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Life adversities of clients seeking advice for suicidal ideation from an online peer counseling service: Characteristics and associations with outcomes

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Abstract

Objective: [U25] Germany is a low-threshold, anonymous and free-of-charge online suicide prevention service for people up to 25 years of age. Its special feature is that counseling is provided by trained and continuously supervised voluntary peers. This study addresses the following research questions: (1) Which life adversities are reported by the clients of [U25]? (2) Are the life adversities intercorrelated? (3) According to patients, do life adversities change during the counseling process? (4) What are the associations between life adversities and outcome measures (e.g., reduction in suicidality or improvement in general situation)?

Method: Data was collected through an online survey (n = 318). To measure psychological burden, the presence of 16 life adversities (e.g., problems in relationships) was assessed retrospectively. As the dependent variable, the change in suicidality was measured by means of three newly created items. In addition, a short form of the Bochum Change Questionnaire 2000 (BCQ 2000) was used to assess the patients' subjectively perceived change due to counseling.

Results: Regarding life adversities, the clients were heavily burdened. Throughout the course of counseling, many clients' situations improved, at least concerning several adversities. Some life adversities significantly correlate with each other, but the correlation is mostly small to moderate. Suicidality is positively correlated with self-harming behaviors and loss of someone close to the advice seekers.

Conclusions: Possible starting points for improving online counseling for suicidal adolescents and young adults are discussed.

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1. Introduction

Suicide or suicide attempts are a serious public mental health problem worldwide among adolescents and young adults (Addis & Mahalik, 2003; Cha et al., 2018). Suicide is the cause of nine percent of all deaths among 15-29-year-olds, making it the second leading cause of death in this age group (World Health Organisation, 2014). Not least because of the individual and social consequences as well as the direct and indirect economic costs due to suicide, effective suicide prevention for adolescents is a primary social objective all over the world (Beurs et al., 2015). Joiner's (2005) "Interpersonal Theory of Suicide" increases the scientific understanding of factors that lead to suicide ideation and attempts (Chu et al., 2017). It describes three factors that lead to suicidal desire and nonfatal and fatal suicidal behaviors: thwarted belongingness, perceived burdensomeness, and acquired capability for suicide. Sallee et al. (2021) showed that the interpersonal theory of suicide was also applicable to early adolescents. Nonetheless, suicide is a multifaceted (Bahk et al., 2017) and complex (Berardis et al., 2018) phenomenon, which is yet not fully understood. It includes multiple risk factors like psychosocial (Carballo et al., 2020; King et al., 2001), neurobiological (Lee & Kim, 2006; Wisłowska-Stanek et al., 2021) and psycho-pathological (Gould et al., 1998) variables (Ajdacic-Gross, 2015).

Advances in scientific and clinical understanding of suicide could provide important information for the successful development of suicide prevention programs. In addition to traditional therapeutic and psychiatric services, innovative approaches to suicide prevention have been developed and implemented in recent years (Bowersox et al., 2021; Wiencke et al., 2014). The counseling service [U25] offers online (email) suicide prevention and crisis intervention by voluntary workers ("peers"). [U25] is a cost-free, anonymous service by the German Caritas Association. Peers are of the same age group as clients (16-25 years) and are carefully selected, trained and supervised by professional mental health workers. First results indicate that counseling by [U25] can reduce suicidality and improve the well-being of adolescent clients (Hildebrand et al., 2022). Altogether, although promising steps have been taken in recent years, there is still a gap regarding evidence of the effectiveness of online counseling for mental health crises and suicidality (Hildebrand et al., 2019). Moreover, little is known about the life adversities and emotional state of adolescents seeking help by [U25].

