

# Risk and protective factors for suicidal ideation and suicide attempts among deployed Danish soldiers from 1990 to 2009

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## Introduction

The study was undertaken in order to identify risk and protective factors for suicidal ideation and suicide attempts among deployed Danish soldiers. Suicide among Danish soldiers has only scarcely been researched.

## Method

The data was collected by a questionnaire study among a sample of the 22,991 Danish soldiers deployed on international missions from 1990-2009. It consisted of 3,000 individuals stratified by gender, age, and mission participation. Only soldiers deployed to UNPROFOR, UNCRO, IFOR, SFOR, KFOR, DANBAT/IRAK, DANBAT/RC(S)/ISAF were included.<sup>1</sup> These missions were the largest in the period. By excluding smaller missions a more homogeneous sample was created. A final total of 1,264 completed the survey resulting in a response rate of 59.0 %. The questionnaire included questions about common risk factors for suicide behavior as well as specific deployment-related factors. Generally the study would have been strengthened from a larger research sample and a dropout analysis of the approximate 40 % that did not complete the questionnaire. However, this was not possible due to a promise of anonymity to the soldiers.

## Main Findings

Deployment related **risk** factors for suicide behavior:

- Repatriation • Pointless tasks • Immense workload
- Poor homecoming programme

Deployment related **protective** factors for suicide behavior:

- Support from friends at home
- Sense of recognition from the population

	Suicide ideation			Suicide attempts		
	n	OR crude	OR adjusted	n	OR crude	OR adjusted
<b>Before deployment</b>						
<b>Childhood circumstances experienced [BL=no]</b>						
Unhappy childhood (n=77)	20	2,32**		7	7,53***	10,54***
Parent with alcohol problem (n=263)	44	1,47*		8	2,28	
Parent with mental disorder (n=103)	21	1,86*		5	3,69**	
Missing care from parents (n=149)	37	2,56***		9	5,21***	
Parent with committed or attempted suicide (n=52)	8	1,26		3	4,07*	
<b>Drug abuse</b>						
No (n=1186) [BL]	146	1		18	1	
Yes (n=78)	24	3,06***	2,66**	4	3,44*	
<b>Self-reported financial situation</b>						
Good (n=526) [BL]	49	1		7	1	
OK (n=663)	103	1,78**	1,97**	14	1,59	
Poor (n=60)	14	2,93**		1	1,28	
<b>After deployment</b>						
<b>Quality of attended homecoming programme</b>						
None attended (n=689) [BL]	81	1		11	1	
Good (n=121)	13	0,87		1	0,51	
OK (n=330)	51	1,35		4	0,75	
Poor (n=88)	23	2,57**	3,06**	5	3,65*	
<b>Sense of recognition from the population</b>						
No (n=501) [BL]	96	1		10	1	
Yes (n=692)	71	0,48***	0,54**	11	0,80	

[BL] baseline; \* p<0.05; \*\* p<0.01; \*\*\* p<0.0001

	Suicide ideation			Suicide attempts		
	n	OR crude	OR adjusted	n	OR crude	OR adjusted
<b>During deployment</b>						
<b>Repatriated</b>						
No (n=1149) [BL]	142	1		18	1	
Yes (n=107)	27	2,38**	2,09*	4	2,44	
<b>Deployment factors experienced [BL=no]</b>						
Dead people (n=586)	96	1,61**		15	2,54*	
Wounded people (n=726)	114	1,61**		16	2,03	
Atrocities against civilians (n=323)	55	1,49*		10	2,52*	
Being shot at (n=619)	99	1,56**		14	1,86	
Shooting at others (n=218)	40	1,62*		6	1,84	
Being wounded (n=68)	12	1,50		5	5,68**	
Fellow soldier dead or wounded (n=295)	56	1,79**		11	3,41**	
Thoughts about risk of dying (n=897)	133	1,58*		20	4,20*	
Base under fire (n=652)	93	1,17		14	1,68	
Powerlessness in difficult situations (n=358)	78	2,53***		10	2,18	
Personal break down during a mission (n=23)	7	4,10**		2	6,67**	
Pointless tasks (n=493)	89	1,90***		16	4,30**	19,84**
Immense workload (n=623)	99	1,52*	1,63*	16	2,82*	
<b>Support received from [BL=no]</b>						
Spouse (n=582)	68	0,42**		9	0,70	
Close family (n=799)	97	0,45**		14	0,57	
Friends at home (n=599)	70	0,45***	0,57*	11	0,67	
Superiors (n=529)	67	0,53**		10	0,77	
Fellow soldiers in the unit (n=885)	126	0,62		17	1,41	
Army chaplain (n=221)	39	0,91		4	0,69	

## Discussion

The study identified many well-known risk factors for suicidal behavior such as drug abuse, financial situation, and various childhood circumstances, but also unique risk factors related to soldiers' deployment.

That repatriation is a risk factor for suicide ideation emphasises that it's imperative that the armed forces have attention on repatriated soldiers' mental health. Repatriation can be caused by severe injury, mental problems, or misconduct during duty. Repatriated soldiers are often discharged from the military without attending any homecoming programme or any follow up on their mental health.

That a poor homecoming programme is a risk factor stresses, that it's not only the soldiers' experience during deployment that put them at risk. Without a proper reintegration into the civil society, many veterans may therefore be at risk for suicide behavior. During the last couple of years the Danish military have implemented improved homecoming programmes for returned soldiers, but the effect of these programmes could not be measured in this study.

The only deployment related risk factor for suicide attempts were exposure to pointless tasks during service. This underlines the need for the armed forces to address this issue to minimize its occurrence.

Two protective factors were identified against suicide ideation: support received from friends at home during deployment and sense of recognition by the population. Ample studies stress the benefits of close relations, but the importance of recognition from the population is a distinctive result. Focus on good possibilities for communication with relations at home and proper recognition of military service should therefore be strived for.

As a final remark, it is a reasonable assumption, that mental disorders and suicide behavior are more common among the 40 % that did not complete the questionnaire. Therefore, the prevalence of suicide behavior in this study should be considered as just the tip of the iceberg.

<sup>1</sup>UNPROFOR: United Nations Protection Force from 1992-95; UNCRO: United Nations Confidence Restoration Operation from 1995-96; IFOR: Implementation Force in 1996; SFOR: Stabilisation Force from 1997-2003; KFOR: Kosovo Force since 1999; DANCON/IRAK: Danish Contingent/Iraq from 2003-07; DANCON/RC(S)/ISAF: Danish Contingent/Regional Command South/International Security Assistance Force since 2006.

