



ORIGINAL ARTICLE

People exposed to suicide attempts: Frequency, impact, and the support received

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Abstract

Objective: Little is known about people who have been exposed to a suicide attempt by someone they know. The purpose of this study was to examine how many people have been exposed to a suicide attempt by someone they knew and whether the exposure was associated with general well-being and suicidal ideation.

Method: A population-based online survey was conducted during 2019 in Denmark ($n = 6,191$). The associations between exposures to suicide attempt and general well-being (WHO-5) and suicidal ideation (Suicidal Ideation Attributes Scale) were examined using linear regression analyses.

Results: Overall, 24.6% reported having experienced a suicide attempt by someone they knew. Of those, 46.5% had experienced a suicide attempt of a close relation and this group reported having been more affected by the event. Those exposed scored lower on general well-being ($b: -3.0$; 95% CI: -4.2 to -1.8 ; $p > 0.001$) and higher on suicidal ideation ($b: 1.6$; 95% CI: $1.3 - 1.9$; $p = 0.001$) than those not exposed. Half of the exposed reported not having received sufficient support after the event.

Conclusion: Suicide attempt affects a substantial share of the population, and it might be relevant to ensure that support is available for those exposed perceived to be in need of support.

KEY WORDS

relatives, stressful life events, suicide attempt

1 | INTRODUCTION

Worldwide, around 800,000 people die by suicide every year, while the number of attempted suicides is estimated to be 20 times higher (WHO, 2014). Based on the greater number of suicide attempts, one would expect that more people have been exposed to a suicide attempt than a suicide death. However, it seemingly remains to be examined how many people in the general population have been exposed to a suicide attempt.

Few studies have examined how a suicide attempt might impact relatives and next of kin. Using qualitative research methods, Buus et al. (2014) found that parents exposed to a suicide attempt of a child reported to be shocked and in a state of acute alarm after the event and that the event greatly impacted their daily lives. In another qualitative study, parents whose children self-harmed, that is, intentionally injuring themselves without necessarily having suicidal intent, themselves reported signs of stress, anxiety, social withdrawal, guilt, and depression (Ferrey et al., 2016). Also, siblings exposed to self-harm reported to be affected (Ferrey et al., 2016). Although a suicide attempt is likely to affect next of kin both on short and long term, information on who are affected and in which way is lacking.

Several studies have examined these aspects for people exposed to suicide. Using self-reported data, a random-digit dial and a representative survey, respectively, showed that 48% and 51% of participants reported lifetime exposure to suicide (Cerel et al., 2016; Feigelman et al., 2018). Symptoms of depression and anxiety as well as suicidal ideation were also reported more frequently among exposed when compared to those not exposed to suicide (Cerel et al., 2016). National linkage studies have demonstrated higher rates of mental disorders, suicide attempts, and suicide among people bereaved by suicide (Erlangsen et al., 2017; Pitman et al., 2014; Tidemalm et al., 2011; Wilcox et al., 2010). Also, long-term effects have been noted, for instance, for partners bereaved by suicide (Erlangsen et al., 2017).

Equally little information is available regarding support to people exposed to suicide attempts. Findings suggest that people bereaved by suicide might be sanctioned and receive less support from their social network than other groups of bereaved, which possibly could relate to the stigma attached to suicide, leading to self-blame and isolation (Cerel et al., 2008; Pitman et al., 2017).

Suicide attempt and suicide occur more frequently in families with a history of suicide behavior when compared to families with no such history (Brent & Melhem, 2008), and it is therefore important to assess on how suicide attempts affect relatives and next of kin. It is possible that people exposed to suicidal behavior by a close relation might be more affected by the event than those in more distal relations (Tidemalm

et al., 2011); however, this remains to be examined with respect to suicide attempt.

The aim of this study was to determine the prevalence of people in the general population who have been exposed to a suicide attempt in someone they know. Secondly, we examined whether they were affected by the exposure and whether those closely related were more impacted, in terms of general well-being and level of suicidal thoughts, than those not closely related. Thirdly, it was examined whether people exposed to suicide attempt received the needed support in the period after the event. Based on the existing evidence regarding this and related groups, we would expect a substantial share of the general population to report having been exposed to suicide attempt and to have been emotionally affected by this. As relatively little specialized support is available in Denmark (Erlangsen & Fleischer, 2017), we would hypothesize that some needs of this group might not be met.

