



FORSCHUNGS UND
BEHANDLUNGSZENTRUM FÜR
PSYCHISCHE GESUNDHEIT



Psychotherapie suizidaler Patienten: *Mythen vs. Fakten*

Dr. Tobias Teismann

RUHR-UNIVERSITÄT BOCHUM

Gliederung

- **Risikoabschätzung**
- Krisenintervention
- Psychotherapie

Mythos

A marble statue of a man, likely a classical Greek or Roman figure, shown from the waist up. He is holding a dagger in his right hand, with the tip pointing towards his chest. His left arm is bent, and his hand is near his waist. The statue is set against a dark background.

Suizide sind vorhersehbar.

Risk Factors for Suicidal Thoughts and Behaviors: A Meta-Analysis of 50 Years of Research

Joseph C. Franklin and Jessica D. Ribeiro
Vanderbilt University and Harvard University

Kate H. Bentley
Boston University

Xieying Huang and Katherine M. Musacchio
Vanderbilt University

Bernard P. Chang
Columbia University Medical Center

Kathryn R. Fox
Harvard University

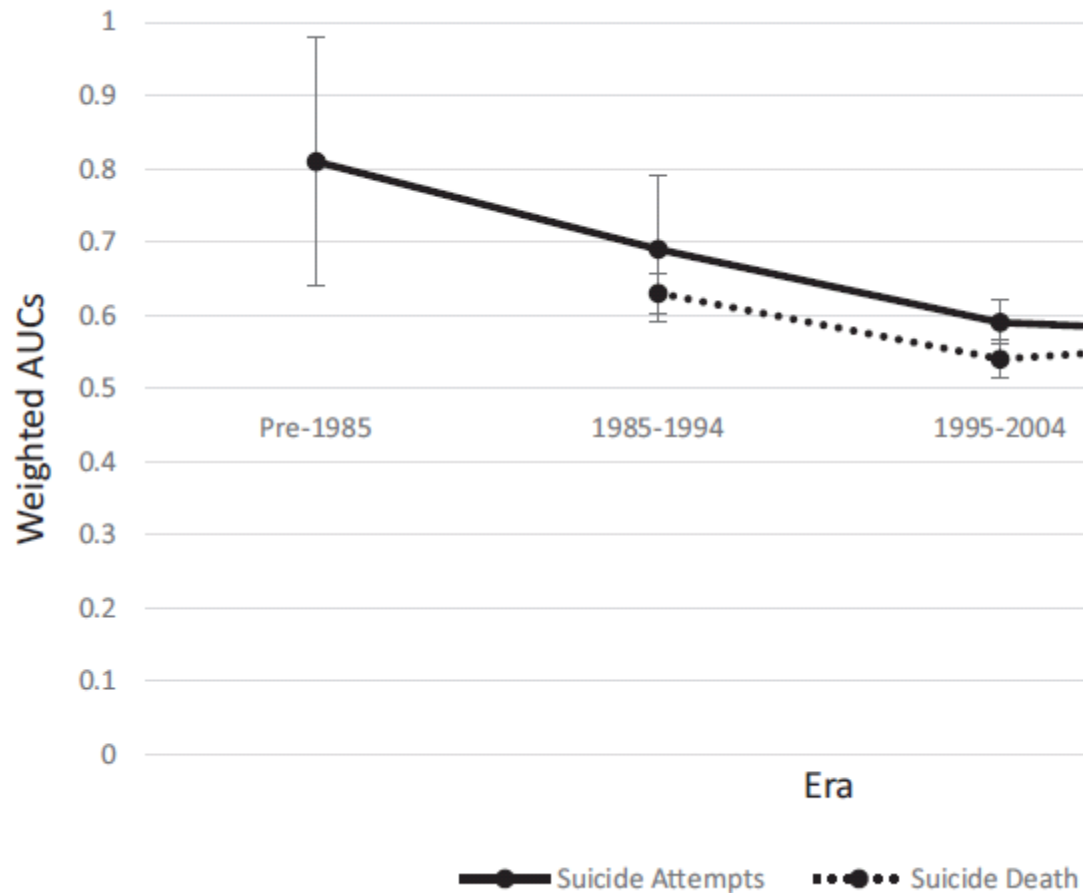
Evan M. Kleiman
Harvard University

Adam C. Jaroszewski
Harvard University

Matthew K. Nock
Harvard University

RUB

Psychological Bulletin
2017, Vol. 143, No. 2, 187–232



Risikofaktoren

1. Vorangegangene stationäre Behandlung
2. Suizidversuch in der Vorgeschichte
3. Suizidgedanken
4. Niedriger sozioökonomischer Status
5. Belastende Lebensereignisse

Risikoalgorithmen *statt* Risikofaktoren

File Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe

How artificial intelligence will s... x +

https://news.fsu.edu/news/health-medicine/2017/02/28/how-artificial-intelligence-save-lives-21st-century/?utm_content=buffer5e0678utm_medium=social&utm_source=twitter.com&utm_campaign=buffer

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HOME / NEWS / HEALTH & MEDICINE / HOW ARTIFICIAL INTELLIGENCE WILL SAVE LIVES IN THE 21ST CENTURY

How artificial intelligence will save lives in the 21st century

BY: DAVE HELLER | PUBLISHED: FEBRUARY 28, 2017 | 1:45 PM | SHARE:

Predicting Risk of Suicide Attempts Over Time Through Machine Learning

Colin G. Walsh^{1,2,3}, Jessica D. Ribeiro⁴, and Joseph C. Franklin⁴

¹Department of Biomedical Informatics, Vanderbilt University Medical Center; ²Department of Medicine, Vanderbilt University Medical Center; ³Department of Psychiatry, Vanderbilt University Medical Center; and ⁴Department of Psychology, Florida State University

Clinical Psychological Science
1-13
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sagepub.com/journalsPermissions.nav
DOI: 10.1177/216772617691560
www.psychologicalscience.org/CPS
SAGE



FSU Psychology researcher Jessica Ribeiro

Abstract
Traditional approaches to the prediction of suicide attempts have limited the accuracy and scale of risk detection for these dangerous behaviors. We sought to overcome these limitations by applying machine learning to electronic health records within a large medical database. Participants were 5,167 adult patients with a claim code for self-injury (i.e., ICD-9, E95X); expert review of records determined that 3,250 patients made a suicide attempt (i.e., cases), and 1,917 patients engaged in self-injury that was nonsuicidal, accidental, or nonverifiable (i.e., controls). We developed machine learning algorithms that accurately predicted future suicide attempts (AUC = 0.84, precision = 0.79, recall = 0.95, Brier score = 0.14). Moreover, accuracy improved from 720 days to 7 days before the suicide attempt, and predictor importance shifted across time. These findings represent a step toward accurate and scalable risk detection and provide insight into how suicide attempt risk shifts over time.

