Forms of Deliberate Self-Harm and Their Prevalence in Adolescence

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ABSTRACT
The self-harming behaviour in adolescence as a form of high risk behaviour has recently undergone several changes, which involve three main areas – the prevalence, comorbidity and forms of self-harm. The problem of most studies which have tried to present relevant data with regard to self-harming behaviour is the question of which forms should be included in the study or which forms belong under the notion of self-harm. The ambiguous definition makes it problematic to observe the development of this phenomenon or to compare the data from multiple studies or countries. This study attempts to bring preliminary data related to the prevalence and forms of self-harming behaviour from three perspectives: 1/ self-harm as an intentional self-inflicted damage to the surface of the body, with the expectation that the injury will only lead to minor or moderate physical harm (called “Direct Physical Self-Harm”); 2/ self-harm as an intentional self-inflicted damage to the body, including indirect forms – e.g. through substance abuse (alcohol, medication etc.) or an intervention into the way the organism functions (called “Indirect Physical Self-Harm”); 3/ self-harm as any intentional self-inflicted damage to the body or mind of a person, including forms that cause psychological harm (called “Mental Self-Harm”). The study presents the prevalence of self-harming behaviour in the context of three perspectives and discusses the benefits of these views, their risks as well as the stimuli for further research in the area of self-harming behaviour in the adolescent population.

Keywords: Self-harm, prevalence, forms (direct, indirect, mental), adolescence, DSM

1. Introduction
Self-harming behaviour as a form of high risk behaviour has recently undergone several changes, which has motivated the scientific community to review its knowledge and approach to this issue. These changes involve three main areas – the prevalence, comorbidity and forms of
self-harm. The prevalence of self-harming behaviour in studies carried out until now varies considerably in different countries. As stated by Buresova (2016), it ranges from very low values, such as 1% in Hungary or 4.7% in Belgium (Madge et al., 2008), through average values of 8% in Australia (Moran et al., 2012), 9.3% in Norway (Tormoen et al., 2013) and 10% in England (Hawton, Saunders & O'Connor, 2012) up to the highest values which were measured in the United States – 20.3% (Swahn et al., 2012) and Germany 25.6% (Plener et al., 2009). Probably the highest prevalence was documented by Dyl (2008), who reported 47% or Hallab & Covic (2010) with 69%. It is questionable whether such large disparities could be caused by the specificities of the individual countries. Rather experts believe that such striking differences in the prevalence are the result of a lack of a uniform methodology used in the data collection, and particularly as there is no single definition of exactly what type of behaviour belongs or does not belong under the notion of self-harm. As was stated in the previous study where the prevalence of self-harming behaviour in the Slovak population of adolescents reached 59.11%, unless the forms of behaviour included in the definition of self-harm are unambiguously categorized, it is not possible to discover the exact prevalence of this phenomenon and the data from individual studies cannot be compared (Demuthova & Demuth, 2019).

The comorbidity of self-harming behaviour is very specific. Self-harm as such is not recognized as an individual diagnosis, thus it has no nosological classification, so it cannot be observed in connection with other diagnoses. It is only recognized as a form of self-harming behaviour, and therefore, its comorbidity is only observed by registering which disorders/diseases/diagnoses are accompanied by this type of behaviour. In this context, self-harm was previously mainly identified as a symptom of certain psychiatric diagnoses and mental disorders – autism (Maddox, Trubanova & White, 2017), mental retardation (van den Bogaard et al., 2018), attempted suicide (Brent, 2011), and borderline personality disorder (Glenn & Klonsky, 2013) or in victims of sexual abuse (Klonsky, Victor & Saffer, 2014). However, current research suggests that this traditional approach ought to be reviewed – self-harming behaviour occurs independently of a diagnosis of borderline personality disorder diagnosis (Glenn & Klonsky, 2013). Moreover, meta-analytic studies on sexual abuse and self-harm suggest that sexual abuse is not the root cause of self-harming behaviour (Klonsky & Moyer, 2008). Self-harming behaviour has increasingly been found in the psychiatrically healthy adolescent population and it seems that it is not a symptom of the future onset of a mental disorder during development. The data clearly show that self-harm should be excluded from the group of psychiatric diagnoses and transferred into the environment of the mentally healthy population suffering from particular problems.