2 | DATA AND METHOD

2.1 | Study design

A cross-sectional study design was applied. The Danish opinion polling company, Epinion, maintains a survey panel, which consists of a population-based sample from the general population. These panel members participate on a regular basis in different surveys and are compensated for this. When a new survey is conducted, all members of the panel receive an email inviting them to participate; once a sufficient number of members have responded to the invitation and completed the survey, the survey is closed. For the present study, a questionnaire was developed by the Danish Research Institute of Suicide Prevention (DRISP), Network for the Affected by Suicidal Behavior (NEFOS), and Better Psychiatry (“Bedre Psykiatri”). The two latter organizations are Danish NGOs working in the field of suicide prevention. The members of Epinion's panel were surveyed with the questionnaire during August 30th –September 26th, 2019.

2.2 | Participants

Members of Epinions online panel received a generic invitation by email to participate in an anonymous survey regarding exposure to people with suicidal behavior and suicidality in general. Those members who opted to participate in the survey could, via an electronic link, complete the questionnaire. In order to be included, participants had to be 18 years or older at the time of the survey. They were, furthermore, required to have answered an initial question regarding exposure to suicide attempt.

2.3 | Measures

The questionnaire contained a question on whether the respondent had ever been exposed to a suicide attempt in someone he or she knew where the person survived the attempt. Participants who indicated that they knew someone who had made a suicide attempt were asked following questions: *when did the suicide attempt occur* (<6 months; ≥6 months to 1 year; 2–5 years; 6–10 years; ≥11 years; missing); *type of relation* (Spouse/partner; parent; child/step child; sibling/step sibling; friend; acquaintance; other; missing); *their feelings at the time of the event* (grief/sadness, scared/anxious, anger, surprise, disgust, joy, guilt/shame, relief, betrayal, disappointment, and worries); *how affected they were at the time of the event* (extremely or very affected, somewhat affected, a little or not at all affected, missing); *how affected they were now* (extremely or very affected, somewhat affected, a little or not at all affected, missing); *how close the relation to the person who had the suicide attempt had been* (close, not close); *whether they received sufficient support after the suicide attempt* (a lot, some, little, not at all, missing); and *whether they perceived to still to be in need of support now due to the suicide attempt* (yes, neither or, no, missing). In order to avoid confusion, no questions were asked regarding exposure to death by suicide. Based on the question regarding closeness of the relation, we sub-divided the sample of exposed into those exposed to a suicide attempt of a closely related person and those exposed to the suicide attempt of a not closely related person.

Following socio-demographic data were collected: sex (male; female); age group (18–34; 35–49; 50–64; ≥65); educational level (elementary school; high school; vocational training; short higher education; medium length higher education; bachelor degree; higher university degree); current employment status (working; unemployed; in education; retired (incl. early retired); disability pension; missing); and region of residence (Capital, Zealand, Southern Denmark; Central Denmark; North Denmark).

2.4 | Outcomes

All participants of the survey were asked to complete two rating scales. Firstly, the WHO-5 well-being index, a 5-item questionnaire, designed to assess the subjective well-being of the respondent (Topp et al., 2015), which was used as the primary outcome. This index has been validated and found to have a high level of specificity and sensitivity across samples/populations (Topp et al., 2015). Raw scores range from 0 to 25 and are multiplied by 4 to obtain a percentage score where 0 indicates the worst possible quality of life and 100 the best quality of life (Bech, 2004).

The Suicidal Ideation Attributes Scale (SIDAS) (van Spijker et al., 2014) was used as a secondary outcome. This 5-item scale has been developed as a web-based measure for suicidal ideation, and previous evaluations have reported a high internal consistency and a good validity (van Spijker et al., 2014). Scores range between 0 and 50 where 0 indicates no suicidal ideation, 1–20 low suicidal ideation, and scores above 21 a high level of suicidal ideation (van Spijker et al., 2014).

2.5 | Statistical analyses

To ensure as representative a sample as possible in terms of age, sex, region of residence, and educational level, responses were weighted using a raked weight to adjust for differences between participants and the general Danish population (using official data from Statistics Denmark). These differences were minor (Table S1).