The study offers a fascinating finding: machine learning — a future frontier for artificial intelligence — can predict with 80-90 percent accuracy whether someone will attempt suicide as far off as two years into the future. The

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- Military service is a bridge to better pay for some women
- Florida State welcomes education policy expert Sara Goldrick-Rab for lecture
- FSU lecture to explore Germany's refugee challenge
- 2016 Florida Book Awards Winners Announced
- Policy Pub looks at sea level rise and how to deal with it

RECOMMENDED STORIES

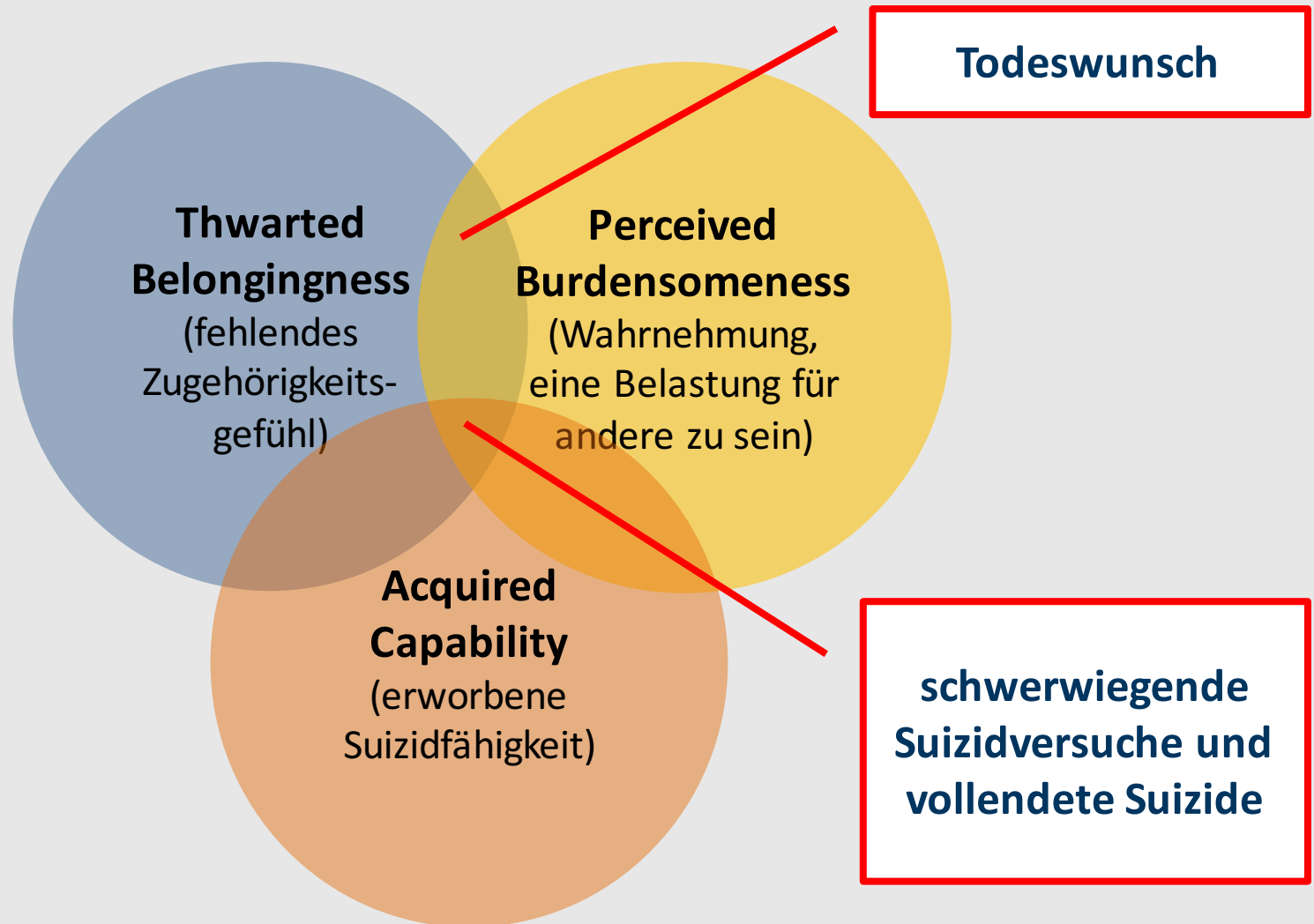
- FSU wins prestigious award for international education
- The next frontier: FSU undergrads among first to use advanced gene editing technology

Warten auf sb.scorecardresearch.com...

Start

DE 12:01 10.03.2017

Interpersonale Theorie suizidalen Verhaltens (Joiner 2005)



A systematic review of the predictions of the Interpersonal–Psychological Theory of Suicidal Behavior

Jennifer Ma *, Philip J. Batterham, Alison L. Cleave, Jin Han

Clinical Psychology Review 46 (2016) 34–45

- PB – Suizidgedanken; 69 Studien: **83%** theoriekonform
- TB – Suizidgedanken; 55 Studien: **40%** theoriekonform
- PB x TB – Suizidgedanken; 12 Studien: **67%** theoriekonform
- PB x TB x AC – Suizidversuche; 7 Studien: **43%** theoriekonform

Was muss abgeklärt werden?

Psychische Störung (akut/lifetime)
Lebenssituation
Krisenhafte Ereignisse

Hoffnungslosigkeit
Soziale Isolation
Eindruck, eine Last zu sein,
Eindruck, gefangen zu sein,
Impulsivität, Selbstkontrolle,
Furchtlosigkeit

