Validation for a Practical New Model to Differentiate Suicidality which can be used Across Various Clinical Settings

Remco de Winter MD PhD

www.suicidaliteit.nl

MHeNS lecture

Maandag 4 december 2023

Maastricht,

Parnassia Groep VU University Amsterdam Maastricht University GGZ Rivierduinen Het begint bij begrip

Disclosure

(potentiële) belangenverstrengeling	Geen
Voor bijeenkomst mogelijk relevante relaties met bedrijven	
• Sponsoring of onderzoeksgeld	• Geen
• Honorarium of andere (financiële) vergoeding	• Geen
• Aandeelhouder	• Geen
• Andere relatie, namelijk …	• Geen

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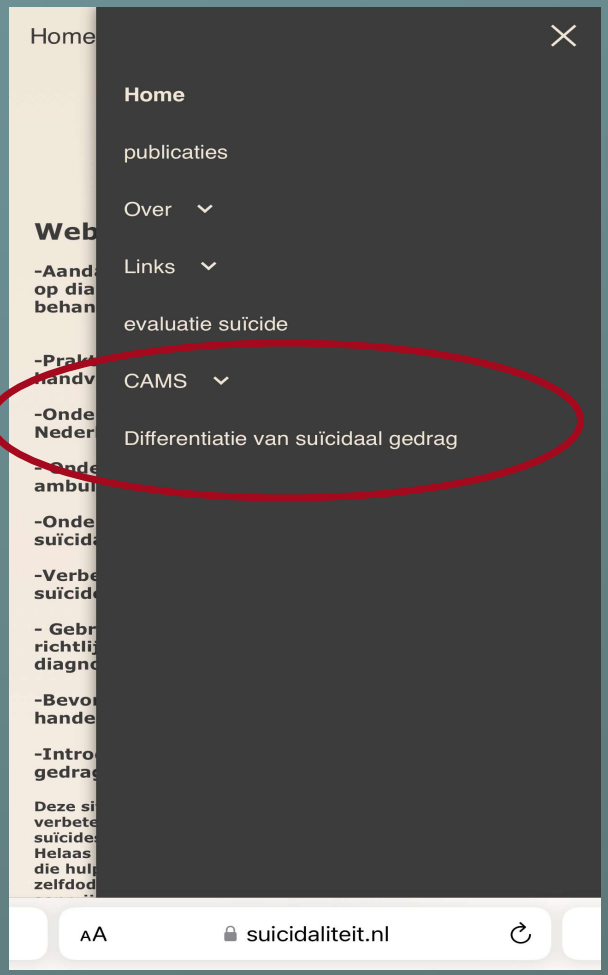