The prevalence was assessed by calculating the percentage of exposed using the weighted distribution. Differences by sex, age group, educational status, current employment status, and region of residence for exposed and not exposed groups were examined using chi-squared tests. Additional subgroup analyses were conducted to examine whether emotional responses to the event and perceived support differed between those exposed by a close relation versus those exposed by a not close relation.

Using linear regression analysis, it was examined whether exposure to a suicide attempt (yes vs. no) was associated with lower general well-being, as measured by WHO-5, and a higher level of suicidal ideation using SIDAS. Furthermore, we examined the association between *level of closeness in relation*, *level of affectedness then*, *level of affectedness now*, *level of support then*, and *level of need for support now* and the examined outcomes. The regression models assessed the associated change in level of general well-being or suicidal ideation with each increment toward a more affirmative response. We applied a significance level of 0.05, and 95% confidence intervals that did not include zero were considered significant. Analyses were adjusted for sex and age group. A number of missing values were computed as such and were reported for each predictor.

Analyses were performed using the statistical software package, IBM SPSS version 24 Spss I. Statistics for Windows, version 24. 0 [Computer Software]: IBM Corp. 2016.

2.6 | Ethics

As this was an anonymous data collection, no permissions were required for this study. Participants were informed that some parts of the questionnaire contained sensitive material and that they, at all times, could opt to not answer a

TABLE 1 Characteristics of participants

	Exposed to suicide attempt (<i>n</i> = 1,192)	Not exposed to suicide attempt (<i>n</i> = 3,734)	Total (<i>n</i> = 4,926)	<i>p</i> -Value ^a
Sex				
Male	521 (43.7%)	1,908 (51.4%)	2,429 (65.4%)	<0.001
Female	671 (56.3%)	1,825 (49.2%)	2,496 (67.2%)	
Age group				
18–34	448 (37.6%)	898 (24.2%)	1,346 (36.3%)	<0.001
25–49	311 (26.1%)	845 (22.8%)	1,156 (31.1%)	
50–64	271 (22.7%)	930 (25.1%)	1,201 (32.4%)	
≥65	162 (13.6%)	1,060 (28.6%)	1,222 (32.9%)	
Educational level				
Elementary school	281 (23.6%)	810 (21.8%)	1,091 (29.4%)	0.005
High school	152 (12.8%)	381 (10.3%)	533 (14.4%)	
Vocational training	374 (31.4%)	1,162 (31.3%)	1,536 (41.4%)	
Short higher education	70 (5.9%)	188 (5.1%)	258 (7.0%)	
Medium length higher education	151 (12.7%)	632 (17.0%)	783 (21.1%)	
Bachelor degree	30 (2.5%)	88 (2.4%)	118 (3.2%)	
Higher university degree	127 (10.7%)	448 (12.1%)	575 (15.5%)	
Missing	6 (0.5%)	23 (0.6%)	29 (0.8%)	
Current employment status				
Working	647 (54.3%)	1,944 (52.4%)	2,591 (69.8%)	<0.001
Unemployed	61 (5.1%)	153 (4.1%)	214 (5.8%)	
In education	183 (15.4%)	340 (9.2%)	523 (14.1%)	
Retired (incl. early retired)	248 (20.8%)	1,219 (32.8%)	1,467 (39.5%)	
Disability pension	44 (3.7%)	39 (1.1%)	83 (2.2%)	
Missing	9 (0.8%)	39 (1.1%)	48 (1.3%)	
Region of residence				
Capital	350 (29.4%)	1,206 (32.5%)	1,556 (41.9%)	0.326
Zealand	167 (14.0%)	538 (14.5%)	705 (19.0%)	
South Denmark	258 (21.6%)	773 (20.8%)	1,031 (27.8%)	
Mid-Jutland	283 (23.7%)	804 (21.7%)	1,087 (29.3%)	
North Jutland	123 (10.3%)	367 (9.9%)	490 (13.2%)	
Missing	11 (0.9%)	45 (1.2%)	56 (1.5%)	

^aTesting difference between exposed and not exposed.

question if they should feel uncomfortable about answering. Furthermore, information on where to seek help in case of suicidal ideation was provided.

