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Mental Problems in the Context of Self-Harming Behaviour (A Review Study)

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Abstract

Self-harm is a widespread and high-risk form of behaviour that occurs especially in adolescents and young adults. While research in this area in recent decades has mainly emphasised its increasing trend and high prevalence in the general (non-clinical) population, more recent research has drawn attention to its connection with various psychological difficulties. The occurrence of comorbidities and psychological difficulties in individuals who self-harm has not been greatly explored. The present study maps the occurrence of mental health problems linked with self-harming behaviour published in the results of scientific articles. The aim is to identify the most commonly occurring mental problems and comorbidities in the self-harming population, to categorise them in line with the areas defined by the Diagnostic Manual of Mental Disorders, fifth revision (DSM-5), and to determine the area of psychological problems that occurs most frequently in relation to self-harm. The data were obtained based on a review of scientific papers published up to September 2024 in the Web of Science database, generated by the database based on the keywords: "self-harm", "non-suicidal self-injury" and "mental problems". After eliminating duplicates and out-of-scope papers (51.6% of articles), the basis for the analysis of the occurrence of mental disorders comprised 30 scientific articles. The most frequent mental disorders occurring on the symptom level with self-harm are depression (N=13, 43.3% of articles), anxiety (N=8, 26.7%), illegal substance use (N=6, 20%) and suicidal ideation/planning (N=6, 20%). From the DSM-5 diagnosis categories, Relational Problems dominated, followed closely by Substance-Related and Addictive Disorders and Depressive Disorder. To understand self-harming behaviour, especially for effective intervention, it is necessary to focus attention on psychological difficulties and diagnoses that accompany self-harm.

Keywords: self-harm, NSSI, comorbidity, symptom, diagnose

1. Introduction

Self-harming behaviour (also called self-harm – Bailey et al. 2017; non-suicidal self-harm – APA 2015, or older as: self-mutilation – De Smet et al. 1997, self-injury – Huband & Tantam 2004, self-destruction – D'Alessandro & Lester 2000, parasuicide – Hirsch et al. 1983, etc.) is a highly frequent form of risky behaviour (the prevalence in Slovakia ranges around 46% – Demuthova 2023) occurring mainly in adolescence and emerging adulthood (Peterson et al. 2008). Self-harming behaviour has not yet been defined as a nosological subject, but the Diagnostic Manual of Mental Disorders in its fifth revision (DSM-5) proposes to define it as Non-Suicidal Self-Injury (NSSI) in the appendix "Disorders for Further Investigation". According to DSM-5 this behaviour is defined as engagement: "...in intentional self-inflicted damage to the surface of his or her 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 lead to only minor or moderate physical harm (i.e., there is no suicidal intent)" (APA 2013, 803). An analysis of the most common forms of self-harm, however, has shown (see Demuthova & Spasovski 2020) that the proposed diagnostic definition in DSM-5 is too narrow – many self-harming individuals exhibit indirect (hidden) forms of self-harm, or those that lead to psychological suffering and pain (see e.g., Sansone & Sansone, 2010). Therefore, for the need for a comprehensive approach, we understand self-harm in a broader context as repeated infliction of harm to our health (physical and/or psychological) with the intention to harm oneself directly or indirectly or to provoke pain.

Research on self-harm has in recent decades focused primarily on the presence of this phenomenon in non-clinical samples of adolescents and young adults. The results of the research conducted in many countries have pointed to the alarming incidence of this undesirable behaviour and recorded its prevalence at a level ranging from 11% (Leiva Pereira & Concha Landeros 2019) or 22% (Lang & Yao 2018) through 39% (Costa et al. 2021) to 59% (Jarahi et al. 2021). Numerous studies have been conducted in an effort to uncover the causes, contributing factors or mediators that lead to self-harm, and in addition to their main purpose, they have also brought findings about numerous other mental problems present in self-harming individuals. In the past, self-harm in the field of clinical psychology was connected with a relatively small number of diagnoses – it was reported as a symptom, for example, of mental retardation (van den Bogaard et al. 2018), autism (Maddox et al. 2017), alcoholism and substance addictions (Gupta et al. 2019), or personality disorders (Hawton et al. 2013).