As to the forms of self-harming behaviour, the ability for adolescents to communicate via Internet with only minimal restrictions over the last few decades has caused the relatively stable
range of the most frequent forms of self-harm (cutting with razors, burning with cigarettes, punching or banging heads against the wall etc.) to be extended with a countless number of diverse and often very sophisticated forms of self-harm. In addition to scratching, intentional puncture wounds and frostbite it includes, for instance, preventing wounds from healing, inserting foreign bodies into wounds; swallowing indigestible or inedible objects; walking (possibly on knees) over painful objects (glass, pins etc.); the abuse of toxic substances (alcohol, drugs, pills etc.) with the intention to cause self-harm (not due to their effects on the psyche); starving or not sleeping enough, as well as other forms which do not have a direct effect on the body, but on the mind: intentional lowering of self-esteem, punishment by inducing states of depression and anxiety, self-torture with self-defeating thoughts, engaging in emotionally abusive relationships, distancing oneself from God as punishment, setting up in a relationship in order to be rejected etc.

The methodological problem of most studies which have tried to present relevant data with regard to the prevalence of self-harming behaviour is the question of which forms should be included in the study or which forms belong under the notion of self-harm. The ambiguous definition makes it problematic to observe the development of this phenomenon or to compare the data from multiple studies or countries. On the other hand, it must be noted that self-harming behaviour has recently undergone multiple changes and it is thus natural that the need to redefine this type of high risk behaviour has emerged. In order to achieve a consensus in the definition of this behaviour, it is first and foremost necessary to thoroughly examine the forms, their most frequent manifestations and on the basis of this information, there needs to be a discussion about the forms of behaviour that should be considered as self-harm.

2. Objective

The aim of the study is to present preliminary data relating to the prevalence of self-harm in the population of Slovak adolescents with regard to three possible approaches in which the specific form of self-harm is embraced: 1/ only direct forms, or intentional self-inflicted damage to the surface of the body with no suicidal intent; 2/ both direct and indirect forms, which includes self-inflicted harm, primarily affecting the body, but not necessarily visible; 3/ direct, indirect and mental forms, or those which primarily affect and harm the individual's psyche. This study also aims to observe the specificities of the prevalence of the individual forms of self-harm (direct, indirect, and mental) in both men and women with regard to age.
3. Method

3.1 The Self-Harm Inventory

To register the different forms of self-harming behaviour, we selected The Self-Harm Inventory (SHI) (Sansone & Sansone, 2010), as it contains a relatively wide range of forms of self-harm. It is a self-assessment questionnaire consisting of 22 questions to reveal the presence (and frequency in the case of 13 questions) of the individual forms of self-harming behaviour. The questions are preceded by the phrase, “Have you ever intentionally, deliberately to cause yourself harm...” followed by the forms of self-harming behaviour: “Cut yourself on purpose”, “Burned yourself on purpose”, “Hit yourself”, “Scratched yourself on purpose” etc. [17; p. 18]. Three items were deleted from the original questionnaire as the survey was conducted using a sample that included children from 11 years old, specifically: “...have you engaged in sexually abusive relationships” and “...have you lost a job on purpose” (this is hardly relevant for the younger age groups) and “...have you deliberately driven recklessly” (as only people over the age of 18 years may drive a motor vehicle unsupervised in Slovakia). On the other hand, two additional items were added to the questionnaire, which tend to occur as a form of self-harm in the adolescent population: “...not slept enough to hurt yourself” and “...over-exercised to hurt yourself”. The modified form of the questionnaire thus included 21 questions.

