

"The Register for Suicide Attempts - Methods and rates in relation to age and gender in two regions of Denmark".

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Kindly supported by H. Lundbeck A/S. Special thanks to Prof. Dr. Jørgen Aagaard, Aalborg University Hospital.

Introduction:

In Denmark, there are approximately 18 suicide attempts per day. Knowledge of the extent of attempted suicides in Denmark can be found in the Register for Suicide Attempts. The register has existed since 1989 covering the former County of Funen. Since 2012, an extension of the Register has gradually been carried out. The results are based on data collected from two out of five Regions of Denmark: The Northern region of Denmark and the Zealand region.

Methods:

We received transcripts of all civil registration numbers that had been in contact with an emergency ward (somatic), due to a suicide attempt in 2012-2015. From each patient's medical record, we registered the following variables: age, gender, place of registration, time and date of attempt, code for cause of contact, method, circumstances in relation to the attempt (proximal- and distal factors), and medicinal product if the used method was self-poisoning. Results concern rates in relation to age in the two regions and the most frequent used methods in the two regions.

Results:

The main results: During 2012-2015, there were 2,272 registered suicide attempts in the two regions combined, women ($n=1,456$) and men ($n=816$). Attempted suicide per 100.000 in The Northern Region of Denmark was in 2012: 43.7, 2013: 39.3, 2014: 85 and in 2015: 98.1. In the Zealand Region 2012: 31.5, 2013: 35.4, 2014: 29.8, 2015: 24.6. Table 1 shows rate for attempted suicide per 100.000 in each age group in the Zealand Region and The Northern Region of Denmark respectively. Table 2 & 3 shows rates for attempted suicide in relation to sex and age group in the Zealand Region and in The Northern Region of Denmark respectively.

The Northern region of Denmark has a higher rate of attempted suicide compared to the Zealand Region. Especially year 2014 and 2015 in The Northern Region of Denmark stands out in relation to all age groups. Both male and female suicide attempts rates (table 2 & 3) are significantly higher in 2014 and 2015 in The Northern Region of Denmark than in 2012 and 2013. The highest rate for attempted suicide is found in the age group 15-19 years in both regions except for in the Zealand Region year 2015; followed by age group 20-29 years.

The most frequent method used in both regions and in all years is 'self-poisoning' followed by 'sharp objects' (Table 3). It seems that 'hanging' has been used more frequently from 2012 to 2015 in the Zealand Region without the total number (n) of suicide attempts changing markedly. That also applies to The Northern Region of Denmark except here the total number of suicide attempts has doubled over the years from 2012-2015.

Zealand	2012	2013	2014	2015
Self-poisoning	184	212	154	116
Hanging	9	11	23	16
Drowning	1	1	5	1
Firearms	1	0	1	1
Sharp objects	29	34	32	44
Other methods	5	0	3	4
North	2012	2013	2014	2015
Self-poisoning	195	160	356	406
Hanging	8	2	15	25
Drowning	0	2	2	9
Firearms	2	0	2	1
Sharp objects	20	37	61	63
Other methods	1	3	6	9

Table 4

Discussion:

The number of suicide attempts is only the tip of the iceberg as not all suicide attempters have subsequent contact with an emergency ward. We register twice as many suicide attempts in The Northern Region of Denmark in 2015 compared to 2012. We do not see the same development in the Zealand Region. The Data collecting procedure has not changed. The assessment in the psychiatric system in The Region of Northern Denmark has not changed. The answer must be found elsewhere. An ongoing study at Center for Suicide Research is focusing on the demographic data in the two regions to see if demographic variation can answer this question among others.

Conclusion:

Findings on methods are consistent with existing research. Further knowledge on the development in suicide attempts will be generated during the ongoing data collection. It will be interesting to see how and if the remaining 3 regions differ from The Region of Northern Denmark and the Zealand Region.

Zealand	10-14 yrs.	15-19 yrs.	20-29 yrs.	30-39 yrs.	40-49 yrs.	50-59 yrs.	60-69 yrs.	70+ yrs.
2012	30.8	108.6	63.8	36.2	29.4	15.8	11.1	6.9
2013	40.8	98.5	78.9	26.2	33.6	22.6	11.1	20.9
2014	23.5	93.9	60.1	23.5	25	22.3	15.6	13.6
2015	13.7	53.9	61.1	22.7	20.4	21	11.4	13.8
North	10-14 yrs.	15-19 yrs.	20-29 yrs.	30-39 yrs.	40-49 yrs.	50-59 yrs.	60-69 yrs.	70+ yrs.
2012	17.4	69.6	77	64.1	54.1	43	15.8	11.1
2013	17.7	78.5	67.3	42.7	52.3	33.9	17	14.8
2014	17.8	218.2	141.1	82.1	107.8	74.7	38.1	32.5
2015	35.7	192.4	195.2	116	125.2	78.8	35.8	27.5

Table 1

North	2012		2013		2014		2015	
	M	F	M	F	M	F	M	F
10-14 yrs.	5.6	29.8	5.7	30.3	5.8	30.6	0	73.5
15-19 yrs.	24.9	117.7	35.3	125.1	56.6	391	73.5	319.2
20-29 yrs.	62.2	91.3	40.5	97.7	85.7	204.2	104.9	299.3
30-39 yrs.	32.1	97.8	32.7	53.2	75.2	89.4	100.1	132.9
40-49 yrs.	48.3	60	22.1	83.6	87.4	128.9	129.5	120.6
50-59 yrs.	47.9	38.1	35	32.8	69.4	80	88.2	69.3
60-69 yrs.	13.1	18.5	13	21.1	23.5	52.9	34.3	37.3
70+ yrs.	6.3	14.8	18.3	12.1	40.9	25.8	16.7	36.4

Table 2

Zealand	2012		2013		2014		2015	
	M	F	M	F	M	F	M	F
10-14 yrs.	3.7	59.4	3.8	80.1	7.6	40.3	7.6	20.2
15-19 yrs.	17.6	204.4	24.8	176.4	14.3	178.7	18	92.3
20-29 yrs.	27.1	104.3	60.6	99.4	27.9	96	43.3	81.2
30-39 yrs.	40.3	32.3	37.2	15.7	19.1	27.8	26.5	19
40-49 yrs.	12.7	46.2	24	43.2	29.1	21	19.6	21.2
50-59 yrs.	17.6	14	27.9	17.4	25.7	18.8	20.2	21.8
60-69 yrs.	19.1	3.4	15.6	6.7	14.1	17	8.9	13.8
70+ yrs.	2.3	10.6	23.6	18.8	14.2	13.1	21.1	7.8

Table 3