However, the growing body of research on self-injury highlights that this behaviour should not only be regarded as a symptom accompanying various diagnoses but also merits recognition as an independent diagnostic phenomenon. Several questions and challenges arise in the context of efforts to define self-injury as a distinct nosological entity. The framework for describing any diagnosis requires the specification of diagnostic criteria, data on prevalence, developmental course, and disease progression, as well as the identification of risk and prognostic factors, comorbidities, and distinguishing characteristics relative to similar diagnoses (differential diagnosis) (Gratz et al. 2015; Buelens et al. 2020; Ulloa Flores et al. 2020).

Thus, it is evident that analysing mental health issues that accompany self-injury is an indispensable part of the process of defining self-injury within the classification system of mental disorders. In connection with the investigation of mental problems occurring in self-harmers, scientific papers come with diverse findings. Relationships between self-harm and depressive mood (Başgöze et al. 2021; Guan et al. 2024), increased anxiety (Xiao et al. 2023), addictions (Guo et al. 2023), identity disorders (Toukhy et al. 2022) or eating disorders (Reas et al. 2023) have been identified very often. At present, however, it is not entirely clear

which mental disorders occur more often in self-harming individuals nor how they relate to this risky behaviour. They can be identified as predictors of self-harming behaviour (see e.g., Hu et al. 2024), as its result (Burke et al. 2015), mediator (Lei et al. 2024), or just a comorbid disease (Niu et al. 2024). Existing data does suggest that they may play a significant part in the onset, course and severity of self-harm. From the information presented, it is evident that the range of contributing mental health factors present in self-harm is truly rich. To uncover significant relationships, it is therefore necessary as a priority to identify those mental problems and diagnoses that are most commonly associated with self-harm and thus focus attention on the most important areas.

2. Problem and Objectives

The high and growing prevalence of self-harm and its destructive consequences for both physical and mental health encourage scientific teams to investigate the causes, mediators, risk and protective factors of this undesirable behaviour. One of the areas that requires intensive research is the analysis of mental problems/comorbidities occurring in connection with self-harm.

The objectives of this study are:

objective no. 1: to identify the mental problems that occur in connection with self-harm in the results of scientific studies published thus far;

objective no. 2: to categorise the identified mental problems in the context of DSM-5 clinical categories;

objective no. 3: to provide data on the most frequently occurring mental problems and categories of mental problems in connection with self-harm.

3. Method

3.1 Articles Review

The data acquisition method was a content analysis of the results of scientific studies published in the Web of Science (WoS) database. The search was conducted on 29 September 2024, and the inclusive search criteria were the keywords: “Mental problems”, “NSSI”, and “Self-harm”. The search engine of the WoS database generated a list of 62 articles, two of which were excluded from the list due to duplication; four outputs were not provided with the full-texts, and three articles were excluded because they were not in English (1x Russian, 1x German, 1x Turkish). Most articles (N=18) were excluded because their content did not correspond to the intention to identify areas of mental problems of self-harming individuals – for example, they addressed the effectiveness of therapies or focused on the prevalence of self-harm. Five articles did not provide relevant data – the data were either too general (they only reported an increased incidence of mental problems in general), or were absent in the results (e.g., a study describing the planned research). The process of selecting relevant scientific studies is illustrated in Figure 1.

After the process of eliminating irrelevant articles from the databases, an analysis of the results of 30 scientific studies was carried out with the aim of identifying a list of research-proven mental difficulties/comorbidities occurring with self-harm, whether in relation to mutual statistically significant correlation, causality or mediation, or a list of mental difficulties/comorbidities that significantly differed between the group of self-harming and non-self-harming subjects. The studies worked with different age groups of participants from 8

years to adulthood, with clinical and non-clinical samples. Basic data on the 30 scientific articles that served for the analysis of the relationship between mental problems and self-harm are presented in Table 1.

