Suicidal thoughts among undocumented migrants in Sweden

Lena M.C. Andersson, Anders Hjern and Henry Ascher

Abstract

Purpose – Early identification of persons at risk is essential in suicide prevention. Undocumented migrants (UM) live under limited conditions and are to a high degree invisible, both in research and in suicide prevention programmes. The aim of this study was to investigate prevalence rates of suicidal thoughts among UM in Sweden.

Design/methodology/approach – This cross-sectional study was part of the Swedish Health Research on Undocumented Migrants project (SHERUM). The study population consisted of 104 UM over 18 years of age recruited through informal networks. Data on 112 multiple choice questions was collected via trained interviewers in Gothenburg, Stockholm and Malmö during 2014–2016. To assess suicidal thoughts (the last two weeks) one item asking about suicidal thought in the Beck Depression Inventory scale (BDI-II) was used. Logistic regression and chi-square analyses were made to identify risk and protective factors.

Findings – Suicidal thoughts were found in 43.2% of the 88 UM that answered the question on suicidal thoughts. Being a parent had some protective influence on the prevalence of suicidal thoughts while the housing situation, having been exposed to crime and having mental illness were all statistically significant risk factors for suicidal thoughts. However, due to low sample size, few variables presented statistically significant differences.

Originality/value – This study presents an alarmingly high prevalence of suicidal thoughts among undocumented migrants in Sweden, a difficult-to reach, vulnerable and rarely studied group. Targeted strategies are imperative to include undocumented migrants in suicidal prevention programmes.

Keywords *Prevention, Mental health, Migration, Undocumented, Irregular, Suicidal thoughts* **Paper type** *Research paper*

Background

Approximately 793 000 people died by suicide in the world 2016 according to the World Health Organization (WHO), equivalent to 10.5 persons per 100 000 (WHO, 2020). Comorbidity, in particular depression, is often present among persons who decide to end their life by suicide (Agerbo, 2002). It is of paramount importance to identify persons with suicidal behaviour (self-harm, suicidal thoughts, suicide attempts) early in order to prevent suicide. Concerning undocumented migrants (UM), there is a lack of knowledge of the prevalence of suicidal behaviour. Although many migrants are young, resilient to hardships and physically strong, especially in the beginning of the migratory process, it could be hypothesized that suicidal behaviour is common given that UM, particularly those who have had their asylum application rejected, live in an extremely vulnerable psychosocial situation where they receive little support from the host country. Housing and financial support is withdrawn and they are expected to leave the country. Often, they are dependent on civil society and religious institutions that provide the basic daily necessities. Living under those circumstances and with a fear of being disclosed, taken by the police and sent back to the country they fled from, affect hopelessness and despair, factors that may increase the risk of suicidal behaviour. It is thus important to gain evidence-based knowledge about Lena M.C. Andersson is based at the Department of Social Work, University of Gothenburg, Gothenburg, Sweden. Anders Hjern is based at the Department of Medicine, Clinical Epidemiology Unit, Karolinska Institute. Stockholm, Sweden and Centre for Health Equity Studies (CHESS), Stockholm University, Stockholm, Sweden. Henry Ascher is based at the School of Public Health and Community Medicine, Institute of Medicine, University of Gothenburg, Gothenburg, Sweden and Department of Research and Development, Angered Hospital, Gothenburg, Sweden. Received 25 May 2020

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Vetenskapsrådet: 521–2012-2927, West Sweden Region FOU: 383601. prevalence and risk factors so that health care and other institutions can detect and prevent suicide in this vulnerable group in society. However, few evidence-based studies are published, probably due to problems of reaching UM and include them in research.

