Self-injury in adolescent students in a public school

Autolesão em estudantes adolescentes de uma escola pública

Ana Carla de Oliveira Paulo Ribeiro¹
Rafael Franco Dutra Leite²
Vilma Valéria Dias Couto³

Descriptive, exploratory study that used combined quantitative and qualitative methods, carried out in a city in the interior of the state of Minas Gerais, in 2019. It aimed to analyze the occurrence and characteristics of self-injury among adolescents in a public school. A self-report questionnaire based on the Self-Injury Behavior Scale was applied, and data were interpreted using descriptive statistics and thematic content analysis. 112 students from Middle School participated, of which 63% were female; between 11 to 16 years old; 59% reported having performed self-injury at least once in their life, especially biting, poking wounds, hitting and cutting themselves; in 56% the self-injury occurred in the last 12 months. Three categories emerged: Self-injury and suicidal intent; Reasons for self-injury; and Student dialogues and narratives about self-injury. The relief of negative feelings was the main explanation for self-injury, associated with depression, bullying and family problems. The people interviewed consider self-injury to be a relevant, controversial problem and little addressed by the school. The opening of spaces for dialogue at school for this demand proves to be essential for coping with self-injury in schoolchildren.

Descriptors: Self mutilation; Adolescent; Students; Mental health.

1. Psychologist. Volunteer at the Outpatient Clinic for Comprehensive Care to Life and Childhood, Hospital de Clinicas (HC), Universidade Federal do Triângulo Mineiro (UFTM). Uberaba, MG, Brazil. ORCID: 0000-0001-6767-5166 E-mail: anacarolaoliveira.ribeiro@gmail.com
2. Student of Psychology at UFTM. Uberaba, MG, Brazil. ORCID: 0000-0001-9689-8318 E-mail: rafa.frandoutra@gmail.com
3. Psychologist. Specialist in Philosophy. Master in Psychology. PhD in Clinical Psychology and Culture. Adjunct Professor at the Department of Psychology at UFTM. Uberaba, MG, Brazil. ORCID: 0000-0003-0952-9843 E-mail: vilma.couto@uftm.edu.br
INTRODUCTION

The act of injuring one’s own body without the intention of suicide has been increasing among Brazilian adolescents, especially in the school context. Coping with this phenomenon has challenged education and health professionals who see themselves under the obligation to notify cases of self-inflicted violence. Compulsory notification is one of the actions established in the Brazilian policy for the prevention of self-inflicted injuries, which aims to inform and sensitize society on the relevance of self-injury as a public health problem that can be prevented.

The International Society for the Study of Self-injury defines non-suicidal self-injury as deliberate and self-inflicted damage to bodily tissue that occurs without suicidal intent and without socially or culturally sanctioned perspectives. Several terms are used to designate this phenomenon, such as: self-mutilation, self-aggression, self-harm behavior, self-harm conduct and non-suicidal self-harm.

In Brazil, self-mutilation is the most common term. However, this study adopts the term self-injury, as it is the most accepted term internationally, as well as other similar ones: self-injury conduct and self-injury behavior; with reference to behaviors that are not suicidal.

In psychiatry, self-injury is described as both a symptom of some mental disorders and a disorder in itself. In the fifth version of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V), self-injury without suicidal intent was included in the category of disorders that need further research and review of diagnostic criteria to result in a new diagnostic category in future editions of this manual.

Among the criteria indicated in the DSM-V, there is: having caused, in the previous year, in five or more days, self-injurious damage to the surface of one’s own body that probably induced bleeding, bruises or pain (examples: cuts, burns, injuries, excessive friction), with the expectation that such acts could lead to only mild or moderate physical harm, without suicidal intentions.

There are two ways to classify self-injury: one is by type and the other by severity. Regarding type, there are four classification categories: major or severe (lethal behavior or behavior that causes irreversible injuries); stereotyped (repetitive behaviors, with variable severity); compulsive (trichotillomania and onychophagia); impulsive (cutting oneself, burning oneself, hitting oneself). Regarding severity, self-injury can be classified as: severe (skin cuts, burns, poking areas of the body until intentionally bleeding); moderate (beating yourself and pulling out hair); and mild (biting itself, scratching the skin on purpose).

