

# Gatekeepers to Prevent Suicide (GPS)

**(Cost-)Effectiveness of Gatekeeper Training in the prevention of suicide attempts: a randomised controlled trial. First results**

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# Epidemiology (The Netherlands)

- ▶ 1,600 people commit suicide annually (*1,753 in 2012, CBS*)
- ▶ 100,000 attempt suicide (*Trimbos 2006, 2011*)
- ▶ 14,000 of them contact the emergency department  
(*Kerkhof et al, 2007; RIVM, 2008*)
- ▶ 462,500 suffer from suicidal ideation (*Trimbos 2006, 2011*)
  
- ▶ The corresponding disease burden equals 231,000 disability adjusted life years (DALY's) (*RIVM 2011*)



# The problem

- ▶ A lot of people who are suicidal do not seek treatment
- ▶ This inclination not to seek help is one of the core symptoms of the suicidal syndrome
  - They don't expect that treatment could help them
  - They have feelings of shame and fear of stigma

# Gatekeepers

- ▶ Problems involving suicidality generally need to be addressed by specialised care from qualified mental health professionals
- ▶ Gatekeepers are often the first to identify suicidality and address the subject. These gatekeepers could be
  - police officers, care workers, district nurses, teachers, members of ZAT teams (school counselors and health care advice), pastors, geriatric care workers, volunteers of telephone helplines, etc.

# Research

- ▶ In 1983 and 1984 all GPs on the Swedish island of **Gotland** were trained in the diagnosis and treatment of depression. In the two following years the prescriptions for anti-depressants rose by 50% while the suicide rate declined by 60%

*Rutz et al., 2001*

- ▶ The **Nuremberg** Alliance Against Depression (NAAD) initiative was followed by a 26% reduction in the number of suicide attempts. A two-year community intervention to combat depression was implemented in Nuremberg (480,000 inhabitants) and compared to a control condition (Würzburg, 270,000 inhabitants)

*Hegerl et al., 2006*

- ▶ In the **US Air Force** the suicide rate was reduced by 33% following a large-scale programme including intensive gatekeeper education

*Knox et al., 2003, 2010*



# Limitations

- ▶ The effects are valid in specific conditions or locations
- ▶ Owing to the combination of activities, it is unclear which effect can be attributed to the training of GPs or to the gatekeepers or to the synergetic effect of interventions





# GPS project (2012 – ... )

## Three questions

- ▶ Is gatekeeper training effective in enhancing relevant skills?
- ▶ Does the intervention impact on rates of (attempted) suicides?
- ▶ Is the intervention cost-effective relative to routine medical care?

# **STUDY 1**

Does training of Gatekeepers and GPs improve professional competencies and skills?

# The intervention

- ▶ Gatekeeper training (4 hours)
- ▶ Homogenous groups (16 participants)
- ▶ Two seasoned and trained clinical trainers
- ▶ Knowledge, attitude and skills

# Course content

- ▶ Introduction: participants introduce themselves

- *Aim: to activate existing knowledge, attitudes and skills*

- ▶ Lecture in suicidal behavior

- *Aim: to increase knowledge concerning suicidal behavior*

- ▶ Active role playing for each participant

In three rounds every participant will be trained in skills to engage with and motivate suicidal people to talk about their problems. This will be achieved through intensive and repeated role playing including personalized support and feedback.