Mental illness among migrants

In a large review from the WHO Regional Office for Europe 2016 of studies on mental health among refugees, asylum-seekers and irregular migrants, it was concluded that there is a substantial variability in the prevalence of mental illness in the studies done on this group. No systematic reviews has been done on asylum-seeker's or irregular migrant's mental health (Pribe, 2016). In the process of migration, risk factors for mental illness can be contributed to trauma and other negative exposures before migration, traumatic or stressful event during the migration, or experiences of stress, trauma and violence during or after the asylum process (Envall, 2010). We have previously reported that 71% of the 88 UM in Sweden suffered from depression, 68% of anxiety and 54% of PTSD (Andersson, 2018). The migrants were all living as "hidden", and endured a difficult living situation with housing problems and hunger in addition to the fear of being expelled out of the country. These figures was similar to a Norwegian study where Myhrwold et al. (Myhrvold, 2017) interviewed 90 undocumented migrants at the Health Centre for Undocumented Immigrants in Oslo and found that 87% suffered from depression and 87% from anxiety. Also, studies from The Netherlands and Germany show that the mental illness burden was high and quality of life low among UM (Schoevers, 2009; Kuehne, 2015).

Suicidal behaviour among migrants with residence permits in Sweden and Denmark

In a cohort study by Hollander et. al. (Hollander, 2016) of 1.3 million individuals in Sweden followed for 27 years, it was found that refugees had an increased risk for schizophrenia and other non-affective psychotic disorders compared to other non-refugee migrants and native born Swedes. Earlier Scandinavian studies also found that some migrants groups were at higher risk of mental illness, suicide attempts or suicide in comparison to the native populations (Sundaram et al., 2006; Westman, 2006; Jablonska, 2009). In certain migrant groups, both first- and second-generation immigrants had higher suicide rates that native Swedes (Hjern and Allebeck, 2002). A study from 2015 by Di Thienes and colleagues (Di Thiene, 2015), in a population of more than four million followed between 2005–2010, it was found that the risk of suicide was lower in first generation migrants in relation to nativeborn Swedes but higher in the second- On the contrary, a current longitudinal populationbased register study found that among persons with a mental disorder, the likelihood of being admitted to hospital for suicide attempts or die by suicides were lower among the refugees compared to Swedish-born. The study included 5 million individuals followed from 2004 to 2013 (Björkenstam, 2019). No stratified analyses were however made on specific migrant groups. Also in the recent study by Hollander et al. (Hollander, 2019) it was found that the risk for suicide was not elevated for refugees and non-refugee migrants in comparison to Swedish-born after control of age, gender, region of origin and income.

Suicide attempts and suicide among asylum seekers and UM

Among asylum-seekers and UM, higher risk for suicide has been found. Hagströmer and colleagues (Hagström, 2018) investigated self-harm, suicide attempts and suicide among unaccompanied asylum seekers (aged 10–21) who came to Sweden between 2015–2017. The investigation was done 2017 and sampling was done purposively at health authorities, state and municipal authorities and NGÓs. Results showed that the suicide rates were about ten times higher among the asylum seekers (51.2/100 000) than native Swedes in the same age strata (5.2/100 000).

In a study by Goosen *et al.* (Goosen, 2011) in The Netherlands, suicide and suicidal behaviour among asylum-seekers was investigated and 35 suicides and 290 cases of hospital treated suicidal behaviour were identified. The suicide-rate for male asylum seekers was double than the Dutch population. In another study from the same country, Dorn *et al.* (Dorn, 2011) found that among 95 undocumented migrants aged 18–57 that was held in a detention centre, 10 persons (11%) stated to the nurse at the intake meeting that they have had past suicidal thoughts and/or suicide attempts in the past. In a German study (Fuhrer, 2016) where 214 male adult asylum seekers were interviewed about health and help seeking, 5.6% of them mentioned being distressed by suicidal thoughts the last week. The prevalence of depression was 54.7%, anxiety disorder 40.2% and post-traumatic stress disorder 18.2%.

In Denmark, Hvid Schwarz-Nielsen and Elklitt (Hvid Schwarz-Nielsen and Elklit, 2009) found high rates of mental illness amongst rejected asylum-seekers in a Danish asylum centre. Twenty-three asylum-seekers were evaluated, of whom 61% were "failed asylum-seekers". Among them 81% had mental health problems and the main reasons for seeking help was suicidal ideation and/or behaviour (60 per cent). The most frequent diagnosis given at the initial evaluation was ICD-10 F43.9 "reaction to severe stress, unspecified" (50%).

