Treatment Interventions for Suicide Prevention

Kate Comtois, PhD, MPH
University of Washington

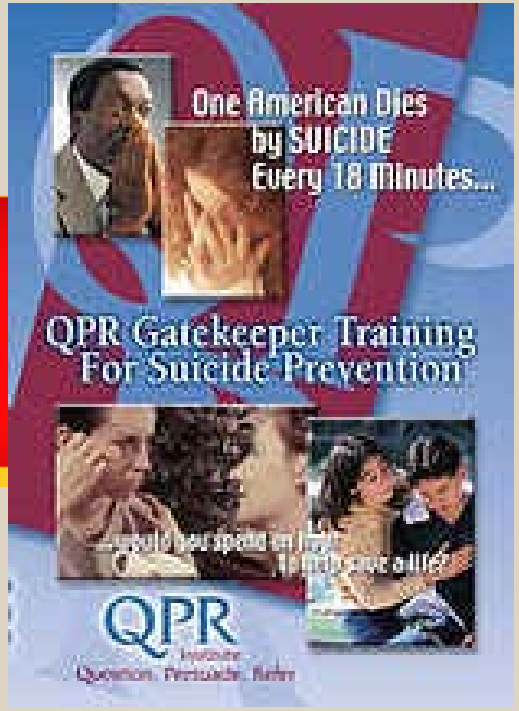
Behavioral Research & Therapy Clinics
University of Washington

C
HAMMP
enter for
ealthcare Improvement for
ddictions,
ental Illness and
edically Vulnerable
opulations

Suicide prevention has many forms

Treating Depression

Gatekeeper Training



Public health or injury prevention

Suicide prevention has many forms

This talk **is about preventing suicide with mental health interventions to treat suicide attempts or other suicidal behavior**

Overview

- **What does the clinical trial research tell us about treatment with suicidal patients?**
  - **What doesn't work?**
  - **What does work?**
- **What can we learn clinically from the research data?**

What doesn't have evidence? Inpatient psychiatric admission

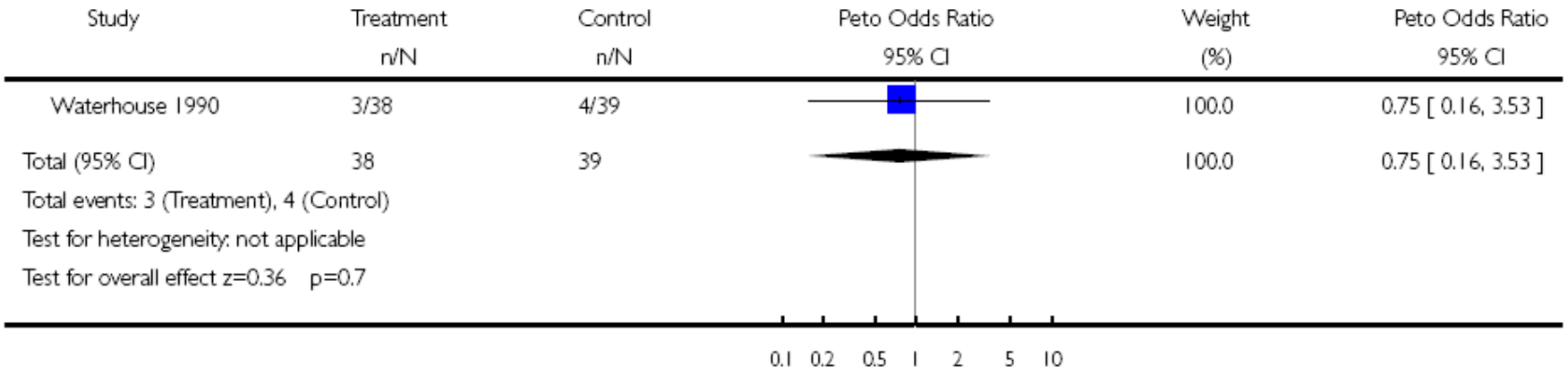
Fig. 7. Comparison 07. General hospital admission vs. Discharge

07.01 Repetition

Review: Psychosocial and pharmacological treatments for deliberate self harm

Comparison: 07 General hospital admission vs. Discharge

Outcome: 01 Repetition



Note, highest risk individuals excluded from trial.

http://www.thecochranelibrary.com Hawton et al, 2009, Deliberate Self Harm

Or type of inpatient psychiatry…

Fig. 5. Comparison 05. Inpatient behavior therapy vs Inpatient insight-orientated therapy

05.01 Repetition

Review: Psychosocial and pharmacological treatments for deliberate self harm

Comparison: 05 Inpatient behavior therapy vs Inpatient insight-orientated therapy

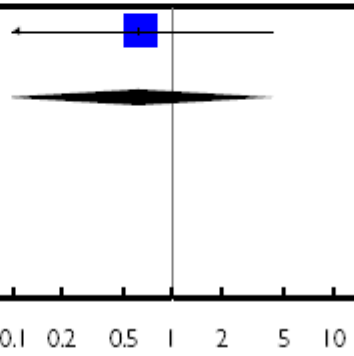
Outcome: 01 Repetition

Study	Treatment n/N	Control n/N	Peto Odds Ratio 95% CI	Weight (%)	Peto Odds Ratio 95% CI
Liberman 1981	2/12	3/12		100.0	0.62 [0.09, 4.24]
Total (95% CI)	12	12		100.0	0.62 [0.09, 4.24]

Total events: 2 (Treatment), 3 (Control)

Test for heterogeneity: not applicable

Test for overall effect z=0.49 p=0.6



http://www.thecochranelibrary.com Hawton et al, 2009, Deliberate Self Harm

Easy access to inpatient psychiatry has promise, but is not significant.

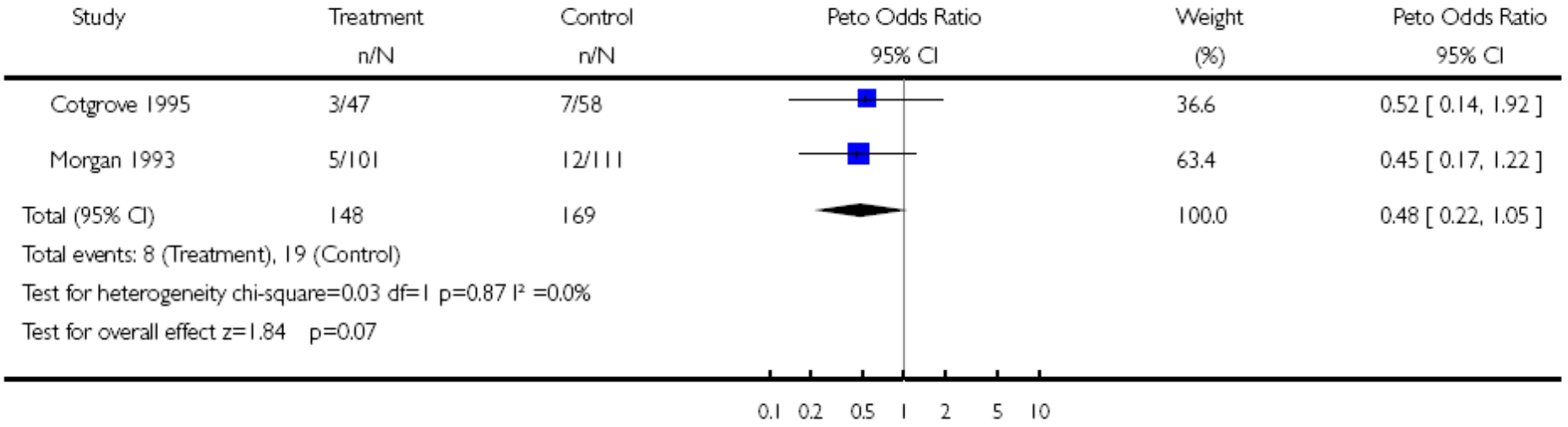
Fig. 3. Comparison 03. Emegency card vs. Standard aftercare

03.01 Repetition

Review: Psychosocial and pharmacological treatments for deliberate self harm

Comparison: 03 Emegency card vs. Standard aftercare

Outcome: 01 Repetition



http://www.thecochranelibrary.com Hawton et al, 2009, Deliberate Self Harm

Anti-depressant medications don't have evidence either.