Concerning the [U25] peer counseling service, Störr (2013) and Weinhardt (2006) reported suicidal ideation, self-harm, family/social/partnership problems, loneliness, anxiety, eating disorders and school/workplace problems to be the most frequent reasons for seeking help. Weiss et al. (2020) analyzed [U25] standard documentation forms. Between one and 16 different life adversities per case were documented. Two-thirds of clients (66%) reported emotional problems such as anxiety and loneliness; more than half of the clients (52%) had social issues

(e.g., conflicts in partnerships, grief and loss). Moreover, in almost half of the cases (48%), the [U25] staff noted mental and behavioral disorders, e.g., eating disorders or self-injurious behavior. However, mental health professionals did not verify the validity of the diagnoses. In the case of mental and behavioral disorders and victimization experiences (e.g., bullying, violence, abuse), female clients were more burdened than males. Coveney et al. (2012) analyzed reasons for consulting a British crisis intervention telephone helpline used predominantly by young adults. The most frequent adversities were mental health problems, self-injury, relationship breakdown, relationship problems, family problems and general feelings of sadness or loneliness.

Some research on the life adversities and psychological distress that foster suicidal ideation in adolescents has been conducted. According to Stewart et al. (2019), life stressors are a central aspect of all theories on suicide. However, many details on the impact of life stress on adolescent suicidality are still unclear.

Stewart et al. (2019) conducted a study among 197 adolescents who were in psychiatric inpatient care. Suicidality was higher amongst those who had suffered acute interpersonal loss events or experienced chronic interpersonal loss (e.g., ongoing arguments with partners, long-term separation from a parent). Mental disorders such as depression, anxiety, ADHD, PTSD or substance use disorders increase the risk of suicidal ideation (Bachmann, 2018; Braun-Scharm et al.; Deutsche Gesellschaft für Kinder- und Jugendpsychiatrie, Psychosomatik und Psychotherapie (DGKJP) et al., 2016). However, compared to grown-ups, suicidality in adolescents is less closely connected to mental health issues. General life adversities such as low socioeconomic status, school or workplace problems, family stressors, sexual abuse, disability, health problems, or relationship problems are frequent predecessors of suicidal ideation or suicide attempts. Moreover, substance abuse and a family history of suicide or suicide attempts are observed more often in youths with suicidal symptoms.

Gómez (2020) analysed the psychosocial factors and clinical predictors of suicide risk in Columbian College Students between the ages of 16 and 30 years. Besides other factors (family suicide attempts, history of mental illness in family, history of attempted suicide, hopelessness and global impulsiveness), suicide risk was positively correlated with depression and anxiety, with depression increasing the risk of suicidality by 1.2%.

Wunderlich et al. (2001) addressed the psychosocial problems of youths who reported suicidal tendencies in a large German panel study. They found that females with suicidal tendencies more often suffered from anxiety disorders and posttraumatic stress disorders and reported more adverse experiences, including sexual abuse. Boys with suicidal tendencies reported more alcohol abuse and general life adversities (concerning money or work problems). To summarize,

there is some knowledge about the problematic situations that burden young people with suicidal thoughts. However, little is known about how these life adversities are related to each other and to suicidality and to what extent they change during online counseling. Therefore, and due to the exploratory character of this study, no directed hypotheses were postulated but the following research questions were addressed: (1) What life adversities are reported by adolescents receiving help from [U25]? (2) Are there correlations among the life adversities? What life adversities are correlated to suicidality? (3) Do life adversities change during the counseling process? (4) What are the associations between life adversities and outcome measures (e.g., reduction in suicidality or improvement in the person's situation)?

2. Materials and Methods

This study is part of the research project "Evaluation of [U25]", which was financially supported by the German Federal Ministry of Health (2017–2020). Data was collected by an online survey created on the survey platform Unipark (www.unipark.com). All persons who were currently receiving counseling by [U25] or had received [U25] counseling in the past were invited to participate. The recruitment for participation was visible on all [U25] websites between October, 2018, and May, 2020.

2.1 Instruments

2.1.1 Sociodemographic Data

All participants answered questions on gender, age, nationality, employment situation and educational background.