Figure 1: Flow diagram of the articles selection process

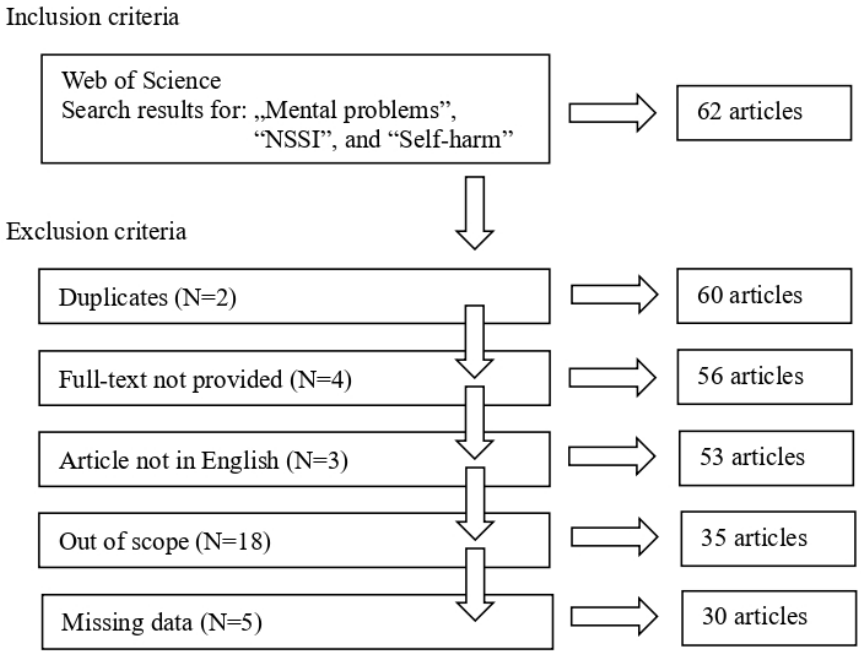

Table 1. Characteristics of the scientific articles included in the final analysis

Characteristic	**N of articles**	**%***
Age of Sample		
Childhood/adolescence (under 18 years)	20	66.7
Adulthood (above 18 years)	12	40.0
- subgroup of the age Emerging/young adulthood (19 – 30 years)	8	26.7
Type of Sample		
Clinical sample	12	40.0
Non-clinical sample	18	60.0
Type of proven relationship		
Correlation (only) between mental problems and S-H	4	13.4
Causality between mental problems and S-H	13	43.4
Differences between S-H & non S-H subjects	15	50.0

**Notes: As studies are working with various research samples or studying various relationships between variables, one study could fall into more than one category (thus, the sum of percentages is higher than 100%). S-H = self-harm; Source: Authors*

3.2 Mental Problems Categorisation

The categorisation scheme for the classification of mental disorders, diagnoses, symptoms and mental problems identified in the scientific articles will be based on the classification of mental disorders according to DSM-5 (APA 2013).

4. Results

4.1 Objective 1

Regarding objective no. 1: "to identify in the results of scientific studies published thus far the mental problems that occur in connection with self-harm", a content analysis of the results of the scientific studies was conducted which identified 73 various mental problems/ difficulties (for the complete list, see the "Symptoms" category in Table 2).

Table 2. List of mental disorders according to DSM-5 with the numbers of categorised symptoms connected with self-harm in the examined scientific articles (part 1)