Suizidgedanken
Suizidplan
Suizidversuche
Selbstverletzungen

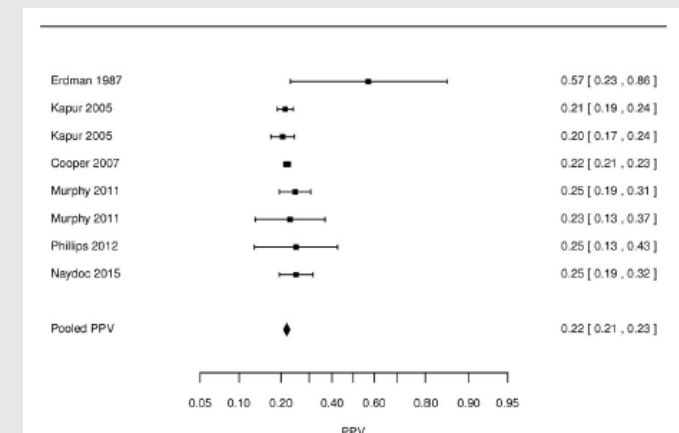
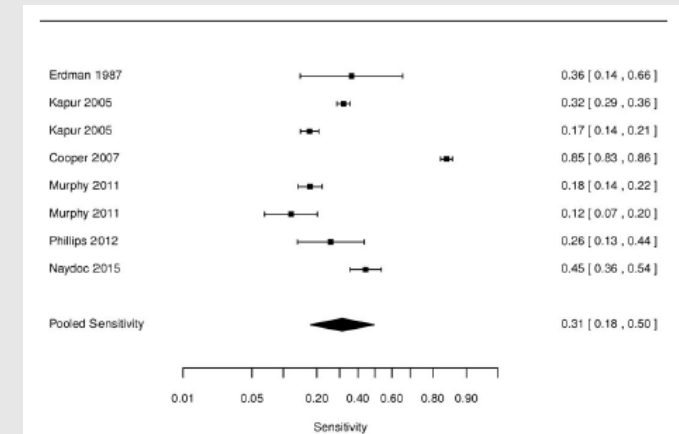
Schutzfaktoren
Ressourcen

Accuracy of Clinician Predictions of Future Self-Harm: A Systematic Review and Meta-Analysis of Predictive Studies

RACHEL WOODFORD, BMED, MATTHEW J. SPITTAL, PhD, ALLISON MILNER, PhD, KATIE MCGILL, DCLINPSYCH, NAVNEET KAPUR, FRCPsych, JANE PIRKIS, PhD, ALEX MITCHELL, FRCPsych, AND GREGORY CARTER, FRANZEP

Suicide and Life-Threatening Behavior
© 2017 The American Association of Suicidology

- **70%** der *Repeater* als „low risk“ klassifiziert
- **80%** der *Non-Repeater* als „high risk“ klassifiziert



Examination of Real-Time Fluctuations in Suicidal Ideation and Its Risk Factors: Results From Two Ecological Momentary Assessment Studies

Evan M. Kleiman
Harvard University

Brianna J. Turner
University of Victoria

Szymon Fedor
Massachusetts Institute of Technology

Eleanor E. Beale and Jeff C. Huffman
Massachusetts General Hospital, Boston, Massachusetts, and
Harvard Medical School

Journal of Abnormal Psychology

Matthew K. Nock
Harvard University, Massachusetts General Hospital, Boston, Massachusetts,
and Cambridge Computational Clinical Psychology Organization (C3PO)

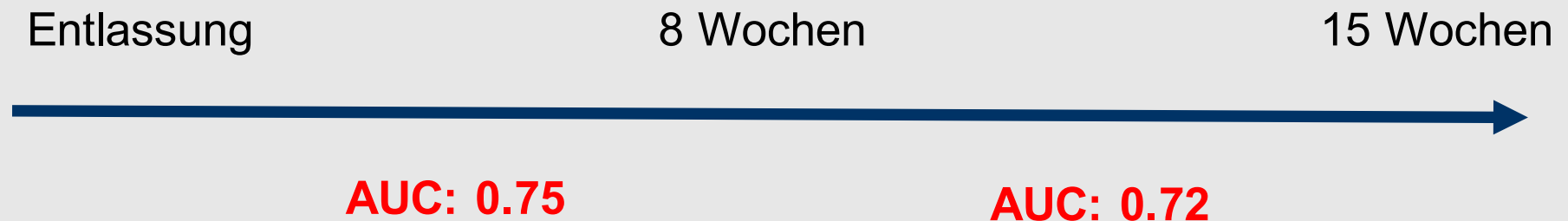


If You Want to Know, Consider Asking: How Likely Is It That Patients Will Hurt Themselves in the Future?

Jillian Peterson, Jennifer Skeem, and Sarah Manchak
University of California, Irvine

Psychological Assessment
2011, Vol. 23, No. 3, 626–634

*Auf einer Skala von 1 bis 5, [...], wie besorgt sollte Ihr
Therapeut darüber sein, dass Sie sich in den nächsten zwei
Monaten möglicherweise selbstverletzen?*



$N = 147$ Psychiatriepatienten

Mythos

Joiner, 2010

A marble statue of a man, likely a classical figure, shown from the waist up. He is holding a dagger in his right hand, with the tip pointing towards his chest. His left arm is bent, and his hand is near his head. The statue is set against a dark background.

**Suizidale Personen berichten nicht von
Zukunftsplänen.**

The Internal Suicide Debate Hypothesis: Exploring the Life versus Death Struggle

KEITH M. HARRIS, PhD, JOHN P. McLEAN, PhD, JEANIE SHEFFIELD, PhD,
AND DAVID JOBES, PhD, ABPP

Suicide and Life-Threatening Behavior 40(2) April 2010

- $N = 1016$ Online-Sample
- **66.5%** berichten „internal suicide debate“
- **94.1%** der Hoch-Suizidalen berichten „internal suicide debate“

Recognising and responding to suicidal crisis within family and social networks: qualitative study

Christabel Owens *principal healthcare scientist*¹ *honorary senior research fellow*², Gareth Owen *research fellow*², Judith Belam *lay consultant*³, Keith Lloyd *professor of psychological medicine*⁴, Frances Rapport *professor of qualitative health research*⁴, Jenny Donovan *professor of social medicine*⁵, Helen Lambert *reader in medical anthropology*⁵

BMJ 2011;343:d5801 doi: 10.1136/bmj.d5801

Non-disclosure of distress:

Personality, social pressures, and lack of emotional literacy

Shame and embarrassment

Fear of burdening significant others

Ineffective, oblique, or ambiguous communications, especially associated with alcohol, ambivalence, or mental instability

*Widersprüchliche Aussagen &
Verhaltensweisen haben in Sicherheit
gewogen und entschiedeneres Vorgehen
verhindert*

Non-

Awk

Fear

Resp

Fear

Fear

Confidentiality

Fear of alarming others

Loyalty to distressed person: respecting wishes "not to tell" and not "grassing"

Integrating Motivational Interviewing and Self-Determination Theory With Cognitive Behavioral Therapy to Prevent Suicide

Peter C. Britton, *Department of Veteran Affairs Medical Center, Canandaigua, NY, and*

University of Rochester Medical Center

Heather Patrick, *University of Rochester Medical Center*

Amy Wenzel, *University of Pennsylvania*

Geoffrey C. Williams, *University of Rochester Medical Center*

Cognitive and Behavioral Practice 18 (2011) 16–27

Gefühle sind
manuskriptbar
→ Ruhe

Last für die
Familie

Fühle mich
nutzlos

Einsamkeit
wäre
vorüber

Susan würde
sich vielleicht
auch etwas
antworten.

