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The levels of depression in self-harming youths with a heterosexual and non-heterosexual orientation

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Abstract---Self-harm is a high-risk behaviour that mainly occurs in youths as a response to psychological burdens. Its prevalence increases during psychologically demanding situations, under the influence of stress, within specific social groups (e.g., minorities) or in groups that have some mental or psychological conditions. The study concentrates on self-harming youths (aged from 15 to 25, AM = 19.32 years) and investigates the presence of a specific clinical category – depression – while also taking into account the sexual orientation of participants (N=252). The results show that self-harming youths have an extremely high score in the rating of depression (59.9% of participants reported extremely severe levels). The levels of depression are significantly higher (sig. of Mann-Whitney U test = 0.034) in non-heterosexual youths than those found in heterosexual self-harming peers (the majority). The influences of social stressors (stigmatization, victimization, prejudice, or discrimination) on minorities are discussed, together with a recommendation to examine the interrelationships between psychological stressors, clinical categories, and self-harming behaviour with an emphasis on the identification of risk factors for self-harm.

Keywords---depression, self-harm, sexual orientation, youth.

Introduction

From a health viewpoint, self-harming behaviour is a negative phenomenon whose prevalence has significantly increased in recent decades [1]. It is a form of behaviour that involves an individual repeatedly and intentionally causing pain to

themselves with the clear intent to injure themselves. The definitions of self-harm often refer to harming their own bodies [2], but self-harm may also refer to harm to their mental health [3]. Self-harm is a phenomenon which is especially present in the population of adolescents and young adults [4], that reaches a peak in its intensity at the age of fourteen [5]. In this context it is assumed that self-harm is a negative coping strategy for the unmet developmental challenges and tasks and stressful situations that are faced by youths during this period.

Youthhood may be an even more complicated period of life if the individual feels and displays attitudes that are viewed as minority attitudes by those around them. Professing and promoting other values, opinions, or behaviours ... puts much greater demands on the formation of the identity of an individual than is the case of an individual who conforms to the majority. In addition, such an individual faces stigma and rejection within the family, the school, or other communities [6]. An aspect that frequently complicates the process of discovery, of seeking and building a personal identity during adolescence and also makes the establishment of relationships more difficult is a minority sexual orientation.

In addition to the increased demands linked to youthhood, those who belong to a sexual minority also experience, from a psychological viewpoint, different chronic stress-inducing factors related to stigmatisation, victimisation and to prejudice or discrimination from those around them. This different experience threatens the mental health and well-being of non-heterosexual individuals [7], [8], these factors, along with others that induce universal everyday stress, result in more frequent displays of maladaptive patterns of behaviour (e.g. the abuse of addictive substances [9] and self-harm [10], [11]). Non-heterosexual adolescents also display a higher prevalence of the symptoms of depression [12], anxiety [13], mood disorders [14], and attempted suicide [15] – this, however, at the same time also holds true for self-harming individuals. Self-harm itself is often linked with higher levels of depression [16], anxiety [17], the more frequent prevalence of bipolar (affective) disorders [18] and suicide [19]. In order to understand the dynamics of the development of mental issues it is therefore important to study the interrelationships between self-harming behaviour, a minority sexual orientation and selected clinical symptoms.

The Objectives

There is an overlap in the prevalence of self-harm, a non-majority sexual orientation and some clinical symptoms within the adolescent population. Therefore, the objectives of this study are to:

- uncover the level of depression in self-harming youths;
- compare the rates of prevalence of depression in self-harming heterosexual youths and non-heterosexual youths.

The Methodology

The Procedure

Data collection was carried out online, the participants took part in it

anonymously and voluntarily. At the beginning they were informed of the purpose of the study and given the option to end their participation at any time. The data was sent automatically; the participants did not use any personal data in their communication. At the end of the questionnaire, they were provided with information about the availability of psychological help and some contact details.

The Subjects

Participants from 15 to 25 (AM = 19.32; SD = 2.91) were included in the data analysis. The research sample contained a majority of women (N = 166; 65.9 %); there was no statistically significant age difference between the male and female genders (asympt. sig. = 0.410).