As for the characteristics of self-injury, the motivations for such practice vary, with the search for relief from unwanted feelings and afflictions being most reported by adolescents. Different studies indicate a higher prevalence in female adolescents. For this reason, this article flex the gender in its writing when possible, in order to reach and give visibility to the different identity categories, seeking to build a non-sexist multiple language.

The occurrence of the practice tends to start in adolescence and decrease in adulthood. Adolescents’ subjectivities, produced from the sociocultural environment, are essential to be addressed in order to understand self-injury at this stage. There is no way to think about the psychic constitution without thinking about the social bond that gives rise to it. The issue of the bond is at the center of the adolescent transition, the transition from the family to the social scenario, and difficulties in inscribing in the social bond. Current social conditions seem to facilitate the adoption of self-injurious behaviors, understood as a complex phenomenon that interrelates subjective and social factors.

The school is an environment of great influence in the formation of the individual, whose experience is essential for cognitive, social and emotional development. In this way, the school is an indispensable field to follow up, monitor and understand risk and protection factors for schoolchildren.
The school is the locus of study as it is the environment in which adolescents spend most of their time, expressing the dilemmas experienced in youth, in addition to being understood as a vital space to promote health\(^\text{11}\). Health promotion is educating students for different lifestyle habits, through activities that enable their development, well-being, their condition of becoming the subject of their own history and citizenship\(^\text{12}\).

There are few published Brazilian studies on self-injury in adolescents\(^\text{7}\). It is observed that the research focuses on characterization, frequency and profile; few seek to understand what teenagers think about self-injury. In view of this gap and the urgency of dealing with self-injury from the perspective of students, this study aimed to analyze the occurrence and characteristics of self-injury among adolescents in a public school.

**METHODS**

This is a descriptive, exploratory study that used combined quantitative and qualitative methods, carried out with students from a public school in the city of Uberaba, in the state of Minas Gerais. The choice of school was made for convenience. This school institution receives students from various districts of the city, belonging to different socioeconomic classes and offers education to students from the 1\(^{\text{st}}\) to the 9\(^{\text{th}}\) grades.

Participants answered a questionnaire containing closed and open questions, built on the basis of the Self-Injury Behavior Scale\(^\text{13}\). In addition to questions about the characterization of the participants, the questionnaire consisted of questions about the practice of self-injury and its characteristics, associated suicidal intention, reasons for self-injury, knowledge of adolescents with self-injury and what they think about this phenomenon.

Data collection took place in September 2019, was conducted by a team composed of researchers/students from the Psychology course at UFTM. This team was divided into pairs and participated in 18 Middle School classes, inviting the teenagers to participate in the research.

As inclusion criteria, it was considered: age between 11 and 16 years old, being student of Middle School in the morning period. Students who did not deliver the Consent Form signed by a Legal Guardian on the day of collection were excluded.

To carry out the analysis, all questionnaire responses were coded and typed into Microsoft Excel 2019 spreadsheets. For descriptive analysis (multiple choice questions), frequency (absolute and relative) and average calculations were performed. Qualitative analysis (open questions) followed the content analysis technique\(^\text{14}\). This comprised the following phases: general reading of the material; coding for formulating categories; cutting the material into record units with the same semantic content; formulation of the categories that differed; progressive grouping of categories and inference and interpretation supported by the relevant literature. For anonymity, participants were identified with the letter “P” followed by an Arabic number, P1 to P112.

The research was approved by the Research Ethics Committee of the Universidade Federal do Triângulo Mineiro, opinion No. 3139,161, in compliance with the recommendations provided for in Resolution 466/12, of 12/12/2012\(^\text{15}\), of the Ministry of Health. As the participants were teenagers, they had to bring a consent form signed by the legal guardian and their own consent form. Participants and their respective guardians were informed of the confidentiality and anonymity, as well as the proposal of the work, and informed consents and assents were obtained before the collection. Participants assessed at risk or who indicated in the questionnaire an interest in talking to researchers were contacted, interviewed and referred for assistance, when necessary.
RESULTS

As eligible, there were 440 students enrolled in the school in the morning shift; 328 did not participate due to lack of interest or did not meet the inclusion criteria. 112 adolescents, aged between 11 and 16 years (M=12.5 years), mostly female (63%), students from 6th to 9th grade participated in the study.

Among those surveyed, 59% indicated performing some type of self-injurious behavior at least once in their lives, being more frequent in females (71%) and, in 56%, self-injury occurred in the last 12 months.

