Suicidal behaviour in over-indebted individuals: a cross-sectional study in Sweden

Henrik Levinsson, Sara Probert-Lindström, Rebecka Holmgren, Emma Nilsson Sundström & Richard Ahlström

Published online: 01 Jun 2023.

Submit your article to this journal ⌷

Article views: 722

View related articles ⌷

View Crossmark data ⌷

Taylor & Francis
Taylor & Francis Group

ARTICLE

Suicidal behaviour in over-indebted individuals: a cross-sectional study in Sweden

Henrik Levinsson[a], Sara Probert-Lindström[b,c], Rebecka Holmgren[d], Emma Nilsson Sundström[a] and Richard Ahlström[e]

[a]Department of Psychology, Lund University, Sweden; [b]Department of Clinical Sciences, Lund University, Lund, Sweden; [c]Region Skåne, Clinical Psychiatric Research Center, Lund, Sweden; [d]Stress Research Institute, Department of Psychology, Stockholm University, Sweden; [e]Department of Health Sciences, Mid Sweden University, Oestersund, Sweden

ABSTRACT

Objective: Associations between debt and suicidal behaviour have been identified, but the research is sparse. Thus, more research is needed to understand the association between economic vulnerability and suicide. The study aimed to generate further knowledge about over-indebted individuals who have attempted suicide at least once.

Method: Participants were a Swedish sample comprising 641 over-indebted individuals. The inclusion criteria were that the participants should be indebted and have been subjected to debt collection measures and/or seizure orders by the Swedish Enforcement Authority. Participants answered questionnaires regarding socio-demographic variables, debt size, history of suicide attempt, critical life events, and social contacts, and filled the Hospital Anxiety and Depression Scale (HADS). In the statistical analyses, Chi^2 test for independence and t-test was used, and binary logistic regression to adjust for the confounding effects of the variables on each other.

Results: The analysis revealed that nearly one in five (19.3%, $N = 123$) had attempted suicide at least once. A larger part of the respondents who had a history of suicide attempts reported that they were living alone (OR 2.30 (95% CI 1.34–3.89, $p = .002$). Many of those living alone were women (χ^2 (1, $n = 121$) = 4.88, $p = 0.03$, $\phi = 0.22$).

Conclusions: The results of the current study point to the fact that economic vulnerability is an important psychosocial aspect to take into serious consideration concerning mental health and suicide prevention. Longitudinal research is needed to explain, predict and prevent suicide due to over-indebtedness.

Introduction

Over the last decades, several risk factors associated with suicide death have been identified. These include for instance psychiatric illness [1–4], family history of suicide [5–7], and physical health problems [2,3,8–10].

One way of post-mortem assessing the presence of any psychopathology is by psychological autopsy. Using this method, psychiatric disorders are estimated to be present in almost 90% of individuals who die by suicide, especially affective disorders (43%) and substance disorders (23%) [11]. While this is true, it is also a fact that most individuals with psychiatric illnesses never attempt or die by suicide. Further, death by suicide occurs in individuals without any clear psychiatric diagnosis. Evidently, other factors play important roles. Environmental aspects such as economic problems [2,8,12] and stressful life events [1,6] are connected to an elevated risk of death by suicide.

To aid the understanding and prediction of suicidal behaviour, psychological models have been developed during the last decades of suicide research. One of the more well-known is the stress-diathesis model introduced by Mann and Arango [13], which argues how biopsychosocial vulnerability factors interact with the environment. When external stressors exceed what the individual's vulnerability can tolerate, suicidal behaviour is expressed. Economic problems are often important external stressors. Partly building on this, suicide researcher Joiner developed the Interpersonal Theory of Suicidal Behaviour (ITS) [14]. The ITS model stresses the importance of concepts such as thwarted belongingness and perceived burdensomeness in the understanding of how suicidal thoughts develop in a social interpersonal context. Thwarted belongingness refers to the experience of being alienated from others and not part of a group of valued individuals. Perceived burdensomeness refers to the perception of being a burden to others and that one's death might be of more value to close ones than one's life. With these two perceptions in mind, according to Joiner's theory, the desire to die might arise. In connection to economic problems and indebtedness, limited economic resources can lead to isolation from social activities

CONTACT Henrik Levinsson ✉ henrik.levinsson@psy.lu.se 🄳 Department of Psychology, Lund University, Box 213, SE-221 00Lund, Sweden

and the possibility to visit close ones. Further, if a person depends on others economically, it could be connected to feelings of being a burden.

