The Implicit Emotional Evaluation of Death vs. Life in Persons with Acute Suicidal Ideation

Preliminary Findings from Newly Developed Versions of the Implicit Association Test

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Background

Prevention and Prediction of Suicidal Behaviour

Self-Report | Explicit, verbal self-report has limited reliability

More objective approaches to develop a potential suicide prediction scheme are needed.

Implicit Associations | Neuropsychological information processings

Based on network models, the implicit association test (IAT) was developed (Greenwald et al., 2003).

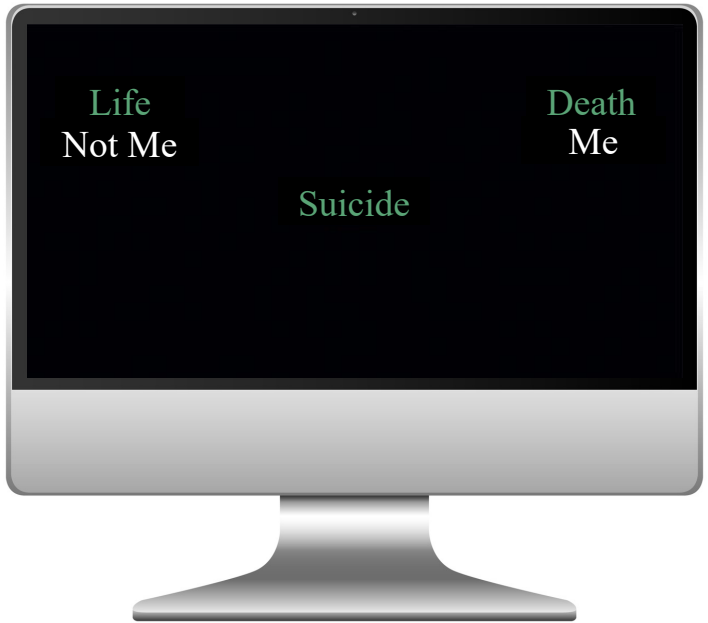
Background

“Implicit Association Test” (IAT)

Death IAT | Developed by Nock et al. (2010), also used in suicide research

Focus on implicit associations between “death” and “me” and “life” and ”me”

- Omits emotional evaluation of death and life
- Emotional pain, hopelessness important factors preceding suicide attempts (Klonsky et al., 2016)



Klonsky et al. (2016). *Annual Review of Clinical Psychology*; Nock et al. (2010). *Psychological Science*

Background

Activated Suicidal Mode

Suicidal Mode | Transition from suicidal ideation to suicidal behaviour (Bryan & Rudd, 2018; Rudd, 2000)

Positive attitudes toward suicide ⇢ significant impact on suicidal ideation and behaviour

(Eshun, 2003; Jeihooni et al., 2021; Otsuka et al., 2020; Sakamoto et al., 2006; Zemaitiene & Zaborskis, 2005)

Does the activated suicidal mode change the emotional evaluation of death and life?

⇢ Project 2019-01410

Eshun S. (2003). *Suicide & Life-threatening Behavior*; Khani Jeihooni et al. (2021). *BMC Psychiatry*; Otsuka et al. (2020). *Asian Journal of Psychiatry*; Rudd M. D. (2000). *Suicide & Life-threatening Behavior*; Sakamoto et al. (2006). *Psychiatry and Clinical Neurosciences*; Zemaitiene & Zaborskis (2005). *BMC Public Health*

Background

Personalised IAT Versions

First-person Perspective | Previous studies have personalised categories in the IAT (Houben & Wiers, 2007; Olson & Fazio, 2004)

"positive" and "negative" or "good" and "bad" ⇢ "I like" and "I don't like"

Counteracts normative implications of generic wording.

⇢ Our aim was to examine the implicit emotional proximity to death.

Houben & Wiers (2007). *Alcohol and Alcoholism*; Olson & Fazio (2004). *Journal of Personality and Social Psychology*

Introduction

Research Questions and Hypotheses

Research Question 1 | Are there differences in the implicit emotional evaluation of death between individuals with acute suicidal ideation and those without?

We assumed stronger implicit emotional appraisals of death in patients with currently acute suicidal ideation.

Research Question 2 | Is there a relationship between the implicit emotional evaluation of death and the intensity of suicidal ideation?

We assumed a positive correlation between implicitly and explicitly data.