Fig. 9. Comparison 09. Antidepressants vs. Placebo

09.01 Repetition

Review: Psychosocial and pharmacological treatments for deliberate self harm

Comparison: 09 Antidepressants vs. Placebo

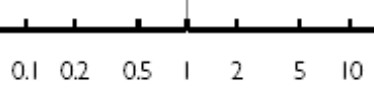
Outcome: 01 Repetition

Study	Treatment n/N	Control n/N	Peto Odds Ratio 95% CI	Weight (%)	Peto Odds Ratio 95% CI
Hirsch 1982	16/76	5/38		32.7	1.68 [0.62, 4.58]
Montgomery 1983	8/17	12/21		20.5	0.67 [0.19, 2.39]
Verkes 1998	15/46	21/45		46.8	0.56 [0.24, 1.29]
Total (95% CI)	139	104		100.0	0.83 [0.47, 1.48]

Total events: 39 (Treatment), 38 (Control)

Test for heterogeneity chi-square=2.88 df=2 p=0.24 I^2 =30.6%

Test for overall effect z=0.63 p=0.5



http://www.thecochranelibrary.com Hawton et al, 2009, Deliberate Self Harm

What does work?
Earlier studies of CBT show promise

Analysis 1.1. Comparison 1 Problem solving therapy vs Standard aftercare, Outcome 1 Repetition.

Review: Psychosocial and pharmacological treatments for deliberate self harm

Comparison: 1 Problem solving therapy vs Standard aftercare

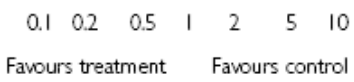
Outcome: 1 Repetition

Study or subgroup	Problem solving n/N	Standard care n/N	Peto Odds Ratio Peto,Fixed,95% CI	Weight	Peto Odds Ratio Peto,Fixed,95% CI
Evans 1999	10/18	10/14		10.2 %	0.52 [0.13, 2.15]
Gibbons 1978	27/200	29/200		64.8 %	0.92 [0.52, 1.62]
Hawton 1987	3/41	6/39		10.9 %	0.45 [0.11, 1.79]
McLeavey 1994	2/19	5/20		7.9 %	0.38 [0.08, 1.93]
Salkovskis 1990	3/12	4/8		6.2 %	0.35 [0.06, 2.19]
Total (95% CI)	**290**	**281**		**100.0 %**	**0.71 [0.45, 1.11]**

Total events: 45 (Problem solving), 54 (Standard care)

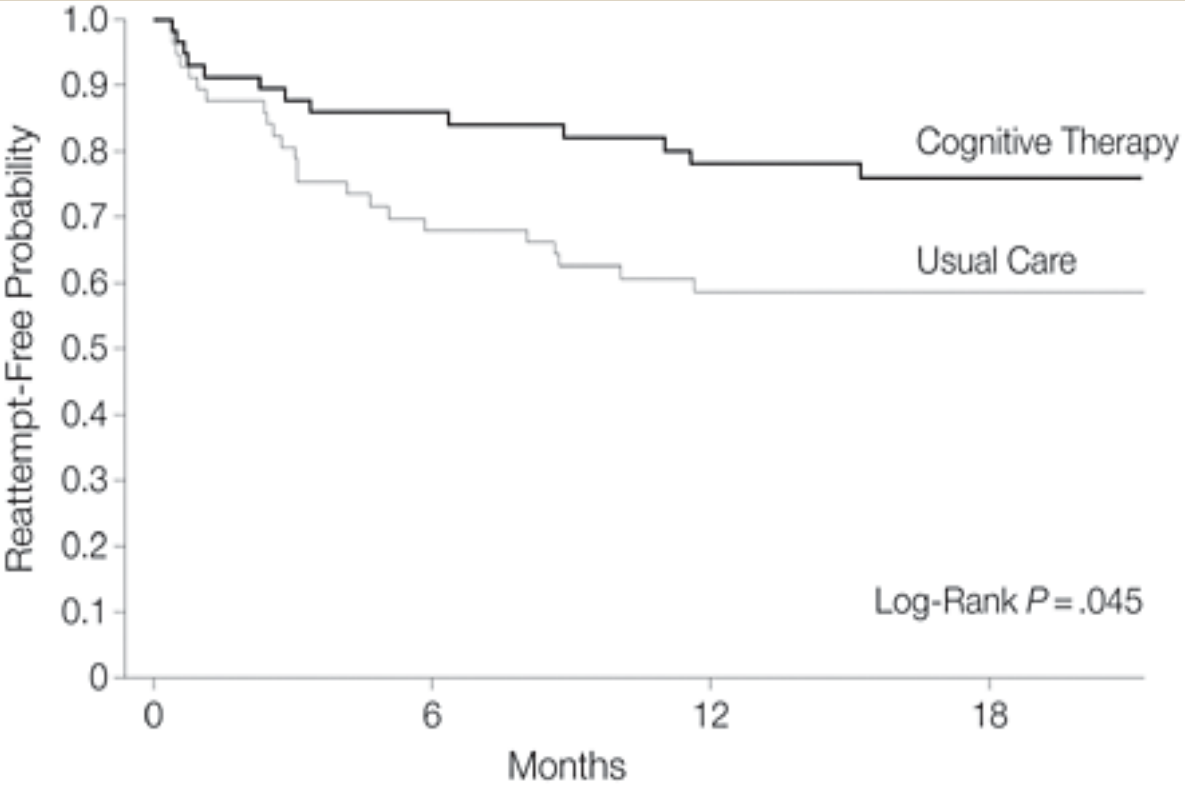
Heterogeneity: $Chi^2 = 2.54$, df = 4 (P = 0.64); $I^2 = 0.0\%$

Test for overall effect: Z = 1.50 (P = 0.13)



http://www.thecochranelibrary.com (Meta-analysis including DBT show significance for CBT)

Cognitive Therapy for suicide prevention (10-16 sessions) plus case management is quite effective in reducing suicide attempts.



No. at Risk				
Cognitive Therapy	60	45	37	16
Usual Care	60	36	28	11

Brown, G. K. et al. JAMA 2005;294:563-570

Dialectical Behavior Therapy (DBT) is effective at reducing self harm (with BPD).

Analysis 4.1. Comparison 4 Dialectical behavior therapy vs. Standard aftercare, Outcome 1 Repetition.