Ben würde
es nicht
verstehen!

Was passiert
mit Bert?!

Angst mit
Behinderung
zu überleben

Mythos

Sonneck et al., 2012



**Wenn man jemanden auf Suizidgedanken
oder -pläne hin anspricht, bringt man
ihn erst auf die Idee, sich umzubringen.**

Physicians' Characteristics Associated with Exploring Suicide Risk among Patients with Depression: A French Panel Survey of General Practitioners

Aur lie Bocquier^{1,2,3*}, Elodie Pambrun^{4,5}, H l ne Dumesnil^{1,2,3}, Patrick Villani², H l ne Verdoux^{4,5}, Pierre Verger^{1,2,3}

PLOS ONE 2013 | Volume 8 | Issue 12

	Never	Sometimes	Often	Very often
Presence of suicidal ideation (n = 1243)	19 (1.5%)	149 (12.0%)	86.4%	
Intent to commit suicide (n = 1244)	51 (4.1%)	294 (23.6%)	72.3%	
Suicide plan (n = 1245)	222 (17.8%)	356 (28.6%)	53.6%	
Setting one's affairs in order (n = 1241)	519 (41.8%)	375 (30.2%)	28.0%	
Having written a letter (n = 1244)	718 (57.7%)	315 (25.3%)	17.0%	

9.5%: Fragen nach Suizidgedanken triggert suizidales Verhalten

Does Assessing Suicidality Frequently and Repeatedly Cause Harm?

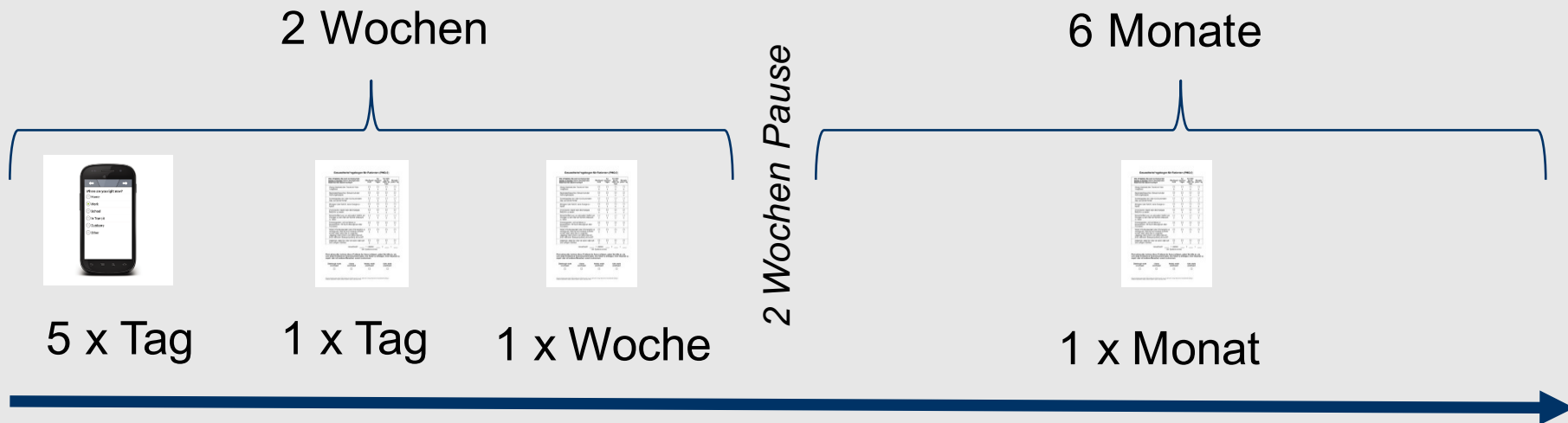
A Randomized Control Study

Mary Kate Law and R. Michael Furr
Wake Forest University

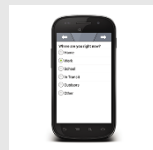
Elizabeth Mayfield Arnold
Wake Forest School of Medicine

Malek Mneimne, Caroline Jaquett, and William Fleson
Wake Forest University

Psychological Assessment
2015, Vol. 27, No. 4, 1171–1181

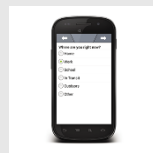


Gruppe 1:
($n = 129$)



mit 2 Suiziditems

Gruppe 2:
($n = 119$)



ohne Suiziditems

Keine Unterschiede:
Suizidgedanken
Suizidversuche
Selbstverletzungen

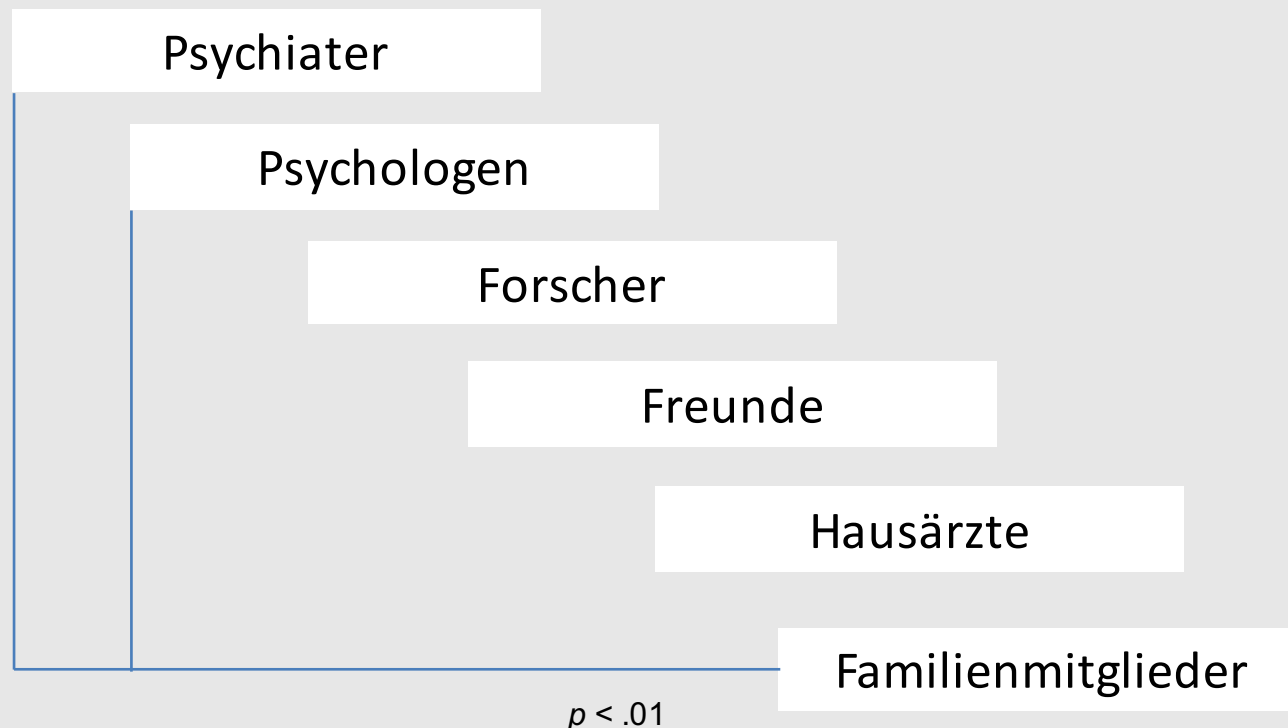
"Are You Having Thoughts of Suicide?" Examining Experiences With Disclosing and Denying Suicidal Ideation