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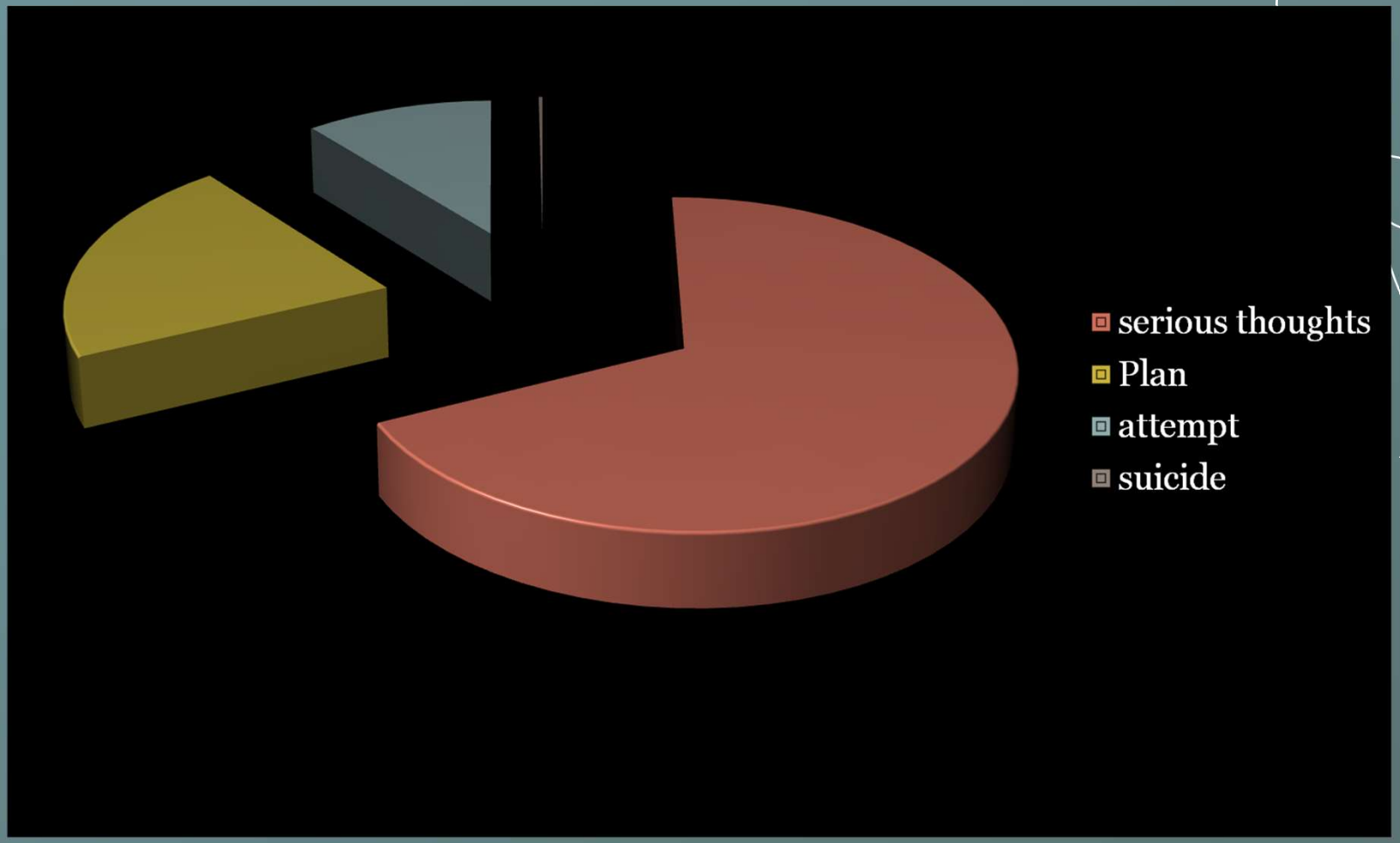
Prevalence suicidality



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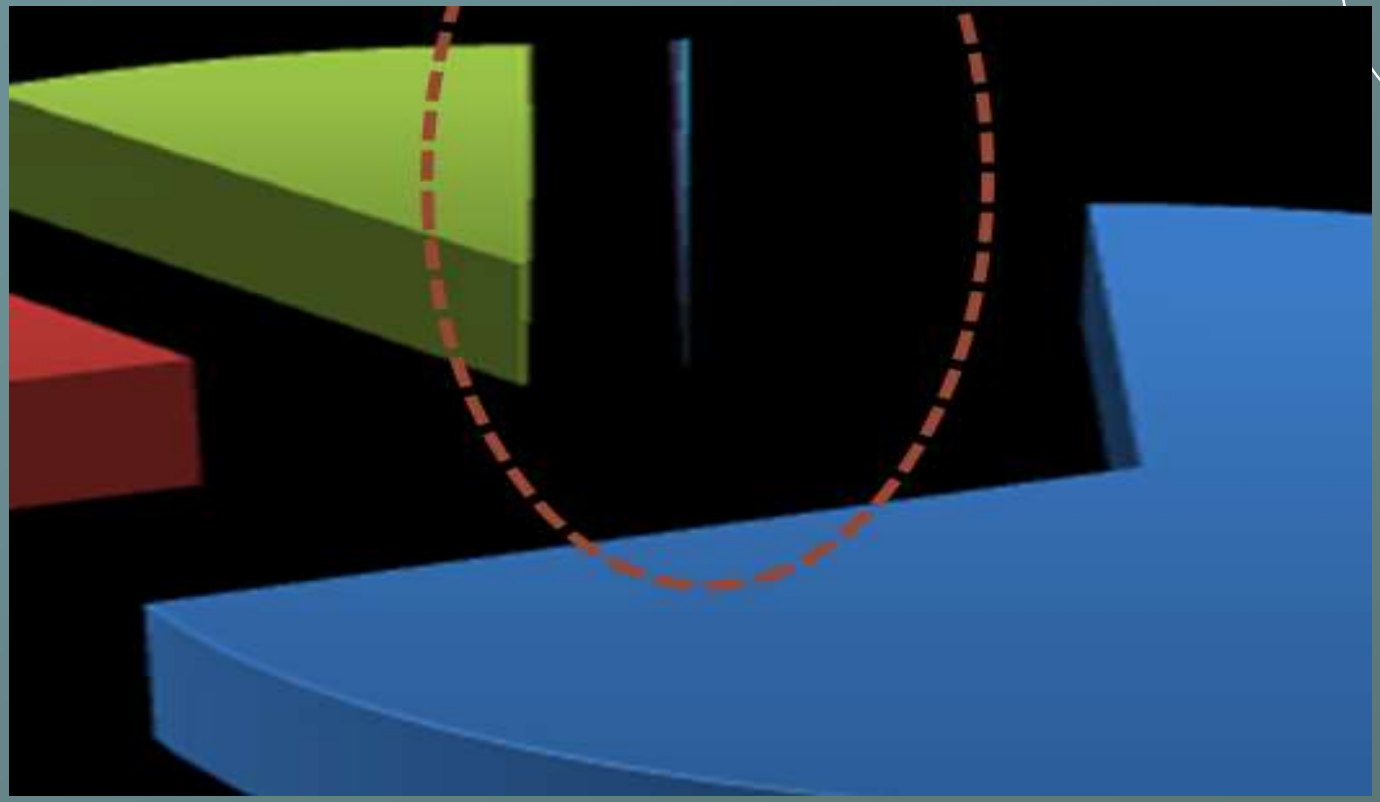
Purple mental health