When causes of death was investigated in a Swedish study (using death certificates) issued from 1997–2010, Wahlberg *et al.* (Wahlberg, 2014) found that among the 860 deaths of persons defined as UM in the study, 50% died by external causes (in which suicide is included). Intentional self-harm (suicide) accounted for 21.7% of deaths, 19.5% among males and 32.0% among females. The likelihood of dying from external causes was three times more common among UM (OR 3.57; 95% CI 2.83–4.52) compared to Swedish residents. Furthermore, female UM was four times more likely to die from external causes in comparison to native Swedish females (OR 4.29; 95% CI 2.41–7.64). Equal odds ratio among men was OR 2.72 (95% CI 2.04–3.61).

These studies indicate that suicidal behaviour may be common among UM. Therefore, the aim with this study was to investigate prevalence rates of suicidal thoughts among 104 UM interviewed in Sweden 2014–2016. All UM interviewed in this study were living clandestinely, "underground", and not in detention or deportation centres.

Methods

This study is part of the Swedish Health Research on Undocumented Migrants project (SHERUM), with the aim to describe the physical and mental health of UM in Sweden, their social and psychological functioning, impact of pre-migration, migration and post-migration factors on health, and to investigate how they assess their health service needs and coping strategies. In a previous paper we have described the methodology in detail in Andersson et.al (Andersson, 2018).

Setting and study population

The data for this cross-sectional study was collected in the three largest cities in Sweden, Gothenburg, Stockholm and Malmö, during the period 2014–2016. Included in the study were persons over 18 years of age, defined as UM because of a lack of a residence permit. Excluded from the study were migrants from EU countries who had overstayed their allowed time to stay in the country.

Sampling of the study population

We contacted representatives of various informal networks that provide support to UM in Stockholm, Gothenburg and Malmö to make contact with UM. The network around the

Rosengrenska clinic in Gothenburg, Doctors of the World in Stockholm and the Red Cross in Stockholm and Malmö, organisations that provide informal health care and financial support to UM, were particularly important in recruiting informant, but churches and other supporting networks and organisations were also contacted. These networks provide a variety of services to UM, serve as meeting places for social support and/or provide clothes, food and health services. The majority of respondents in our study did not visit the organisations due to physical or mental problems, but because of social activities and food distribution. Through these networks, we got in contact with UM.

An information brochure was handed out, presenting the study in nine languages (Swedish, English, Spanish, Arabic, Albanian, Persian, Russian, Romani, Bosnian/Croatian/Serbian). In cases where no translator was available at the clinic, a later meeting was set up. Both authorised translators and volunteer translators were used at the clinics for this information. The written and oral information clearly stated that the researchers were not in any way associated with any authority, that anonymity was strict and that participation in the study would not affect their asylum cases. Most interviews were done in churches and voluntary organisations. Referral for psychological counselling was offered if the respondent conceived to be in need of it after the interview. The final sample consisted of 104 UMs: 54 men and 50 women.

The questionnaire

A questionnaire was developed consisting of 112 multiple-choice questions. In addition to the questionnaire, three psychiatric instruments were included in the study to screen for the respondent's mental health. Beck's Depression Inventory (BDI-II), Beck's Anxiety Inventory (BAI) and PCL- 5, the latter a screening tool to measure post-traumatic stress disorder (PTSD). (Weathers *et al.*, 2013) (Arnberg and Johannesson, 2014; Sveen *et al.*, 2016). Cronbach's alpha scores was; 0.904 for BAI, 0.901 for BDI and 0.893 for the PCL. In this current study we used one item from the BDI-II scale investigating suicidal thoughts the past two weeks: *"Suicidal thoughts": 0: I have no thoughts of killing myself, 1: I have thoughts of killing myself, but would not do it, 2: I would like to kill myself, 3: I would kill myself, if I got an opportunity.* In the analyses this item was dichotomized: 0 = No and 1 = Yes (1+2+3).

Ethical considerations

The study was approved by the Swedish Central Ethical Review Board (ref. no. Ö 25–2013). Ethical considerations with particular respect for the vulnerable situation of undocumented people were in focus in the study and has been presented in detail in Andersson *et al.* (Andersson, 2018).