Area/ symptoms (N)	**Total (N)**
Neurodevelopmental Disorders/ attention deficit hyperactivity disorder (2), attention disorder (2), inattention (1)	5
Schizophrenia Spectrum and Other Psychotic Disorders/ schizophrenia (2), psychotic disorder (1), hallucinatory experiences (2), delusional experiences (2), psychosis (1)	8
Affective disorders and related problems	
Bipolar and Related Disorders/ bipolar disorder (1), mood disorder (2), mania (1)	4
Depressive Disorders/ depression (13), hopelessness (3)	16
Related problems deficient emotional regulation (4), difficulty describing feelings (1), difficulty identifying feelings (1), alexithymia (in general) (1), affective disorders (1)	8
Anxiety Disorders/ anxiety (8), anxiety related disorders (1)	9
Obsessive-Compulsive and Related Disorders	0
Trauma- and Stressor-Related Disorders/ low resilience (1), post-traumatic stress disorder (2), high levels of stress (1)	4
Dissociative Disorders	0
Somatic Symptom and Related Disorders/ somatic problems (2), somatization disorder (1),	5
Feeding and Eating Disorders/ maladaptive dieting behaviour (1), eating disorder (1), restrictive eating (1), purging (1), binge eating (1)	5
Elimination Disorders	0
Sleep-Wake Disorders/ insomnia (1), sleeping irregularities (1), sleep problems (1), short sleep (1), poor quality od sleeping (1), sleep dissatisfaction (1), nightmares (1), daytime sleepiness (1)	8
Sexual Dysfunctions/	0
Gender Dysphoria/ non-affirmed gender (1), sexual minority (2)	3
Disruptive, Impulse-Control, and Conduct Disorders/ impulsiveness (4), oppositional defiance (2), aggressive behaviour (2), anger (1), obsessive-compulsive disorder (1), conduct disorder (2), repetitive thoughts and behaviours (1)	13
Substance-Related and Addictive Disorders/ driving under the influence of alcohol or other substances (1), alcohol use (4), smoking tobacco (1), marijuana use (2), addiction disorder (1), other illegal drug/substance use (6), prescription drug misuse (1), Internet use (1)	17
Neurocognitive Disorders	0
Personality Disorders/ borderline personality disorder (2)	2
Paraphilic Disorders	0
Other Mental Disorders	0
Suicidal Behaviour Disorder/ suicidal ideation/planning (6), suicidal attempt (5), suicidality (in general) (1)	12
Relational Problems/ relationship violence (1), physical assault/abuse (3), emotional abuse (1), parental disconnectedness (1), run away from home (2), low family support (1), social problems (2), hostility (1), interpersonal sensitivity (1), low social competencies (1), low social support (2), social dysfunction (1), promiscuity (1)	18

Source: Authors

4.2 Objective 2

Objective No. 2 was to "categorise the identified mental problems in the context of DSM-5 clinical categories". Given the fact that most mental problems associated with self-harm were not reported in the scientific studies in the form of a diagnosis but represented a set of different symptoms, these symptoms were classified according to their closest relevance to the diagnosis. For example, anxiety was classified under Anxiety Disorders, although it also occurs as a symptom in other disorders. For a reliable summary of the mental problems identified, the categorisation scheme, therefore, contained, in addition to the main DSM-5 diagnoses, a list of individual mental problems identified in the scientific articles and classified under a given diagnosis.

In the categorisation of mental disorders according to DSM-5, two adjustments were made for the purposes of this work: "Bipolar Disorder" and "Depressive Disorders" were merged into a single category (named "Affective Disorders and Related Problems"), since for several very frequent symptoms (e.g., depression, hopelessness) it is not clear whether they belong to a depressive episode of Bipolar Disorder or represent a symptom of Depressive Disorder. Aside from the subgroups Bipolar Disorder and Depressive Disorders, the subgroup "Related Problems" was also included under the category Affective Disorders, which included symptoms linked to emotions and their regulation that could not be clearly classified under Bipolar Disorder or Depressive Disorder.

As part of the second adjustment, the diagnoses "Suicidal Behaviour Disorder" and "Relational Problems" were added to the categorisation scheme. "Suicidal Behaviour Disorder" (similarly as NSSI) also figures in DSM-5 in Section III: "Emerging Measures and Models" (APA 2013). Namely, it is considered that although suicidal behaviour often occurs in association with other diagnoses, there is evidence from genetic, familial and neurobiological studies that it might represent a separate diagnostic entity (Sobanski et al. 2022). A "Relational Problems" diagnosis was added from the subchapter "Other Conditions That May Be a Focus of Clinical Attention" from Section II: "Diagnostic Criteria and Codes" of DSM-5 (APA 2013). Table 2 presents the categorisation results.

4.3 Objective 3

The third objective was: "to provide data on the most frequently occurring mental problems and categories of mental problems in connection with self-harm". The analysis of the selected 30 scientific articles shows that the most frequent mental health problems occurring with self-harm (see Table 2) are depression (which occurred in N=13 (43.3%) articles), anxiety (N=8, 26.7% articles), illegal substance use (N=6, 20% of articles) and suicidal ideation/planning (N=6, 20%). When assessing the diagnoses, it becomes clear that relationship problems are most often represented, closely followed by substance addiction and depressive disorder.