Further, an evolutionary psychological theory of the development of psychopathology was proposed by [15], suggesting that symptoms of psychopathology can result from perceptions of defeat and entrapment. Defeat refers to the feeling of failed social struggle while entrapment refers to the feeling of being trapped in a situation from which there is no escape. These models contribute to the understanding of how external stressors can play a part in the development of suicidal behaviour. Perceptions of defeat and entrapment were found in a review study to be associated with depression, anxiety, PTSD, and suicidality [16]. In connection to indebtedness, not having the resources to pay your debt can be interpreted as a social defeat and also as experiencing being trapped in a situation you cannot solve.

As the credit market has increased so has also indebtedness and over-indebtedness, a social problem associated with mental as well as physical illness [17–34]. According to a Swedish report, it is five times more likely to have anxiety and depression if one is over-indebted, compared to the general population [18]. The prevalence of over-indebted individuals in Sweden ranges between 6 to 18 per cent depending on how the term is operationalized [34]. Over-indebtedness can be defined as "a situation, persisting for a sustained period of time, in which daily cost of living exceeds income, and in which the imbalance cannot be compensated by savings" [34, p. 2].

Existing research has found significant associations between debt and suicidal behaviour, suicidal intent and suicidal thoughts [17,34–40]. According to [38], debt repayment problems significantly increase the risk of suicide. However, as concerns the association between debt and suicide, the accumulated evidence base is not strong, and the area of research is limited [38,41]. Thus, more research is needed in order to understand to what extent economic vulnerability, as a psychosocial factor, is associated with suicide.

The aim of the study

The accumulated knowledge about the association between economic vulnerability and suicide needs to be expanded. The aim of the study is to generate further knowledge about over-indebted individuals who have attempted suicide at least once. The study also aims to contribute to the formulation of hypotheses in order to answer questions of what drives over-indebted individuals to attempt suicide, as well as what buffers them from doing so. In the present study, the following research questions were formulated:

1. Within the target group, what is the incidence of having a history of suicide attempt?
2. What characterizes those with a history of suicide attempt in terms of demographic variables, level of depression and anxiety, and critical life events before and after debt problems?
3. Due to one's financial situation, is there an association between a history of suicide attempt and maintaining contact with one's relatives, friends and children?

Materials and methods

Sample and procedure

As there was no public register of over-indebted individuals, random sampling of participants was not possible. Therefore, an accessibility selection was used. The recruitment of respondents was done in collaboration with the Swedish Enforcement Authority, The Professional Association for Budget Advisors, and the National Association for Over-indebted (Insolvens). The inclusion criteria were that, at the time of measurement, the participants should be indebted and that the debt problems should be such that they had been subjected to debt collection measures and/or seizure orders by the Swedish Enforcement Authority. No exclusion criteria were applied. In total, 2205 questionnaires were mailed out by post at the break of 2009/2010. The response rate was 33 percent (726 questionnaires were returned). When processing the data, 79 responses were discarded, thus a total of 647 responses. In the present study, the sample was limited to investigating only those who reported they were in debt at the time of measurement ($N=641$).

Measures

The present study is part of a larger project and only the variables used in the present study are presented. In addition to demographic variables such as sex, age, educational level, marital status, accommodation, and debt size (see Table 1), the following items were also investigated: history of suicide attempt, critical life events before and after debt problems (such as divorce, illness or accident, and unemployment), whether one, because of one's financial situation, had to refrain from maintaining contact with one's relatives and friends (answered either with "completely/to a large extent" or "to some extent/not at all"), and whether one, because of one's financial situation, had to refrain from maintaining contact with one's children (answered either with "completely/to a large extent" or "to some extent/not at all").

The item about suicide attempts was formulated as "Have you ever tried to take your life?", and was answered with "Yes, once", "Yes, several times" or "No". Thus, in the analyses the answer "Yes" comprised respondents who answered that they have tried once, as well as those that have tried several times.

For the item about refraining from maintaining contact with one's children, the following sentence was added in order to exemplify: "for instance, to be able to afford your or the children's contact trips, buy food when the children are staying with you, or to be able to do things together, e.g. go to the cinema."

HADS

In order to measure probable anxiety and depression, The Hospital Anxiety and Depression Scale (HADS) was used. HADS consists of 7 items on anxiety and 7 items on depression, answered on a Likert scale ranging from 0 to 3. The total score on each subscale is 21. A score of 0–7 points indicates that clinical anxiety/depression is probably not

Table 1. Demographic data of the entire sample (N = 641).