Statistical analysis

Descriptive analyses with chi-2 analyses were analysed by gender as well as overall. Logistic regression models were used to estimate odds ratios and their 95% confidence intervals. The models included various independent variables.

Results

A total of 104 persons was included in this study and 88 persons answered the question on suicidal thoughts. The results showed that 43.2% had suicidal thoughts (52 per cent among men and 32.5% among women, *p*-value 0.065) (Table 1).

UM with a child had a significantly lower prevalence of suicidal thoughts compared to UM without a child (34% vs. 57%, *p*-value 0.034). Among UM that lived in a place owned by

 Table 1
 Frequencies of suicidal thoughts among UM's that answered the depression scale (n = 88/104) in relation to socioeconomic and health factors and experiences of violence

	Cases %		Have no suicidal thoughts		Have suicidal thoughts		Missing **	P-value ***
	Ν	% (Column)	Ν	% (Row)	Ν	(% Row)		
<i>Sex</i> Men Women Total	48 40 88	54.5 45.5 100	23 27 50	48.0 67.5 56.8	25 13 38	52.0 32.5 43.2	16	0.065
<i>Age</i> 18-28 29-80 Total	30 57 87	34.5 65.5 100	17 32 49	56.7 56.1 56.3	13 25 38	43.3 43.9 43.7	17	0.962
<i>Time as undocumented migrant in Sweden</i> 1 year or less 2 year or more Total	34 31 65	52.3 47.7 100	18 15 33	52.9 48.4 50.8	16 16 32	47.1 51.6 49.2	39	0.714
<i>Civil status</i> Not in a relationship Have a relationship Total	48 38 86	50.0 50.0 100	24 24 48	50.0 63.2 55.8	24 14 38	50.0 36.8 44.2	18	0.222
<i>Together with the partner in Sweden</i> Yes No Total	30 31 61	49.2 50.8 100	19 18 37	63.3 58.1 60.7	11 13 24	36.7 41.9 39.3	43	0.674
<i>Have a child</i> Yes No Total	50 37 87	57.5 42.5 100	33 16 49	66.0 43,2 56.3	17 21 38	34.0 56.8 43.7	17	0.034*
Highest finalized level of education Primary and junior high school Secondary high/university/college Total	31 50 81	38.3 61.7 100	14 31 45	45.2 62.0 55.6	17 19 36	54.8 38.0 44.4	23	0.138
Present housing conditions In a flat with own rental contract Yes No Total	1 80 81	1.2 98.8 100	0 44 44	0 55.0 54.3	1 36 37	100 45.0 45.7	23	0.273
In an apartment I share with others Yes No Total	55 27 82	67.1 32.9 100	28 17 45	50.9 63.0 54.9	27 10 37	49.1 37.0 45.1	22	0.303
<i>Live in temporary places, move around</i> Yes No Total	30 51 81	37.0 63.0 100	13 31 44	43.3 60.8 54.3	17 20 37	56.7 39.2 45.7	23	0.128
<i>Have lodging arranged via NGO</i> Yes No Total	9 70 79	11.4 88.6 100	5 38 43	55.6 54.3 54.4	4 32 36	44.4 45.7 45.6	25 (<i>c</i> i	0.943 ontinued)