Melanie A. Hom, Ian H. Stanley, Matthew C. Podlogar, and Thomas E. Joiner Jr.

JOURNAL OF CLINICAL PSYCHOLOGY, Vol. 00(0), 1–11 (2017)

$N = 306$ Studierende mit lifetime Suizidgedanken
 $n = 192$ wurden jemals nach Suizidgedanken gefragt

Akkurate Antworten bekamen ...



Gliederung

- Risikoabschätzung
- **Krisenintervention**
- Psychotherapie

Mythos

Sonneck et al., 2012

A classical marble statue of a muscular male figure, possibly a mythological hero, holding a sword and a severed head. The figure is shown from the waist up, with a powerful build and detailed musculature. He holds a sword in his right hand and a severed head in his left. The background is dark, making the light-colored marble stand out.

**Wer sich wirklich umbringen will, ist
nicht aufzuhalten.**

Where Are They Now?

A Follow-up Study of Suicide Attempters from the Golden Gate Bridge

Richard H. Seiden, Ph.D., M.P.H.

University of California at Berkeley



- 64 Todesfälle (12.5%) in den folgenden 34 Jahren (49% natürlich, 11% Unfall, 40% Suizid)
- 95% sterben in der Folge nicht an einem Suizid!

Effects of legislation restricting pack sizes of paracetamol and salicylate on self poisoning in the United Kingdom: before and after study

Keith Hawton, Ellen Townsend, Jonathan Deeks, Louis Appleby, David Gunnell, Olive Bennewith, Jayne Cooper

BMJ VOLUME 322 19 MAY 2001

Drug	No (%) of deaths			% change in incidence‡ (95% CI)	P value
	Penultimate 12 months before change (n=2255)	12 months before change (n=2234)	12 months after change (n=2086)†		
Paracetamol:					
Alone	203 (9.0)	185 (8.3)	147 (7.0)	-21 (-34 to -5)	0.01
With other drugs	59 (2.6)	56 (2.5)	56 (2.7)	2 (-26 to 39)	0.9
Salicylates:					
Alone	35 (1.6)	29 (1.3)	16 (0.8)	-48 (-70 to -11)	0.02
With other drugs	4 (0.2)	8 (0.4)	3 (0.1)	-48 (-85 to 81)	0.3
Paracetamol and salicylates	11 (0.5)	5 (0.2)	9 (0.4)	18 (-47 to 163)	0.7

Assessing the Efficacy of Restricting Access to Barbecue Charcoal for Suicide Prevention in Taiwan: A Community-Based Intervention Trial

PLOS ONE | DOI:10.1371/journal.pone.0133809

Ying-Yeh Chen^{1,2}, Feng Chen³, Shu-Sen Chang⁴, Jacky Wong^{5,6}, Paul SF Yip^{5,6*}

Suicide methods	Period	Intervention site		Control sites			
		New Taipei City		Taipei City		Kaohsiung City	
		N	Rate	N	Rate	N	Rate
Charcoal burning	Pre-intervention	808	6.2	305	3.5	490	5.3
	Post-Intervention	256	3.9	111	2.5	219	4.7
Non-charcoal burning	Pre-intervention	1598	12.3	945	10.8	1381	14.9
	Post-Intervention	783	11.9	471	10.6	684	14.8
All methods	Pre-intervention	2406	18.6	1250	14.3	1871	20.2
	Post-Intervention	1039	15.8	582	13.1	903	19.5

Kaohsiung

Belief in the Inevitability of Suicide: Results from a National Survey

MATTHEW MILLER, MD, MPH, ScD, DEBORAH AZRAEL, MS, PhD,
AND DAVID HEMENWAY, PhD

Suicide and Life-Threatening Behavior 36(1) February 2006

Welche Wirkung hätte eine Absperrung für die mehr als 1.000 Menschen gehabt, die von der Golden Gate Bridge gesprungen sind?

34%: *Alle* hätten sich auf andere Weise das Leben genommen.

40%: *Die meisten* hätten sich auf andere Weise das Leben genommen.

N = 2770

Motivational Interviewing for Means Restriction Counseling With Patients at Risk for Suicide

Peter C. Britton, VISN 2 Center of Excellence for Suicide Prevention,
Department of Veterans Affairs Medical Center, University of Rochester School of Medicine and Dentistry

Craig J. Bryan, National Center for Veterans Studies, University of Utah

Marcia Valenstein, University of Michigan Medical School, VISN 11 Serious Mental Illness
Treatment Resource and Evaluation Center, Department of Veterans Affairs Medical Center, Ann Arbor

Cognitive and Behavioral Practice 23 (2016) 51-61

Rational basiert auf zwei Prämissen:

(1.) Personen präferieren Suizidmethoden, zu denen sie leichten Zugang haben und

(2.) suizidale Krisen sind oftmals nur von kurzer Dauer.

Gliederung

- Risikoabschätzung
- Krisenintervention
- **Psychotherapie**

Mythos

A marble statue of Prometheus, a figure from Greek mythology, is shown from the chest up. He is depicted as a muscular man with a beard, holding a rock in his right hand, ready to throw it at his own liver. The statue is set against a dark background. The word "Mythos" is written in white text on a dark blue background at the top. A white text box with black text is overlaid on the bottom half of the image.