Characteristics	n	%	M	Min-max
Gender				
Women	367	57		
Men	266	42		
Age			52.4	21–82
Completed education				
Lower than high school	413	64.4		
High school/college	215	33.5		
Marital status				
Not living alone (married, cohabitant)	257	40.1		
Living alone (unmarried, single, divorced, widow/widower)	373	52.2		
Accommodation				
Rental apartment/do not own accommodation	451	70.4		
Owner of accommodation	97	15.1		
Lacking accommodation	9	1.4		
Employment status				
In work	260	40.6		
Outside work	249	46.6		
Debt size*				
<50 000	43	6.8		
50–100 000	57	9.0		
100–200 000	105	16.7		
>200 000	322	51.1		
>1 million	103	16.3		

Lower than high school comprises folk-, elementary-, secondary- or folk high school, vocational school or 2-year high school.
*Reported individual debt size, including secure and unsecured debt (in thousand SEK).

present, 8–10 points indicate that clinical anxiety/depression may be present, and 11–21 points indicate probable clinical anxiety/depression. Based on previous research and guidelines, 11 points were used as a cut-off for probable mental illness [42,43]. HADS has demonstrated good internal reliability and has a strong correlation with The Beck Depression Inventory (BDI) and General Health Questionnaire (GHQ) [43–45].

Data analysis

Statistical analyses were carried out in the Statistical Package for Social Sciences (SPSS) version 28. In cases where the respondents answered more than half of the questions of HADS, mean value substitution (replace with mean) was used to handle the internal dropout. To analyze differences between two or more groups within the sample, t-tests for independent samples were used. Associations between two categorical variables were analyzed using the Chi-Square test for independence. Yates' Continuity Correction was used for the 2×2 cross-tabulations. The significance level for the statistical tests was set at $p < 0.05$. For t-tests, the effect size was calculated and evaluated with reference to Cohen's guidelines [46]. The effect size for Chi^2 test was calculated with phi (ϕ). To further investigate the associations between the independent variables and Group 1 and 2, binary logistic regression was used to adjust for the confounding effects of the included variables. As a first step, crude ORs with 95% CIs were estimated for each independent variable. Then adjusted ORs were calculated within the group for all demographic variables and for critical life events before and after, in turn. As a third step, ORs were adjusted for gender and age, thereby adjusting also for the effect of these putative confounders. The results are presented as odds ratios (ORs) and 95% confidence intervals (95% CIs).

Ethical considerations

This study is part of a larger project that has been reviewed and approved by the Regional Ethics Committee in Umea, Sweden (no. 09-069 O).

Results

The percentage of individuals with a history of at least one suicide attempt (hereafter Group 1) was 19.3 (N = 123), and those with no history of any suicide attempts (hereafter Group 2) was 80.7 (N = 517). For demographic data of Group 1, see Table 2. Group 1 consists of more women, it is more common having low educational level, living alone, being unemployed, renting accommodation, and living in a smaller town. Within Group 1, 12.4 percent (N = 15) were on sick-term leave and 30.6 percent (N = 37), reported early retirement. In total, 43 percent in Group 1 reported sick-term leave or early retirement. In Group 2, the percentage concerning long-term sick leave was 8.7 (N = 42) and early retirement 25.9 (N = 125). In total, 34.6 percent in Group 2 reported sick-term leave or early retirement.

Group 1 shows probable clinical anxiety, and clinical depression may be present. In Group 2, both clinical anxiety and clinical depression may be present. There was a significant difference in level of anxiety between the two groups, Group 1 (M = 11.6, SD = 4.7) and Group 2 (M = 8.7, SD = 5.1), t (635) = 5.78, $p < 0.001$, d = 0.58. There was a significant difference in the level of depression between the two groups, Group 1 (M = 10.0, SD = 5.1) and Group 2 (M = 7.4, SD = 4.9), t (635) = 5.23, $p < 0.001$, d = 0.53. After adjustment for gender and age, binary logistic regression analysis showed that the statistically significant group differences remained for both anxiety: OR 1.11 (95% CI 1.07–1.16, $p < .001$) and depression: OR = 1.11 (CI 1.06–1.15, $p < .001$).

Table 2. Demographic data of individuals with a history of at least one suicide attempt (*n* = 123) .