P-value Have no Have Missing Cases suicidal thoughts suicidal thoughts % % (Column) (% Row) Ν Ν (Row) Ν In a place owned by family or relatives 6 5 Yes 7.5 1 16.7 83.3 74 56.8 No 92.5 42 32 43.2 Total 80 100 43 53.8 37 24 0.058 46.2 In a place that belongs to friends Yes 37 45.7 19 51.4 18 48.6 44 54.3 25 56.8 43.2 No 19 Total 81 100 44 54.3 37 45.7 23 0.623 Homeless, live on the street Yes 2 2.5 0 0 2 100 No 77 97.5 43 55.8 34 44.2 Total 79 100 43 54.4 36 45.6 25 0.117 How often have you moved for lodging as UM 38.7 31 36.5 19 61.3 12 0-3 times 4 times or more 54 63.5 30 55.6 24 44.4 85 100 49 57.6 36 42.4 19 0.607 Total Have you or someone in the family not had enough food at some occasion? Yes 64 73.6 37 57.8 27 42.2 No 23 26.4 12 52.2 47.8 11 Total 87 100 49 56.3 38 43.7 17 0.640 How often has it happened? 22 At some occasion/ once or a few times a month 40 62.5 55.0 18 45.0 24 37.5 15 62.5 9 Every week or every day 37.5 64 100 37 57.8 27 42.2 40 0.556 Total Psychiatric disorders Depression (BDI) No or mild depression 22 28.9 21 95.5 4.5 1 71.1 42.6 31 57.4 Moderate or severe depression 54 23 Total 76 100 44 57.9 32 42.1 28 0.000* Anxiety (BAI) No/mild to moderate 27 31.4 21 77.8 6 22.2 Moderate to severe 59 68.6 28 47.5 31 52.5 86 Total 100 49 57.0 37 43.0 0.008* Have PTSD No 27 45.8 23 85.2 4 14.8 32 9 71.9 54.2 28.1 23 Yes 59 100 0.000* Total 32 54.2 27 45.8 Experiences of crime and violence while being undocumented Crime towards me No 78.3 41 63.1 24 36.9 65

Yes 18 21.7 6 33.3 12 66.7 Total 83 100 47 56.6 36 43.4 21 Verbal threat of violence No 32 76.2 17 53.1 15 46.9 Yes 10 23.8 40.0 6 60.0 4 42 62 Total 100 21 50.0 21 50.0

0.024*

0.429

(continued)

Table 1

	Cases	Cases %		Have no suicidal thoughts %		Have suicidal thoughts		P-value
	Ν	(Column)	Ν	(Row)	Ν	(% Row)		
Physical violence								
No	70	85.4	42	60.0	28	40.0		
Yes	12	14.6	4	33.3	8	66.7		
Total	82	100	46	56.1	36	43.9	22	0.085
Sexual violence								
No+ don't want to answer	78	96.3	46	59.0	32	41.0		
Yes	3	3.7	0	0	3	100		
Total	81	100	46	56.8	35	43.2	23	0.043*
Self-rated health status								
Very good + Good	13	15.3	12	92.3	1	7.7		
Moderately	25	29.4	16	64.0	9	36.0	19	0.007*
Bad+ Very Bad	47	55.3	21	44.7	26	55.3		
Total	85	100	49	57.6	36	42.4		

Notes: **In missing are also those that did not want to reply to that question; ***Pearson"s chi 2 test, two-sided

family or relatives (83 per cent) suicidal thoughts were more common that among those who did not (83 per cent vs. 43%, *p*-value 0.058) (Table 1).

Psychiatric disorder was highly correlated with suicidal thoughts: among the 54 persons that had a depression, 57% also had suicidal thoughts, and among the 59 persons that had anxiety, 52% had suicidal thoughts. Among the 23 persons that had PTSD, 72% had suicidal thoughts. Also, UM who had experienced crime and violence while living in Sweden as UM, presented a higher prevalence of suicidal thoughts in comparisons to those who did not have such experiences. Sixty-seven per cent of the 18 persons that had been exposed to crime had suicidal thoughts (*p*-value 0.024), and an equal rate was found among those 12 that had experienced physical violence (*p*-value 0.085) (Table 1).

Among the three persons that had experienced sexual violence, all had suicidal thoughts (*p*-value 0.043). Among those that was exposed to any crime, 18% did report this to the police. Equal figures for physical violence was 29%, sexual violence 66%, and for threats of violence 31% (data not shown). The level of self-rated health was associated with suicidal thoughts: those rating their health "so and so", "bad" or "very bad" had a higher prevalence of suicidal thought than those rating "good" (*p*-value 0.007) (Table 1).

Bivariate logistic regression analyses

In the bivariate logistic regression analyses, some variables were statistically significantly associated with suicidal thoughts: Not having a child OR 2.55 (95% CI 1.06–6.11), having depression OR 28.30 (95% CI 3.54–225), having anxiety OR 3.88 (95% CI 1.37–10.9), having PTSD OR 14.7 (95% CI 3.96–54.5), experiences of crime in Sweden, OR 3.42 (95% CI 1.14–10.28), rating health as bad/very bad, OR 14.8 (95% CI 1.78–123) (Table 2). Due to the low sample size, no multivariate logistic regression analysis was done.