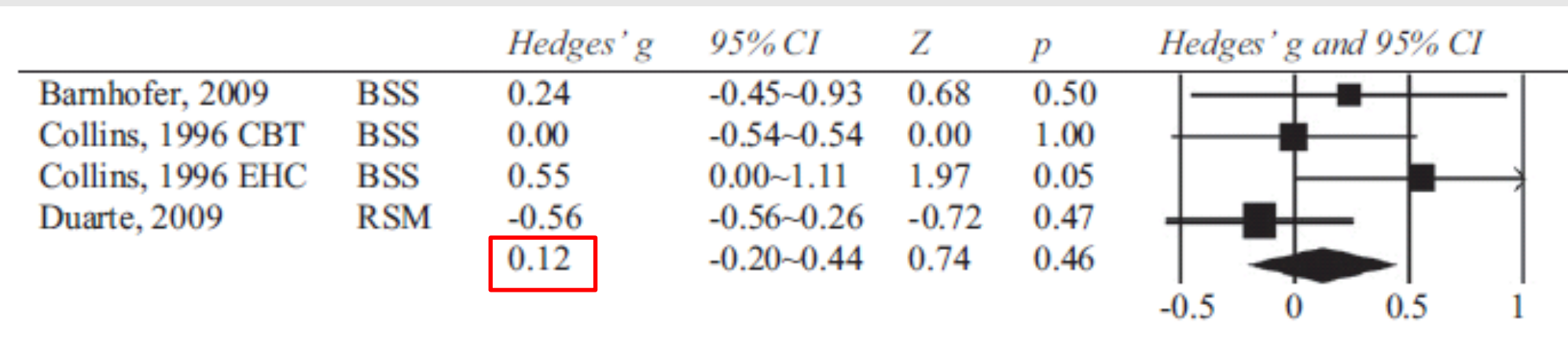
**Auf die Krisenintervention folgt die
Behandlung der Grunderkrankung.**

The effects of psychotherapy for adult depression on suicidality and hopelessness: A systematic review and meta-analysis

Pim Cuijpers^{a,b,*}, Derek P. de Beurs^{a,b}, Bregje A.J. van Spijker^{a,b,c}, Matthias Berking^d,
Gerhard Andersson^{e,f}, Ad J.F.M. Kerkhof^{a,b}

Journal of Affective Disorders 144 (2013) 183–190

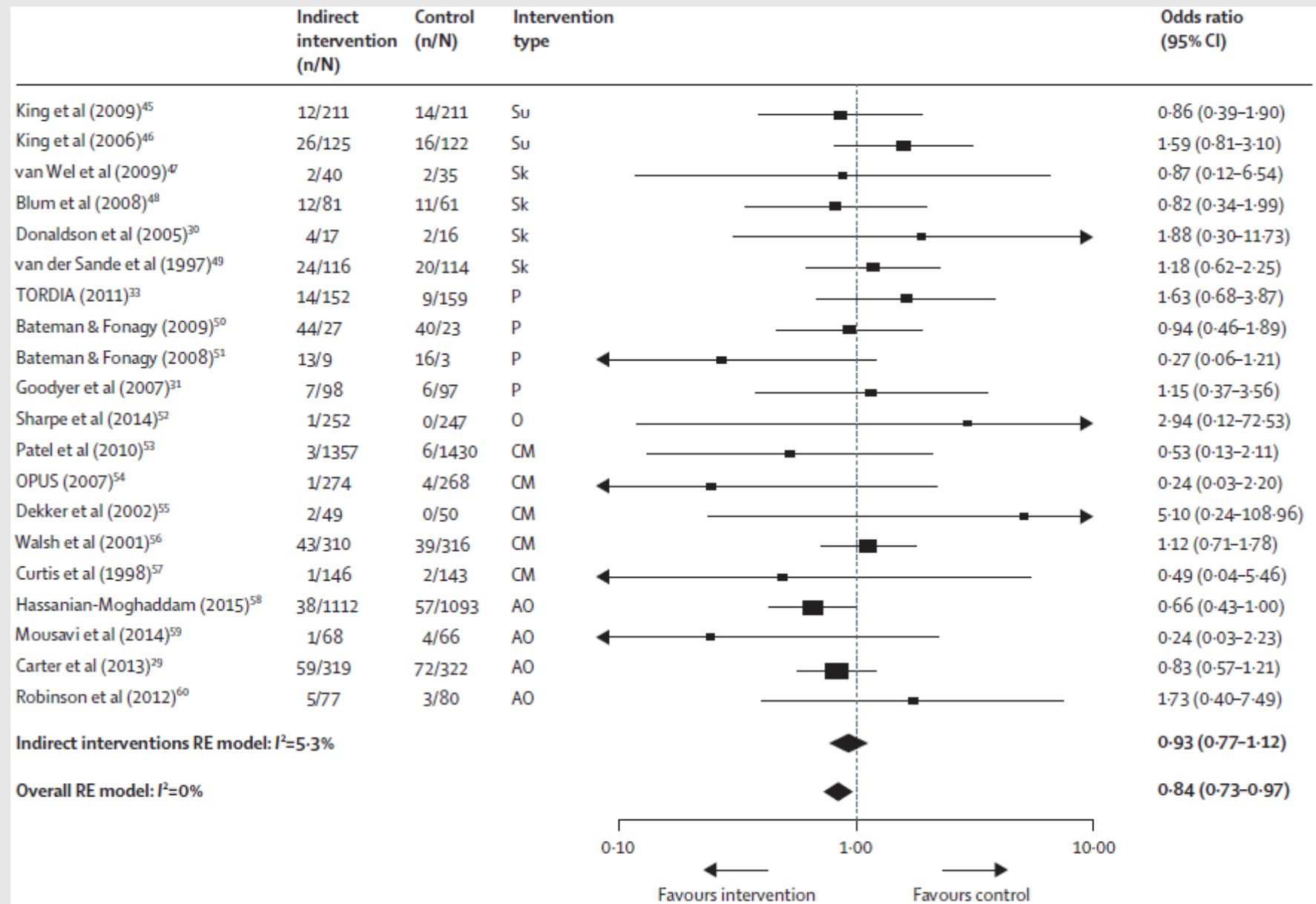
**Unklar, ob Depressionsbehandlung Einfluss
auf Suizidalität hat.
Bisherige Datenlage wenig überzeugend.**



Direct versus indirect psychosocial and behavioural interventions to prevent suicide and suicide attempts: a systematic review and meta-analysis

Lancet Psychiatry 2016;
3: 544-54

Esther L Meerwijk, Amrita Parekh, Maria A Oquendo, Elaine Allen, Linda S Franck, Kathryn A Lee



Is psychotherapy effective for reducing suicide attempt and non-suicidal self-injury rates? Meta-analysis and meta-regression of literature data