Methods

IAT-S Versions

Three IAT Versions | Word assignment task

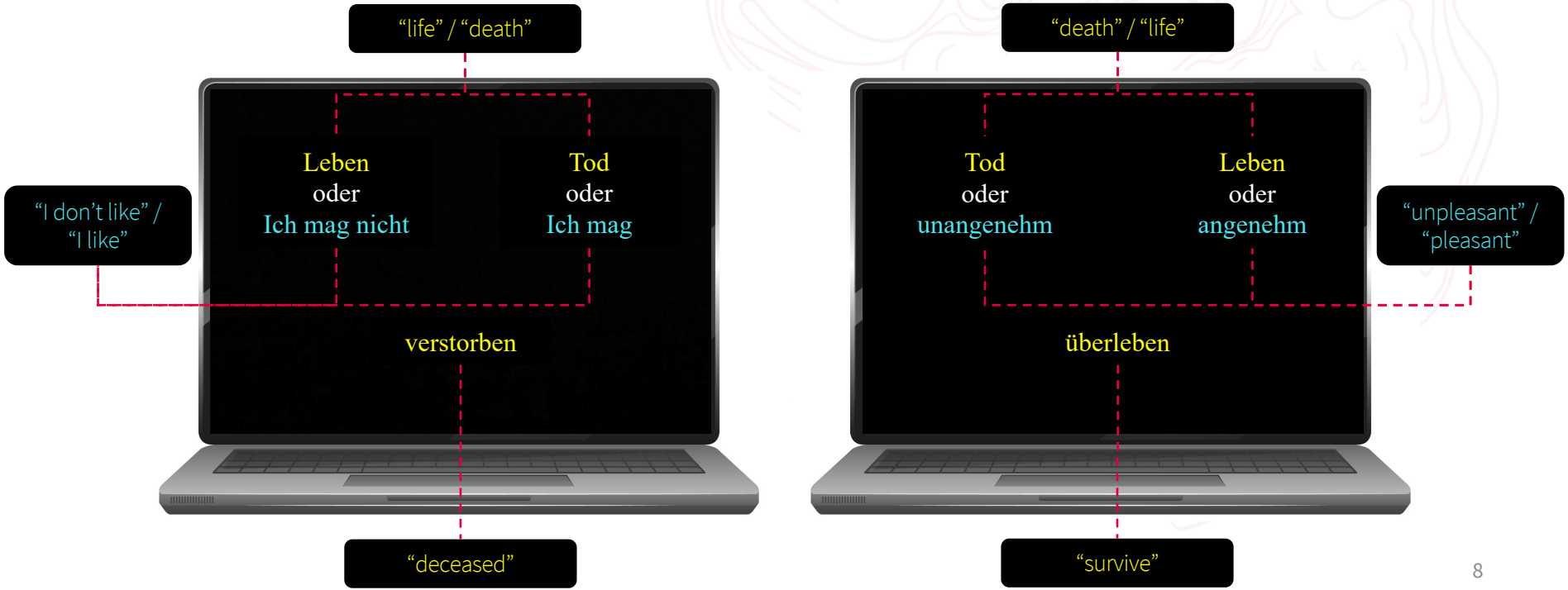
Versions	Version 01	Version 02	Version 03	Version 03 ⇢ Personalised version
	"death" / "life" and "me" / "not me" (Nock et al., 2010)	"death" / "life" and "pleasant" / "not pleasant"	"death" / "life" and "I like" / "I don't like"	

Newly developed

Methods

Stimuli

Example | Experimental blocks of our German IAT versions



Methods

Sample

Total Sample | *N* = 100 patients

Group	Suicide Ideators (SUID)	Clinical Controls (CLIN)
n	65	35
Age	*M* = 31.85, *SD* = 10.98	*M* = 39.00, *SD* = 12.50
Sex	f = 43, m = 21, d = 1	f = 19, m = 16

Suicide Ideators (SUID):
suicidal ideation within the last week

Clinical Controls (CLIN):
- no lifetime suicide attempt
- no suicide ideation for six months