Characteristics	*n*	%	*M(SD)*	Min-max
Gender				
Women	79	64.8		
Men	43	35.2		
Age			49.9	21–73
Completed education				
Lower than high school	74	60.2		
High school/College	45	36.6		
Marital status				
Not living alone (married, cohabitant)	32	26.0		
Living alone (unmarried, single, divorced, widow/widower)	89	72.4		
Accommodation				
Rented accommodation	89	72.4		
Owner of accommodation	15	12.2		
Lacking accommodation	4	3.3		
Employment status				
In work	45	36.6		
Outside work	65	52.8		
Psychiatric symptoms				
HAD anxiety			11.6 (4.7)	0–20
HAD depression			10.0 (5.1)	0–21
Rural/suburban area				
Big city	29	23.6		
Middle-size city	27	22.0		
Town	25	20.3		
Small town/Countryside	37	30.1		
Debt size*				
<50 000	9	7.4		
50–100 000	13	10.7		
100–200 000	20	16.5		
>200 000	65	53.7		
>1 000 000	14	11.6		

Lower than high school comprises folk-, elementary-, secondary- or folk high-school, vocational school or 2-year high school.
*Reported individual debt size, including secure and unsecure debt (in thousand SEK).

Associations between history of suicide attempt and demographic variables

A significant association was found between a history of suicide attempts and marital status, χ^2 (1, *n* = 630) = 12.04, $p = < 0.001$, $\phi = 0.14$. A larger part of the respondents who had a history of suicide attempts reported that they were living alone. No other significant associations were found. After adjustment for demographic variables (see Table 1), binary logistic regression analysis showed that the group differences remained statistically significant regarding marital status: OR 2.28 (95% CI 1.34–3.89, $p = .002$).

Associations between demographic variables within Group 1

A significant association was found between sex and marital status χ^2 (1, *n* = 121) = 4.88, $p = 0.03$, $\phi = 0.22$. Within Group 1, a larger part of the respondents who reported that they were living alone were women. No other significant associations were found.

Critical life events before and after debts problems

For an overview of all critical life events, see Figure 1. Significant associations were found between suicide attempts and the most common critical life events before problems of debt. Divorce, χ^2 (1, *n* = 641) = 7.58, $p = 0.006$, $\phi = 0.11$, Illness or Accident, χ^2 (1, *n* = 641) = 5.66, $p = 0.017$, $\phi = 0.10$, Death in the family, χ^2 (1, *n* = 641) = 6.69, $p = 0.010$, $\phi = 0.11$, and Illness or accident in one's family, χ^2 (1, *n* = 641) = 10.19,

$p = 0.001$, $\phi = 13.2$. The four critical life events were reported as more frequent within Group 1. A sensitivity analysis of the events was then carried out. After adjustment for the most common critical life events before problems of debt, gender and age, binary logistic regression analysis revealed that only Divorce remained as a variable with significant differences between Group 1 and 2. The analysis also revealed that the event of sudden, unpredictable loss of income was a significant predictor in the model.

Significant associations were found between suicide attempts and critical life events after problems of debt. Illness or accident, χ^2 (1, *n* = 641) = 8.00, $p = 0.005$, $\phi = 0.12$, Sudden unpredictable loss of income, χ^2 (1, *n* = 641) = 3.91, $p = 0.048$, $\phi = 0.08$, and Illness or accident in one's family, χ^2 (1, *n* = 641) = 5.33, $p = 0.02$, $\phi = 0.10$. The three critical life events were reported as more frequent within Group 1. After adjustment for the most common critical life events after problems of debt, gender and age, binary logistic regression analysis revealed that only Illness or Accident remained significant. The analysis also revealed that the event Retirement was a significant predictor in the model. Analyzing each significant predictor separately after having adjusted for gender and age, Illness or Accident remained significant, while Retirement did not.

History of suicide attempt and refraining from maintaining contact with one's relatives, friends and children