Review: Psychosocial and pharmacological treatments for deliberate self harm

Comparison: 4 Dialectical behavior therapy vs. Standard aftercare

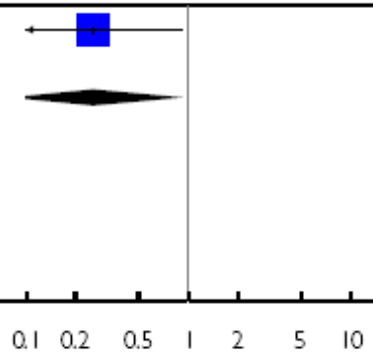
Outcome: 1 Repetition

Study or subgroup	Treatment n/N	Control n/N	Peto Odds Ratio Peto,Fixed,95% CI	Weight	Peto Odds Ratio Peto,Fixed,95% CI
Linehan 1991	5/19	12/20		100.0 %	0.26 [0.08, 0.92]
Total (95% CI)	**19**	**20**		**100.0 %**	**0.26 [0.08, 0.92]**

Total events: 5 (Treatment), 12 (Control)

Heterogeneity: not applicable

Test for overall effect: Z = 2.09 (P = 0.036)



Since this review, DBT benefits have been replicated in 8 randomized clinical trials. Two trials non-significant: compared to APA guidelines for BPD and to Transference Focused Therapy

http://www.thecochranelibrary.com Hawton et al, 2009, Deliberate Self Harm

And, believe it or not, an innovative idea from 1976: sending caring letters is effective.

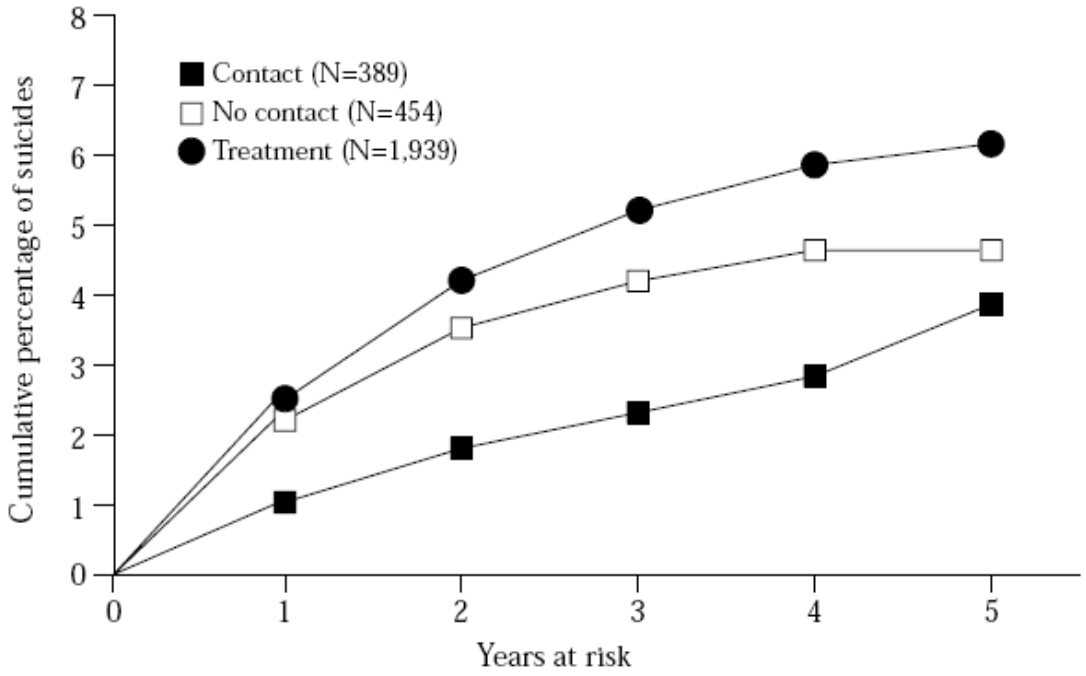
Dear _____,

It has been some time since you were here at the hospital, and we hope things are going well for you. If you wish to drop us a note we would be glad to hear from you.

Sincerely,

Letters were sent to patients who were not in treatment 30 days after inpatient discharge.

Cumulative percentage of suicidal deaths among 2,782 patients during the five years after hospital discharge, by whether they accepted or declined ongoing treatment and whether they were periodically contacted by letter



(*Psychiatric Services* 52:828–833, 2001)

Sending caring letters was replicated in Australia for deliberate self poisoning.

Hunter Area
Toxicology Service

Dear «FirstName»

It has been a while since you were here at the Newcastle Mater Hospital, and we hope things are going well for you.

If you wish to drop us a note we would be happy to hear from you.

Best wishes,

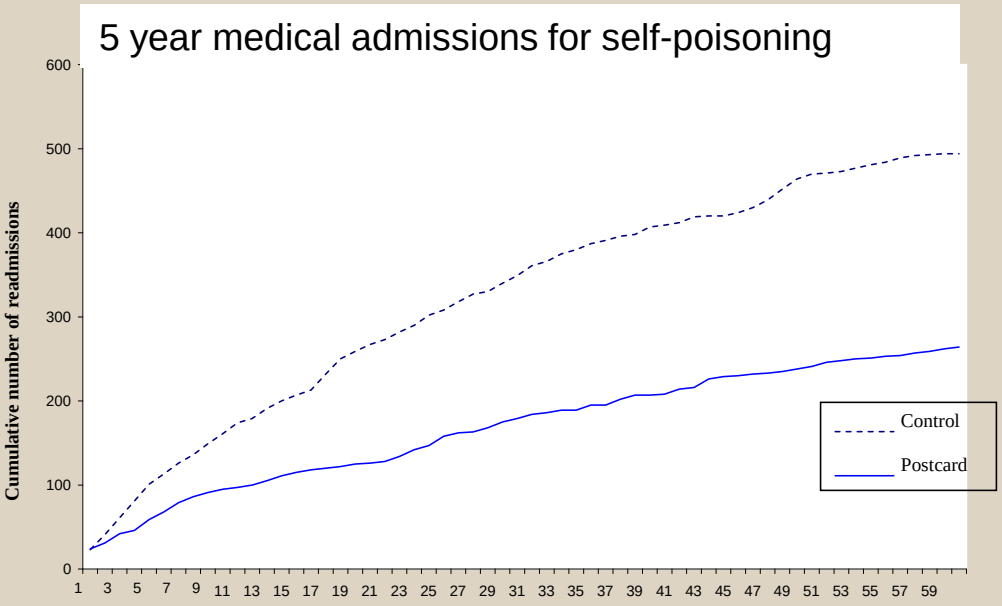
Dr Andrew Dawson

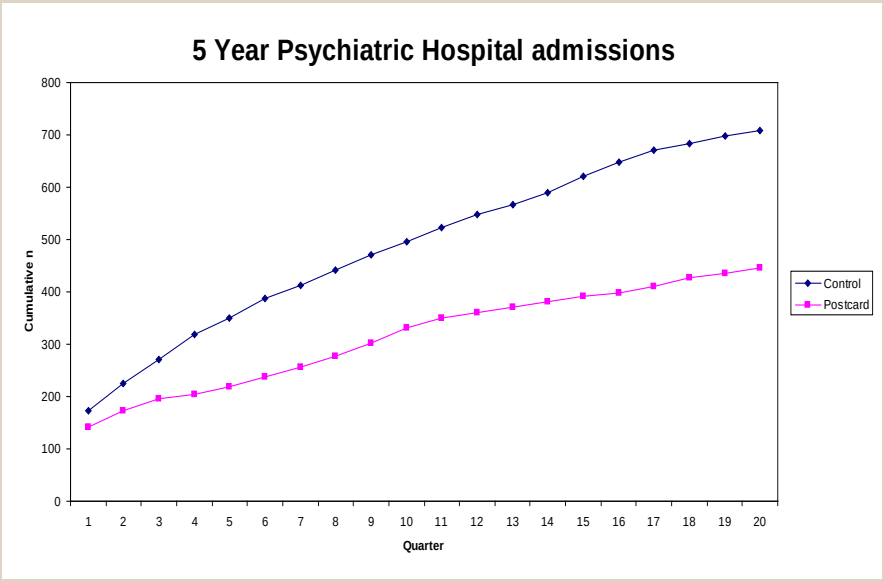
Dr Ian Whyte

Newcastle Mater Misericordiae Hospital
Locked Bag 7, Hunter Regional Mail Centre NSW 2310
Phone: 49 211 283 Fax 49 211 870

Random half of the patients discharged after self-poisoning got these cards.