3.2 Direct Physical Self-Harm

The first and narrowest definition of the forms of self-harm is suggested in the fifth revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), specifically in the proposal for “Non-Suicidal Self-Injury” (NSSI). It assumes that it is “intentional self-inflicted damage to the surface their body of a sort likely to induce bleeding, bruising, or pain (e.g. cutting, burning, stabbing, hitting, excessive rubbing), with the expectation that the injury will only lead to minor or moderate physical harm (i.e. there is no suicidal intent)” [18; p. 803]. According to this criterion, self-harm is a type of behaviour which leads to direct damage to the surface of the body. 7 items of the 22-item questionnaire fulfil this criterion, namely: “Hit yourself”, “Scratched yourself on purpose”, “Cut yourself on purpose”, “Exercised an injury on purpose”, “Banged your head on purpose”, “Prevented wounds from healing”, and “Burned yourself on purpose”. The nature of this self-harm is direct physical injury and for the purposes of this study we will refer to it as “Direct Physical Self-harm”.

3.3 Indirect Physical Self-Harm
The second definition also includes somatic damage which is, however, caused indirectly – either through substance abuse (alcohol, medication etc.) or an intervention into the way the organism functions. In addition to those forms listed in the previous definition, 8 additional forms are added: “Abused alcohol to hurt yourself”, “Not slept enough to hurt yourself”, “Over-exercised to hurt yourself”, “Starved yourself to hurt yourself”, “Made medical situations worse on purpose (e.g., by skipping medication)”, “Abused prescription medication”, “Overdosed”, and “Abused laxatives to hurt yourself” giving a total of 15 items. There are two approaches towards the indirect forms of self-harm. Firstly, there is the specific categorization of these 8 forms as indirect self-harm, and for the purposes of this study we will refer to this category as “Indirect Physical Self-Harm”. Secondly, we will add this group to the previous forms and thus provide a broader understanding of the notion of self-harm as somatic self-harm.

3.4 Mental Self-Harm

The third and broadest understanding of the forms of self-harm is reflected in the opinions of a group of experts (e.g., St Germain & Hooley, 2012), who point out a need to also address the forms of mental self-harm. Our previous studies have shown that the mental forms of self-harm are very common in the population and may even have a greater long-term negative impact on the mental health of an individual than cutting or burning (Demuthova & Demuth 2019). In the context of this view, 5 items should be included in the group of mental forms of behaviour of self-harm in the SHI questionnaire: “Tortured yourself with self-defeating thoughts”, “Engaged in emotionally abusive relationships”, “Been promiscuous (i.e., had many sexual partners)”, “Distanced yourself from God as a punishment”, “Set yourself up in a relationship to be rejected”. Just as in the previous case, we will adopt two approaches to this category of the forms of self-harming behaviour. Firstly, we will create a specific category containing exclusively mental self-harm, this will be referred to as “Mental Self-Harm” and secondly we will add it to the previous forms and create the third and broadest understanding of the notion of self-harm.

The item “Attempting Suicide” from the SHI questionnaire will not be used in these analyses, since it does not belong to any of the categories defined above. Given the nature of this type of behaviour, it should be included in the first category as a direct form of self-harm, but since DSM-5 (2013) explicitly rejects its inclusion into this category, we decided to accept this definition. However, in order to report as much basic and current data as possible on the self-harming behaviour of the Slovak adolescent population, we will evaluate the data relating to this variable and present it separately.
4. Subjects

The subjects were Slovak adolescents attending primary or secondary school. 44 (4.14%) questionnaires from the total number of 1,064 questionnaires were excluded due to incomplete or incorrect completion of the test battery. 1,020 subjects in the age range of 12-18 (mean 15.04 years) participated in the analysis, of which 579 (59.9%) were women.

5. Results

5.1 Direct Physical Self-Harm

If we respect the definition of the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders for the “Non-suicidal self-injury” (NSSI), which suggests that self-harming behaviour (criterion A) should only include “intentional self-inflicted damage to the surface of the body of a sort likely to induce bleeding, bruising, or pain (e.g. cutting, burning, stabbing, hitting, excessive rubbing), with the expectation that the injury will only lead to minor or moderate physical harm (i.e. there is no suicidal intent)” [18, p. 803], only 7 items from the SHI questionnaire are included in the notion of self-harm (see Table 1). For working purposes, this type of self-harm could be called “Direct Physical Self-Harm” and its total prevalence (i.e. the occurrence of at least one of these forms in the observed sample) of self-harming behaviour would be 38.7% (N = 395). Table 1 also indicates the percentage of individuals who perform the individual forms of direct physical self-harm as well as its prevalence in men (N = 142) and women (N = 253). The SHI questionnaire allowed the subjects to select multiple options (several different forms of self-harm), hence the sum of the prevalence values of the individual forms does not have to equal 100% (this comment also applies to the following tables, 2 and 3).