2.1.2 Suicidality

Counseling clients completed a screening on suicidality, a subscale of the Depressive Symptom Inventory (DSI-SS). The DSI-SS is an economic and widely used questionnaire to assess suicidal ideation by four items concerning the frequency and intensity of suicidal ideation and suicidal impulses. DSI-SS suicidality scores could range from 0 (no suicidality) to 12 (high suicidality) with a cut-off-point of 3 or higher designating a person as symptomatic. DSI-SS reliability (Cronbach's alpha) was $\alpha = 0.90$ in our data as well as in the original publication (Joiner et al., 2002). In the original sample, the correlation between CES-D depressive symptoms and DSI-SS was 0.60 ($p<0.0001$) (Joiner et al., 2002). Stanley et al. (2021) demonstrated good internal consistency, $\omega = .90$ [95% CI = .89–.91], convergent validity (rs = .52–.74), discriminant validity (rs = .12–.27), and sensitivity to change. Other favorable results according to reliability and validity are reported in the original publication with a young sample aged 15–24 years, for the adult psychiatric sample (Stanley et al., 2021) and a German sample (Glischinski et al., 2016).

2.1.3 Life adversities

The presence of 16 life adversities at the beginning of counseling was asked retrospectively (1 = present = 1, 0 = not present). The items were based on the routinely completed documentation forms of [U25] Germany. While the life adversities are only listed in bullet points in the documentation form and are marked with a cross by the peers, the questions about the problem areas in the questionnaire were introduced with the following sentences: "The reasons for claiming online advice can be very different. Please tick which of the problem areas mentioned applied to you at the beginning of the consultation." The problem areas were queried in a more descriptive manner than on the documentation form (e.g., documentation form: self-harming behaviors, questionnaire: I had hurt myself). The following life adversities were queried: problems with relatives; problems with peers; problems with school/apprenticeship/work; self-harming behaviors; self-reported mental illness; loneliness; problems within partnership/separation; bullying victimization; experience of violence; addiction problems; physical ailments or illness; loss of loved ones or grief; worrying about loved ones; financial problems, debts; consequences of a burdensome childhood; other issues. The clients were also asked to assess how much they were still burdened by these adversities. The respondents had the choice between "not at all", "moderately" and "extremely".

2.1.4 Change in situation in general

The *Bochum Change Questionnaire 2000 (BCQ-2000)* (*Bochumer Veränderungsbogen 2000)* (BVB-2000, Willutzki et al., 2013) assesses treatment outcome in an economic single point measurement. The questionnaire includes a 7-point Likert scale with the stem question "compared to the time directly before counseling" followed by a context question like "I feel more dissatisfied vs more satisfied" (1 = most negative expression, 7 = most positive expression). The overall value represents the mean value of the completed items. The BCQ-2000 was used in a shortened version with 16 items. A list of the items used and excluded can be obtained from the authors. Even in the shortened version with 16 items, the questionnaire has excellent internal consistency (Cronbach's $\alpha = .93$). The original version of the German BCQ-2000 has only a slightly higher internal consistency ($\alpha = .96$; 26 items) and consistently shows statistically significant relationships with other measures of therapy success, especially target achievement (Willutzki et al., 2013).

2.1.5 Perceived change in suicidality

Two measures assessed the perceived change in suicidality. Firstly, a global assessment of suicidality was made both for the time before counseling (retrospective rating: "When you think back to before you first used [U25]: How strong do you rate your suicidal thoughts at that time?") and at the time of the survey ("How strong do you currently rate your suicidality?") on

a five-point Likert scale (1 = "not present" to 5 = "very much present"). The first measure of perceived change can thus be determined by the difference value [start of counseling - time of survey], whereby values from -4 (deterioration) to +4 (improvement) can result. Secondly, the perceived change in suicidality was directly assessed via a five-point Likert scale ("Do you think contact with [U25] has had an impact on your suicidality so far?") ranging from 1 = "significantly increased" to 5 = "significantly decreased". Both variables correlated significantly at .50 ($p < .001$) and were therefore combined into a common scale after a z-transformation (Cronbach's $\alpha = .67$).

2.2 Statistical analyses

The data were exported from the survey platform and the statistical software IBM SPSS Statistics 26 was used for further analyses. The significance level was set at 5%. Descriptive statistics and Pearson correlations were computed. Without proper adjustment, multiple comparisons could inflate the false positive rate (Simmons et al., 2011). To correct for multiple comparisons the conservative Boferroni correction for multiple testing (O. J. Dunn, 1961) was implemented in a second step to protect for Type 1 error. After Bonferroni correction, a correlation coefficient was defined as significant at .003 (correlations between life adversities and suicidality) and .01 (correlations between life adversity factors and change in general situation and change in suicidality).