The Methodology

Information related to self-harm was gathered through four items in the questionnaire. Two focused on past behaviour – they inquired whether the participant had ever self-harmed in the past; subsequently, the participant indicated the frequency of occurrence on a 6-grade scale (from never = 0 points to daily = 5 points). Present self-harm was uncovered analogously. Each participant could allocate 0 to 10 points on the self-harm scale. The participant was categorised as a self-harming individual if this behaviour repeatedly occurred (that is, they scored it between 2 and 10 points). Further data was only collected from those participants who were identified as those who self-harmed. The sexual orientation of the participants was investigated through a question in the questionnaire (“What is your sexual orientation?”), and the participants were given the choices of heterosexual, homosexual, or other. The participant was included in the group of heterosexual youths if they responded “heterosexual”. Participants who responded either “homosexual” or “other” were included in the group of non-heterosexuals.

The level of depression was measured through “The Depression, Anxiety, and Stress Scale” (DASS-21) [20] – a short form of the DASS-42 [21]. DASS-21 includes a depression scale that contains 7 items which are assessed by the participants on a four-point scale (from 0 to 3) [20]. To evaluate the level of depression using the original scoring system (used in DASS-42), the authors recommend multiplying the final score by two. Ergo, each participant could score between 0 and 42 on the depression scale. The scoring system enables to rank the individual (according to their gross score) into categories of Normal (gross score 0-9), Mild (gross score 10-13), Moderate (gross score 14-20), Severe (gross score 21-27), or Extremely Severe (gross score >28+) [21]. The value of Cronbach’s alpha (0.910) calculated on the data from the study sample indicates good internal consistency.

The Data Analysis

The statistical analyses were implemented using the Statistical Package for Social Sciences (SPSS) program, version 22, from IBM. A Shapiro-Wilk W test of normality on the depression variable within the study sample indicated that it did not have a normal distribution (sig. <0,001). Therefore, a Mann-Whitney non-

parametric U test was used in the statistical analysis looking for differences between the groups of heterosexual and non-heterosexual youths. The significance level was established at $\alpha = 0.05$ (95% confidence interval).

The Results

The prevalence of symptoms of depression in non-heterosexual self-harming youths, with regard to the scoring system in DASS-21 [21], is high. From Table 1 it follows that most self-harming youths (59.92%) display extremely severe levels of depression.

Table 1
The prevalence of individual levels of depression in self-harming youths

Level	N	%
Normal	20	7.94
Mild	21	8.33
Moderate	33	13.10
Severe	27	10.72
Extremely	151	59.92
Total	253	100.0

Source: Authors' own concept

The Mann-Whitney U test showed that the level of depression in non-heterosexually oriented youths is statistically significantly higher ($U = 9120.5$; $\text{sig.} = 0.034$) than in their heterosexual peers (see Fig. 1).

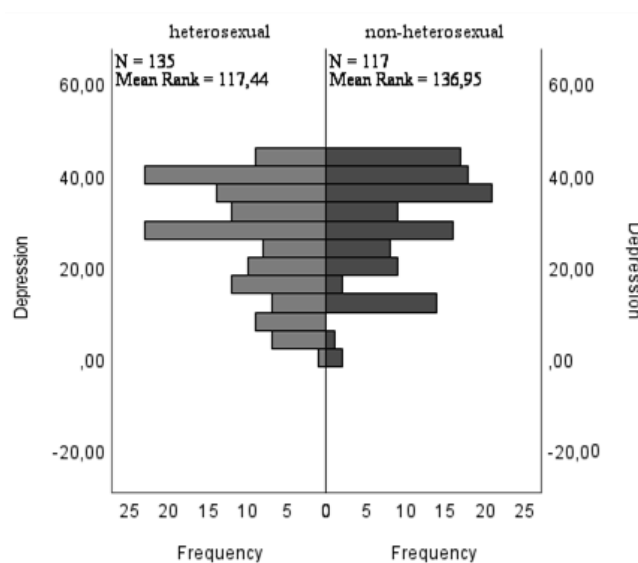


Fig. 1. The difference in the levels of depression between heterosexual and non-heterosexual self-harming youths

Discussion

By using the DASS-21 scoring system, that was created by the authors of the questionnaire [21], it was discovered that only 7.94% of self-harming participants were categorised as having a normal level of depression. As the values of the depression scale in the observed study sample did not have a normal distribution, it was not possible to compare the level of depression in the study sample with the average values from the DASS-21 questionnaire published in validation studies. It is nevertheless apparent that most self-harming youths scored very high on the depression scale (as many as 59.9% were in the extremely severe category).