Table 1: The prevalence of individual forms of direct physical self-harm

<table>
<thead>
<tr>
<th>[Forms of direct physical self-harm]:</th>
<th>Whole sample (N=395)</th>
<th>Men (N=142)</th>
<th>Women (N=253)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prevalence in %</td>
<td>Rank</td>
<td>Prevalence in %</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hit yourself</td>
<td>47.8</td>
<td>1.</td>
<td>53.5</td>
</tr>
<tr>
<td>Scratched yourself on purpose</td>
<td>46.3</td>
<td>2.</td>
<td>40.1</td>
</tr>
<tr>
<td>Cut yourself on purpose</td>
<td>43.3</td>
<td>3.</td>
<td>27.5</td>
</tr>
</tbody>
</table>
The predominant form of behaviour in the group of individuals who perform direct physical self-harm is hitting, which is also the most typical form of direct physical self-harm in men. The most frequent form for women was cutting. Further differences between men and women in the sample are presented in Table 1. As to the mutual relationship between the sex of the subject and the forms of direct physical self-harm in this group (individuals performing direct self-harm), the significance values of $p<.05$ suggest that “Cut yourself on purpose” (sig. =.000**), “Banged your head on purpose” (sig. =.021*), “Prevented wounds from healing” (sig. =.007*), and “Exercised an injury on purpose” (sig. =.000**) significantly statistically correlate with the sex of the self-harming individual.

Equally we analysed the occurrence of direct physical self-harm in the individual age categories (Figure 1). The prevalence in the individual years does not indicate a clear trend – it rises slightly from the age of 12 and then subsequently shows a decrease with fluctuations. It reaches its maximum value at the age of 14 (45%) and minimum value at the age of 17 (25.1%).

**Figure 1: The prevalence of direct physical self-harm in the observed sample by age**
5.2 Indirect Physical Self-Harm

In addition to hurting their bodies, which caused physical damage to the surface of their bodies, adolescents also perform other forms of self-harm that cause hidden or indirect damage to the body. From the SHI we separated out eight of these forms of self-harming behaviour (see Table 2) with a total prevalence (i.e. the occurrence of at least one of these forms in the observed sample) of 46.3% (N=472). Table 2 indicates the percentage of individuals who performed indirect physical self-harm and the individual forms of this behaviour as well as its prevalence in men (N = 175) and women (N = 297). The most frequent form of indirect self-harm in our sample of adolescents was “Abused alcohol to hurt yourself”. In this context, it should be emphasized that the most frequent form of self-harm in women was abuse of alcohol, whereas this form of indirect self-harm was the second most common form in adolescent men (preceded by “Not slept enough to hurt yourself”). From the statistical analysis it appears that men predominantly tend to resort to three forms of indirect self-harm (“Abused alcohol to hurt yourself”, “Not slept enough to hurt yourself”, and “Over-exercised to hurt yourself”), while women exhibit greater variability in their choice of form of indirect self-harm. Observing the mutual relationship between the sex of the subject and the individual forms of indirect physical self-harm, in this group sex only statistically significantly correlates (i.e. the indirectly self-harming individuals) with two variables: “Made medical situations worse on purpose” (sig. =.001**) and “Starved yourself to hurt yourself” (sig. = .001**).

Table 2: The prevalence of individual forms of indirect physical self-harm

<table>
<thead>
<tr>
<th>[Forms of indirect physical self-harm]:</th>
<th>Whole sample (N=395)</th>
<th>Men (N=142)</th>
<th>Women (N=253)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abused alcohol to hurt yourself</td>
<td>52.8</td>
<td>53.7</td>
<td>52.2</td>
</tr>
<tr>
<td>Not slept enough to hurt yourself</td>
<td>52.5</td>
<td>58.3</td>
<td>49.2</td>
</tr>
<tr>
<td>Over-exercised to hurt yourself</td>
<td>26.1</td>
<td>31.4</td>
<td>22.9</td>
</tr>
<tr>
<td>Starved yourself to hurt yourself</td>
<td>17.4</td>
<td>4.0</td>
<td>25.3</td>
</tr>
</tbody>
</table>
The distribution of the prevalence of forms of indirect physical self-harm in the individual age categories is shown in Figure 2. Unlike the previous forms of direct physical self-harm, this tendency appears to rise as age increases. Possible interpretations for this are proposed in the discussion section.