3 | RESULTS

In all, 6,191 persons accepted the invitation to participate in the survey. Of those, 550 (8.9%) did not complete the survey (Figure S1). Among the 5,641 who completed the survey, 274 (4.9%) respondents were excluded in the data cleaning process due to invalid responses, 8 (<0.1%) were under the age of 18 years, and 433 (7.7%) did not provide an answer to

the question whether they had been exposed to a suicide attempt. Also, 22 reported on their own suicide attempt (0.4%) and were, thus, considered as participants but not as exposed to a suicide attempt of another person. In total, 4,925 (79.5%) participants were included. The age of the participants ranged from 18 to 97 years, and 50.6% were females.

3.1 | Exposure to suicide attempt

A total of 1,192 (24.3%) participants reported having known someone who survived a suicide attempt. Among these, people reported having been exposed to the suicide attempt of

a friend (29.9%); acquaintance/colleague (25.0%); parent (10.0%); sibling (7.0%); partner (5.7%); child (5.2%); ex-partner (2.0%); uncle/aunt (1.3%); cousins (1.1%); grandparent (0.9%); grandchild (0.4%); other family relatives (5.7%); and missing information (5.7%). In all, 39.2% stated that they had felt extremely or very affected at the time of the event. More females than males (56.3% vs. 43.7%; $p < 0.001$) had been exposed to a suicide attempt (Table 1). Also, people in younger age groups, and with lower levels of education more frequently, reported exposure. Differences were noted with respect to employment where those exposed were more likely to be in education, not retired, and recipients of disability pension.

Participants who had been exposed to a suicide attempt acknowledged following emotional responses, which were not mutually exclusive: worried (59.4%), grief/sadness (51.8%), surprise (28.8%), scared/anxious (25%), anger (20.6%), disappointment (18.2%), guilt/shame (15.1%), feeling betrayed (14.7%), relief (4.6%), disgust (3.8%), and joy (1.4%).

3.2 | Relation

Among the 1,151 (96.7%) exposed respondents who answered the questions regarding closeness, 527 (46.5%) stated to have been exposed to a suicide attempt by a closely related person (Table 2). In both groups, almost one third of the suicide attempts had occurred more than 10 years ago, while relatively few (8.5% of those with close relation and 6.8% of those with a less close relation) had experienced one within the last 6 months. More than half (51.2%) of those exposed by a close relation had experienced the suicide attempt of a family member, that is, partner, parent, child/stepchild, and sibling/step sibling. A large share of those exposed by a more distal relation reported a suicide attempt in a friend or an acquaintance or colleague, although a friend's suicide attempt was reported by 27.7% of those exposed to a suicide attempt in a close relation. More than 62% of those exposed to a suicide attempt of a close relation reported having been extremely or very affected by the episode at the time of the event ($p < 0.001$) versus 18% in those exposed to a less close relation. Only 9% of those exposed by a close relation stated having been little or not affected by the event, while 42% of those with a more distal relation reported the same. Years after the event, 25.7% of those exposed to a close relation's suicide attempt stated being either somewhat or more affected by the event when compared to 8.3% in the other group. A major share of participants exposed to a suicide attempt in a closely related person experienced feelings of grief/sadness ($p < 0.001$), worries ($p < 0.001$), being scared/anxious ($p < 0.001$), anger ($p < 0.001$), guilt/shame ($p < 0.001$), betrayal ($p < 0.001$), and disappointment ($p = 0.025$) when compared to those exposed by a less close

relation, while more than half acknowledged the first two types of sentiments. However, more of the persons who were exposed by a less close relation reported being surprised than those exposed by a close relation ($p < 0.001$).

3.3 | Support

Out of 1,192 people who reported being exposed to a suicide attempt, half ($n = 605$, 50.7%) perceived that they had not received sufficient support after the event (Figure 1a) while 49 (4.1%), 98 (8.3%), and 122 (10.2%) acknowledged having received a lot, some, or less of sufficient support, respectively. Those 147 (12.4%) exposed who stated that they had received a lot or some support reported having received this from one or more of following groups: family members (49.2%); friends/acquainted/colleagues (47.0%); general practitioner (21.3%); secondary healthcare provider, such as psychiatric team (20.5%); private psychologist; other therapist (17.0%); work place (16.4%); educational institution (7.3%); municipality (5.6%); organizations or NGOs (2.5%); and priest or imam (2.5%). A larger proportion of people with recent exposure reported still needing support today when compared to those with a more distal exposure date (11.9% vs. 3.9%, Figure S4).