Raffaella Calati ^{a, b, *}, Philippe Courtet ^{a, b, c}

Journal of Psychiatric Research 79 (2016) 8–20

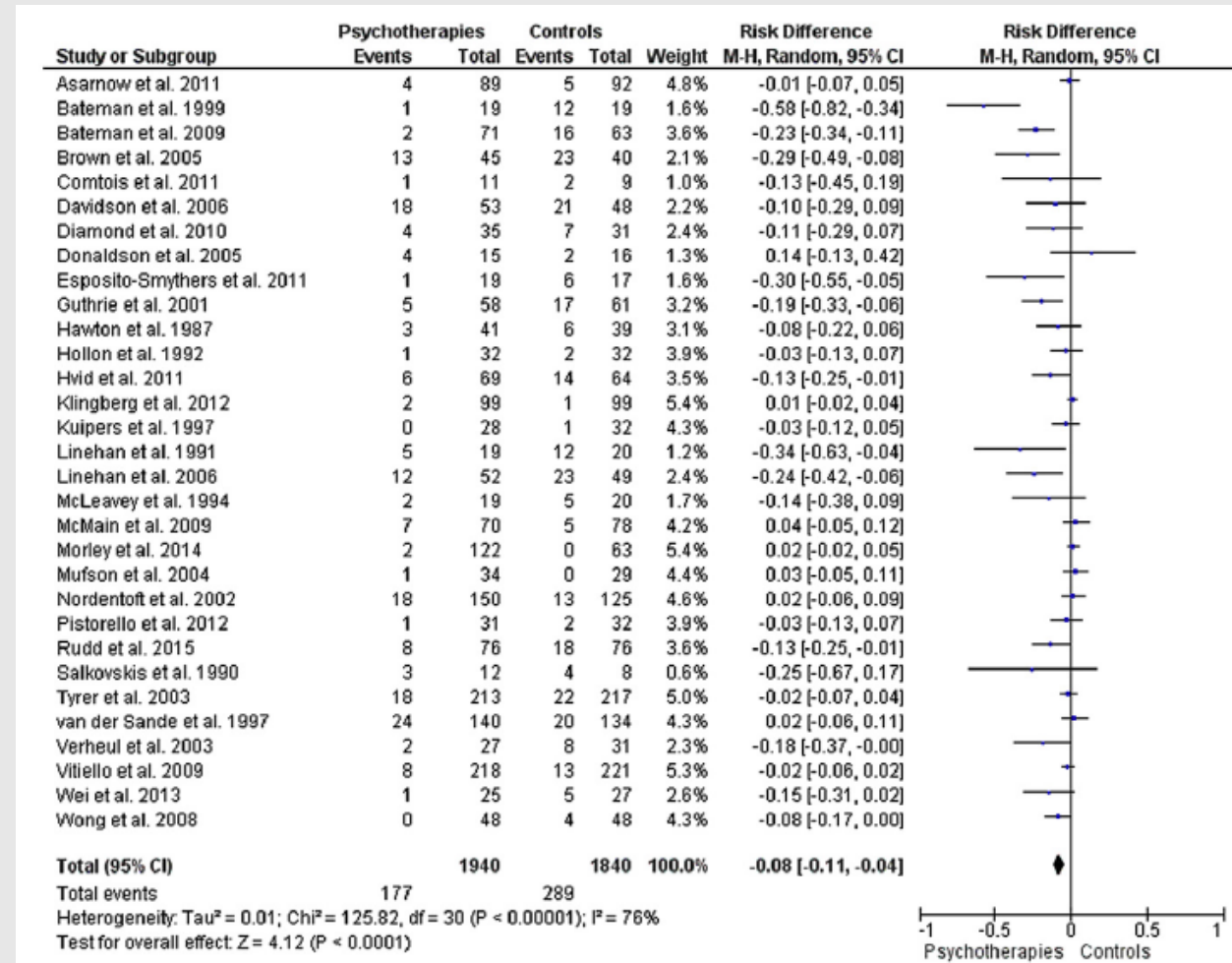
AV: Suizidversuch

N = 4114

PT > TAU: 9% vs. 16%

Frauen ↑

Intensive Behandlung ↑



Hawton K, Witt KG, Taylor Salisbury TL, Arensman E, Gunnell D, Hazell P, Townsend E, van Heeringen K

Cochrane Database of Systematic Reviews

CBT can result in fewer individuals repeating SH; however, the quality of this evidence, assessed using GRADE criteria, ranged between moderate and low. **DBT** for people with multiple episodes of SH/probable personality disorder may lead to a reduction in frequency of SH, but this finding is based on low quality evidence. Case management and remote contact interventions did not appear to have any benefits in terms of reducing repetition of SH. Other therapeutic approaches were mostly evaluated in single trials of moderate to very low quality such that the evidence relating to these interventions is inconclusive.

ASSIP (Gysin-Maillart & Michel, 2013)

- *Erste Sitzung:* Narratives Interview

Erzählen Sie doch bitte, wie es zu dem Suizidversuch kam ...?

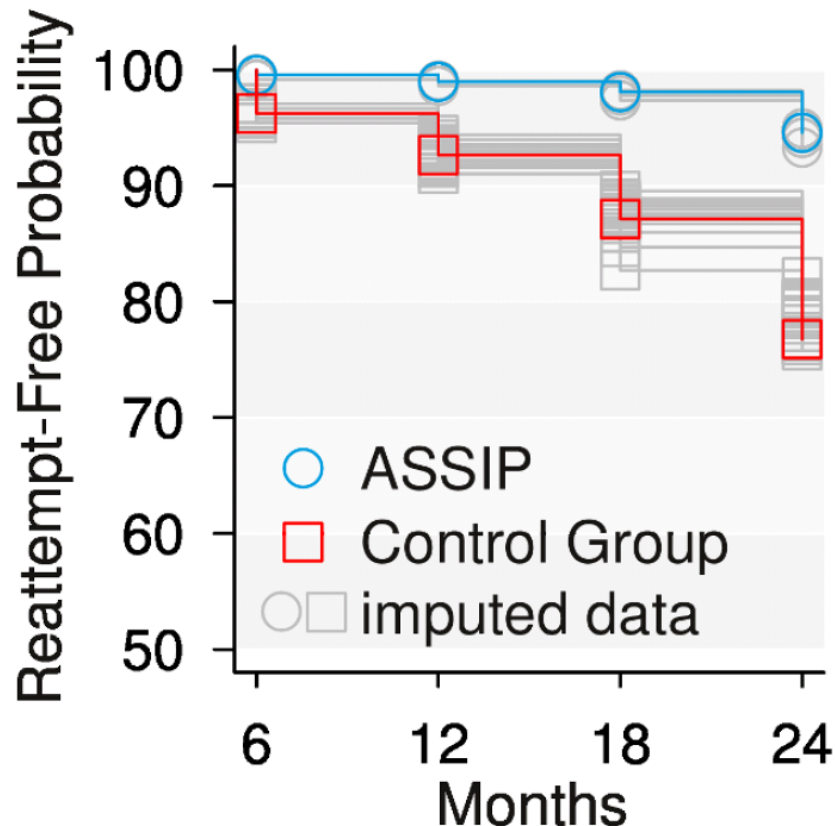
- *Zweite Sitzung:* Video-Playback
- *Dritte Sitzung:* Klärung der Muster, die zur suizidalen Krise führen / Hope-Leporello / Notfallplan
- *Vierte Sitzung:* Mini-Exposition
- Briefkontakt