An exploratory factor analysis was carried out to reduce the comparatively large number of variables to fewer dimensions. Using dimensions instead of single items should also increase reliability. The extraction method of the exploratory factor analysis was principal component analysis with varimax rotation with Kaiser normalization. Based on the exploratory factor analysis, the life adversities were summarized into adversity dimensions using scale mean values and results between 0 and 1, with higher values representing a greater load.

2.3 Ethics

The study was approved by the ethics committee (approval number 62_18 B) and the privacy commissioner of the Friedrich-Alexander-Universität Erlangen-Nürnberg.

3. Results

3.1 Participants

The study was completed by n = 318 counseling clients. They were mostly female (87%; male: 11%, diverse: 2%; people who identify as neither male nor female could classify themselves as "diverse" in the questionnaire), on average 19.19 years old (SD = 3.34), and almost always (96%) German citizens. A large proportion of the clients were high school students (40%) or college or university students (19%; employed: 8%, unemployed: 4%, vocational training: 16%, sick

leave or disabled: 8%, voluntary service: 1%, other: 3%). The last contact with [U25] had been within the last four weeks in 78% of our sample (1 to 6 months ago: 9%, more than 6 months ago: 13%).

3.2 Problem load of counseling clients

DSI-SS data showed high rates of suicidal ideation (M = 6.38, SD = 2.87). Most of the respondents (92%) were classified as suicidal (based on Joiner et al., 2002; cut-off-score: 3). With regard to their life adversities, the counseling clients showed themselves to be heavily burdened: on average, they indicated between five and six life adversities (M = 5.28, SD = 2.61). The most common complaints were self-reported mental illness, self-harm and loneliness (Table 1). Self-harm was reported more often by women seeking advice. 'Other' life adversities were more common in gender-diverse persons. There were no other gender differences.

Table 1. Life adversities of clients (multiple answers possible)

Life adversity	***n***	**%**
Mental illness (self-evaluation report)	249	78
Loneliness	232	73
Self-harming behaviors [1]	231	73
Problems with school/apprenticeship/work	161	51
Problems with relatives	157	49
Burdensome childhood	114	36
Experience of violence	95	30
Problems with peers	89	28
Bullying victimization	82	26
Loss of loved ones/grief	80	25
Physical ailments/illness	42	13
Problems within partnership/separation	39	12
Worrying about loved ones	36	11
Addiction problems	22	7
Financial problems	16	5
Other problems [2]	33	10

Note. [1] Self-harming behaviors: female: 77%, male: 38%, diverse: 63%, Chi-Square (df = 2) = 23.52***

[2] Other problems: female: 10%, male: 9%, diverse: 38%, Chi-Square (df = 2) = 6.52*

N = 318

The correlations between suicidality and life adversities, as well as the correlations between individual life adversities, are shown in Table 2. Correlations were mainly small to moderate. Analyses revealed small correlations between suicidality assessed with the DSI-SS and life adversities. The ratings on suicidality and self-harming behaviors as well as suffering from grief or the loss of someone close to the advice seeker were substantially correlated.

Problems with peers, self-harming behaviors, self-reported mental illness, bullying victimization as well as experience of violence were correlated with suicidality, but they did not fall below the Bonferroni-corrected significance level of .003. The number of reported life adversities was also significantly correlated to the DSI-SS score ($r = .22$, $p < .001$, $n = 307$).