3.4 | Regression analyses

Participants exposed to a suicide attempt had a mean score of 58.6 on the WHO-5 score, compared to 64.3 in those not exposed. The adjusted regression analyses revealed a lower WHO-5 score for those exposed (b: -2.98 ; 95% CI: -4.16 to -1.80 ; $p > 0.001$) when compared to the group that was not exposed (Table 3). The closer the relation had been, the lower WHO-5 score was noted at the time of the survey (b: -0.97 ; 95% CI: -1.74 to -0.21 ; $p = 0.013$) in comparison with those exposed by a less close relation. Being one increment more affected at the time of the event was associated with lower general well-being at the time of the survey (b: -1.46 ; 95% CI: -2.47 to -0.45 ; $p = 0.005$). This was also the case with respect to being affected at the time of the survey where being one increment more affected was linked to a lower general well-being (b: -2.62 ; 95% CI: -3.84 to -1.39 ; $p > 0.001$). Having received more support at the time of the event was associated with a lower score on the WHO-5 scale (b: -1.40 ; 95% CI: -2.78 to -0.01 ; $p = 0.048$). Also, being in need of more support at the time of the survey was associated with lower WHO-5 scores (b: -2.59 ; 95% CI: -3.71 to -1.47 ; $p > 0.001$).

Participants who had been exposed to a suicide attempt had a mean score of 3.2, suggesting a higher level of suicidal ideation, while the mean score of those not exposed was 1.1.

TABLE 2 Differences between people exposed to the suicide attempt in close relation and those exposed to a suicide attempt in not close relation^a

	Exposed to suicide attempt in a closely related person (<i>n</i> = 527)	Exposed to suicide attempt in a not closely related person (<i>n</i> = 627)	Pearson chi-square
When did the suicide attempt occur?			
<6 months	44 (8.4%)	43 (6.9%)	0.009
6 months–1 year	55 (10.5%)	61 (9.7%)	
2–5 years	127 (24.2%)	197 (31.4%)	
6–10 years	119 (22.7%)	102 (16.3%)	
≥10 years	171 (32.6%)	205 (32.7%)	
Missing	8 (1.5%)	19 (3.0%)	
Type of relation			
Partner	58 (11.0%)	8 (1.3%)	<0.001
Parent/stepparent	98 (18.6%)	19 (3.0%)	
Child/stepchild	49 (9.3%)	10 (1.6%)	
Sibling/stepsibling	65 (12.3%)	19 (3.0%)	
Friend	146 (27.7%)	204 (32.6%)	
Acquaintance/ colleague	19 (3.6%)	273 (43.6%)	
Other	56 (10.6%)	76 (12.1%)	
Missing	36 (6.8%)	17 (2.7%)	
How affected were you then?			
Extremely or very affected	331 (62.8%)	115 (18.4%)	<0.001
Somewhat affected	107 (20.3%)	218 (34.8%)	
A little or not at all affected	49 (9.3%)	263 (42.0%)	
Missing	40 (7.6%)	30 (4.8%)	
How affected are you now?			
Extremely or very affected	41 (7.8%)	12 (1.9%)	<0.001
Somewhat affected	94 (17.9%)	40 (6.4%)	
A little or not at all affected	368 (70.0%)	553 (88.2%)	
Missing	23 (4.4%)	22 (3.5%)	
At the time of the suicide attempt did you feel			
Grief/sadness			
Yes	354 (67.3%)	239 (38.1%)	<0.001
No	172 (32.7%)	388 (61.9%)	
Worried			
Yes	344 (65.3%)	343 (54.8%)	<0.001
No	183 (34.7%)	283 (45.2%)	
Scared/anxious			
Yes	205 (39.0%)	75 (12.0%)	<0.001
No	321 (61.0%)	551 (88.0%)	

(Continues)

TABLE 2 (Continued)

	Exposed to suicide attempt in a closely related person (<i>n</i> = 527)	Exposed to suicide attempt in a not closely related person (<i>n</i> = 627)	Pearson chi-square
Anger			
Yes	130 (24.7%)	103 (16.5%)	<0.001
No	396 (75.3%)	523 (83.5%)	
Surprised			
Yes	120 (22.8%)	218 (34.8%)	<0.001
No	406 (77.2%)	409 (65.2%)	
Guilt/shame			
Yes	116 (22.1%)	50 (8.0%)	<0.001
No	410 (77.9%)	576 (92.0%)	
Disappointed			
Yes	110 (20.9%)	99 (15.8%)	0.025
No	416 (79.1%)	528 (84.2%)	
Betrayed			
Yes	109 (20.7%)	56 (8.9%)	<0.001
No	417 (79.3%)	571 (91.1%)	

^aMissing data: A total of 38 exposed respondent (3.3%) did not respond the question regarding closeness of the relation. The slight variations in the absolute numbers are due to weighted properties as well as missing data on some items.