(Preliminary) Results

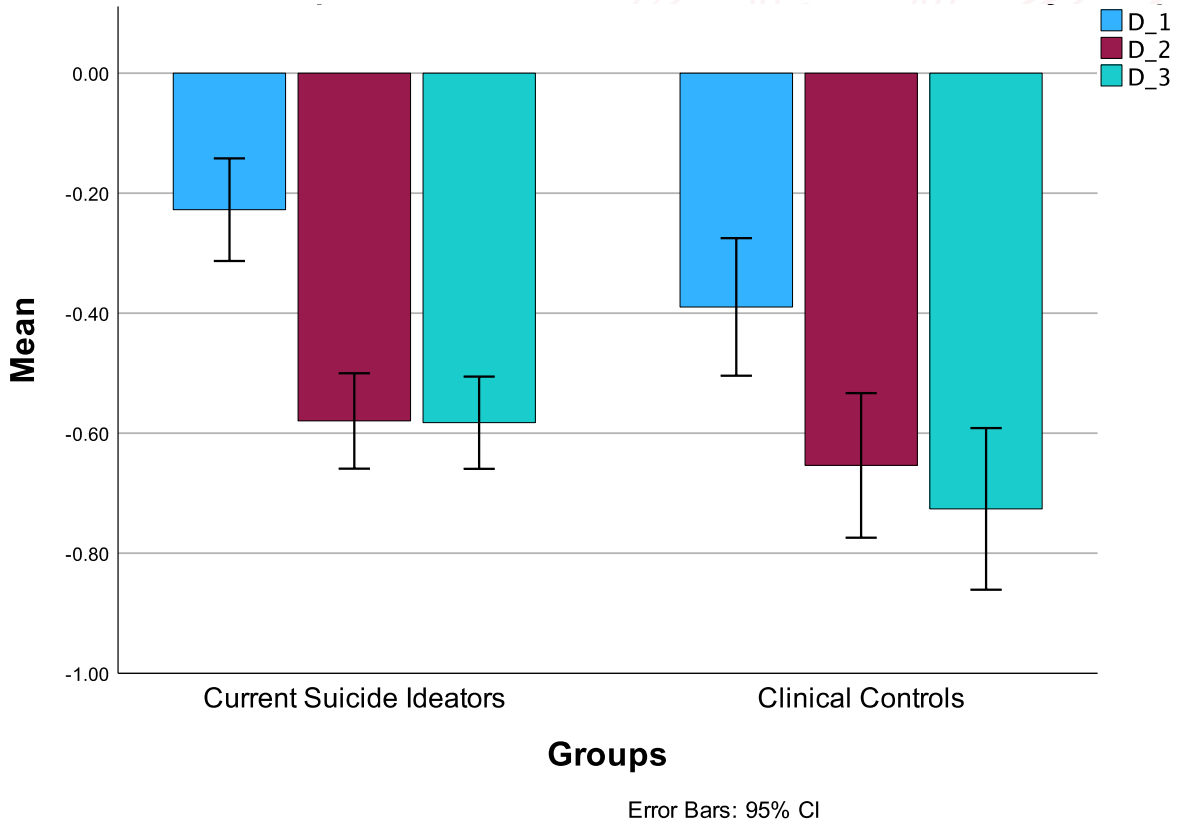
Group Differences

***t*-test** | Group differences between suicide ideators (SUID) and clinical controls (CLIN)

IAT version	01 “me” / “not me”	02 “pleasant” / “unpleasant”	03 “I like” / “I don’t like”
d-scores	SUID M = -.23, SD = .35 CLIN M = -.39, SD = .33	SUID M = -.58, SD = .32 CLIN M = -.65, SD = .35	SUID M = -.58, SD = .31 CLIN M = -.73, SD = .39
t-test	$t(98) = 2.27$, $p = .026$	$t(98) = 1.07$, $p = .289$	$t(96) = 2.01$, $p = .047$