A Novel Brief Therapy for Patients Who Attempt Suicide: A 24-months Follow-Up Randomized Controlled Study of the Attempted Suicide Short Intervention Program (ASSIP)

PLOS Medicine | DOI:10.1371/journal.pmed.1001968

Anja Gysin-Maillart¹, Simon Schwab², Leila Soravia², Millie Megert³, Konrad Michel^{1*}



- $N = 120$ Patienten (nach Suizidversuch)
- Alter ~ 38 Jahre
- 63% Depression
- ASSIP vs. TAU
- 3 Therapiesitzungen

Suizidversuche: ASSIP = **5 (8%)** vs. TAU = **16 (27%)**

Mythos

A marble statue of Prometheus, a figure from Greek mythology, is shown in a state of suffering. He is depicted as a muscular, nude man, bound by his right hand to a jagged rock. His left arm is bent, and his head is tilted back, showing a look of agony. The statue is set against a dark background. The word 'Mythos' is written in white text at the top, and a German sentence is overlaid in a white box at the bottom.

**Suizidale Krisen bedürfen der
medikamentösen (Mit-)Behandlung.**

Unipolare Depression

Langfassung

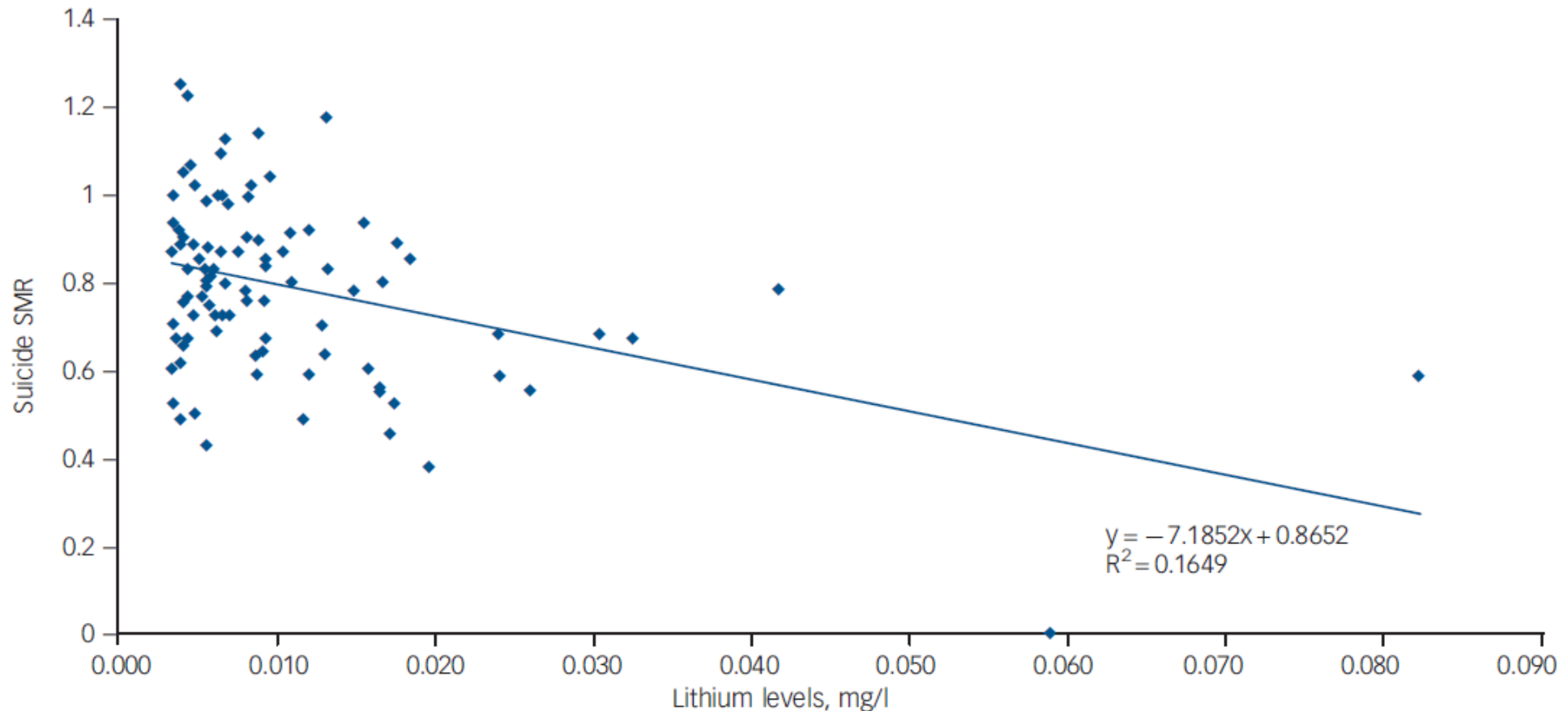
2. Auflage, 2015

Version 2

Empfehlung/Statement	Empfehlungsgrad
<u>3-116</u> Zur speziellen akuten Behandlung der Suizidalität sollten Antidepressiva nicht eingesetzt werden. LoE Ib: Metaanalysen [453; 626-630]	B
Empfehlung/Statement	Empfehlungsgrad
<u>3-120</u> Eine Akutbehandlung (möglichst < 14 Tage) mit einem Benzodiazepin kann bei suizidgefährdeten Patienten in Betracht gezogen werden. LoE Ib: Metaanalyse [1546]	0
Empfehlung/Statement	Empfehlungsgrad
<u>3-119</u> In der Rezidivprophylaxe bei suizidgefährdeten Patienten soll zur Reduzierung suizidaler Handlungen (Suizidversuche und Suizide) eine Medikation mit Lithium in Betracht gezogen werden. LoE Ia: Metaanalysen [529, 542, 543]	A

Lithium in drinking water and suicide mortality

Nestor D. Kapusta, Nilufar Mossaheb, Elmar Etzersdorfer, Gerald Hlavin, Kenneth Thau, Matthäus Willeit, Nicole Praschak-Rieder, Gernot Sonneck and Katharina Leithner-Dziubas



The British Journal of Psychiatry (2011)
198, 346–350. doi: 10.1192/bjp.bp.110.091041

**Vielen Dank für Ihre
Aufmerksamkeit!**

tobias.teismann@rub.de