Discussion

In this study of UM in Sweden, we found an alarmingly high prevalence of suicidal thoughts during the last two weeks, 43%, indicating a high need for care and counselling in this hard-

Sex Men Women Age 18-28 29-80 <i>Time as undocumented migrant in Sweden</i> 1 year or less 2 years or more <i>Civil status</i> Not in a relationship In a relationship In a relationship <i>Together with partner in Sweden</i> Yes 1 No 2	Cases 48 40 30 57 34 31 48 38 30 31	OR 1.0 0.44 1.0 1.02 1.0 1.20 1.0 0.58 1.0	<i>95% Cl</i> 0.19-1.06 0.42-2.49 0.45-3.18 0.25-1.39	<i>P-value</i> 0.067 0.962 0.714 0.224
Men Women Age 18-28 29-80 <i>Time as undocumented migrant in Sweden</i> 1 year or less 2 years or more <i>Civil status</i> Not in a relationship In a relationship <i>Together with partner in Sweden</i> Yes 1	40 30 57 34 31 48 38 30	0.44 1.0 1.02 1.0 1.20 1.0 0.58 1.0	0.42-2.49 0.45-3.18	0.962 0.714
18-28 29-80 Time as undocumented migrant in Sweden 1 year or less 2 years or more <i>Civil status</i> Not in a relationship In a relationship Together with partner in Sweden Yes 1	57 34 31 48 38 30	1.02 1.0 1.20 1.0 0.58 1.0	0.45-3.18	0.714
1 year or less 2 years or more <i>Civil status</i> Not in a relationship n a relationship <i>Together with partner in Sweden</i> Yes 1	31 48 38 30	1.20 1.0 0.58 1.0		
Not in a relationship n a relationship <i>Fogether with partner in Sweden</i> Yes 1	38 30	0.58	0.25-1.39	0.224
/es 1				
		1.25	0.45-3.49	0.674
Have a child Yes No	50 37	1.0 2.55	1.06-6.11	0.036*
Highest finalized level of education Primary and junior high Secondary and university/college	31 50	1.0 0.50	0.20-1.25	0.140
Present housing conditions n an apartment I share with others Yes No	55 27	1.0 0.61	0.24-1.57	0.304
ive in temporary places, move around /es No	30 51	1.0 0.49	0.20-1.23	0.130
łave lodging arranged via NGO ′es lo n a place owned by family or relatives	9 70	1.0 1.05	0.26-4.25	0.943
Ves No n a place that belongs to friends	6 74	1.0 0.15	0.01-1.36	0.093
/es lo	37 44	1.0 0.80	0.33-1.93	0.623
<i>How often one has moved for lodging as UM</i>)-3 times I times or more	31 54	1.0 1.27	0.52–3.12	0.607
Have you or someone in the family not had enough food at some occ No Yes	casion? 64 23	1.0 1.25	0.48-3.27	0.640
<i>low often it has happened:</i> tt some occasion/once a month/a couple times a month Every week/every day	40 24	1.0 0.73	0.26-2.06	0.557
Psychiatric disorders lo depression	22	1.0		(continue

Table 2				
	Cases	OR	95% CI	P-value
Have depression	54	28.30	3.54 -225	0.002*
Anxiety No anxiety Have anxiety	27 59	1. 3.88	1.37-10.9	0.011*
PTSD No PTSD Have PTSD	27 32	1. 14.7	3.96-54.5	0.000*
Have personal experiences of crime and violence while being undocumented				
Crime towards me No	65	1.		
Yes	18	3.42	1.14-10.28	0.029*
Verbal threats of violence No Yes	32 10	1. 1.70	0.40-7.20	0.471
Physical violence No Yes	70 12	1. 3.00	0.82-10.92	0.096
Self-rated health Very good + Good Moderately Bad +Very bad	13 25 47	1. 6.75 14.8	0.75–60.7 1.78–123.7	0.089 0.013*

Notes: Bivariate logistic regression analysis, dependent variable: Suicidal thoughts The variabels" Homeless, live on the street" and "Sexual violence" was omitted from the analyses due to few cases

to-reach group. In the general Swedish population the life time prevalence of suicidal thoughts is estimated to be 14% and 3% for the last 12 month according to the Swedish Public Health Report (Folkhälsomyndigheten, 2018).