The adjusted regression analyses revealed a significantly higher SIDAS score for those exposed (b: 1.60; 95% CI: 1.29 to 1.91; $p = 0.001$) when compared to those not exposed. There was not a significant difference in the SIDAS score with respect to whether the suicide attempt had been of a closer relation. However, having been increasingly affected at the time of the event was associated with a higher SIDAS score as measured at the time of the survey (b: 0.94; 95% CI: 0.55 to 1.34; $p > 0.001$). Those who stated being more affected also now had a higher SIDAS score (b: 2.54; 95% CI: 2.08 to 3.01; $p > 0.001$) compared to those reporting a lower level of affectedness. We did not note a difference with regard to level of support at the time of the event. However, those who indicated still to need support at the time of the survey had a higher SIDAS score (b: 2.62; 95% CI: 2.189 to 3.056; $p > 0.001$) than those needing a lower level of support.

4 | DISCUSSION

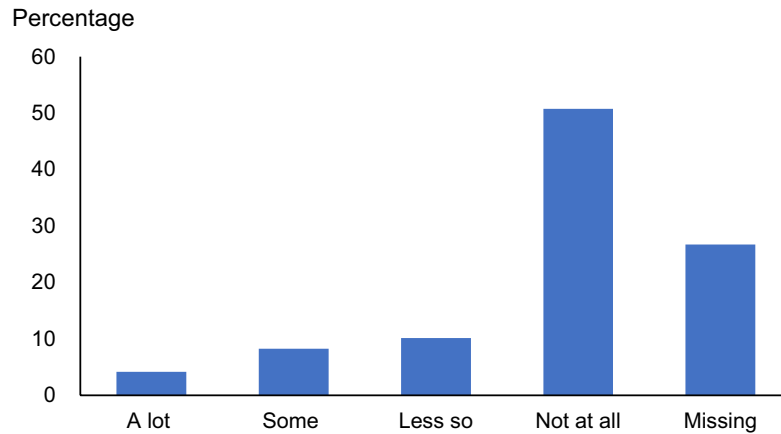
This first population-based study revealed that almost one in four reported to have been exposed to a suicide attempt by someone they knew. Almost half of these state to have experienced a suicide attempt of a close relation, mostly family relatives or friends. The majority of these reported that it had affected them deeply with the most frequently listed emotional responses being worries, grief/sadness and scared/anxious. Those exposed were found to have a lower general well-being and a higher level of suicidal ideation when compared to those

with no exposure, more so in those exposed to a suicide attempt in a close relation. More than half of the exposed reported not having received any support at all, and the provided support mainly came from informal care providers.

Approximately one in four in the general population reported having been exposed to a suicide attempt in a person they knew. This seems to be less than previous reports of people to being bereaved by suicide (Cerel et al., 2016; Feigelman et al., 2018). This is surprising given that suicide attempt is a much more frequent event than suicide deaths (Dyvesether et al., 2018; Morthorst et al., 2016). It is, however, possible that suicide deaths are more likely to be remembered or less likely to be kept a secret opposed to suicide attempts (Cerel et al., 2008). The estimate is comparable to the findings of a study of exposure to suicide attempts in a small sample of college students (Cerel et al., 2013).