The main method used by the adolescents was “biting himself/herself” (76%), “poking wound” (50%), “beating himself/herself” (50%), followed by “cutting himself/herself” (41%). Burning was the least frequent (3%). Other types of self-harm manifested were: punching walls and/or objects and scratching himself/herself.

Table 1. Methods/types of self-injury, according to students from a public school. Uberaba, Minas Gerais, 2019.

<table>
<thead>
<tr>
<th>Methods/Type of self-injury</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biting himself/herself</td>
<td>50</td>
<td>76</td>
</tr>
<tr>
<td>Poking himself/herself</td>
<td>33</td>
<td>50</td>
</tr>
<tr>
<td>Hitting himself/herself</td>
<td>33</td>
<td>50</td>
</tr>
<tr>
<td>Cutting himself/herself</td>
<td>27</td>
<td>41</td>
</tr>
<tr>
<td>Pulling out hair</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>Burning himself/herself</td>
<td>02</td>
<td>3</td>
</tr>
<tr>
<td>Others (hit wall and/or objects, scratching himself/herself)</td>
<td>11</td>
<td>17</td>
</tr>
</tbody>
</table>

Regarding the number of methods/types of self-inflicted injury, 24% of the self-injury group indicated only one type, 29% two types and 47% reported having performed three types of self-injury (Table 2).

Table 2. Number of self-injury methods, according to public school students. Uberaba, Minas Gerais, 2019.

<table>
<thead>
<tr>
<th>Number of methods</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>16</td>
<td>24</td>
</tr>
<tr>
<td>2</td>
<td>19</td>
<td>29</td>
</tr>
<tr>
<td>3</td>
<td>16</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>03</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>02</td>
<td>3</td>
</tr>
</tbody>
</table>

The age of the 1st self-injury was between 11 and 12 years in 42% of respondents, and between 9 and 10 years in 21%. However, 10% revealed self-injury behavior before 9 years of age (Table 3).

Table 3. Age of 1st self-injury, according to public school students. Uberaba, Minas Gerais, 2019.

<table>
<thead>
<tr>
<th>Age of 1st self-injury</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 7 years old</td>
<td>03</td>
<td>5</td>
</tr>
<tr>
<td>7-8 years old</td>
<td>03</td>
<td>5</td>
</tr>
<tr>
<td>9-10 years old</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>11-12 years old</td>
<td>28</td>
<td>42</td>
</tr>
<tr>
<td>13-14 years old</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>15-16 years old</td>
<td>01</td>
<td>1</td>
</tr>
<tr>
<td>Did not remember or did not say</td>
<td>05</td>
<td>8</td>
</tr>
</tbody>
</table>
Three categories emerged from the open questions: **Self-injury and suicidal intent; Reasons for self-injury; and Student dialogues and narratives about self-injury.**

**Self-injury and suicidal intent**

There was no suicidal intention at the time of self-injury by 68% of the adolescents:

*I never wanted it.* (P64)
*I never thought about doing this type of behavior.* (P54)

However, 32% of students indicated some level of suicidal intent. The students suggest, in the act of being injured, an ambivalent feeling or doubt regarding the suicidal intention:

*I don’t know how to explain it exactly.* (P35)

Others revealed that they have already thought about suicide, despite performing self-injury without suicidal intention:

*But I already thought about taking my own life.* (P110)

Also, there are those who recognized the impulsive character of self-injury behavior, done without planning or the idea of death:

*I did it without thinking.* (P42)

**Reasons for self-injury**

Relief of negative feelings (pain, anger, anguish and anxiety) was mentioned the most:

*To end the pain I was feeling.* (P9)
*Just as a relief.* (P78)
*It was because I felt nervous.* (P92)

Something else that was mentioned was anger/dissatisfaction directed to oneself and self-injured seen on the internet:

*I didn’t feel good with myself.* (P49)
*I think it’s wrong, but I feel like doing it.* (P29)
*[...]* sad, unhappy and wanting to hurt myself. (P112)
*I identify with it.* (P02)

**Student dialogues and narratives about self-injury**

65.2% know another teenager who was self-harming, and 50% said they sought to talk to this person about it. There was concern with for the acquaintance about self-injurious practice:

*[...]* I’ve already talked with her and said that it’s not worth hurting herself, that she’ll be fine. (P78)
*[...]* I told her not to do this to herself, because everything will be fine and she started to cry. (P27)
*I’ve already talked with them, but it didn’t make much difference.* (P07)
*I asked her to talk, I try to give her advice, but she never listens.* (P19)