(Preliminary) Results

Means for Groups SUID and CLIN



(Preliminary) Results

Correlations

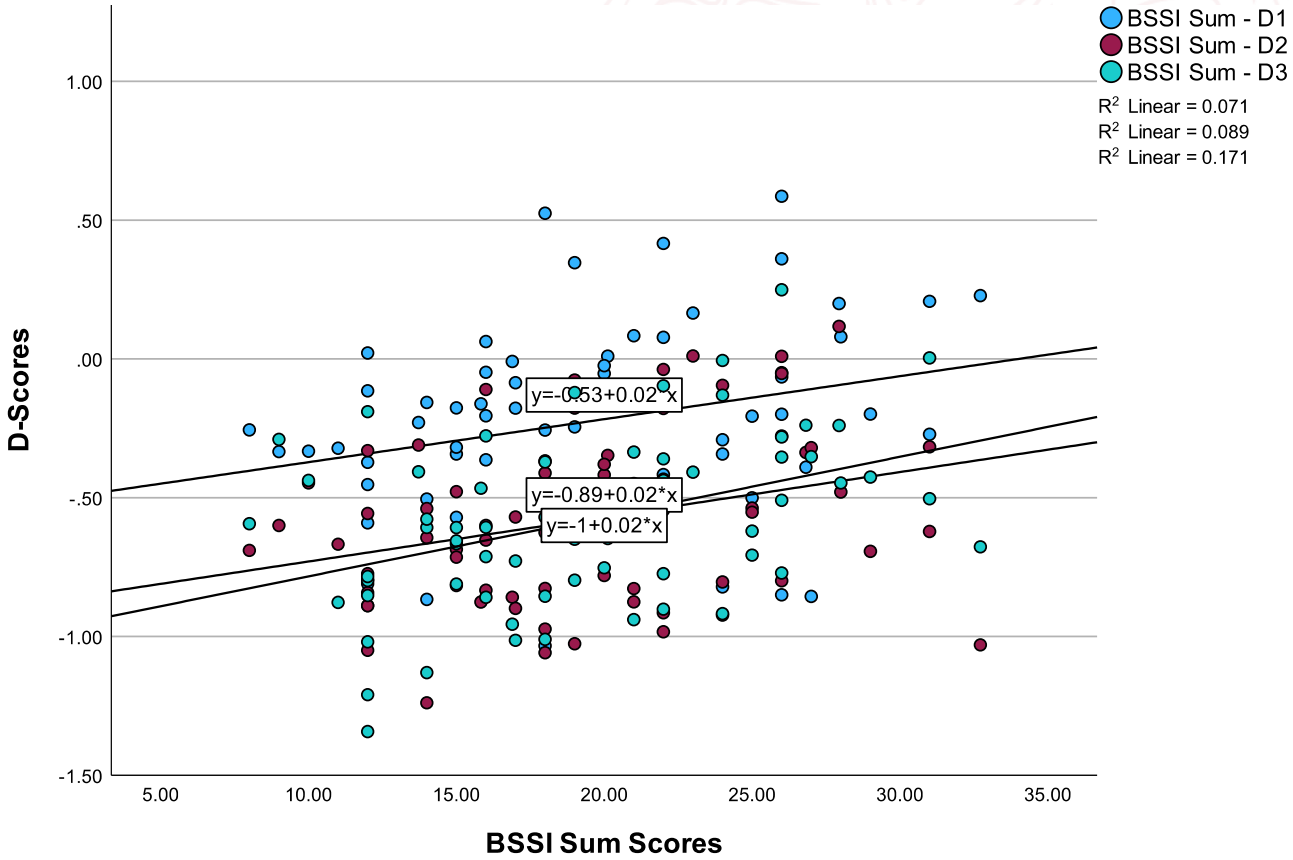
Pearson Correlation | Between d-scores and BSSI (Beck & Steer, 1993) sum scores for SUID

IAT version	01 “me” / “not me”	02 “pleasant” / “unpleasant”	03 “I like” / “I don’t like”
BSSI sum score	SUID $M = 19.32$, $SD = 5.94$		
r	$r = .267$, $p = .032$	$r = .299$, $p = .016$	$r = .413$, $p = < .001$

Beck & Steer (1993). *BSI, Beck Scale for Suicide Ideation*. Psychological Corporation.

(Preliminary) Results

Correlations for Group SUID



Discussion

Have the Hypotheses been Proven?

H_1 **|** Personalised IAT version 03 (“I like” / “I don’t like”) indicated a positive emotional evaluation of death in SUID patients

SUID patients demonstrated stronger implicit associations between themselves and death (version 01)

H_2: the more positive the emotional evaluation of death, the more intense the suicidal ideations in SUID patients

Discussion

Does the IAT-S detect the suicidal mode?

Mode Difference | The IAT in our adaption can detect a difference in the modes between patients with current suicidal ideation and those without suicidal behaviour or ideation

But: Can it also differentiate between attempters and ideators? Is it sensitive enough to detect this behavioural marker?

⇢ Larger replications are needed.

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