Results:





Carter GL et al 2005 BMJ;331:805;
Carter GL et al 2007 Br J Psychiatry;191:548-53.
Carter GL Oct 2008 Presentation at HMC

Recently letters did not replicate in psychiatric emergency room setting when controlling self-harm

Table 3 Re-presentation for self-harm in the 12 months following the index presentation, adjusted for prior self-harm

	Intervention	Control	*P*	OR (95% CI)	IRR (95% CI)
Re-presentation for self-harm, %					
To psychiatric emergency service	16.2	22.5	>0.13	0.64 (0.36–1.15)	
To emergency department	26.6	26.0	>0.88	1.04 (0.62–1.73)	
Total (psychiatric emergency service or emergency department)	26.6	27.2	>0.91	0.97 (0.58–1.62)	
Number of self-harm re-presentations[a]					
To psychiatric emergency service	28.7	44.1	<0.04		0.65 (0.43–0.98)
To emergency department	67.2	61.0	>0.52		1.10 (0.82–1.49)
Total (psychiatric emergency service or emergency department)	71.1	66.4	>0.64		1.07 (0.80–1.43)

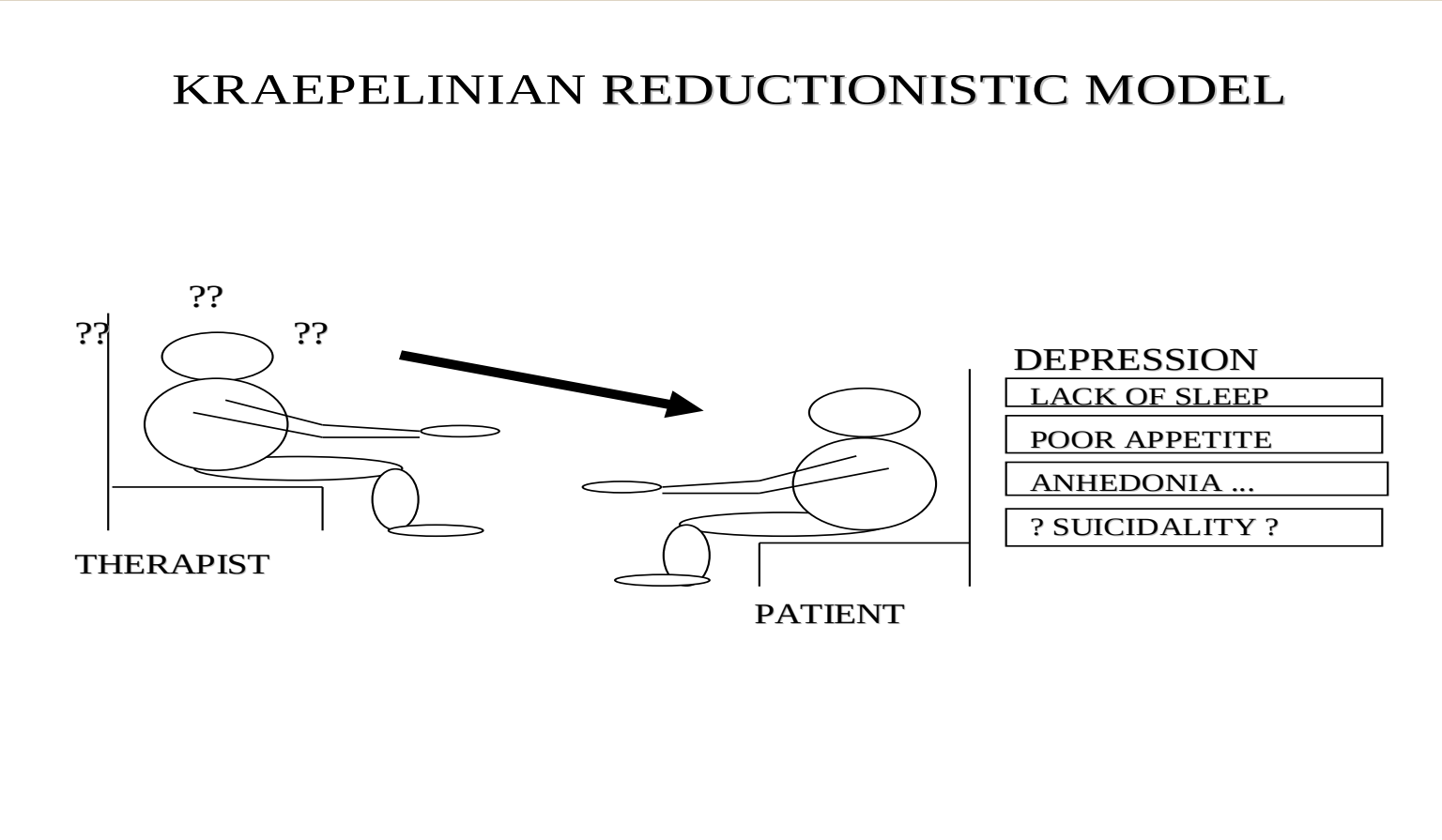
OR, odds ratio; IRR, incident risk ratio.
a. Total number of re-presentations per 100 people.

Beautrais et al 2010 Br J Psychiatry 197, 55–60

Caring letters receiving further study with study pending in Army personnel and revising a grant from Harborview to NIMH.

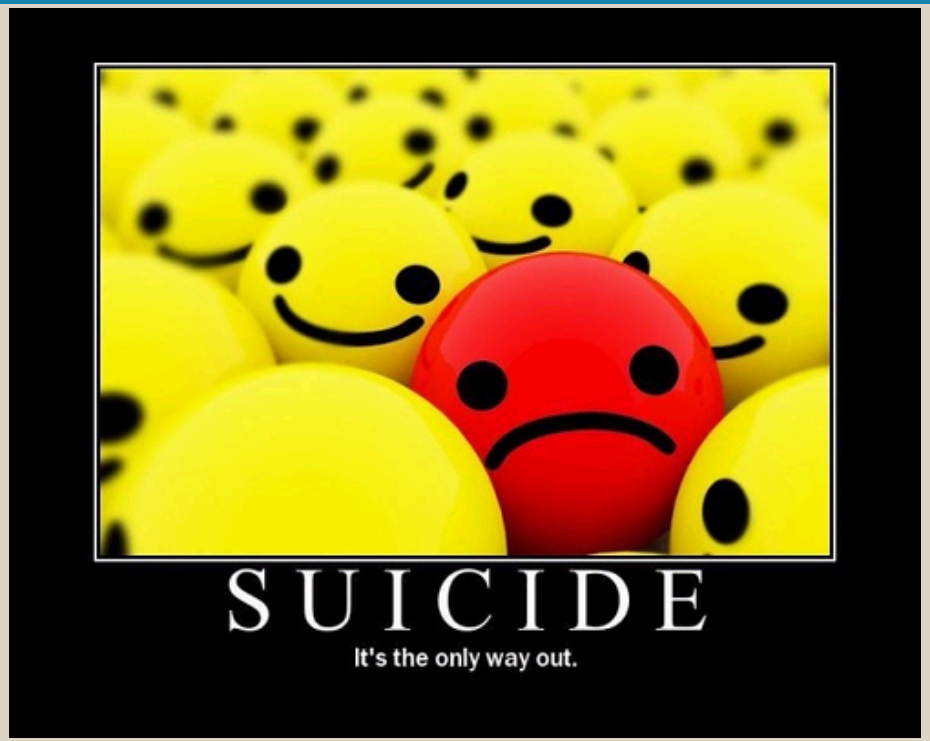
VA has implemented caring letters now.