The presence of increased levels of depression (ergo, symptoms of depression) in self-harming adolescents has been confirmed in the past by a number of research studies. The joint prevalence of these two phenomena (depression and self-harm) has been interpreted in a number of contexts. Depression is believed to be robustly associated with self-harming behaviour [22]; it also plays an interactive role in the level of self-harm [23]; it is likewise considered that depression may act as a risk factor for the occurrence of self-harm [24], although there are studies which have failed to confirm this predictive link [25]. Thus, it is obvious that the interrelationship between depression and self-harm is not simple; it may be assumed that there are other relevant factors. It may be shown that, for example, mindfulness mediates the effect of depressive symptoms on self-harm [26]. In addition, depression has been shown to have a mediating effect on the relationship between the attitude toward suicide and self-harming behaviour [27].

Studying the mutual links between depression, self-harm and other variables, therefore, makes it possible to better understand the origin, presence and persistence of self-harm in the repertory of maladaptive coping strategies. From the results of the Mann-Whitney U test used to evaluate the prevalence of depression in self-harming youths, it is obvious that the levels of depression in the group of non-heterosexual youths were statistically significantly different to the levels of depression in the heterosexual group (sig. = 0.034) and are significantly higher. When looking at these results it may be concluded that a minority sexual orientation may worsen the clinical symptoms/complications linked to self-harm. The reasons for such an interpretation may be seen through two factors. The first is the attitude displayed towards non-heterosexuals by the majority of members of society. Facing stigmatisation and discrimination may cause additional stress, which may contribute to a higher level of depressive symptoms. Higher levels of depression in sexual minorities are confirmed by the findings of a number of studies [28]. Further analysis also shows that perceived discrimination accounted for increased depressive symptomatology among LGBT youths and also accounted for an elevated risk of self-harm [29].

The other interpretation concerns the problems a youth might have with their own identity. As a result of a minority sexual orientation, the formation of identity may be far more demanding than for heterosexual youths. Sexual orientation and relationships with their peers are an important part of the identity of an individual. If they feel insecure in this area and come up against the negative reactions of those around them, this has a powerful negative impact on their self-

image. The belief that they are unworthy of love, are inept, a burden to those around them, that they do not belong anywhere ... are typical of the negative self-image of self-harming individuals [30]. To belong to a sexual minority may have negative effects and may result in cognitive distortions in the individual's self-image, which is a crucial area in the interpretation of the origin of self-harming behaviour. At the same time, it holds true that a negative self-image significantly correlates with depression [31], and it correlates to such an extent that a probe into "negative self-esteem" represents one of the elements of questionnaires used to study depression [32].

It, therefore, follows that it may be apt to continue to study the specificities of the mutual influence of self-harming behaviour, membership of a sexual minority and the prevalence of depression (and possibly other clinically significant variables). Ideally, this would be carried out on a larger group of participants, using methods that would enable the observation of the relative power of the effect of the individual variables. Both self-harm and depression are serious mental problems, which do not merely decrease the level of mental health, but also have a significant effect on physical health and carry a high risk of subsequent suicidal behaviour. Therefore, research in these areas has an important place in psychological research.

References

1. E. Griffin, E. McMahon, F. McNicholas, P. Corcoran, I. J. Perry, and E. Arensman, E., "Increasing rates of self-harm among children, adolescents and young adults: a 10-year national registry study 2007–2016," *Social Psychiatry and Psychiatric Epidemiology*, vol. 53, no. 4, pp. 663-671, July 2018.
2. APA, "Diagnostic and Statistical Manual of Mental Disorders," 5th ed. Washington: American Psychiatric Publishing, 2013.
3. K. Tsirigotis, "Indirect Self-Destructiveness and Emotional Intelligence," *The Psychiatric Quarterly*, vol. 87, no. 2, pp. 253-263, July 2016.
4. D. Gillies, M. A. Christou, A. C. Dixon, O. J. Featherston, I. Rapti, A. Garcia-Anguita, M. Villasis-Keever, P. Reebye, E. Christou, N. Al Kabir, and P. A. Christou, "Prevalence and Characteristics of Self-Harm in Adolescents: Meta-Analyses of Community-Based Studies 1990-2015," *Journal of the American Academy of Child and Adolescent Psychiatry*, vol. 57, no. 10, 733-741, Oct. 2018.
5. S. Demuthova, and A. Demuth, "The prevalence and most frequent forms of self-harm in adolescents," *International Conference on Research in Psychology*, pp. 39-51, Diamond Scientific Publication, 2019.
6. E. M. Saewyc, "Research on adolescent sexual orientation: development, health disparities, stigma and resilience," *Journal of research on adolescence : the official journal of the Society for Research on Adolescence*, vol. 21, no. 1, pp. 256-272, Feb. 2011.
7. M. L. Hatzenbuehler, "How does sexual minority stigma "get under the skin"?, A psychological mediation framework," *Psychological bulletin*, vol. 135, no. 5, pp. 707-730. Sep. 2009.
8. S. T. Russell, and J. N. Fish, "Mental Health in Lesbian, Gay, Bisexual, and Transgender (LGBT) Youth," *Annual review of clinical psychology*, vol 28, no. 12, pp. 465-487, Mar. 2016.