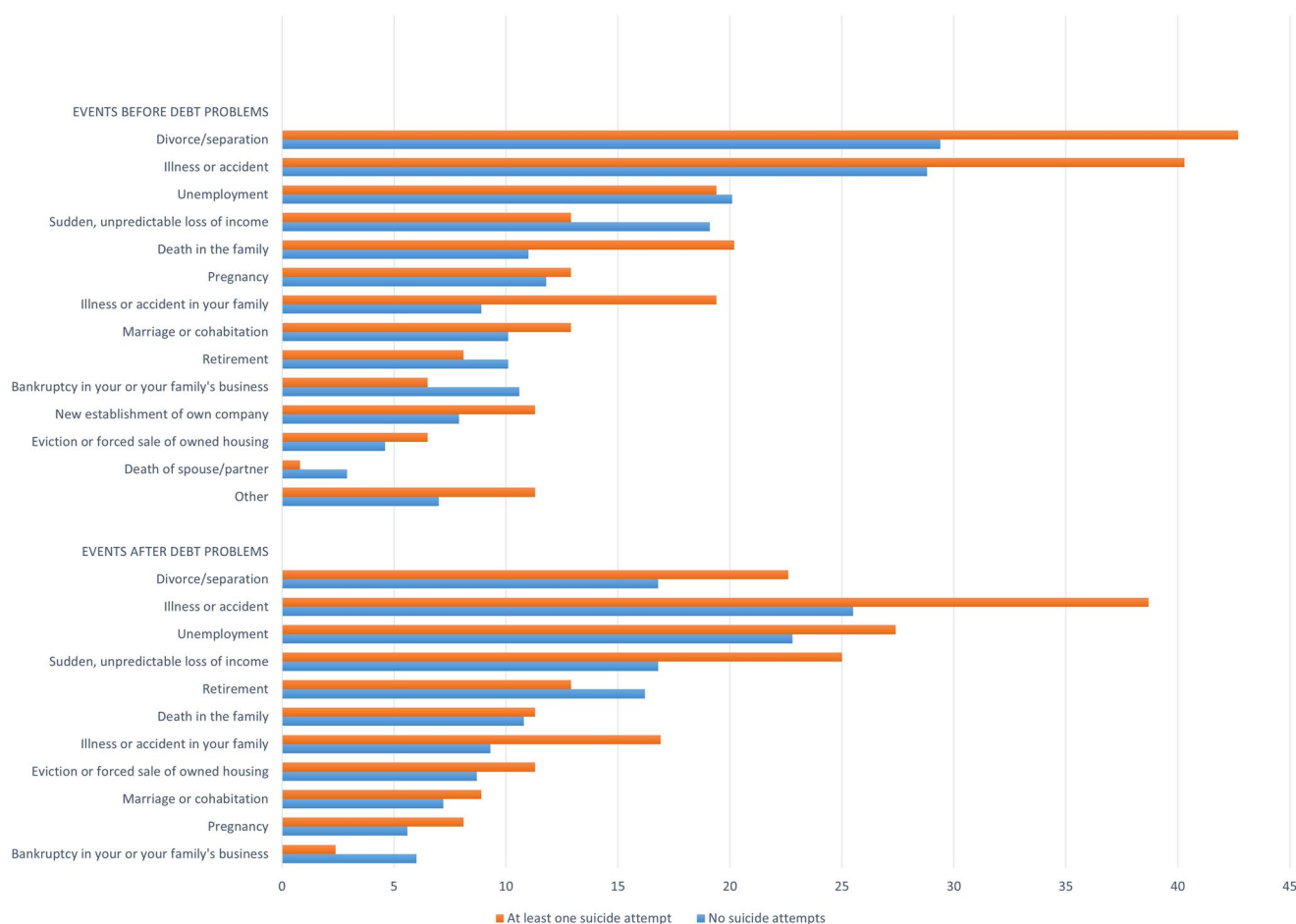A significant association was found between the history of suicide attempts and refraining from maintaining contact

Figure 1. Overview of critical life events before and after debt problem.

with friends and relatives, χ^2 (1, $n=602$) = 13.68, $p = < 0.001$, $\phi = 0.16$. A larger part of the respondents who had a history of suicide attempts reported that they completely/to a large extent had refrained from maintaining contact with one's relatives and friends. After adjustment for both gender and age, binary logistic regression analysis showed that the group differences remained significant: OR = 2.09 (CI 1.39–3.14, $p < .001$).

A significant association was also found between having a history of suicide attempts and refraining from maintaining contact with one's children, χ^2 (1, $n=338$) = 4.56, $p = < .03$, $\phi = 0.12$. A larger part of the respondents who had a history of suicide attempts reported that they completely/to a large extent had refrained from maintaining contact with one's children. After having adjusted for both gender and age, binary logistic regression analysis showed that the difference between groups remained significant: OR = 1.91 (CI 1.07–3.39, $p < .03$).

Discussion

The present study shows that nearly one in five over-indebted individuals has attempted suicide at least once. These numbers can be compared with the overall estimated number of 73 per 100 000 individuals who attempt suicide nationwide in Sweden every year [47]. Such data is alarming and points to the fact that economic vulnerability is an important

psychosocial aspect to take into serious consideration concerning mental health and suicide prevention.

Compared to individuals with no history of any suicide attempt, the suicide attempters score significantly higher on symptoms of anxiety and clinical depression and are within the range of probable clinical anxiety. It is possible that known psychological models of suicidal behaviour can be useful to interpret these results. Being over-indebted could be experienced as a defeat [15]. Further, if you cannot find a way to solve the problem or receive help, it could be connected to the experience of entrapment, i.e. the feeling of not being able to escape the problem [15]. Such constructs may help explain the association between over-indebtedness and suicide attempts in this population.