Standard clinical interactions, including suicide interventions, are clinician as expert interviewing patient about depression.



Jobes, 2006

Effective psychotherapies for suicidal individuals have (at least) 2 differences.



(1) Treating suicide directly (not just by treating the diagnosis)

(2) Using an overtly collaborative stance rather than psychiatric interview.

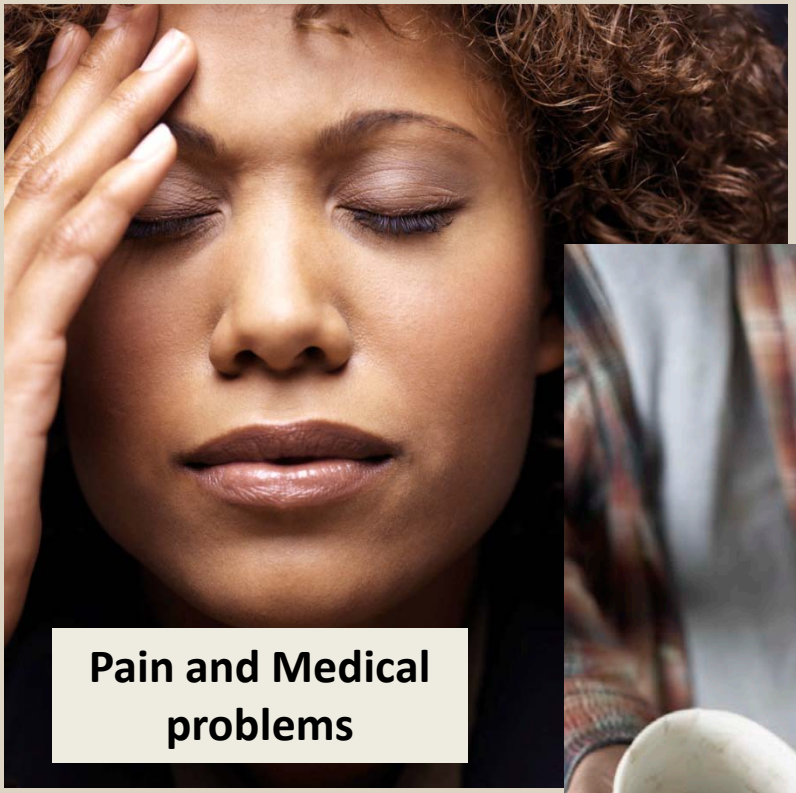
Treatment of psychiatric diagnosis does not necessarily result in reduction of suicide risk.

- **Treatment associated with reduced psychiatric symptoms and suicidal behavior:**
  - Lithium in bipolar affective disorder (no RCT but Baldessarini et al, 1999 shows evidence in review of studies) (RCT in progress)
  - Clozapine in schizophrenia (one RCT: Meltzer et al., 1998)

- **Treatment *not* associated with reduced psychiatric symptoms and suicidal behavior:**
  - Depression (Brent et al, 1997; Hawton et al, 2009; Khan et al., 2000; Khan et al, 2001; Lerner & Clum, 1990; Rutz, 1999)
  - Psychosis (Khan et al., 2001)
  - Depression in Borderline Personality Disorder (Linehan et al, 1991)

If you're not treating diagnosis, what should you treat?

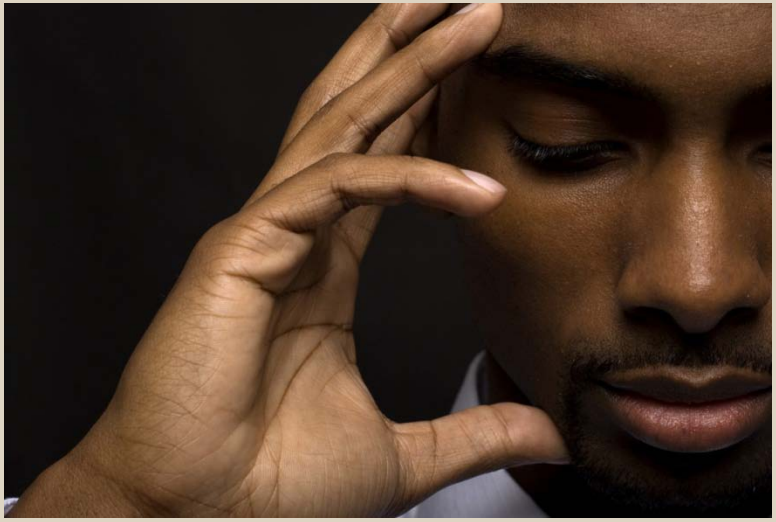
There are many stressors, including psychiatric diagnosis, experienced by suicidal individuals.



Secondary drivers of suicidality

The most effective treatments focus on the unique problems of suicidal people that prevent them from solving secondary drivers.

Inability to solve problems



Intense emotion dysregulation

Reasons for dying (e.g., thinking they are a burden)