**Figure 2: The prevalence of indirect physical self-harm in the observed sample by age**

<table>
<thead>
<tr>
<th>Form of Indirect Physical Self-Harm</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Made medical situations worse on purpose</td>
<td>32.5</td>
<td>44.9</td>
<td>47.2</td>
<td>47.1</td>
<td>49.1</td>
<td>47.3</td>
<td>51.7</td>
</tr>
<tr>
<td>Abused prescription medication</td>
<td>20.5</td>
<td>5.3</td>
<td>6.9</td>
<td>4.</td>
<td>20.5</td>
<td>5.</td>
<td></td>
</tr>
<tr>
<td>Overdosed</td>
<td>6.6</td>
<td>6.</td>
<td>6.3</td>
<td>5-6.</td>
<td>6.7</td>
<td>6.</td>
<td></td>
</tr>
<tr>
<td>Abused laxatives to hurt yourself</td>
<td>5.1</td>
<td>7.</td>
<td>6.3</td>
<td>5-6.</td>
<td>4.4</td>
<td>7.</td>
<td></td>
</tr>
<tr>
<td>Overdosed</td>
<td>2.8</td>
<td>8.</td>
<td>2.3</td>
<td>8.</td>
<td>3.0</td>
<td>8.</td>
<td></td>
</tr>
</tbody>
</table>

**5.3 Mental Self-Harm**

The remaining items in the questionnaire (with the exception of suicide attempts) were comprised of the five forms of mental self-harm (see Table 3). The total prevalence of mental self-harm (i.e. the occurrence of at least one of these forms in the studied sample) was 25.1% (N=256). Table 3 indicates the percentage of individuals who performed mental self-harm and the individual forms of this behaviour as well as its prevalence in men (N = 142) and women (N = 253). “Tortured yourself with self-defeating thoughts” was the dominant form of mental self-harm – it represented three quarters of all cases. The least frequent form was “Set yourself up in a relationship to be
rejected” with a prevalence of 7%. The data presented clearly indicates cross-gender differences in the prevalence of certain forms of mental self-harm. The analysis of the correlation between age and the occurrence of specific forms of mental self-harm in mentally self-harming individuals has revealed a statistically significant correlation for “Been promiscuous” (sig. =.000*), “Set yourself up in a relationship to be rejected” (sig. =.007*), and “Tortured yourself with self-defeating thoughts” (sig. =.01*).

Table 3: The prevalence of individual forms of mental self-harm

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tortured yourself with self-defeating thoughts</td>
<td>75.0 1.</td>
<td>63.9 1.</td>
<td>79.3 1.</td>
</tr>
<tr>
<td>Engaged in emotionally abusive relationships</td>
<td>22.7 2.</td>
<td>15.3 4.</td>
<td>25.5 2.</td>
</tr>
<tr>
<td>Distanced yourself from God as a punishment</td>
<td>14.5 3.</td>
<td>16.7 3.</td>
<td>13.6 3.</td>
</tr>
<tr>
<td>Been promiscuous (i.e., had many sexual partners)</td>
<td>13.3 4.</td>
<td>27.8 2.</td>
<td>7.6 4.</td>
</tr>
<tr>
<td>Set yourself up in a relationship to be rejected</td>
<td>7.0 5.</td>
<td>13.9 5.</td>
<td>4.3 5.</td>
</tr>
</tbody>
</table>

We also analysed the occurrence of mental forms of self-harm in the individual age categories (Figure 3). This prevalence (similarly as in the case of the direct physical self-harm) does not indicate a clear trend – it rises slightly from the age of 12, reaches the first peak at the age of 16 (30.9%), then subsequently shows a decrease and reaches its maximum value at the age of 18 (38.3%).