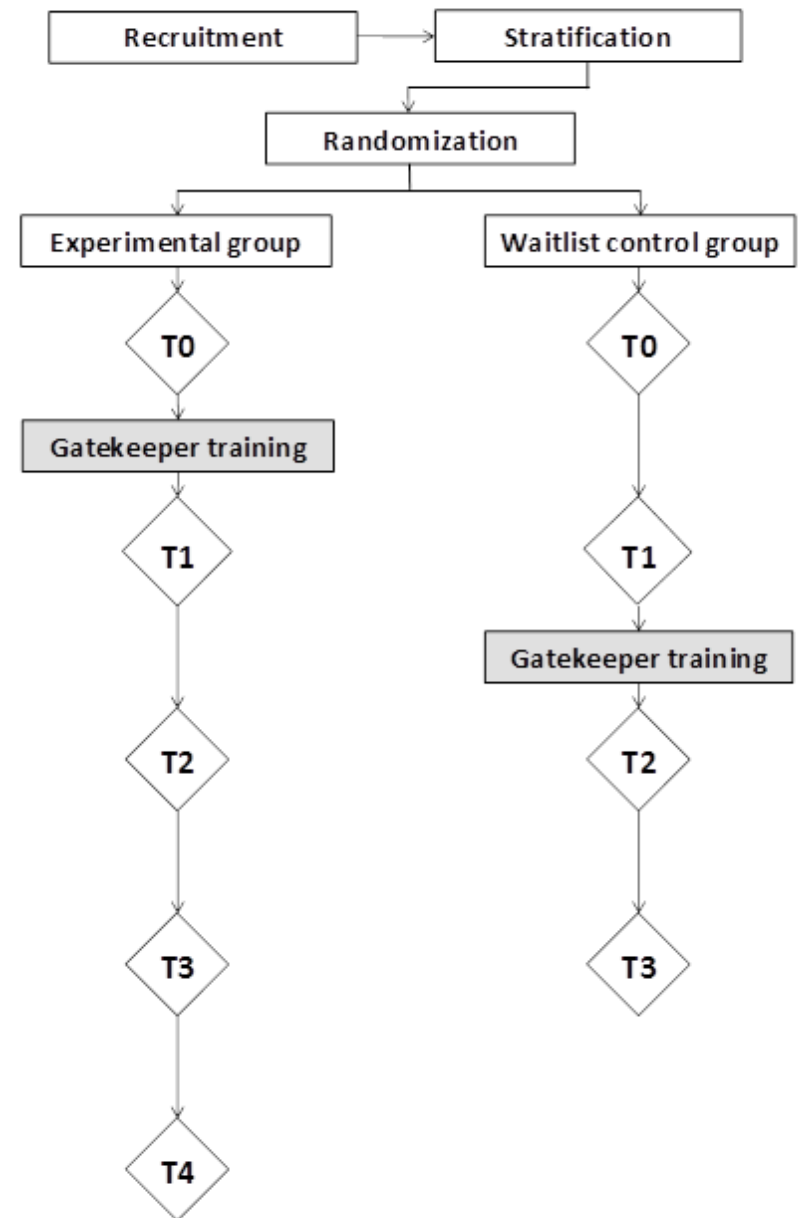
- *Aim: To enhance skills in motivating people for referral*

- ▶ Group discussion (about how to refer) and conclusion

- *Aim: To consolidate obtained knowledge, attitude and skills*

# Design

RCT, two parallel groups (waitlist control)  
2 \* 270 participants



# Outcome measures

- ▶ Outcome measure is professional competence
  - to identify suicidality
  - to communicate about suicidality
  - to make adequate referrals to the GP (by gatekeepers) and to specialised mental health care (by GPs)
  
- ▶ ATTS: Questionnaire on Attitudes Towards Suicide  
*(Renberg and Jacobsson, 2003)*
  
- ▶ Assessing actual referral behavior during the preceding three months with questions concerning number of contacts and time invested  
*(Smit ea, 2012)*

# **STUDY 2**

Does the training of gatekeepers / GPs lead to fewer suicide attempts and suicides?



# Design

- ▶ Comparing changes in numbers of suicide attempts between trained regions  
control region (The Netherlands)
- ▶ We make use of the data collected by emergency departments
  - ▶ *4 EDs Friesland*
  - ▶ *6 EDs in Amsterdam*
- ▶ To maximise the effect we will train as many GP's as possible (minimum 100 GP's in two regions taken together) and gatekeepers (minimum 600 in two regions taken together)

# Intervention regions

# Control region



**Amsterdam**  
urban characteristics  
765,000 inhabitants

**Friesland**  
mainly rural area  
650,000 inhabitants

Together these two regions cover an area in which about 8 percent of the Dutch population lives



# **STUDY 3**

How cost-effective is training of gatekeepers / GPs?

# Design

- ▶ In STUDY 1 the providers of the training for gatekeepers and GPs are surveyed about the costs of providing the training (hours worked and materials used)
- ▶ From STUDY 2 we calculate how many quality adjusted life years (QALYs) are gained in one year thanks to the intervention
- ▶ Finally, the cost data and DALYs (disability adjusted life years) avoided are combined in an econometric model to produce incremental cost-effectiveness ratios (ICERs)

# **First results ...**

A first look at some data of study 1

# Trained Gatekeepers

Group	Trained	T0	T1	T2	T3	T4
<i>Amsterdam</i>						
Vangnet en Advies	31	36	17	6		
JGZ /ROC / SVBN	30	30	8			
Leger d.Heils /HVO	62	8	7			
Streetcornerwork	46	27	0			
Woondroomzorg	37	36	14			
	206	137	46	6		
<i>Friesland</i>						
Politie	58	67	37	26	20	18
Fier Fryslân	69	98	49	0	44	
Timpaan Interzorg en Welzijn	57	68	47	8	9	2
VNN	28	33	24	11	17	
VO/VMBO	91	116	95	74	44	
Bureau Jeugdzorg	34	31	32			
Gemeente Smallingerland	9	26				
	346	439	284	119	134	20
<b>Tot.</b>	<b>552</b>	<b>576</b>	<b>330</b>	<b>125</b>	<b>134</b>	<b>20</b>