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Suicidality common in Mental health?

Outreach Psychiatric Emergency Service (OPES)

n = 14.705

- 33.2% of all patients are suicidal
- 9.2% after attempt

Research Trends

Outreach Psychiatric Emergency Service

Characteristics of Patients With Suicidal Behavior and Subsequent Policy

Remco F. P. de Winter[1,2,3], Mirjam C. Hazewinkel[3], Roland van de Sande[3,5], Derek P. de Beurs[4], and Marieke H. de Groot[2]

Het vóórkomen van suïcidaal gedrag en suïcidepogingen bij de psychiatrische crisisdienst

R.F.P. DE WINTER, M.H. DE GROOT, M. VAN DASSEN, M.L. DEEN, D.P. DE BEURS

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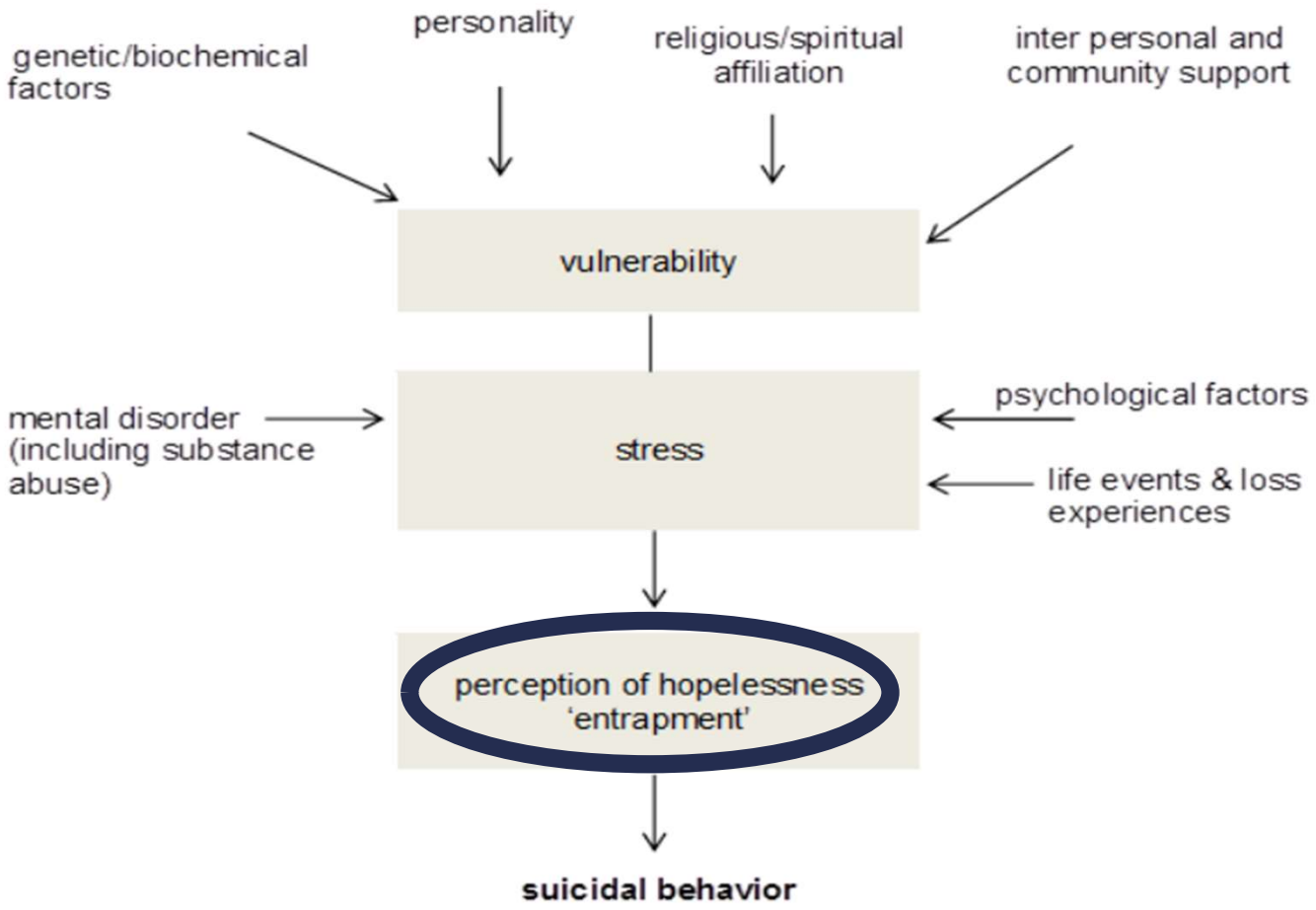
Aetiology suicidality