Our results indicate that being over-indebted and having a history of suicidal attempts is more common among women who live alone, which indicates an important gender aspect. According to previous research, women are more affected by financial problems [48], and also show a lower level of financial literacy compared to men, which likely reflects the stereotypes in society [49]. It is important to note that suicide attempts, in general, are more common among women than among men, though more men die by suicide, sometimes referred to as the gender paradox of suicide [50]. The findings of this study could be a reflection of the overall gender pattern regarding suicide.

The critical life event of Divorce before debt problems is significantly more frequent within Group 1. Worth noting is that Illness or Accident is still relatively high in Group 1, even after debt problems, and that the increase in unemployment is 8%, in comparison to Group 2 where the increase is around 3%. In Group 2, Death in the family is 11% both before and after debt problems, while in Group 1 one can see a decrease from 20 to 11%. That Illness or Accident is a significant critical event after debt problems could be understood with reference to the strong association between over-indebtedness and health, physical as well as mental. Finally, many respondents in the sample are outside the labor market due to sick-term leave, and early retirement. This is even more frequent in Group 1. The relationship between suicide attempts, over-indebtedness and other important psychosocial events is likely highly complex and varies over time. However, according to the stress-diathesis model introduced by Mann and Arango [13], suicidal behaviour occurs when external stressors exceed what the individual's vulnerability can tolerate. In accordance with this, the results can be interpreted that increased psychosocial stress in combination with the individual's vulnerability could explain the elevated levels of critical events in the group with suicide attempts.

Concerning Group 1, the results also indicate the importance of social aspects. Beyond the fact that many live alone, it is common to refrain from maintaining contact with relatives and friends, and with one's children, due to financial problems. The social aspects of being indebted in relation to suicidal behaviour can be understood by utilizing the interpersonal theory of suicide [14]. Constructs such as thwarted belongingness ("I am alone") in combination with perceived burdensomeness ("I am a burden to others") could play important roles in the understanding of the impact of financial and social problems on suicidal development.

Limitations and strengths

The present study expands the knowledge about the association between over-indebtedness and suicide attempts. Hopefully, it also contributes to hypothesis building regarding possible risk factors and early signs, as well as to the formulation of new research questions to test these. As the design of the study is cross-sectional, no causal conclusions can be drawn, and we do not know for sure if the suicide attempts are due to the financial situation. It is important to point out that we do not know when, in relation to debt problems and critical life events, the individuals have tried to commit suicide. Also, the results are based on introspective data which of course could be biased. However, the results convey an overall picture of the respondents' life situation. All individuals were over-indebted at the time of measure.

The data is somewhat dated but unique in its kind. It comprises nearly 650 over-indebted respondents, and a plethora of items on demographic variables, mental and physical health measures, coping strategies and living conditions. Only a small part of the data has been investigated within the scope of this study. Further, over-indebtedness and suicide are highly current topics as the economic situation has worsened due to recession, high inflation and increased household expenses, and it is difficult to know whether the peak has yet been reached. We thus believe that the findings of the present study constitute a relevant and important contribution to the field.

Future research and practical implications

In order to fill the knowledge gaps about suicide and over-indebtedness, identify risk factors and early signs, and prevent suicide, casual models and explanations are needed. Hence, to further understand causal mechanisms, we call for longitudinal studies. Longitudinal studies are required in order to follow over-indebted individuals over time and would make it possible to make predictions to a greater extent. It is important to raise awareness that over-indebtedness is a psychosocial factor associated with mental ill-health and suicidal behaviour. In the present study, it was found that nearly one in five over-indebted individuals has attempted suicide at least once.

It would be reasonable to integrate knowledge about the association between over-indebtedness and health (in general) within the educational system, especially within professional programs. Both suicide and economic vulnerability are sensitive taboo subjects associated with stigma and are rarely talked about. This could be a challenge, e.g. within professions that meet economically vulnerable people in their daily work, such as social workers, psychologists, deacons, and budget and debt advisors. Daring to ask about the individual's financial situation we see as an important step in order to identify those who are at risk, to a greater extent and as early as possible.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Data availability statement

Data is available upon reasonable request.

Funding

References

[1] Arafat SMY, Mohit MA, Mullick MSI, et al. Risk factors for suicide in Bangladesh: case–control psychological autopsy study. BJPsych Open. 2021;7(1):e18

[2] Berkelmans G, van der Mei R, Bhulai S, et al. Identifying socio-demographic risk factors for suicide using data on an individual level. BMC Public Health. 2021;21(1):1–8.