# First data Friesland

	N	%	E	C
▶ Police	33	(18)	15	18
▶ Addiction	29	(16)	15	14
▶ School	94	(50)	45	49
▶ Social work	30	(16)	17	13
TOT.	186		92	94

# Groups

	EXP (n=92)	CON (n=94)
Sex		
Male	24	35
Female	68	59
Age	42,5	42,5
Experience (work)	20,2	19,3
Experience (suicidal behaviour)	10,1	10,8



# Changes in Knowledge

ATTS	M1	M2	Sig. Exp		M1	M2
	(EXP	N=50)			(CON	N=72)
12	2.58	2.36	.026		2.64	2.54
33	2.32	2.28	NS		2.36	2.26
22	2.48	2.30	NS		2.42	2.33
37	2.90	2.98	NS		3.04	3.06
01	2.42	2.46	NS		2.36	2.58
06	2.52	2.50	NS		2.42	2.46
11	2.14	1.98	NS		2.19	2.11
04	2.44	2.32	NS		2.28	2.32
13	1.62	1.66	NS		1.74	1.75

# Changes in Attitude

ATTS	M1	M2	Sig. Exp		M1	M2
29	3.78	3.70	NS		3.83	3.71
05	2.88	3.22	.034	.005	2.85	3.11
32	4.00	3.90	NS		3.93	3.86
34	3.46	3.50	NS		3.35	3.46
27	2.54	2.58	NS		2.47	2.50
02	2.24	2.30	NS		2.26	2.25
19	2.68	2.78	NS		3.21	3.08
30	3.98	4.06	NS		3.96	4.01
24	2.04	1.96	NS	.015	1.92	2.13
09	3.20	3.12	NS		3.08	3.10

# Some remarks

- ▶ Presented data are first results
- ▶ Groups are still relatively small, not all data have been collected yet
- ▶ There could be an effect of sharing knowledge and attitudes between trained gate keepers and wait listed colleagues
- ▶ We have to investigate if there are differential training effects for different groups
- ▶ Study 2 will show if all trained gate keepers have a (beneficial) effect on ED presentations and hospital admissions for attempted suicide

## Verwarde man van Westertoren afgepraat

112



Zaterdag 24 augustus 2013 16:26 - Foto: Marcus Bergsma 11 reacties



**Een verwarde man stond vanmiddag op de omloop van de Westertoren. Hij dreigde naar beneden te springen. Hulpdiensten hebben hem veilig naar beneden kunnen halen na een gesprek.**

Hulpdiensten waren ter plaatse om met de man te onderhandelen in een poging om hem op andere gedachten te brengen. Dit is dus gelukt. De omgeving rond de Westertoren was enige tijd afgezet.

Het Prinsengrachtconcert zal geen hinder ondervinden zegt de organisatie van het concert.



„Ik wilde alles oplossen, maar dat kan niet. Praten wel.” Politieagent Doede de Boer volgde een gatekeepertraining, bedoeld om het aantal zelfdodingen terug te dringen. Op Wereldsuïcidepreventiedag wordt daar aandacht aan besteed.

.....  
Anja Mast  
.....

St.-Annaparochie | „Je probeert een ingang bij iemand te vinden. Ik weet niet hoe lang ik toen met die man heb gepraat, maar uiteindelijk kregen we hem toch zover dat hij het mes aan de kant legde. Later gaf hij aan dat hij geen uitweg meer zag, alles was negatief. Door het gesprek zag hij licht.”

Politieagent Doede de Boer uit St.-Annaparochie maakte in zijn werk meerdere gevallen mee waarbij iemand op het punt stond om suïcide te plegen. Onlangs volgde hij een gatekeepertraining bij GGZ Friesland waarbij hij leerde signalen van suïciditeit eerder te herkennen zodat mensen kunnen worden doorverwezen naar de hulpverlening.

Hij heeft veel van de training opgestoken.

# In conclusion

- ▶ Study 1: Training and inclusion will be continued till 1.12.2014  
Data collection will be continued
- ▶ Study 2 and 3: Data collection just started
- ▶ So we have to meet again

# GPS: Gatekeepers to Prevent Suicide

## With thanks ...

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