Calming themselves down"), Anti-Dissociation (e.g., item 14 "Trying to feel something instead of nothing, even if it is physical pain"), Anti-Suicide (e.g., item 15 "Reacting to suicidal thoughts without attempting suicide"), Escape Mechanism (e.g., item 43 "Escaping from something that is not right"), Introspective Mechanism (e.g., item 34 "Isolating themselves in their thoughts"), Marking Distress (e.g., item

19 “Proving themselves that their emotional pain is real”), Replacement of Suffering (e.g., item 44 “Physically responding to an emotional pain”), Self-Care (e.g., item 23 “Focusing on treating the injury, which can be gratifying or satisfying”), and Self-Punishment (e.g., item 13 “Demonstrating the anger they feel for themselves”).

Socio-Demographic Questionnaire. The adolescents responded to questions regarding their age, gender, nationality, education (number of flunks and school grade), the existence of siblings, and marital status of their parents. The socio-demographic questionnaire for parents included items about their age, nationality, education level, marital status, and number of children.

Procedures

This research was approved by the General Education Directorate of the Ministry of Education and Science from Portugal regarding the participation of adolescents. Three schools were contacted and informed about the goals of the investigation. After receiving the schools' administration approval, several classes were selected. In a first phase, the researcher delivered the consent forms to the students’ parents, along with the parents' questionnaires. The questionnaires for parents were delivered in an envelope, along with a letter informing them that both mother and father should respond separately and give back the questionnaires in the closed envelope to their child, even if they did not complete the questionnaire. In a second phase, the students whose parents signed the consent form completed the questionnaire for adolescents. Also in this second class, the students brought back their parents' questionnaires and delivered them to the researcher. The participants were informed that their collaboration was voluntary and that all the data were anonymous and confidential. Accordingly, a random code was used to associate the adolescents' questionnaires to their parents' questionnaires.

Data Analysis

All statistical analyses were carried out using SPSS v22 software (IBM SPSS, Chicago, IL). Descriptive statistics were used to analyze socio-demographic data, as well as deliberate self-harm lifetime prevalence. Although both questionnaires that assess the representations about the functions of deliberate self-harm share 11 types of functions, the adults' questionnaire contains three additional functions. Therefore, in order to compare the experiences/representations from these two groups (adolescents and parents), we decided to exclude the functions Anti-Suicide, Marking Distress, and Self-Care from the adults' questionnaire. To examine group differences, we utilized Repeated Measures ANOVA for paired samples.

RESULTS

In the first set of analyses, we compared the social representations about the functions of deliberate self-harm from adolescents without a history of these behaviors and their parents (Table 1). Results revealed significant differences between the group of adolescents and both groups of parents, and no significant differences between mothers and fathers.

In the interpersonal dimension, adolescents presented significantly higher means in the function Interpersonal

TABLE 1. **Families of Adolescents Without Deliberate Self-Harm (DSH) ($N = 456$).**

	Adolescents Without DSH ($n = 152$)	Mothers ($n = 152$)	Fathers ($n = 152$)	*F*
Interpersonal Dimension	2.81[a]	2.78[a]	2.83[a]	.32[n.s]
Autonomy & Toughness	2.70[a]	2.54[a]	2.65[a]	1.80[n.s]
Interpersonal Boundaries	3.27[a]	2.68[b]	2.72[b]	21.60***
Interpersonal Influence	3.09[a]	3.39[b]	3.34[b]	6.72**
Peer Bonding	2.58[a]	2.46[a]	2.54[a]	1.01[n.s]
Revenge	2.46[a]	2.71[b]	2.78[b]	66.70**
Intrapersonal Dimension	3.37[a]	3.02[b]	2.97[b]	22.85***
Affect Regulation	3.62[a]	2.93[b]	2.95[b]	38.41***
Anti-Dissociation	2.97[a]	2.94[a]	2.80[a]	1.94[n.s]
Escape Mechanism	3.60[a]	3.23[b]	3.17[b]	15.01***
Introspective Mechanism	2.65[a]	2.87[b]	2.85[a,b]	4.16*
Replacement of Suffering	3.66[a]	3.37[b]	3.30[b]	8.23***
Self-Punishment	3.60[a]	3.15[b]	3.08[b]	24.63***

Each superscript letter denotes a subset of each function, different letters represent statistically significant differences between columns.
[n.s.]: non-significant; *Significant at .05 level; **Significant at .01 level; ***Significant at .001 level.

Boundaries ($F = 21.60$, $p < .001$), when compared with both parents (mothers and fathers). In addition, both parents also presented significantly higher means in the functions Interpersonal Influence ($F = 6.72$, $p < .01$) and Revenge ($F = 66.70$, $p < .01$) when compared to the adolescents' group.

In the intrapersonal dimension, the means from the group of adolescents were significantly higher in the global intrapersonal dimension ($F = 22.85$, $p < .001$) and in the functions Affect Regulation ($F = 38.41$, $p < .001$), Escape Mechanism ($F = 15.01$, $p < .001$), Replacement of Suffering ($F = 8.23$, $p < .001$), and Self-Punishment ($F = 24.63$, $p < .001$) when compared to both parents. Also, the group of mothers revealed a significantly higher mean in the function Introspective Mechanism ($F = 4.16$, $p < .05$) when compared to adolescents.

Globally, these results indicate that most social representations from adolescents and parents were considerably different. However, we did not find significant differences in the global interpersonal dimension and in the functions Autonomy & Toughness, Peer Bonding, and Anti-Dissociation, indicating that the three groups had similar social representations concerning this global dimension and these functions. Also, no significant differences emerged between the representations from mothers and fathers.

In a second phase, we compared the functions represented by adolescents with a history of deliberate self-harm and their parents' social representations about these functions (Table 2). Results revealed differences between adolescents and both groups of parents, as well as between mothers and fathers.

Concerning the interpersonal dimension, results showed that parents (mothers and fathers) had significantly higher means in the global interpersonal dimension ($F = 11.89$, $p < .001$), and in the functions