(Dutch guideline 2012)



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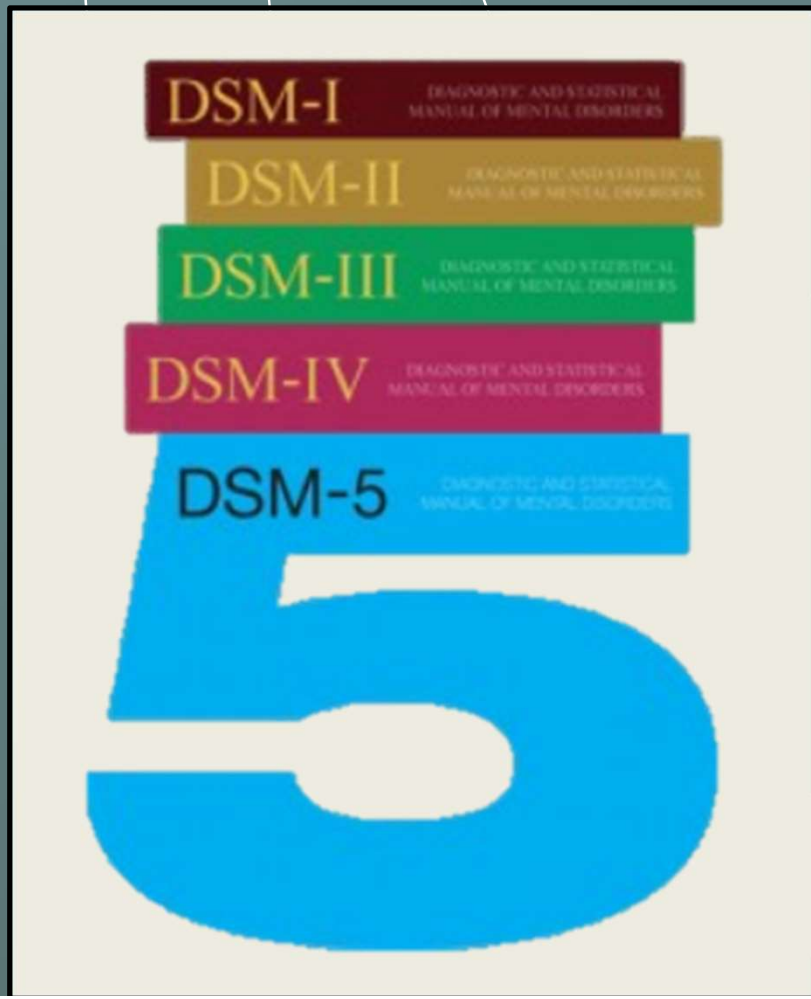
Two classifications with suicidality as symptom:

- Borderline personality disorder
- Major depressive disorder



Suicide

Rare events but

1. Always preventable?

2. Deadliest phenomenon in psychiatry?

3. Suicide worst outcome in psychiatry?

- Big stress for mental health workers

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Need to distinguish clinical suicidal subtypes?

- "In guidelines", there is no clear distinction!
- Need for a common language about entrapment?
- Determining treatment setting?
- Different treatment options?
- "personalized medicine' ?
- Different responsibilities and legal consequences?
- Improved clinical risk assessment and more confidence?
- Contribution to scientific research?