Figure 3: The prevalence of mental self-harm in the observed sample by age
The previous overviews of the prevalence of individual forms of self-harm did not include “Attempted suicide” – its prevalence in the studied sample was 4.6%.

5.4 Comparing the Prevalence of Self-Harming Behaviour from Various Perspectives

Even though previous analyses presented data on the percentage of self-harming individuals in the sample that performed at least one of the forms of self-harming behaviour in three different categories (direct physical self-harm 38.7%, indirect physical self-harm 46.3% and mental self-harm 25.1%), it is not possible to make accurate comparisons as the individual categories were made up of different numbers of variables (7 direct physical, 8 indirect physical, and 5 mental forms). If each single form of self-harm was weighted by its impact in the given category, the group of direct physical forms would have a level of 5.53, the group of indirect physical forms 5.79 and the group of mental forms of self-harm 5.02. This means that the most prevalent category of self-harming behaviour in the observed sample of adolescents was the indirect forms of physical self-harm.

If we compared the prevalence of self-harm depending on the three possible approaches: 1/ self-harm as direct physical self-harm only (DSM-5), 2/ self-harm as damage to the body (i.e. both direct and indirect physical self-harm) and 3/ self-harm as a behaviour that leads to intentionally hurting oneself with the exception of suicide (i.e. both physical and mental self-harm), the prevalence values would be 38.7 for the first, 56.3% for the second and 58.2% for the third. This shows that if we accept the DSM-5 proposal for NSSI we would only report a proportion of self-harming behaviours.
The values of the prevalence of all forms of self-harm observed using the SHI questionnaire (including “Attempted suicide”) show that the majority of self-harming adolescents combine several forms of self-harming behaviour. Table 4 presents an overview of the number of forms of self-harming behaviour from the responses to the 21-item questionnaire as completed by the subjects in the sample.

Table 4: Number of forms of self-harm

<table>
<thead>
<tr>
<th>Number of forms</th>
<th>N</th>
<th>%</th>
<th>Number of forms</th>
<th>N</th>
<th>%</th>
<th>Number of forms</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>162</td>
<td>27.3</td>
<td>5</td>
<td>49</td>
<td>8.2</td>
<td>9</td>
<td>20</td>
<td>3.4</td>
</tr>
<tr>
<td>2</td>
<td>112</td>
<td>18.9</td>
<td>6</td>
<td>27</td>
<td>4.5</td>
<td>10</td>
<td>10</td>
<td>1.7</td>
</tr>
<tr>
<td>3</td>
<td>91</td>
<td>15.3</td>
<td>7</td>
<td>22</td>
<td>3.7</td>
<td>11</td>
<td>9</td>
<td>1.5</td>
</tr>
<tr>
<td>4</td>
<td>56</td>
<td>9.4</td>
<td>8</td>
<td>22</td>
<td>3.7</td>
<td>12 and more</td>
<td>14</td>
<td>2.3</td>
</tr>
</tbody>
</table>

6. Discussion

As to the primary aim of this study (i.e. to present preliminary data on the prevalence of self-harming behaviour in adolescents in the Slovak population with respect to three possible approaches), it may be concluded that the prevalence of self-harm in the study sample ranged from 38.7% (direct physical forms), through 56.3% (both direct and indirect physical forms), to 58.2%. In comparison with the data from the available studies (see e.g., Klonsky, Victor & Saffer, 2014; Buresova, 2016; Moran et al., 2012; Hawton, Saunders & O’Connor, 2012) the prevalence is relatively high. It is only comparable to certain studies, such as Dyl (2008) who reports 47% or Hallab and Covic (2010) – with 69%. The higher prevalence of self-harming behaviour may be ascribed to the higher proportion of women in the sample (60%). Our results (Demuthova & Demuth, 2019) as well as the data from other studies (e.g., Hawton & Harriss, 2008; Moran et al., 2012; Bresin & Schoenleber, 2015, etc.) show that the prevalence of self-harming behaviour is higher in women than men, especially in adolescence. Moreover, women have a psychologically higher tendency to verbalise their problems and are more willing to share them, which may increase the prevalence of this phenomenon as the studied sample did not consist of an equal number of male and female subjects.