5. Discussion

5.1 Categorisation of Mental Problems

The main aim of the work was to identify the most commonly occurring mental problems that are reported in the examined scientific research studies in relation with self-harm, whether at the level of symptoms or diagnoses. Processing the outputs from a content analysis of 30 scientific articles showed that fulfilling this goal was largely affected by the categorisation of individual symptoms, or rather the chosen categorisation scheme (DSM-5). Therefore, before discussing the significance of the most common symptoms and diagnoses associated with

self-harm identified, it is necessary to point out the possibilities and limits of the chosen categorisation scheme.

The biggest problems with categorisation were found in two areas: on the one hand, it was possible to classify one symptom into multiple categories; on the other hand, typical superior categories/diagnoses were missing for several symptoms. In association with the problem of categorising symptoms that occur in several diagnoses, depressive symptoms, which occur not only in Depressive disorder and Bipolar disorder but also in Schizoaffective disorder, Body dysmorphic disorder, Reactive attachment disorder, etc., can be given as an example. This is a frequent problem, which DSM-5 itself also mentions, when it states that mental problems "do not always fit completely within the boundaries of a single disorder. Some symptom domains, such as depression and anxiety, involve multiple diagnostic categories and may reflect common underlying vulnerabilities for a larger group of disorders" (APA 2013, xli). As was explained in the Results section, the classification of a symptom that occurs in multiple diagnoses was done according to its closest association with the diagnostic category – e.g., depression is most characteristic of Depressive disorders; therefore, depressive symptoms were classified under this diagnosis. At the same time, it should be kept in mind that not all cases of recording depressive symptoms in self-harm were necessarily based on a diagnosis of Depressive disorder. Therefore, along with assessing the most common categories (diagnoses) of mental problems in self-harming behaviour, it is also necessary to analyse the results at a lower level of symptoms, because these may be rather more informative than an overview of the most common diagnoses.

The second complication is related to the missing categories that cover some of the identified symptoms. In this context, the diagnostic categories from the sections "Emerging Measures and Models" and "Other Conditions That May Be a Focus of Clinical Attention" of the DSM-5 appendix proved to be useful, as they enabled the categorisation of such frequent symptoms as suicidal tendencies or numerous relationship problems. This fact, too, supports the correctness of considerations and proposals regarding "new" diagnoses, including self-harm. It is evident that self-harming behaviour (found in the section Emerging Measures and Models of DSM-5) has, like many other clinical categories and diagnoses, a close association with other mental problems, and although it is not yet an official diagnosis, it seems that it could also be defined within the framework of the classic co-morbidity scheme, which is a standard part of the diagnostic information of already existing clinical categories.

5.2 The Most Common Mental Problems

A content analysis of the selected scientific studies yielded results describing mental problems at two levels – the symptom level and the diagnosis level. Depression, anxiety, other illegal drug/substance use, suicidal ideation/planning or suicidal attempt are among the most commonly associated mental problems occurring in self-harming individuals at the symptom level, and at the diagnosis level, these are relationship problems, substance dependence and depressive disorder.

The relationship between depressive symptoms and self-harming behaviour (similarly as the relationship between self-harm and other associated symptoms) has thus far not been sufficiently investigated. The first group of studies (see, e.g., Parker et al. 2005; Lundh et al. 2011) understands self-harming behaviour as one of the symptoms of depression. In this regard, self-harm can be understood as a maladaptive strategy for coping with negative emotions characteristic of a depressive mood, i.e., as a means to seek relief from the depressive symptoms (Gatta et al. 2016). The second group of opinions, in contrast, perceives depressive symptoms as one of the characteristic features of self-harm – for example, the DSM-5 in its