Table 2. Pearson-correlations of life adversities

	Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Suicidality (DSI-SS)																	
2	I had problems with relatives, in the family.	.08																
3	I had problems with peers.	.13*	**.34*** **															
4	I had problems with school, apprenticeship or work.	.01	**.20*** **	**.38*** **														
5	I had hurt myself.	**.20*** **	**.20*** **	.15**	.04													
6	I suffered from a mental disorder (e.g. eating disorder, depression).	.16**	.05	.04	.00	.12*												
7	I felt lonely.	.03	.09	.16**	**.22*** **	.07	.07											
8	I suffered from problems in a partnership or a separation.	-.05	.03	.13*	.10	.06	-.04	-.05										
9	I was being bullied.	.14*	.11	**.35*** **	**.22*** **	**.23*** **	.07	.12*	-.05									
10	I had witnessed violence.	.12*	**.19*** **	.11*	.00	**.22*** **	.09	.09	.05	**.29*** **								
11	I suffered from an addiction problem.	.01	.05	.05	.02	.14*	.05	.08	.01	.09	**.23*** **							
12	I suffered from physical ailments or illness.	.10	.15**	**.17** **	.03	.07	.07	.07	.08	.13*	**.21*** **	**.19*** **						
13	I suffered from grief or the loss of someone close to me.	**.21*** **	.12*	.14*	-.01	.11*	.09	.09	.03	.16**	.14*	.16**	**.18*** **					
14	I was worried about someone close to me.	-.02	.08	**.18** **	.02	.13*	.02	.04	.08	.13*	.09	.06	.12*	**.25*** **				
15	I had financial problems, debts.	-.03	.15**	.11*	.03	.08	.05	.08	**.18** **	.16**	**.20*** **	**.22*** **	**.29*** **	.13*	**.19*** **			
16	I suffered from the consequences of a burdensome childhood.	.11	**.17** **	**.22*** **	.12*	.09	.17**	.12*	.02	**.25*** **	**.34*** **	.11	**.25*** **	.14*	.04	**.22*** **		
17	I had other problems.	. 09	-.03	-.01	.01	-.07	-.10	.11*	.00	-.06	-.02	-.01	-.07	-.03	-.02	.02	-.04	

Note. N = 318. * $p < .05$. ** $p < .01$. *** $p < .001$. Significant correlations after Bonferroni correction are formatted in bold.

Depending on the life adversity, 2 to 17% of the respondents were no longer burdened by life adversity at the time of the survey. In the case of bullying victimization, problems in partnership, self-harming behavior and the loss of loved ones, the proportion of people for whom the situation was no longer perceived as a burden was the largest. It was lowest for self-reported mental illness and financial problems. The perceived burden caused by the life adversities at the time of the survey is listed in Table 3.

Table 3. Present burden due to life adversity

Life adversity	***n***	**not at all** **%**	**moderately** **%**	**extremely** **%**
Mental illness (self-evaluation report)	249	2	19	80
Loneliness	231	5	30	65
Self-harming behaviors	230	9	34	57
Problems with school/apprenticeship/work	160	4	32	64
Problems with relatives	156	6	35	60
Burdensome childhood [1]	114	6	25	68
Experience of violence	95	6	39	55
Problems with peers	89	7	45	48
Bullying victimization	81	17	33	49
Loss of loved ones/grief	80	9	26	65
Physical ailments/illness	42	2	43	55
Problems within partnership/separation	39	15	31	54
Worrying about loved ones	36	3	25	72
Addiction problems	22	5	64	32
Financial problems	15	0	40	60
Other problems	30	10	13	77

Note. [1]significant gender difference: female: not at all: 5%, moderately: 22%, extremely: 73%; male: not at all: 22%, moderately: 33% extremely: 44%, diverse: not at all: 0%, moderately: 80%, extremely: 20%; Chi-Square ($df = 4$) = 13.62, $p < .01$.

3.3 Adversity dimensions

The different life adversities were assigned into five dimensions based on an explorative factor analysis. The factors indicate the following adversity dimensions: (1) Social and professional problems; (2) Victim experience, financial problems, physical illness and addiction; (3) Concern for loved ones and loss of loved ones; (4) Mental health issues; (5) Other life adversities. The

factors are listed in Table 4 together with the loadings of the individual items. Social and professional problems (r = -.14, p < .05, n = 294), as well as concern for loved ones (r = -.12, p < .05, n = 294) were associated with the change in the situation in general (BCQ-2000). The concern for loved ones was also associated with the perceived change in suicidality (r = -.14, p < .05, n = 302). After Bonferroni correction, none of the correlations could be defined as significant.