In the analysis of the forms of direct physical self-harm, cutting (as the prototypical self-harming behaviour) was only dominant in women. The data presented has also demonstrated that the sex of the subjects is an important variable which affects the prevalence of the individual forms of self-harm. It is therefore necessary to take this variable into account in any further research. Equally we expect that research that observes other specificities – such as personality traits
(extraversion, impulsiveness, neuroticism...), or the presence of certain symptoms (symptoms of depression or eating disorders etc.) may clarify several specificities of this high risk behaviour in adolescents.

Indirect forms of self-harm were the most common in our study sample, with the dominant forms being: Abused alcohol to hurt yourself, Not slept enough to hurt yourself, and Over-exercised to hurt yourself. It would be beneficial to observe, in more detail, the motivation for these forms of self-harming behaviour. In fact, these forms also occur in other types of high risk behaviour (e.g. underage drinking alcohol for reasons other than to cause self-harm is mostly simply delinquent behaviour) or in other types of disorders, and their occurrence may therefore have an alternative psychological background. Thus, we considered it necessary to instruct the subjects to select, in the self-assessment questionnaire, only those activities, which they had done “...intentionally, deliberately in order to harm yourself...”. Another interesting finding in the context of the occurrence of the indirect physical forms of self-harm is its increasing prevalence with increasing age. This phenomenon may arise due to the fact that older individuals may use more sophisticated (hidden and hard to discover) methods of self-harm. However, there is also a possible explanation related to the high prevalence of alcohol abuse in this particular group of forms of self-harming behaviour. The consumption of alcohol naturally increases with age, which again suggests the need to strictly distinguish, whether it is a form of self-harming behaviour, or whether it is abuse with the intention of attaining a state of euphoria or so-called “social drinking”.

The prevalence of mental self-harm among the various forms of self-harming behaviour is not negligible. Just as with the indirect physical forms, we assume that even here, ignoring these forms of self-harming behaviour would distort the way this phenomenon is seen with regard to adolescence. A typical example of these forms of self-harm is the intentional self-torture with thoughts which hurt them. In previous studies (see Demuthova & Demuth, 2019), where adolescents were asked to define what constitutes self-harm, or through questions which asked them to indicate which forms (in addition to those listed in the SHI questionnaire) they use to cause self-harm, they gave answers which indicated that the mental forms of self-punishment are frequently used and typical of adolescents.

In the next part of the study, we compared the prevalence values of the individual forms of self-harm in adolescence. Indirect forms of self-harming behaviour proved to be the most prevalent. This equally demonstrates that seeing self-harm from the viewpoint of the DSM-5 for NSSI criteria largely limits the reported prevalence of self-harm. Monitoring using this criterion would consequently emit a large number of forms that actually occur in the adolescent population. Therefore, we propose that further research to monitor the prevalence of the various forms of
self-harm is carried out, and the criterion that defines which behaviour belongs under this notion should be determined based on the real prevalence in the population. This data could subsequently be used to create a methodology to register the current forms of self-harm in adolescents, their prevalence, as well as to study the correlations between self-harm and other psychological variables (e.g. personality).

7. Conclusion

The prevalence of self-harm in the study sample reached very high numbers. The deeper analysis showed, that indirect forms of self-harming behaviour proved to be the most prevalent. This demonstrates that seeing self-harm from the viewpoint of the DSM-5 for NSSI criteria largely limits the reported prevalence of self-harm. Also, the prevalence of mental self-harm among the various forms of self-harming behaviour is not negligible. Just as with the indirect physical forms, we assume that even here, ignoring these forms of self-harming behaviour would distort the way this phenomenon is seen with regard to adolescence. Therefore, we propose that further research to monitor the prevalence of the various forms of self-harm is carried out, and the criterion that defines which behaviour belongs under this notion should be determined based on the real prevalence in the population. This data could subsequently be used to create new questionnaire to register the current forms of self-harm in adolescents, their prevalence, as well as to study the correlations between self-harm and other psychological variables.

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References