In relation to studies of UM in other European countries, the prevalence in this study seems to be high. It is, however, difficult to compare due to different measurements and the diversity of the samples. In the Dutch study by Dorn *et al.* (Dorn, 2011), 11% of UM presented suicidal thoughts or attempts in the last week and in the German study by Fuhrer *et al.* (Fuhrer, 2016), 5.6% had suicidal thoughts the last week. Our findings are more in analogy with the Swedish study by Hagströmer *et al.* (Hagström, 2018) of self-harm, suicide attempts and suicide among young asylum-seekers, who found that suicide rates were ten times higher among asylum seekers (51.2/100 000) in comparison to native Swedes (5.2/100 000). Also, in the causes of death study of Wahlberg *et al.* (Wahlberg, 2014), UM had a higher risk of dying of external causes, in which suicide is included, in comparison to native Swedes.

The results may also indicate that UM's living conditions in Sweden are worse than in other parts of EU. If so, there may be several factors affecting this. Firstly, the majority of UM in this study came from Afghanistan where a rejection of asylum application entails a high risk since many fears to return to a country they perceive is in turmoil (UNHCR, 2018). Secondly, it can be attributed to the Swedish welfare system and labour market that requires a personal ID-number in order to find housing and work, which force UM to grey market solutions. Many UM have rough social and economic living situations and problems with lodging and food shortage which affects both physical and mental health. In addition to that, many have traumatic experiences that could add to the mental health burden.

Association to demography, health and experiences of violence

Only a few variables in this study presented statistically significant associations to suicidal thoughts, most likely due to a relatively small sample size from a statistical point of view. Among UM with a child, 34% had suicidal thoughts in comparison to 57% among those with no children. It can be suggested that having a child is related to higher hopes for the future, someone to care, love, strive and be responsible for which gives stronger resilience towards emotional struggles. In a study from the UK by Bernardes et al. (Bernardes, 2010) on asylum seekers health, it was also found that among those that spoke about suicidal ideation and earlier suicide, having children prevented suicide. In a large population-based case-control study from Denmark (including n = 18611 suicides), it was found that having children was protective against suicide in parents, and this association was stronger in women than in men. This association persisted after control for marital, socioeconomic and psychiatric status (Qin and Mortensen, 2003). Also, in a population-based study from Norway it was found that being a parent of a child younger than two years old was associated with a lower likelihood of suicide (Hoyer and Lund, 1993). But with that said, still over one third of those with a child in our study had suicidal thoughts, suggesting that having children reduced suicidal thoughts but was not a protection.

Having had an experience of violence and crime during the time the person has been undocumented in Sweden was associated with suicidal thoughts. Since the study was a cross-sectional study, no prediction of causality in general can be made. However, the questions of suicidal thoughts referred to the last two weeks so it is likely that the crimes against them were committed earlier. Having been subjected to crime during the time of living as UM increased the likelihood of having suicidal thoughts by three times. If people do not dare to report crimes to the police due to the risk of deportation, they are not protected by public institutions and crimes against them will go unreported. This is a serious violation against basic human rights, since these persons become an even more vulnerable and ostracised group in society, risking exploitation.

In Sweden this problem has been identified and problematized lately in relation to UM women who are victims of trafficking (Bexelius, 2016; Sjunnesson, 2019). In the UN Convention on Civil and Political rights it is stated that member states have the responsibility to guarantee that victims of crime get their access to justice (UN, 1967). Also the EU Directive 2012/29/on establishing minimum standards on the rights, support and protection of victims of crime, it is stated that people cannot be discriminated based on their residence status when they report a crime (European Union, 2012).