9. M. Rosario, E. W. Schrimshaw, and J. Hunter, "Disclosure of sexual orientation and subsequent substance use and abuse among lesbian, gay, and bisexual youths: critical role of disclosure reactions," *Psychology of addictive behaviors : journal of the Society of Psychologists in Addictive Behaviors*, vol. 23, no. 1, pp. 175-184, Mar. 2009.
10. K. L. Batejan, S. M. Jarvi, and L. P. Swenson, "Sexual orientation and non-suicidal self-injury: a meta-analytic review," *Archives of suicide research : official journal of the International Academy for Suicide Research*, vol. 19, no. 2, pp. 131-150, May 2015.
11. E. N. Quarshie, M. G. Waterman, and A. O. House, "Prevalence of self-harm among lesbian, gay, bisexual, and transgender adolescents: a comparison of personal and social adversity with a heterosexual sample in Ghana," *BMC research notes*, vol. 13, no. 1, p. 271, June 2020.
12. C. G. Escobar-Viera, A. Shensa, J. Sidani, B. Primack, and M. P. Marshal, "Association Between LGB Sexual Orientation and Depression Mediated by Negative Social Media Experiences: National Survey Study of US Young Adults," *JMIR mental health*, vol. 7, no. 12, e23520, Mar. 2020.
13. A. R. D'Augelli, "Mental health problems among lesbian, gay, and bisexual youths ages 14 to 21," *Clinical Child Psychology and Psychiatry*, vol. 7, no. 3, pp. 433-456, July 2002.
14. W. B. Bostwick, C. J. Boyd, T. L. Hughes, and S. E. McCabe, "Dimensions of sexual orientation and the prevalence of mood and anxiety disorders in the United States," *American journal of public health*, vol. 100, no. 3, pp. 468-475, Mar. 2010.
15. T. Nystedt, M. Rosvall, and M. Lindström, "Sexual orientation, suicide ideation and suicide attempt: A population-based study," *Psychiatry research*, vol. 275, no. 7, pp. 359-365, April 2019.
16. L. G. Lundh, M. Wångby-Lundh, M. Paaske, S. Ingesson, and J. Bjärehed, "Depressive symptoms and deliberate self-harm in a community sample of adolescents: a prospective study," *Depression research and treatment*, vol. 2011, 935871, Epub Dec. 2010.
17. R. C. O'Connor, S. Rasmussen, and K. Hawton, "Predicting depression, anxiety and self-harm in adolescents: the role of perfectionism and acute life stress," *Behaviour research and therapy*, vol. 48, no. 1, pp. 52-59, Jan. 2010.
18. M. J. Weintraub, M. M. Van de Loo, M. J. Gitlin, and D. J. Miklowitz, "Self-Harm, Affective Traits, and Psychosocial Functioning in Adults With Depressive and Bipolar Disorders," *The Journal of nervous and mental disease*, vol. 205, no. 11, pp. 896-899, Nov. 2017.
19. T. A. Duarte, S. Paulino, C. Almeida, H. S. Gomes, N. Santos, and M. Gouveia-Pereira, "Self-harm as a predisposition for suicide attempts: A study of adolescents' deliberate self-harm, suicidal ideation, and suicide attempts," *Psychiatry research*, vol. 287, 112553, May 2020.
20. S. H. Lovibond, and P. F. Lovibond, "Manual for the Depression Anxiety & Stress Scales," (2nd Ed.), Sydney: Psychology Foundation, 1995.
21. P. F. Lovibond, and S. H. Lovibond, "The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories," *Behaviour Research and Therapy*, vol. 33, no. 3, pp. 335-343, Mar. 1995.
22. D. Nitkowski, D., and F. Petermann, "Selbstverletzendes Verhalten und komorbide psychische Störungen: ein Überblick," [Non-suicidal self-injury and