Although the scores measured using the scales were below those of clinical relevance, a difference in levels of general well-being and suicidal ideation was noted. Experiencing a suicide attempt of a closely related person might constitute a stressful life event for some exposed (Holmes & Rahe, 1967), and our findings support that those exposed, on average, reported a lower general well-being than those not exposed. Given the tendency for clusters of suicidal behavior in families and the strong link between mental disorders and suicidal behavior (Brent & Melhem, 2008; Hawton & van Heeringen, 2009), it cannot be excluded that own low quality of life relates to other factors, for instance, assortative mating (Ask et al., 2013).

a Proportion who still need support today



b Proportion who still need support today

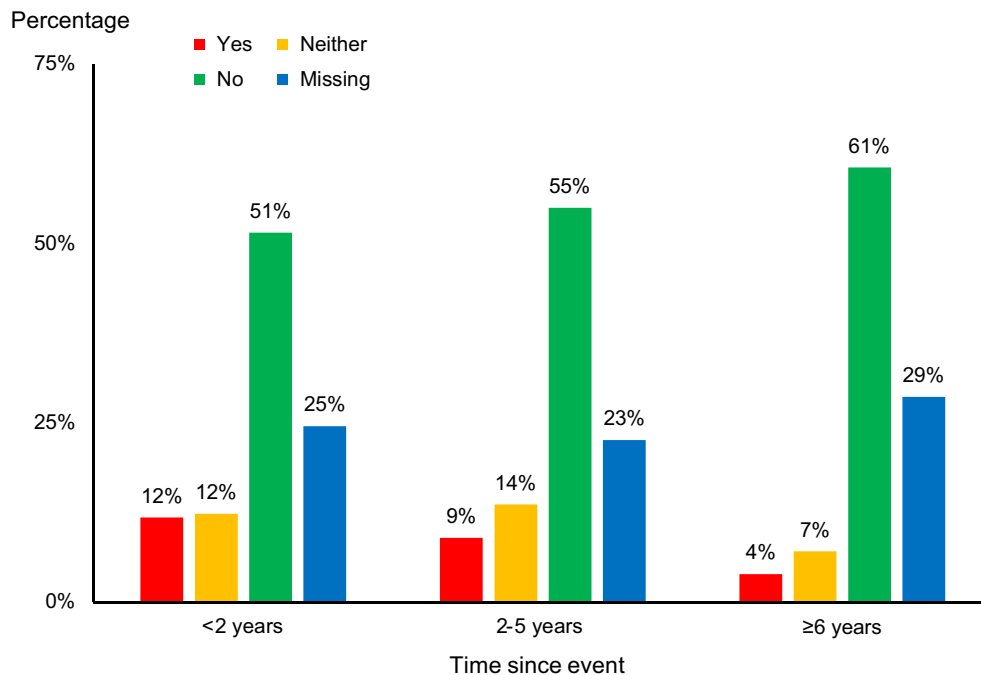


FIGURE 1 Perceived support as reported by participants exposed to a suicide attempt. (a) Proportion who still need support today. (b) Proportion who still need support today. *Note:* Missing values were composed of people who either stated that they did not know or did not wish to answer the question

The majority of exposed indicated to not be in need of support any longer. Also, the link between level of support and general well-being and suicidal ideation might be a spurious finding or explained thought confounding by indication; that is, that people who were more affected might also have stated to be in need of help.

Nevertheless, a small segment indicated to still be severely affected by event and in need of support. Interestingly, the highest increments in the score of suicide ideation were reported by those that were affected and had not received any support needed. Although some of the respondents who stated to still be in need for support had been exposed to the

event recently, a minor share of those exposed more than 6 years ago reported unmet needs. The fact that also those affected by a relative's suicide attempt longer time ago reported need of support might have been a result of lack of support at the time of the event and could indicate long-term problems related to the exposure.

4.1 | Clinical implications

The fact that the majority of people exposed to a suicide attempt reported that they were substantially affected and had

TABLE 3 Association between exposure to suicide attempt and general well-being (WHO-5) and suicidal ideation (SIDAS)

	b (95% CI)	SE	R	p-value
WHO well-being^a				
Being exposed to a suicide attempt	−2.976 (−4.158 to −1.795)	0.603	0.076	<0.001
Closeness in relation	−0.974 (−1.743 to −0.205)	0.392	0.07	0.013
Level of affectedness then	−1.457 (−2.468 to −0.447)	0.515	0.07	0.005
Level of affectedness now	−2.618 (−3.845 to −1.390)	0.626	0.077	<0.001
Level of support then	−1.398 (−2.783 to −0.013)	0.706	0.076	0.048
Need for support now	−2.586 (−3.707 to −1.465)	0.571	0.075	<0.001
SIDAS^a				
Being exposed to a suicide attempt	1.599 (1.286 to 1.912)	0.16	0.048	0.001
Closeness in relation	0.347 (−0.085 to 0.780)	0.22	0.045	0.116
Level of affectedness then	0.944 (0.549 to 1.339)	0.201	0.058	<0.001
Level of affectedness now	2.544 (2.077 to 3.012)	0.238	0.127	<0.001
Level of support then	−0.202 (−0.790 to 0.386)	0.3	0.043	0.501
Need for support now	2.622 (2.189 to 3.056)	0.221	0.173	<0.001

Abbreviations: R: R square; SE: standard error; SIDAS: Suicidal Ideation Attributes Scale.