Primary drivers of suicidality

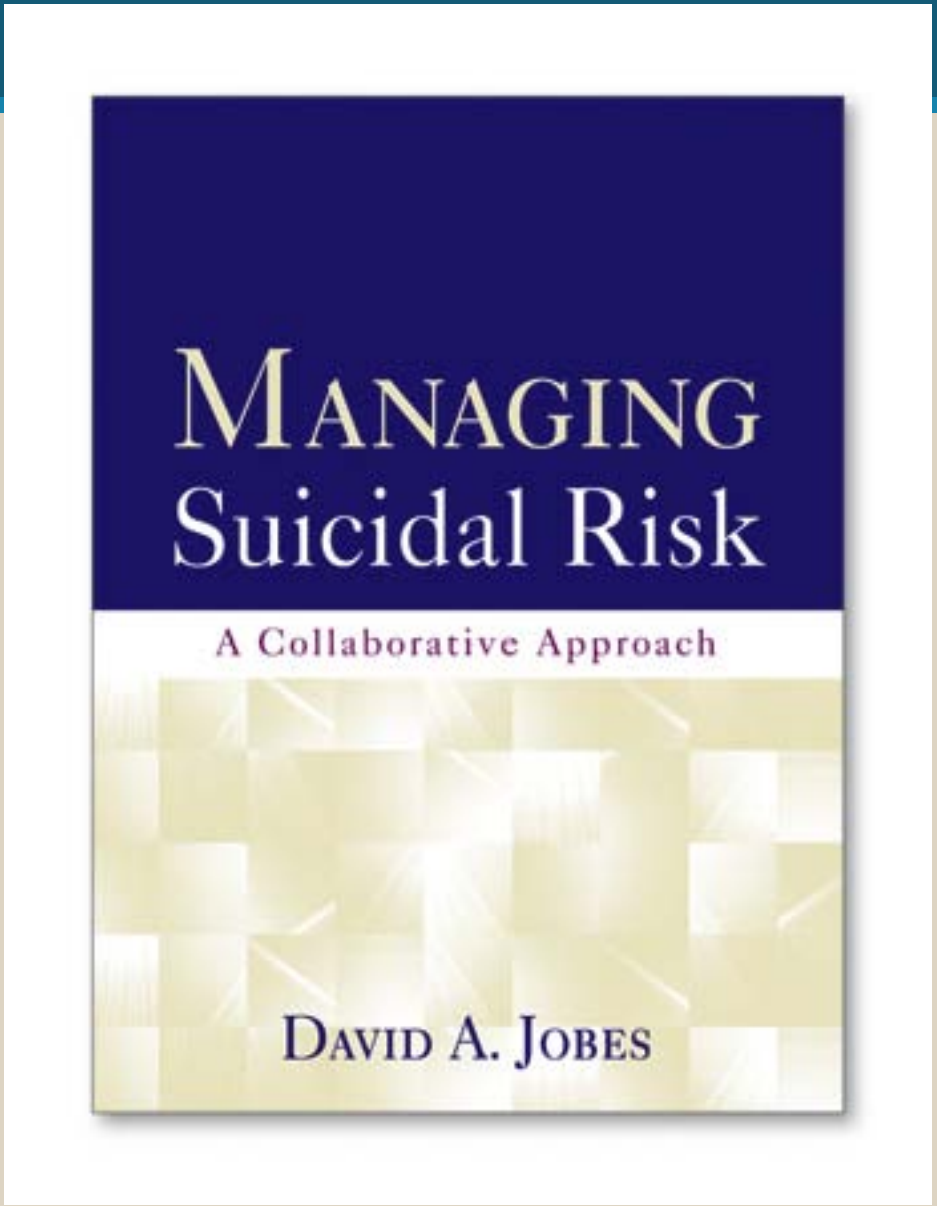
Lack of reasons for living

Psychiatric interviews often do not create collaboration.

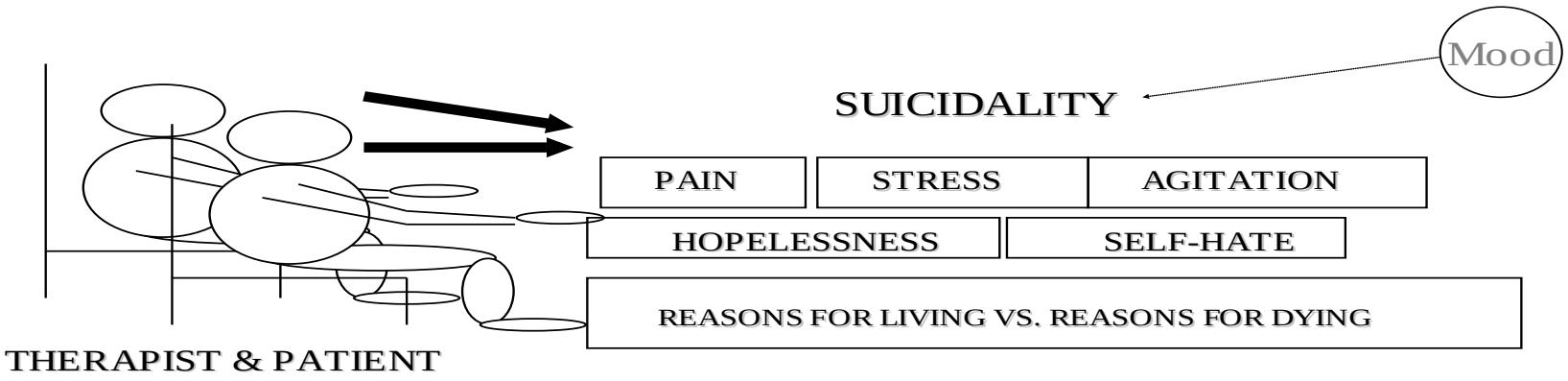
- Instead, the patient is more likely to feel interrogated (or even shamed if regretful).
- The patient may feel that you are only trying to run through a checklist, rather than trying to understand what is really going on.
- Patients are frequently aware that they can have their freedom taken away due to their suicide risk, so they can be leery of authority.

Jobes, 2007

Collaborative Assessment and Management of Suicidality (CAMS)



Take steps to overtly demonstrate a desire to be collaborative.