- comorbid mental disorders: a review]. *Fortschritte der Neurologie-Psychiatrie*, vol. 79, no. 1, pp. 9-20, Jan. 2011.
23. C. M. Peterson, K. Davis-Becker, and S. Fischer, "Interactive role of depression, distress tolerance and negative urgency on non-suicidal self-injury," *Personality and mental health*, vol. 8, no. 2, pp. 151-160, May 2014.
 24. M. J. Prinstein, N. Heilbron, J. D. Guerry, J. C. Franklin, D. Rancourt, V. Simon, and A. Spirito, "Peer influence and nonsuicidal self injury: longitudinal results in community and clinically-referred adolescent samples," *Journal of abnormal child psychology*, vol. 38, no. 5, pp. 669-682, July 2010.
 25. V. Tuisku, O. Kiviruusu, M. Pelkonen, L. Karlsson, T. Strandholm, and M. Marttunen, "Depressed adolescents as young adults - predictors of suicide attempt and non-suicidal self-injury during an 8-year follow-up," *Journal of affective disorders*, vol. 152-154, pp. 313-319, Jan. 2014.
 26. N. L. Heath, D. Carsley, M. E. De Raggi, D. Mills, and J. Mettler, "The Relationship Between Mindfulness, Depressive Symptoms, and Non-Suicidal Self-Injury Amongst Adolescents," *Archives of suicide research : official journal of the International Academy for Suicide Research*, vol. 20, no. 4, pp. 635-649, Oct.-Dec. 2016.
 27. Y. H. Park, Y. W. Jeong, Y. H. Kang, S. W. Kim, S. Y. Park, K. J. Kim, J. Y. Lee, and D. B. Choi, "Mediating the effects of depression in the relationship between university students' attitude toward suicide, frustrated interpersonal needs, and non-suicidal self-injury during the COVID-19 pandemic," *Archives of psychiatric nursing*, vol. 37, pp. 25-32, Apr. 2022.
 28. M. Irish, F. Solmi, B. Mars, M. King, G. Lewis, R. M. Pearson, A. Pitman, S. Rowe, R. Srinivasan, and G. Lewis, "Depression and self-harm from adolescence to young adulthood in sexual minorities compared with heterosexuals in the UK: a population-based cohort study," *The Lancet. Child & adolescent health*, vol. 3, no. 2, pp. 91-98, Feb. 2019.
 29. J. Almeida, R. M. Johnson, H. L. Corliss, B. E. Molnar, and D. Azrael, "Emotional distress among LGBT youth: the influence of perceived discrimination based on sexual orientation. *Journal of youth and adolescence*," vol. 38, no. 7, pp. 1001-1014, Aug. 2009.
 30. A. P. Siddaway, A. M. Wood, R. E. O'Carroll, and R. C. O'Connor, "Characterizing self-injurious cognitions: Development and validation of the Suicide Attempt Beliefs Scale (SABS) and the Nonsuicidal Self-Injury Beliefs Scale (NSIBS)," *Psychological assessment*, vol. 31, no. 5, pp. 592-608, June 2019.
 31. D. T. Nguyen, E. P. Wright, C. Dedding, T. T. Pham, and J. Bunders, "Low Self-Esteem and Its Association With Anxiety, Depression, and Suicidal Ideation in Vietnamese Secondary School Students: A Cross-Sectional Study," *Frontiers in psychiatry*, vol. 10, p. 698, Sep. 2019.
 32. M. Kovacs, "The Children's Depression Inventory (CDI) manual," North Tanawanda, New York, NY: Multi-Health Systems, 1992.
 33. Alamsyah, T., Marianthi, D., Hayati, W., & Usrina, N. (2021). Drug user behavior about the development and rehabilitation process in Banda Aceh correctional institution. *International Journal of Health & Medical Sciences*, 4(1), 88-94. <https://doi.org/10.31295/ijhms.v4n1.1348>
 34. Kustina, K.T., Dewi, G.A.A.O., Prena, G.D., Suryasa, W. (2019). Branchless banking, third-party funds, and profitability evidence reference to banking

- sector in indonesia. *Journal of Advanced Research in Dynamical and Control Systems*, 11(2), 290-299.
35. Widana, I.K., Sumetri, N.W., Sutapa, I.K., Suryasa, W. (2021). Anthropometric measures for better cardiovascular and musculoskeletal health. *Computer Applications in Engineering Education*, 29(3), 550-561. <https://doi.org/10.1002/cae.22202>