[3] Johansson L, Sundquist J, Johansson S, et al. Ethnicity, social factors, illness and suicide: a follow-up study of a random sample of the Swedish population. Acta Psychiatr Scand. 1997;95(2):125–131.

[4] Rasouli N, Malakouti SK, Rezaeian M, et al. Risk factors of suicide death based on psychological autopsy method; a case-control study. Archives of Academic Emergency Medicine. 2019;7(1):e50.

[5] Agerbo E. Midlife suicide risk, partner's psychiatric illness, spouse and child bereavement by suicide or other modes of death: a gender specific study. J Epidemiol Community Health. 2005;59(5):407–412. 10.1136/jech.2004.024950

[6] Phillips MR, Yang G, Zhang Y, et al. Risk factors for suicide in China: a national case-control psychological autopsy study. Lancet. 2002;360(9347):1728–1736.

[7] Qin P, Agerbo E, Mortensen PB. Suicide risk in relation to family history of completed suicide and psychiatric disorders: a nested case-control study based on longitudinal registers. Lancet. 2002;360(9340):1126–1130.

[8] Bhatia SC, Khan MH, Mediratta RP, et al. High risk suicide factors across cultures. Int J Soc Psychiatry. 1987;33(3):226–236.

[9] Fang F, Fall K, Mittleman M, et al. Suicide and cardiovascular death after a cancer diagnosis. N Engl J Med. 2012;366(14):1310–1318.

[10] Guo Z, Gu C, Li S, et al. Incidence and risk factors of suicide among patients diagnosed with bladder cancer: a systematic review and meta-analysis. Urol Oncol. 2021;39(3):171–179.

[11] Arsenault-Lapierre G, Kim C, Turecki G. Psychiatric diagnoses in 3275 suicides: a meta-analysis. BMC Psychiatry. 2004;4(1):11–37.

[12] Holley HL, Fick G, Love EJ. Suicide following an inpatient hospitalization for a suicide attempt: A canadian follow-UP study. Soc Psychiatry Psychiatr Epidemiol. 1998;33(11):543–551.

[13] Mann JJ, Arango V. Integration of neurobiology and psychopathology in a unified model of suicidal behavior. J Clin Psychopharmacol. 1992;12(SUPPLEMENT):8S.

[14] Joiner T. 2005. Why people die by suicide. Cambridge, MA: Harvard University Press.

[15] Gilbert P, Allan S. The role of defeat and entrapment (arrested flight) in depression: an exploration of an evolutionary view. Psychol Med. 1998;28(3):585–598.

[16] Siddaway AP, Taylor PJ, Wood AM, et al. A meta-analysis of perceptions of defeat and entrapment in depression, anxiety problems, posttraumatic stress disorder, and suicidality. J Affect Disord. 2015;184:149–159.

[17] Achtziger A. Overspending, debt, and poverty. Curr Opin Psychol. 2022;46:101342. .

[18] Ahlström R, Edström S. 2015. Överskuldsättning och ohälsa (2014:16). Konsumentverket. https://publikationer.konsumentverket.se/produkter-och-tjanster/bus-och-kvl/rapport-2014-16-overskuldsattning-och-ohalsa.

[19] Autio M, Wilska T, Kaartinen R, et al. The use of small instant loans among young adults – a gateway to a consumer insolvency? International Journal of Consumer Studies. 2009;33(4):407–415.

[20] Brown S, Taylor K, Wheatley Price S. Debt and distress: evaluating the psychological cost of credit. Journal of Economic Psychology. 2005;26(5):642–663.

[21] Cesar Leandro J, Botelho D. Consumer over-indebtedness: a review and future research agenda. Journal of Business Research. 2022;145:535–551.

[22] Drentea P. Age, debt and anxiety. Journal of Health and Social Behavior. 2000;41(4):437–450.

[23] Drentea P, Reynolds JR. Neither a borrower nor a lender be: the relative importance of debt and SES for mental health among older adults. J Aging Health. 2012;24(4):673–695.

[24] Holmgren R, Nilsson Sundström E, Levinsson H, et al. Coping and financial strain as predictors of mental illness in over-indebted individuals in Sweden. Scand J Psychol. 2019;60(1):50–58. .

[25] Jenkins R, Bhugra D, Bebbington P, et al. Debt, income and mental disorder in the general population. Psychol Med. 2008;38(10):1485–1493.