Table 4. Results from a factor analysis of the different life adversities with a principal component analysis with varimax rotation

Life adversity dimension	Factor loading				
	1	**2**	**3**	**4**	**5**
Factor 1: Social and professional problems					
Problems with peers	**0.77**	0.07	0.16	-0.05	0.03
Problems with school/apprenticeship/work	**0.74**	-0.08	-0.14	-0.10	0.18
Problems with relatives	**0.52**	0.17	0.10	0.03	-0.08
Bullying victimization	**0.49**	0.18	0.18	0.35	0.02
Problems within partnership/separation	**0.21**	0.24	0.03	-0.63	-0.28
Factor 2: Victim experience, financial problems, physical illness and addiction					
Financial Problems	0.06	**0.66**	0.17	-0.26	0.03
Physical ailments/illness	0.11	**0.63**	0.10	-0.07	-0.07
Experience of violence	0.13	**0.59**	0.05	0.32	-0.02
Burdensome childhood	0.29	**0.57**	-0.16	0.28	-0.01
Addiction problems	-0.10	**0.51**	0.17	0.11	0.17
Factor 3: Concern for loved ones					
Worrying about loved ones	0.10	0.05	**0.78**	-0.14	-0.03
Loss of loved ones/grief	0.03	0.19	**0.66**	0.13	0.08
Factor 4: Mental health issues					
Self-harming behaviors	0.25	0.09	0.36	**0.34**	-0.19
Mental illness (self-evaluation report)	0.03	0.16	0.01	**0.51**	-0.16
Factor 5: Other life adversities					
Other problems	-0.08	0.02	-0.02	-0.23	**0.72**
Loneliness	0.28	0.08	0.05	0.20	**0.64**

Note: N = 318. The extraction method was principal component analysis with varimax rotation (with Kaiser normalization)

4. Discussion

Online counseling has become increasingly popular – not only since the COVID-19 pandemic (Perry et al., 2016; Zalsman et al., 2016). There are few reports about the characteristics of clients seeking advice by online peer counseling for suicidal ideation. This study examines how life adversities of persons seeking help from an online-peer-suicide prevention program are related to each other and suicidality.

Counseling clients reported a high degree of suicidality and a substantial number of life adversities, especially self-reported mental illness, self-harm and loneliness. These findings are consistent with the results of Störr (2013), Weinhardt (2006), Weiss et al. (2020) and Coveney et al. (2012). The data indicate that young people seeking advice by [U25] are seriously distressed. This points to the conclusion that [U25] reaches its target. Females seem to be more burdened concerning self-harming behavior. This was to be expected, since in comparison to males, females are at increased risk of self-harm (Stallard et al., 2013). Our data confirm the findings of Victor et al. (2019), Vonderlin et al. (2011) and Townsend et al. (2022) on the complex interplay between self-harming behavior and social problems (e.g. bullying victimization, experience of loss or violence), addiction, and other mental disorders. Problems with peers were associated with problems with relatives, school or workplace problems and bullying victimization, indicating the high relevance and complex interplay of social relations in different contexts. [U25], with its peer approach, can be particularly useful in this context, as it allows young people to build strong, stable social relationships. From a preventive perspective, it needs to be clarified whether improving personal relationships in particular could reduce the risk of self-injurious behavior.

A burdensome childhood was mentioned in combination with multiple life adversities. Although these data were retrospective instead of longitudinal, the critical role of early risk factors such as familial disruption or experiences of abuse and violence for later life adversities is highlighted by our data. Also in the study of Bahk et al. (2017) it was concluded, that e.g. childhood sexual abuse is strongly associated with suicidal ideation. They also highlighted the important role of perceived social support, which could be seen as a protective factor. As already mentioned, [U25] could be one possibility where advice seekers could find not only professional but also social support.

The results of this study indicate that a substantial number of life adversities are correlated with suicidal thoughts or suicidal ideations. These adversities include self-harming behaviors, the loss of someone close to the advice seeker, problems with peers, self-reported mental illness, experience of violence and bullying victimization. Although correlations were primarily small to moderate, the results give a good overview of the characteristics of persons seeking help by [U25]. They show that life adversities are not independent but associated with each other and additionally associated with suicidality. The significant correlation between the number of reported life adversities and suicidality reflects the role of risk accumulation, a concept that has proven helpful in understanding problem development in many psychological areas (E. C. Dunn et al., 2018; Markson et al., 2016). When counseling persons with suicidal ideations, not only does suicidality alone have to be considered, but the individual problems should also be brought into focus.