draft diagnostic criteria for NSSI states in point C: "Intentional self-injury is associated with at least one of the following: 1. Interpersonal difficulties or negative feelings or thoughts, such as depression, anxiety, tension..." (APA 2013, 803). Depressive symptoms in those who self-harm therefore may also be a consequence of the overall attitude of these individuals. In the cognitive area, for example, self-harming people are characterised by a negativistic view of themselves (Oktan 2017), of their own future (Wenzel & Spokas 2014), a high level of self-criticism (Nagy et al. 2021) or perfectionism (Gyori & Balazs 2021), but also a high level of hopelessness (Pérez Rodríguez et al. 2017), or various cognitive biases, such as catastrophic scenarios or dichotomous thinking (Allen & Hooley 2015). All of these circumstances lay the foundation for the occurrence of depressive symptoms. Despite the above, a large portion of the studies thus far only point to the common occurrence of self-harm and depression (Parker et al. 2005; Glenn & Klonsky 2011), while not specifying the superiority of one phenomenon over the other.

Much like depression, anxiety is also found in combination with self-harm in several contexts. First of all, anxiety is a very strong, negatively perceived emotional state which, unlike fear, is not substantialised (Steimer 2002) – the subject is not aware of the source of anxiety; therefore, he or she cannot predict or manage anxiety states very well and thus eliminate the source of anxiety. According to many authors (see, e.g., Andover et al. 2014; Zhao et al. 2024), self-harm serves as a strategy for regulating anxiety and associated intense negative emotional states. By inflicting pain, the individual turns his or her attention from psychological/emotional pain to physical pain, with the advantage of physical pain being that it can be influenced, regulated and controlled. The person thus substitutes the uncertainty, helplessness and inability to affect psychological pain with the possibility of regulating physical pain, thus altering the experience and giving him or her control over the situation. Like depression, some views on anxiety lean more towards the concept in which anxiety appears as one of the symptoms of self-harm (see the above-mentioned proposal for a diagnosis of NSSI in DSM-5). It is evident that attention also needs to be devoted to the relationship between anxiety and self-harm in order to specify their mutual relationships and possible causal connections in more detail.

The connection of self-harm and other illegal drug/substance use can also be interpreted on several levels. The period of adolescence, in which self-harm most often occurs (Swannell et al. 2014), is also a period of high frequency of other risky forms of behaviour. Adolescents often take risks – such actions bring them intense experiences, the conviction that they are strong and healthy, the absence of responsibility for others (which will later be brought by the role of a parent) increases the chances that they will expose themselves to risks. Another strong connection between self-harm and illegal drug/substance use can be seen in the mechanisms that operate in the scope of both phenomena. The pain present during self-harm is intense, and it is able very quickly and well to cover strongly negative feelings when an individual is experiencing a psychological burden. Rapid relief from current difficulties acts as negative reinforcement, the effects of which are linked with activity in the brain's reward system. Self-harming behaviour as a response to acute stress is reinforced, and with each further occurrence it becomes fixed in the repertoire of potential reactions to psychological stress, much like the euphoric/relaxing/anxiolytic, etc. effects of drugs. Several scientific studies have also confirmed additional parallels between self-harm and addictive behaviour caused by substance or non-substance addictions – experts in the experience and behaviour of self-harming individuals have identified many symptoms typical of addictions (Nixon et al. 2002) – for example, the need to increase the frequency of self-harm or its intensity.

The issue of suicidal tendencies occurring in connection with self-harm is a very intensively addressed area. According to DSM-5 (APA 2013), suicidal tendencies are an exclusive criterion for determining/diagnosing self-harm. This means that if an individual also reports

suicidal tendencies along with self-harming behaviour, this is not considered self-harm according to DSM-5. Whether or not suicidal tendencies may be a part of the picture of self-harm is the subject of extensive professional discussions. The fact is that they occur very widely together with self-harm and are among the most closely correlated variables in relation to self-harm (see e.g., Scott et al. 2015; Poudel et al. 2022; Horváth et al. 2022). In an effort to identify the reasons for the strict exclusion of individuals with suicidal tendencies from the category of self-harmers proposed in DSM-5, studies were conducted that focused on examining the differences in the forms and motives for self-harm as well as the personality traits between self-harming individuals who showed suicidal tendencies and self-harming individuals without suicidal tendencies (see e.g., Demuthova & Demuth 2019; Demuthova & Rojkova 2019). These studies showed that there are no significant differences between these two groups in the monitored variables, either in the forms or in the motives for self-harm. Self-harming with the presence of suicidal tendencies is more associated with, e.g., increased psychoticism, neuroticism and a higher intensity of self-harm than with characteristics that would suggest the need to define individuals with present suicidal tendencies outside the category of self-harm (ibidem). These findings also point to the need for intensive research into the issue of self-harm and its diagnosis, including in the context of suicidal tendencies.