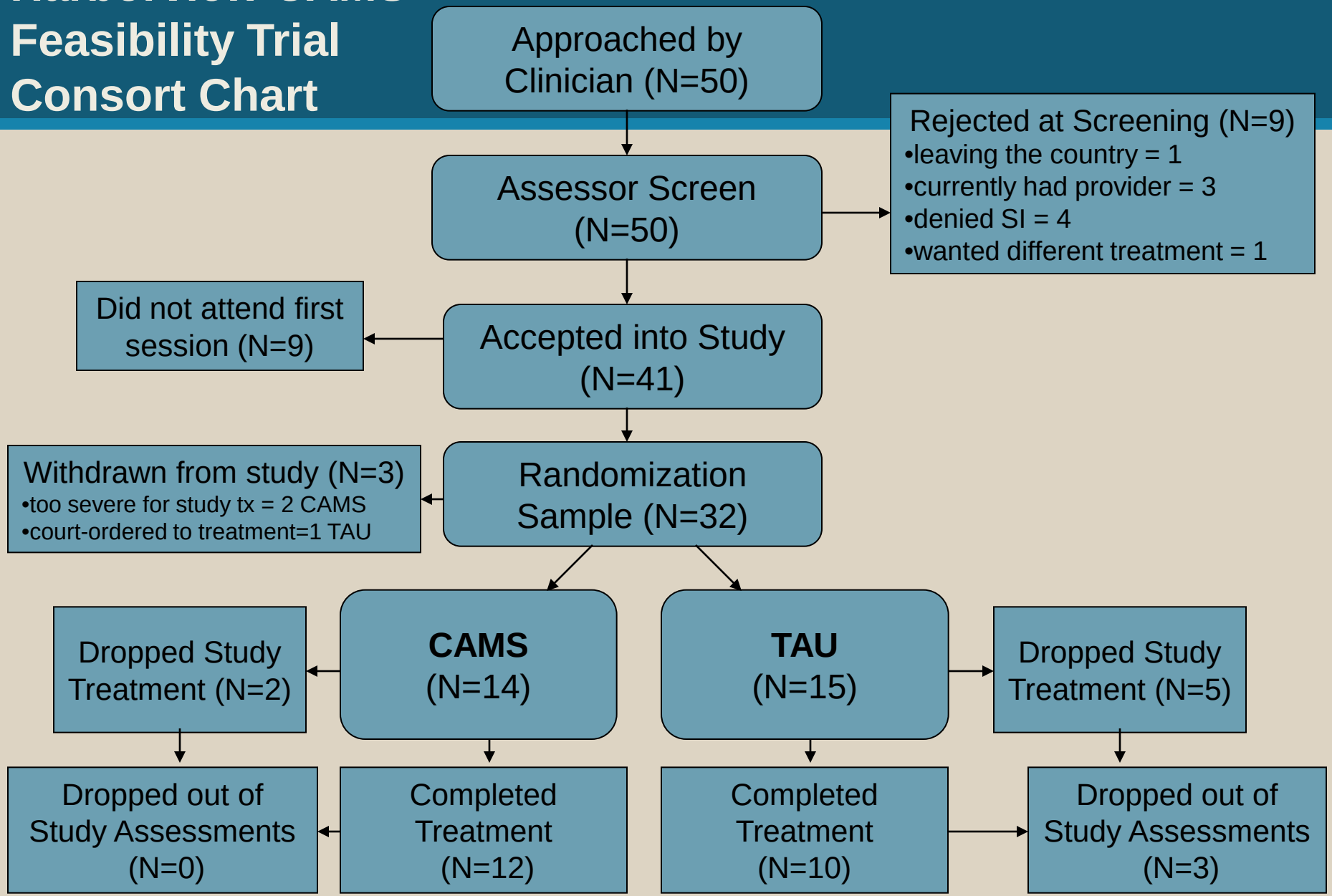


Collaborative Stance in CAMS

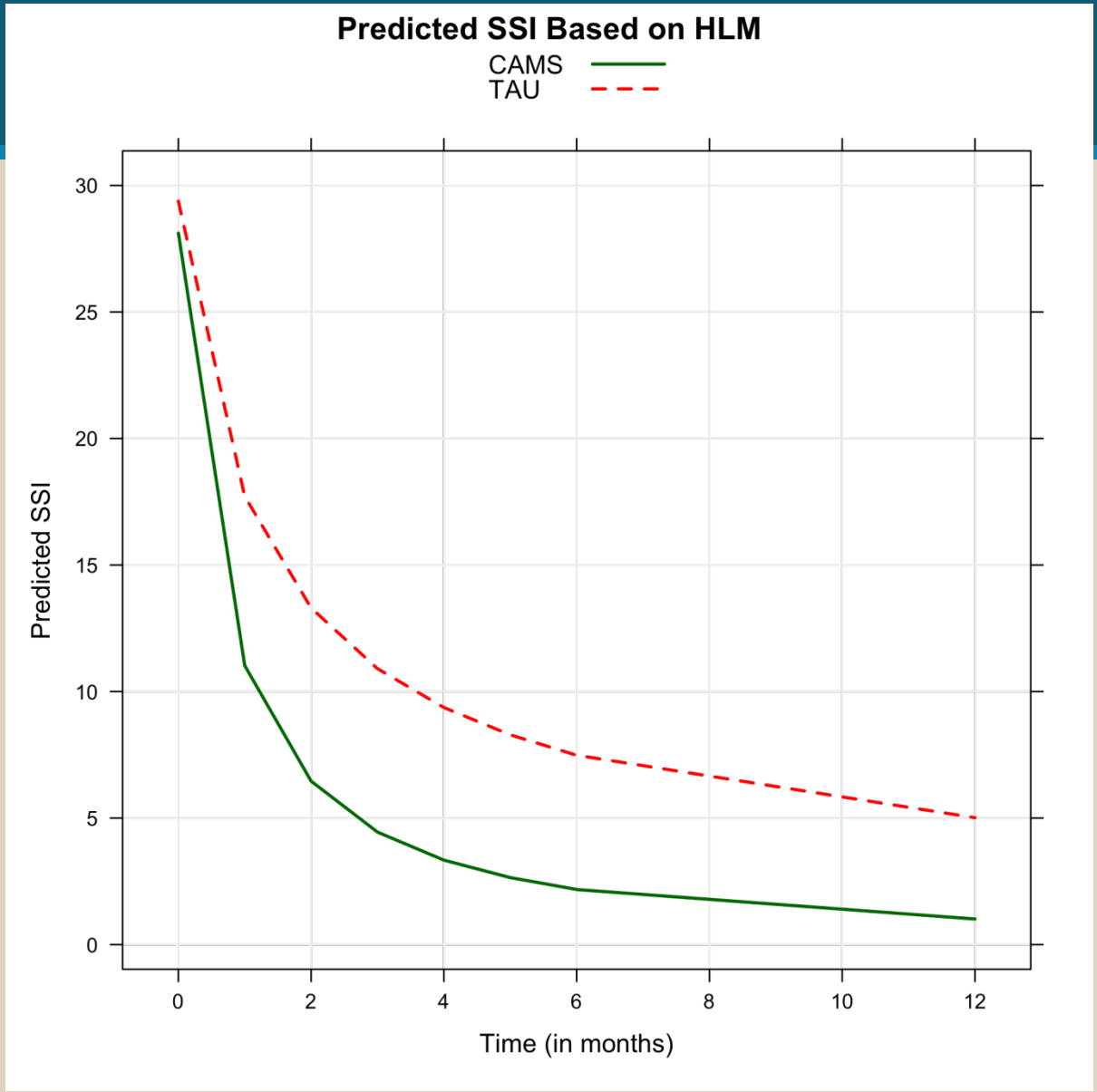
- Want to directly demonstrate to client that you empathize with the patient's suicidal wish
  - "You have everything to gain and nothing to lose from participating in this potentially life-saving treatment".
  - You can always kill yourself later.
- At the same time, clarify when you would have to take action that they might not choose – know your personal and clinic limits
  - If they won't participate in treatment…

  OR
  - If they say they can't control their impulses…

Harborview CAMS Feasibility Trial Consort Chart



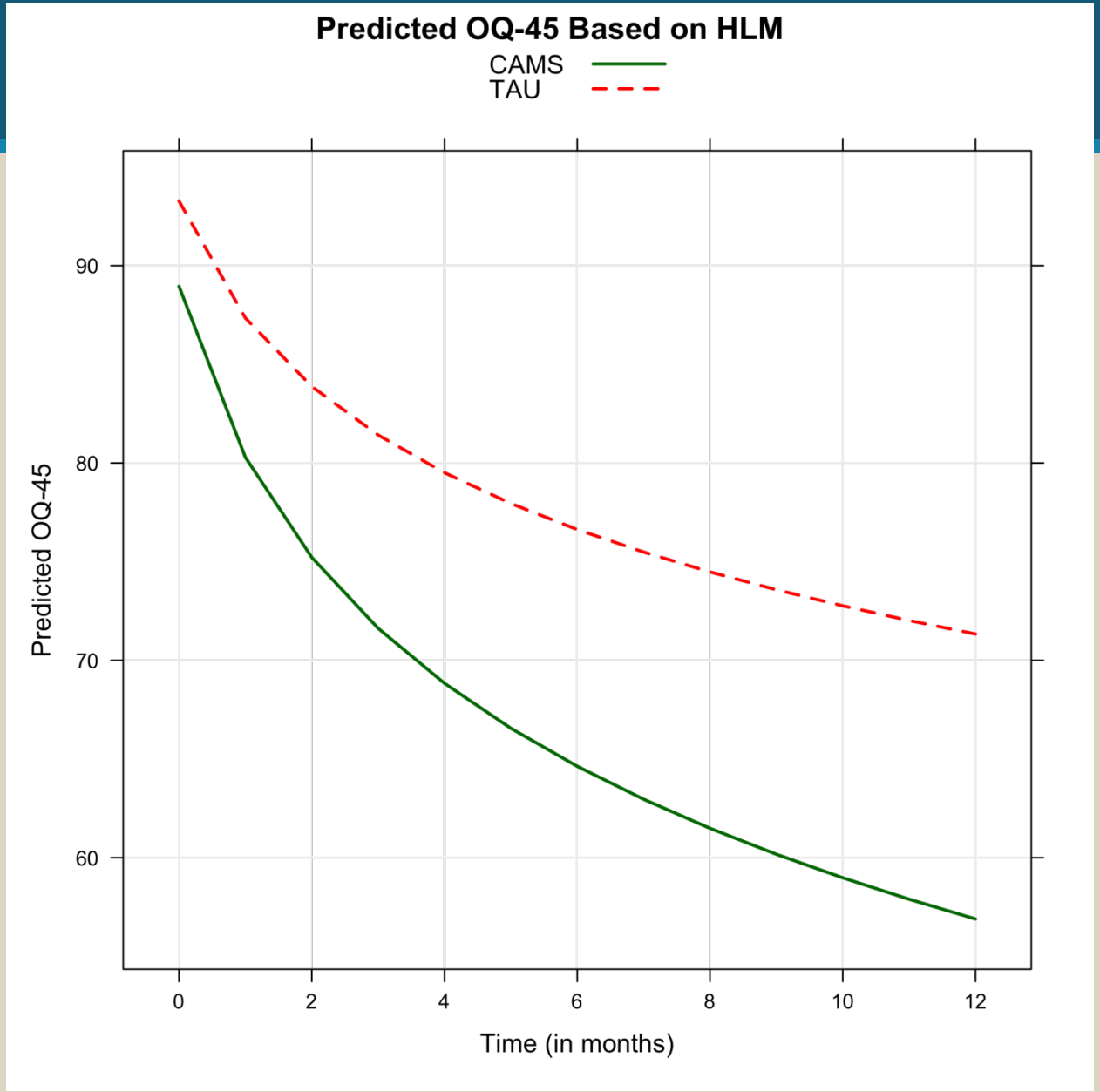
Results for Suicidal Ideation



Bayesian Poisson HLM (because many zeros)