The conversations also took on a tone of threat and blame: I told the person to think very carefully before doing this, because the family would be very sad, and many other things like that. (P53)

*I said that this would lead to nothing, just to get hurt.* (P78)

The stigma imposed on self-injury appears as a worthless action:

*Most consider it “foolish” and would judge me a lot.* (P07)
*I think this is idiotic.* (P102)

The belief that people with self-injury experience depression, bullying and family problems has been demonstrated and therefore need help:

*I think this research is important to identify people who practice self-injury or who have a disease related to this behavior, such as depression.* (P110)
*[...]* it is often bullying or problems at home. (P76)
*I found it interesting, because this research can help many people who suffer from depression and who cut themselves.* (P101)

Self-injury was identified as a relevant topic, but still controversial and little discussed:

*You are talking about something that many prefer to remain silent.* (P11)
*These things are important to talk about.* (P91)
*[...]* I don’t like to comment on this subject with anyone. (P17)
*I don’t open up to my parents like that.* (P63)

This school needs help, there are many people who cut themselves, but do not speak about it. (P06)
DISCUSSION

59% of students performed some self-injurious behavior at least once in their lives. A survey carried out with adolescents indicates a divergent estimate of 13%\(^{16}\). The prevalences were different, probably due to the concepts and methods used in the research\(^{7,17}\).

The prevalence of self-injury indicated that practically a third of students (33%) had self-injury in the last 12 months. This data is similar to the investigation carried out with Swedish adolescents\(^{18}\), in which 35.6% of adolescents reported at least one episode of self-injury during the last year. In a study with students from the city of Divinópolis, in the state of Minas Gerais, 9.48% of these students reported self-injury at least five times in the last year\(^{7}\). The frequency of self-injury episodes within a year is one of the diagnostic criteria\(^{5}\).

Realizing the high prevalence of self-injury does not mean that there are many adolescents with a mental disorder. How to explain a high number of teenagers who get hurt on purpose? One possible explanation is social contagion\(^{19}\).

Self-injury is an experience discussed among teenagers (online and offline) and reproduced in their friendship circles; thus, it is possible that, due to social contagion, cultural processes around them and the fluid process of identity formation in adolescence, they identify and unconsciously select a socially “available” symptom as a form of expression\(^{20}\).

The most reported types of self-injury were: biting, poking wounds, hitting and cutting; 76% have already performed more than one type of these behaviors. Research conducted with students from another city in Minas Gerais\(^{7}\) demonstrates similar data, including the use of up to three self-injury methods, varied in intensity. Knowing the number of self-injury methods, along with the type of self-injury and the potential to cause harm, allows classifying the conduct as severe, moderate or mild\(^{21}\). The behaviors of students in this research are less serious and impulsive\(^{6,7}\).

Regarding the age of the first self-injury, the adolescents indicated that it was between 11 and 12 years old, being the most frequent occurrence in girls. These data are in line with other studies\(^{7,22}\), which indicate the first occurrence between 11 and 15 years old, more common among females\(^{7,21}\).

Most denied self-injury with suicidal intent, despite 32% expressing such interest. One study suggests that people who self-injure are more likely to attempt suicide than those who do not\(^{23}\). Even though self-injury behavior is not associated with a suicide attempt, the presence of self-injury behavior poses a risk for suicidal thoughts and behavior in the future\(^{23}\).

The main motivation for self-injury was the relief of negative emotions. Research has shown the same result of seeking relief from the feeling of emptiness or indifference\(^{7}\). An international survey showed similar results\(^{24}\). Another study also indicates emotional regulation, specifically, the relief of affective tension\(^{25}\). Self-punishment as a function appeared in the justifications, so that getting hurt expresses anger against oneself, one’s own derogation, or punishment for bad thoughts\(^{24}\).

The relief of negative emotions as a function is part of a script disseminated in the media by health professionals\(^{20}\). In an attempt to organize, signify and communicate their suffering, the adolescent reproduces this pre-existing discourse\(^{20}\).

Students report that knowing or being aware of a teenager who self-harms and have tried to talk to him/her about it. The content of the dialogues expresses the teenager’s dissuasion from the practice, but it can also assume a tone of threat and blame.