[26] Levinsson H, Jiborn M. 2013. Minuskontot: ekonomiska villkor för personer med psykisk funktionsnedsättning. Nationell Samverkan för Psykisk Hälsa (NSPH). https://lucris.lub.lu.se/ws/portalfiles/portal/6002117/4864878.pdf.

[27] Ljungqvist I, Topor A, Forssell H, et al. Money and mental illness: a study of the relationship between poverty and serious psychological problems. Community Ment Health J. 2016;52(7):842–850.

[28] Lo H-Y, Harvey N. Shopping without pain: compulsive buying and the effects of credit card availability in Europe and the far east. J Econ Psychol. 2011;32(1):79–92. .

[29] Mills C. The psychiatrization of poverty: rethinking the mental health-poverty nexus. Social Personality Psychology Compass. 2015;9(5):213–222.

[30] Richardson T, Elliott P, Roberts R. The relationship between personal unsecured debt and mental and physical health: a systematic review and meta-analysis. Clin Psychol Rev. 2013;33(8):1148–1162.

[31] Ridley M, Rao G, Schilbach F, et al. Poverty, depression, and anxiety: causal evidence and mechanisms. Science. 2020;370(6522):1–12.

[32] Sweet E, Kuzawa CW, McDade TW. Short-term lending: payday loans as risk factors for anxiety, inflammation and poor health. SSM Popul Health. 2018;5:114–121.

[33] Zhang Q, Kim H. American young adults' debt and psychological distress. J Fam Econ Iss. 2019;40(1):22–35.

[34] Östergren P-O, Canivet C, Moghaddassi M, et al. Selling one's future: over-indebtedness and the risk of poor mental health and the role of precarious employment – results from the Scania public health cohort, Sweden. BMJ Open. 2022;12(11):e061797. .

[35] Hintikka J, Saarinen P, Tanskanen A, et al. Debt and suicidal behaviour in the Finnish general population. Acta Psychiatr Scand. 1998;98(6):493–496.

[36] Meltzer H, Bebbington P, Brugha T, et al. Personal debt and suicidal ideation. Psychol Med. 2011;41(4):771–778.

[37] Reeves A, Stuckler D, McKee M, et al. Economic shocks, resilience, and male suicides in the great recession: cross-national analysis of 20 EU countries. Eur J Public Health. 2015;25(3):404–409.

[38] Rojas Y. Financial indebtedness and suicide: a 1-year follow-up study of a population registered at the Swedish enforcement authority. Int J Soc Psychiatry. 2022;68(7):1445–1453.

[39] Turunen E, Hiilamo H. Health effects of indebtedness: a systematic review. BMC Public Health. 2014;14(1):489.

[40] Yip PSF, Yang KCT, Ip BYT, et al. Financial debt and suicide in Hong Kong SAR. J Appl Social Pyschol. 2007;37(12):2788–2799.

[41] Haw C, Hawton K, Gunnell D, et al. Economic recession and suicidal behaviour: possible mechanisms and ameliorating factors. Int J Soc Psychiatry. 2015;61(1):73–81.

[42] Bodlund O. Ångest och depression ett dolt problem i primärvården. Läkartidningen. 1997;94(49):4612–4618.

[43] Lisspers J, Nygren A, Söderman E. Hospital anxiety and depression scale (HAD): some psychometric data for a Swedish sample. Acta Psychiatr Scand. 1997;96(4):281–286.

[44] Bjelland I, Dahl AA, Haug TT, et al. The validity of the hospital anxiety and depression scale: an updated literature review. J Psychosom Res. 2002;52(2):69–77.

[45] Herrmann C. International experiences with the hospital anxiety and depression scale: a review of validation data and clinical results. J Psychosom Res. 1997;42(1):17–41.

[46] Cohen J. 1988. Statistical power analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.

[47] The Public Health Agency of Sweden. 2022. Statistik om suicid. www.folkhalsomyndigheten.se/suicidprevention/statistik-om-suicid/.

[48] Hoeve M, Stams GJJM, van der Zouwen M, et al. A systematic review of financial debt in adolescents and young adults: prevalence, correlates and associations with crime. PLoS One. 2014;9(8):e104909.

[49] Tinghög G, Ahmed A, Barrafrem K, et al. Gender differences in financial literacy: the role of stereotype threat. J Econ Beh Org. 2021;192:405–416.

[50] Mościcki EK. Gender differences in completed and attempted suicides. Ann Epidemiol. 1994;4(2):152–158.

[51] Suicide worldwide in 2019: global health estimates. Geneva: World Health Organization; 2021. Licence: CC BY-NC-SA 3.0 IGO.