Posterior mean=-0.62
95% CI: -1.19 - -0.04

Results on Overall Symptom Distress

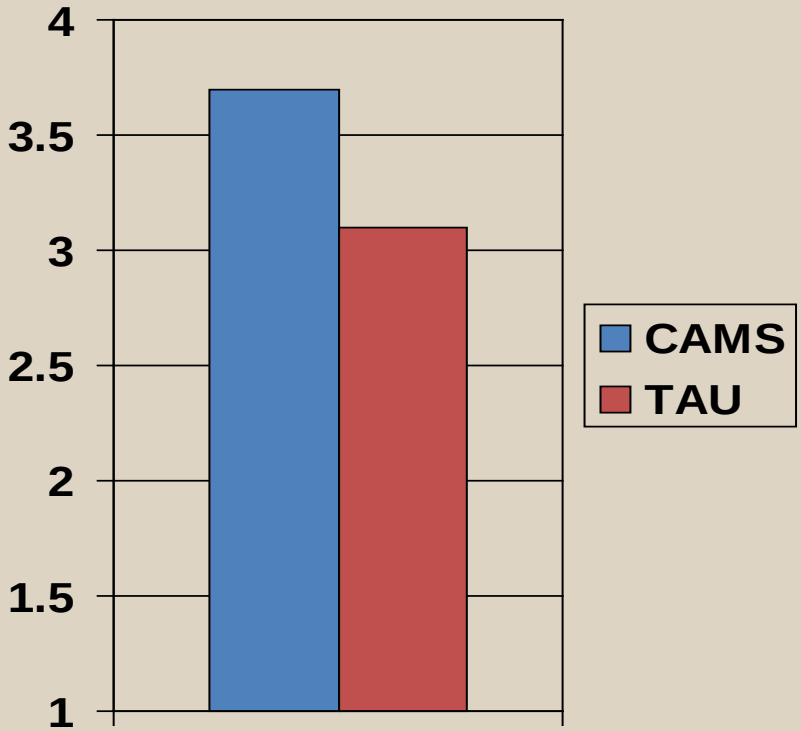


Standard HLM
t=-1.19 p=0.24

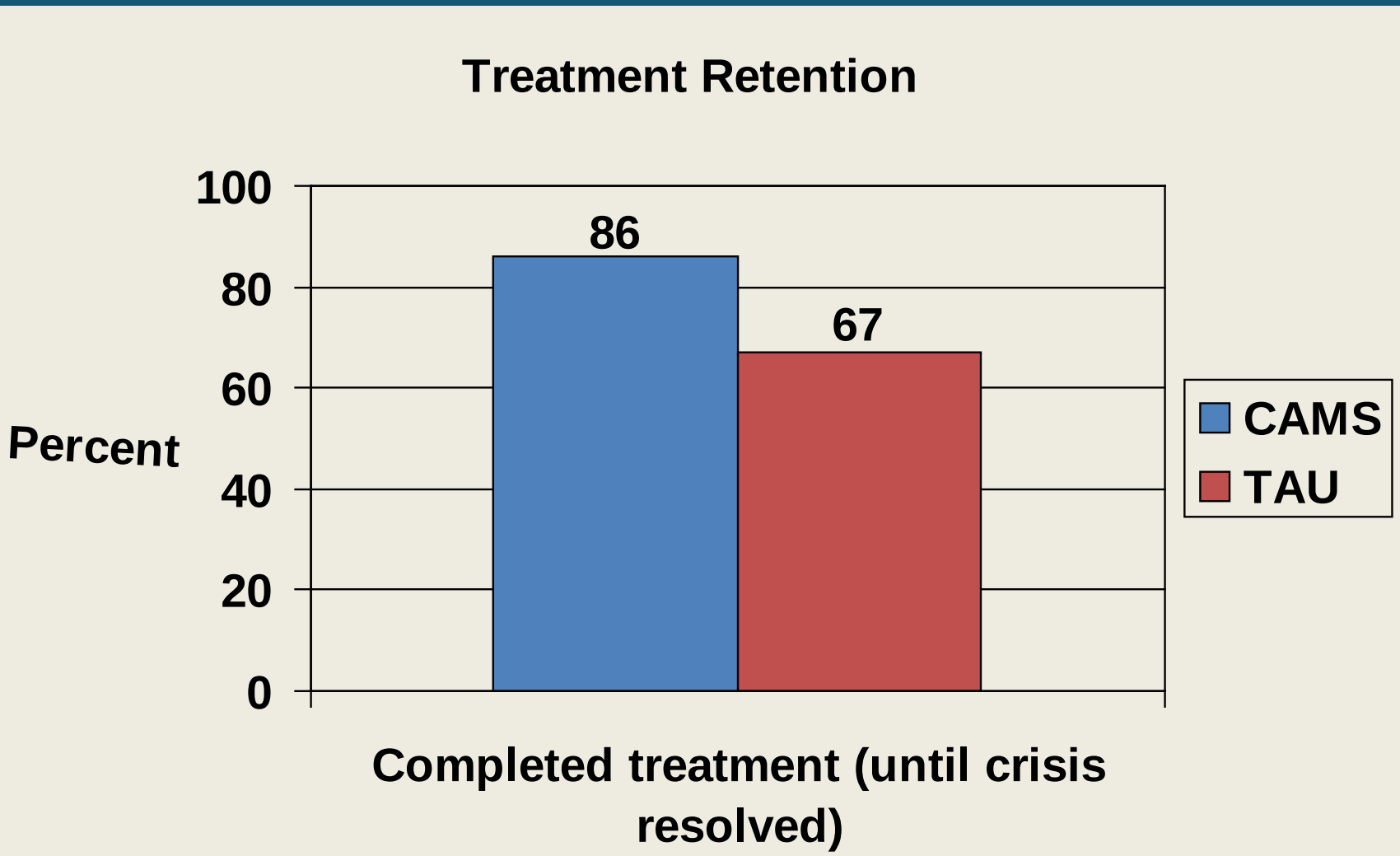
Client Satisfaction

Average client satisfaction was high for both treatments (range 1-4).

Satisfaction higher for the CAMS treatment condition



t(24)=-2.76 p=.01



Total sessions ranged from low of 1 to high of 16 sessions:
CAMS = 2 to 16 sessions (mean = 8.5), 7% subject had < 3 sessions
TAU = 1 to 11 sessions (mean = 4.5), 53% subjects had < 3 sessions

In summary

1. There are relatively few clinical trials for treatments for suicidality.
2. Standard of care interventions such as inpatient and anti-depressants do not have strong support.
3. Psychotherapy – particularly CBT and DBT have support.
4. Caring letters alone have support.
5. Psychotherapy emphasizes collaboration and directly treating suicidality. Perhaps this makes them more effective?

Questions?