Attention is drawn to the use of adequate language to talk to people who get hurt, in order to guarantee a less stigmatizing and more empathetic approach\(^{26}\). The use of the term “maladaptive behavior” to refer to self-injury sets precedents for stigma and misunderstanding\(^{26}\), as a result, adolescents can end up isolating themselves, feeling guilty and ashamed. This type of information is important to guide preventive and health-promoting interventions in the school environment.
Students associated self-injury with depression, either referring to them as synonyms or establishing a causal relationship. There are similarities in these statements with the current medical/psychiatric discourse, which associates self-injury to various difficulties in mental health, with depression being the most frequent diagnosis in people with self-injury. This contemporary discourse outlines the concept of self-injury, its causes and consequences, and students choose it as a way to understand this phenomenon. By unquestionably accepting this paradigm that suggests pathologization, there is a risk that the complexity inherent to adolescence is reduced to symptoms and the individuality of the emotional experience is ignored.

They defended themselves also in the statements that, when hurting oneself on purpose, one experiences family problems or bullying. Conflicts of this nature are reported by self-injurious adolescents, in a study, highlighting paternal absence, maternal distancing, conflicts arising from the parents' divorce and/or physical, sexual and psychological violence carried out by family members.

Bullying occurs due to a person that does not fit in with what is considered standard, whether it is physical type, race, musical style, or even self-harm. Interpersonal conflicts faced in adolescence are presupposed, both of a subjective order when the adolescent sees himself/herself at a distance from parental figures, and closer to peers in a more or less conflicting way; or social, when they describe situations of violence and vulnerability.

Adolescents expressed a demand for a responsive and careful dialogue, stating that the school needs support to discuss the topic of self-injury, as adolescents who harm themselves do not speak out. By proposing an open and responsible dialogue with students, considering not only the cognitive aspects, but, above all, the emotional issues involved and social influences, the school can have outcomes that directly influence the adolescent's health and their learning.

In their daily lives, public schools face a distance between their proposals provided for in the legislation and the reality of their practice. In itself, a complex network that overlaps social conditions, individual and group perspectives, crossed by the interests of the State, managers, neighborhoods, and others. Immersed in these structural confrontations in Brazilian education, the school team lacks support to deal with the demand for self-injury and others that affect its students. Mental health and psychosocial care professionals should be thought of as this support, making up the school team on the fronts of disease prevention and health promotion.

CONCLUSION

Self-injury behavior is inserted in the school context in a significant portion of students, who indicate as the reason for the practice, the relief of negative feelings and as factors that surround it: family conflicts, depression and bullying. These narratives maintain similarities with the discourse established and socially disseminated in social media, which outlines what self-injury is, its motivations and consequences. Adolescents identify with this discourse and incorporate it as a way of expressing and meaning what they feel.

The way they dialogue with each other about self-injury reveals the implicit stigmas of these students. Even if it is not the intention, the conversations take on a tone of threat and blaming those who practice it.

Understanding how the dialogues have been built indicates how to think about health promotion and disease prevention strategies that reach the school, in order to destigmatize self-injury as an act merely to draw attention, or simply to relieve tension. It is necessary to investigate the root of this behavior, building spaces for dialogue between students and school staff.

Understanding the school as an institution that promotes health, it is argued that it should be supported by mental health and psychosocial care professionals, as public schools in Brazil...
find themselves immersed in structural challenges that make them overloaded to meet, above all, the its role in the production of knowledge, but also in the development of the subject.

As a limitation, it is pointed out that the collection is carried out, for convenience, only with students in the morning shift. Results with students from the afternoon and evening periods may be different. Furthermore, the use of the term “self-injury” in the self-report questionnaire may have influenced the understanding of the questions. It is suggested that Brazilian studies adopt the term “self-mutilation”, which is more common among students. However, it is important to clarify that self-harm is not limited to cutting.

Despite these limitations, this study contributed to expand the understanding of self-injury from the perspective of students, not only for the school, but also for the scientific community. It is suggested that future research include teachers and other school professionals to broaden the perceptions of the school community about the phenomenon and contribute to disease prevention and health promotion strategies.

REFERENCES

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**CONTRIBUTIONS**

Ana Carla de Oliveira Paulo Ribeiro and Rafael Franco Dutra Leite contributed to the design, collection and analysis of data. Vilma Valéria Dias Couto participated in the data analysis, writing and reviewing.

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