On the one hand, life adversities like bullying victimization, problems in partnership, self-harming behavior and the loss of loved ones improved during the counseling process. It might be possible that the social support given by the peers during counseling buffers negative social experiences in other contexts. However, one would need a longitudinal study with a control group to attribute these changes to counseling with a high degree of probability. On the other hand, if a person had self-reported mental illness or financial problems at the beginning of the counseling, the issues still affected them at the time of the survey. Thus, this could indicate that, especially for these problems, [U25] Germany as a low-threshold service is insufficient and a referral to face-to-face support like psychotherapy or debt counseling is appropriate.

A factor analysis of the different life adversities revealed five factors, namely (1) social and professional problems, (2) victim experience, financial problems, physical illness and addiction, (3) concern for loved ones, (4) mental health issues and (5) other life adversities. The consideration of the adversity dimensions revealed that social and professional problems and concern for loved ones were associated with a change in the situation in general. The latter was also associated with a perceived change in suicidality. These associations did not withstand the Bonferroni correction. Thus, our data could not support strong associations between the different life adversities and outcome measures like change in suicidality and the general situation. Similar results are also found in Yacaman-Mendez et al. (2019). There, the number of childhood adversities and negative recent life events only showed a trend towards lower rates of response to treatment.

Conclusions, Limitations and Implications

The findings reported in this paper provide information about a substantial number of counseling clients and their life adversities that has not previously been available. However, further studies identifying predictors of outcomes of online peer counseling services for suicide ideation are needed.

Those who completed the survey tended to be mostly women. The sample is aged between 12 and 25 years and consisted of persons with German nationality and a higher educational background (which is – according to Hom et al., 2015 – also observed in other suicide prevention programs). With hosting the survey online and the need of including as many clients as possible, it was not intended to employ a sampling strategy or to recruit a representative sample. Thus, the experiences of male users, users older than 25 years and users with a migration background or a lower educational background may be underrepresented in the findings. This study is based on a cross-sectional design. Additionally, for 13% of participants, the last contact with online counseling was more than 6 months ago, which increases the potential for recall bias. By contrast, with a longitudinal design, the perceived change in suicidality could have been better assessed and bias could have been minimized. Additionally, the study did not consider that some clients may take advantage of a therapeutic service or additional counseling during counseling at [U25]. Thus, the use of other counseling or therapeutic services should be assessed and included in further studies.

This study included multiple correlation analyses. Hence, the crud factor (Meehl, 1990; Orben & Lakens, 2020) should be mentioned, which states that in psychological science everything is associated with everything else. In order to counteract this phenomenon, it would be helpful to develop a complex theory about the associations between the life adversities and about life adversities and suicidality, as it is done in the field of mental health difficulties in general (Myles & Johnson, 2023). This could be later tested using statistical methods. The present work could serve as a basis for developing such a theory describing the life adversities of persons seeking advice by an online peer counseling for suicidal ideation. Perceived control was not recorded in our study. However, there is evidence that it is associated with increased suicidality (Crandall et al., 2018) and depression (Myles et al., 2020; Myles et al., 2021) and should therefore be considered for the theoretical framework of future studies. A possible starting point for improving online counseling for suicidal adolescents and young adults is that peers should focus specifically on life adversities associated with self-harm, namely relationship problems with relatives, the experience of bullying victimization, and the experience of violence. Working on these life adversities could help reduce self-harming behaviors and suicidal ideation. In addition, peers should be specifically trained to refer persons reporting mental disorders to other therapeutic services. [U25] as a low-threshold service may be sufficient for clients with social and vocational problems.

Ethical approval

The study was approved by the ethics committee (approval number 62_18 B) and the privacy commissioner of the Friedrich-Alexander-Universität Erlangen-Nürnberg.

Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

Data Availability Statement

Due to data protection regulations, data supporting the results showed in the paper will be available from the corresponding author on request only in very selected cases.

Conflict of interest statement

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Authors' Contribution

AH conceived of the study. AH and MW devised the main conceptual ideas. AH performed the computations. MW and MS verified the analytical methods and supervised the work. All authors discussed the results and contributed to the final manuscript.

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