^aAdjusted for gender and age. The examined predictors had following levels: being exposed to a suicide attempt (no, yes), closeness in relation (5-item scale: 1 = very remotely related,... 5 = very closely related); level of affectedness then (5- item scale: not at all affected; a little affected, somewhat affected, very affected, extremely affected); level of affectedness now (5- item scale: not at all affected; a little affected, somewhat affected, very affected, extremely affected); level of support then (4-item scale: a lot, to some extent, to a less extent, not at all); and have a need for support now (5- item scale: no, mostly not, neither nor, mostly yes, yes). Missing data for each questions based on number of individuals asked (*n/N*): being exposed to a suicide attempt (*n = 0/N = 4,925*); closeness in relation (*n = 194/N = 1,192*); level of affectedness then (*n = 84/N = 1,192*); level of affectedness now (*n = 55/N = 1,192*); level of support then (*n = 318/N = 1,192*); and need for support now (*n = 328/N = 1,192*).

not received any support, suggest a lack of available support for this group. Interventions toward relatives to people with suicidal behavior have shown positive results in terms of reduced psychological distress (Power et al., 2009). Also, parents of children with suicide attempt who participated in a qualitative Danish study of group sessions mentioned that the intervention helped them deal with stigma (Buus, Caspersen, Nygaard, et al., 2014).

In Denmark, people exposed to distress can seek support through their primary care provider. As part of the free public healthcare system, subsidized referral to psychological counseling with an approximate 40% co-payment for up to 12 session is an option that some general practitioners may honor (Danish Medicines Agency, 2012; Erlangsen & Fleischer, 2017). Support to people exposed to suicide attempt is

provided by the volunteer organization NEFOS (Erlangsen & Fleischer, 2017), which typically offers support in form of counseling and group conversations. Given that most support was provided by informal care providers, such as family relatives and friends, it seems indicated to expand existing resources of psychoeducation for this group; particularly, on-line-based resources might be relevant.

4.2 | Strength and limitations

Strengths of this study include a large sample size and detailed information on different aspects of the exposure. By focusing exclusively on people exposed to suicide attempt, new and significant findings regarding this group were identified.

While full representativeness cannot be assured, the resemblance of participants to the general Danish population was good with respect to sex, age group, educational level, and region of residence. Furthermore, both examined outcomes were established clinical scales that have been validated (van Spijker et al., 2014; Topp et al., 2015).

The study also has limitations. Epinion does not keep statistics on the number of participants who viewed the invitation; hence, an actual response rate could not be calculated. Also, around 20% did not fill in the survey correctly or did in other ways not comply with the inclusion criteria. While this is not unusual, we have no ways of assessing whether this introduces bias. We were unable to draw conclusions regarding causal links as a cross-sectional study design was used. Recall bias cannot be excluded, potentially leading to an over-representation of those more severely affected at the time of the event. Still, absolute numbers of those exposed are likely to be conservative estimates. Other distressing events or pre-existing mental illness might have confounded our estimates. Lastly, we cannot exclude selection bias due to non-respondents.

5 | CONCLUSION

Almost one in four reported having been exposed to a suicide attempt by someone they knew. Of these, almost half stated that they had been exposed to a suicide attempt in a close relation and this group was more affected by the event than those exposed by a not close relation. Our results show that exposure to a suicide attempt was linked to poorer general well-being and higher levels of suicidal ideation when compared to those not exposed. About half of the exposed reported now having received support at the time of the event, and those who were supported received this often from informal care providers. Given the lack of directed support, it seems indicated to consider how those severely affected by exposure to suicide attempt can be better supported.

CONFLICT OF INTEREST

No conflict of interest.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

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