On the level of diagnoses, the most commonly occurring mental problems connected with self-harm were identified as relationship problems, substance addictions and depressive disorder. We have focused on the issue of depression and addiction in relation to self-harm in the previous paragraphs – the area of relationship problems is even more significant. Relationship problems may be the background to self-harm – self-harming individuals report in their personal history various forms of bad or inappropriate treatment in childhood (parental disconnectedness – Taliaferro et al. 2012; low family support – Wolff et al. 2014), as well as complications in relationships in adolescence or adulthood (relationship violence – Taliaferroet al. 2012; physical assault/abuse or emotional abuse – Duerden et al. 2012). Relationship problems, however, may not be the only presumed cause of self-harm; they may occur together with self-harm, thus completing the overall picture of this risky behaviour. Self-harming individuals frequently have a disturbed self-image, as a result of which they are convinced that they are worthless, that no one likes them, that they themselves are not worthy of love and affection and that due to their incompetence they are a burden to others (Chu et al. 2016). Relationship problems may equally be a consequence of self-harming behaviour. Self-harm is not an accepted form of reaction in society – most individuals hide it from their loved ones. Individuals with self-harming behaviour often seek solitude – they feel they have to distance themselves from others – which not only leaves them alone, but in psychologically stressful situations, and they lose the opportunity to use the social support of friends and loved ones. The visible injuries that result from self-harm also isolate the individuals afterwards – they must be careful not to let anyone see the injuries, and this excludes them from many social situations and activities. Such an individual is cautious and vigilant when in contact with other people and thus avoids spending time in company. In the family environment, a self-harming individual minimises close contact, avoids many activities, withdraws and pushes away loved ones in an attempt to hide self-harm injuries. This leads to isolation even from those closest to them, specifically in situations where (due to stress) they could benefit from the help and support of loved ones. Wounds and scars are also an obstacle to forming partnerships and more intimate contacts – self-harmers frequently end relationships at a stage when they could approach getting closer and revealing their self-harm – whether out of fear of their partner's reaction, fear of rejection or out of a reluctance to share information about their psychological difficulties. Therefore, the mutual connection between self-harm and relationship problems is visible on several levels.

If we look at the nature of diagnoses connected with self-harm, the possibility of grouping diagnoses related to affective disorders opens up. It becomes possible to create a metacategory of "Affective Disorders and Related Problems", which would include Bipolar and Depressive disorders together with Alexithymia and symptoms of deficient emotional regulation. Such a metacategory would surpass its predecessors in its occurrence and become the most common mental problem at the level of diagnoses. This result corresponds with many studies that point to self-harming behaviour as a coping strategy for emotion regulation (Klonsky 2007; Houben et al. 2017; Wolff et al. 2019; Brausch et al. 2019). This means that individuals use self-harm to relieve acute negative affect or aversive affective arousal that they are otherwise unable to manage (either due to their deficits or due to the high intensity of emotions) in any other way. Up to 63 − 78% of adolescents reportedly use self-harm to regulate their emotions (Taylor et al. 2018).