One way to deal with the dual responsibility of the police (both to investigate the crime but also to fulfil the duty to expel undocumented people out of the country) is to create "firewalls", a legal principal that aims to prevent that information is not shared by those authorities that are in place to fulfil human rights and those authorities that are executing migration control (Crépeau and Hastie, 2015). The Platform for International Cooperation on Undocumented Migrants (PICUM) has published information directed to police officers to help building and improving confidence in law enforcement among migrants that have been exposed to crime (PICUM, 2019).

In this study, we found an expected high co-morbidity between suicidal thoughts and mental illness, which is congruent with a large number of studies that have pointed out the link between mental illness, in particular depression, and suicidal behaviour (Bachmann, 2018). In the Swedish Public Health Report 2018 it was found that 28% of individuals who had a diagnosis of depression the last year also had suicidal thoughts (Folkhälsomyndigheten, 2018).

Policies for suicide prevention in Sweden

In 2008 the National Program for Suicide Prevention was approved by the Swedish parliament (Regeringen, 2008). The program recommends nine strategies to reduce suicides in Sweden;

- 1. to improve the life chances of disadvantaged groups;
- 2. to reduce alcohol consumption in general and in high-risk groups;
- 3. to reduce the availability of highly lethal means of suicide;
- 4. to begin managing suicide as psychological accident;
- 5. to capture more of medical, psychological and psychosocial interventions;
- 6. to disseminate the knowledge of evidence-based practice to reduce suicide;
- to increase awareness of suicidal individuals with personnel and other key people in care;
- 8. to introduce the event analysis of Lex Maria-notified suicides (to report to health authorities if misjudgements/failure to treat has been made); and
- 9. to support NGOs.

In the first strategy (a) to improve life chances of disadvantages groups, it was discussed that low education and low income were risk factors for suicide. Both factors are related to UM. In relation to UM, it is also important to (g) increase awareness among personnel in the health care settings about UM"s situation. The last strategy in the programme – (i), to support NGOs, is very important since informal organisations in the civil society together with religious institutions provide the main bulk of psychosocial support to UM. Collaborating in referrals (e) between health authorities and NGOs may be a fruitful strategy to reach UM due to their fear of disclosure.

Early detection, access to care and counselling are crucial factors in order to prevent suicide (Bachmann, 2018). In their study of suicidal behaviour among young asylum seekers in Sweden, Hagströmer *et al.* (Hagström, 2018) highlighted the importance of safe environments and supportive systems around the youth to decrease the risk of suicide. However, the daily struggle, fear of disclosure and a mobile life, make UM a hard-to-reach group for health authorities. The civil society organisations and religious organisations in Sweden are maybe more likely to be in contact with UM. Many such organisations and institutions also give counselling and referral help, such as the Red Cross, Rosengrenska clinic, Doctors in the World. However, due to the large number of rejected asylum applications, there may be a risk to build on a system based on voluntariness since there is a risk for reaching limits to what psychosocial support, they can offer a big number of persons with desperate needs in the long run.

Conclusion

This study showed that suicidal thoughts are common among UM in Sweden. It is thus crucial to be aware of the high risk for UM and the special circumstances they exist in, in suicide prevention programs such as The National Program for Suicide Prevention in Sweden. Health care staff need to be observant on mental illness among UM when they approach health care clinics. Also, local suicide prevention programmes, need targeted strategies to reach out to UM in both health promotion and prevention, and to see UM as a special risk group given the evidence of their vulnerability presented above. One way to reach UM could be via the civil society organisations.

Strengths and weaknesses

It is discussed to whether screening instruments on mental illness can be used in all settings and cultures since the meaning of mental illness is understood and expressed differently across cultures (Bracke, 1995) However, even if we cannot exclude different interpretations and translation, in this study we used one single question on suicidal thoughts that we think is clear in what it intends to measure. Moreover, there are many taboos, not least religious taboos, concerning mental illness and suicide, which may hamper the respondent willingness to talk about this in a sincere way. Also, a weakness is that the sample size, although high in studies on UM, in a statistical sense is relatively low, resulting in a low statistical power (restricting analyses). Strength is that we despite the low sample size have achieved to include as many as we did, given the difficulties in recruiting UM into evidence-based studies.

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