Despite the identification of various symptoms and different diagnoses associated with self-harm, it is clear in many respects that they are interconnected. There is a possibility that they create a vicious circle of mutually supporting factors that reinforce the self-harm. Specific cognitive biases leading to low self-worth or even self-hatred increase an individual's vulnerability for resolving stressful situations with the self-punishing strategy of self-harm. Low self-esteem, isolation as a result of self-harm and cognitive biases complicate a person's ability to create satisfying and more lasting relationships. The lack or lower quality of interpersonal bonds, in turn, reinforces the belief that the individual is unworthy of love and affection, significantly diminishing self-esteem. A negative view of the world and oneself and a lack of quality contacts also support the depressive mood of an individual and thus increase the likelihood of self-harming behaviour. Depression limits the individual in the selection of adaptive means of coping with stress, which leads to failures in difficult situations and an even further decrease in self-confidence and self-worth. It is clear that in the scope of the broad topic of mental problems of self-harmers, space is opened not only for investigating their prevalence but also for mutual relationships between mental problems that have the potential to clarify the mechanisms of origin, development or maintenance of self-harm in the repertoire of risky forms of behaviour of individuals.

5.3 Applications and Suggestions for Further Study

The findings obtained can be utilised across multiple domains. First, they provide foundational data for the knowledge base regarding the prevalence of mental health issues in individuals who engage in self-harm. Second, they contribute to the development of a comprehensive understanding of self-harm as a (potentially new) nosological entity within the classification system of mental disorders, given that the occurrence of comorbidities and risk factors is an integral part of the clinical description of any diagnosis included in a diagnostic manual. Comorbidities typically arise from shared determinants between the observed diagnosis (in this case, NSSI) and another disorder. These shared determinants have the potential to uncover key mechanisms underlying the onset or maintenance of the observed mental disorders. In cases where there is significant overlap in the symptoms of NSSI and comorbidity, the data may also serve as a basis for considering the inclusion of the comorbidity in the list of differential diagnostic criteria. Third, the results offer valuable insights into the field of care and support for individuals who self-harm, particularly for psychologists and psychiatrists, as they highlight the challenges associated with self-harm. This implies that in treating and intervening in cases of NSSI, efforts to improve an individual's mental health must simultaneously address other psychological difficulties (identified comorbidities). It is evident that many associated mental disorders stem from common or similar challenges—e.g., the connection between NSSI and eating disorders points to issues such as a disrupted self-image and body relationship

(Black et al., 2019; Benzel, 2019) or perfectionism (Gyori & Balazs, 2021); NSSI and depression share determinants in negative emotionality and impaired cognitions (Wenzel & Spokas, 2014); NSSI and addictions share a dependent behavioral nature (Victor et al., 2012); and individuals with both NSSI and anxiety demonstrate deficits in problem-solving abilities (Wenzel & Spokas, 2014; Llera & Newman, 2020). Identifying these key issues, comprehensive and targeted psychological and psychiatric interventions significantly enhance the effectiveness of professional intervention and improve the chances of coping with the difficulties related to mental health problems. Lastly, the presence and interactions of self-harm with other psychological difficulties provide impetus for further exploration and scientific research in this area.

In the area of scientific research, to expand data sources for obtaining information about the most commonly occurring mental problems in self-harming individuals, it would undoubtedly be a benefit to use data from other databases recording indexed journals (Scopus) or a more broadly focused method of searching for sources, e.g., through Medline, Ebsco, etc. Another incentive for improving the research objective could be the use of other categorisation schemes (e.g., the International Classification of Diseases) for classifying individual symptoms and identifying the most common diagnoses linked with self-harm. Another benefit of the obtained results is certainly the fact that it is necessary to pay attention to examining the nature of the mutual relationships between self-harm and associated mental problems, in addition to collecting data that enables an adequate formulation of diagnostic criteria in the event that self-harm becomes another clinical diagnosis.

6. Conclusion

Self-harming behaviour is a highly frequent negative phenomenon that is coming to the forefront in the field of clinical psychology practice specifically due to its high prevalence and risk. Its seriousness is also confirmed by the fact that it is among the proposed diagnoses in DSM-5. Clinical psychological practice, research, as well as the need to diagnostically distinguish it from experiences and behaviours with similar symptoms have prompted the need to focus on co-occurring mental problems. A content analysis of scientific articles registered in the Web of Science database showed that self-harm is closely linked with many other manifestations of psychological difficulties and with several diagnoses, such as relationship problems, substance addictions and depressive disorder. The analysed research and other documented articles identified that varied relationships may exist between the monitored variables, which opens up space for further stimulating research in this area.

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