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Subtypes in history

Emile Durkheim 1897

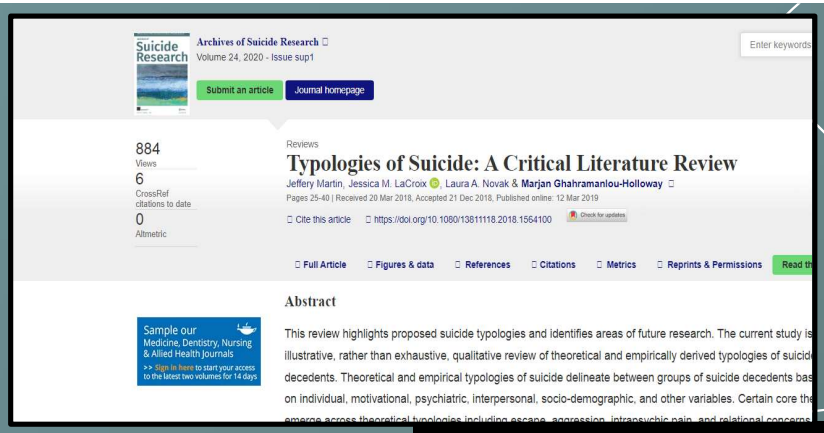
- Egoistic suicide
- Altruistic suicide
- Anomic suicide
- Fatalistic suicide

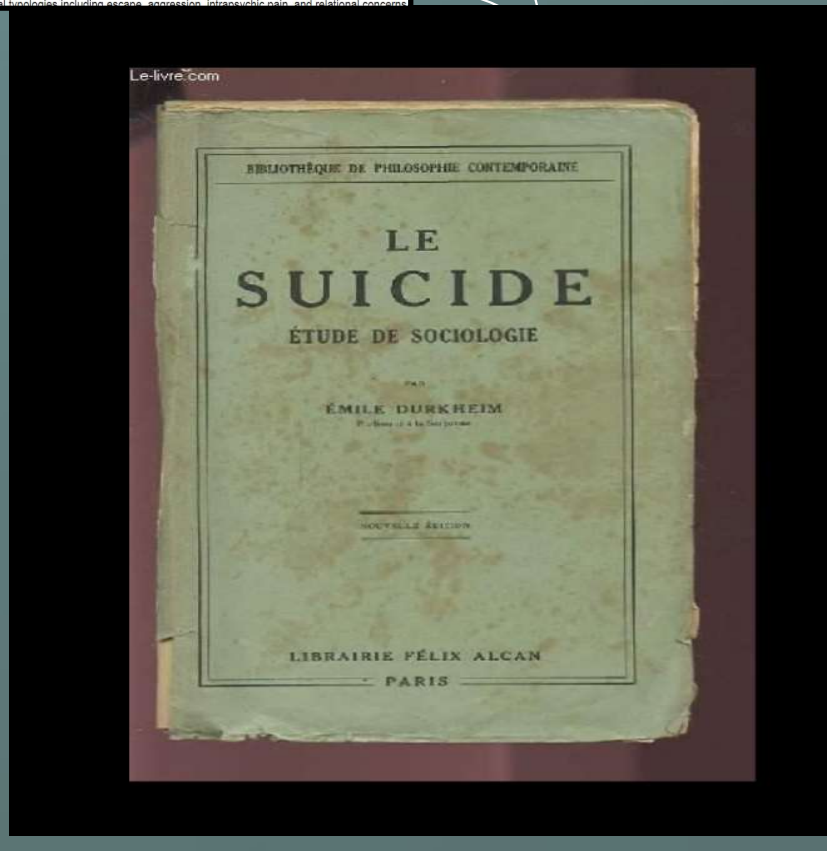
- Other subtype development?

Schneidman Menninger Shneidman

Henderson & Williams Mintz Leonard Baechler

- Also other qualitative research
- Were is the validation!?





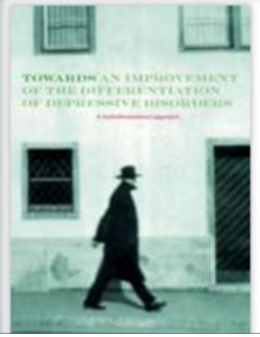
Need for a clinical practical differentiation model

- Untill 2014, head of the crisis service at Parnassia The Hague
- Serious symptom……
- Puzzling about various manifestations of suicidality
- Differentiation of entrapment process

Combining theory and practice for development

- Two of Five Dimensions of psychopathology (CPRS: Jaap Goekoop) (interacting networks)
  - Perceptual disintegration
  - Emotional dysregulation

- Four of Seven Dimensions of personality (TCI: Robert Cloninger)
- Temperament: Novelty-seeking/Harm-Avoidance
- Character: Cooperativeness/Self-directedness



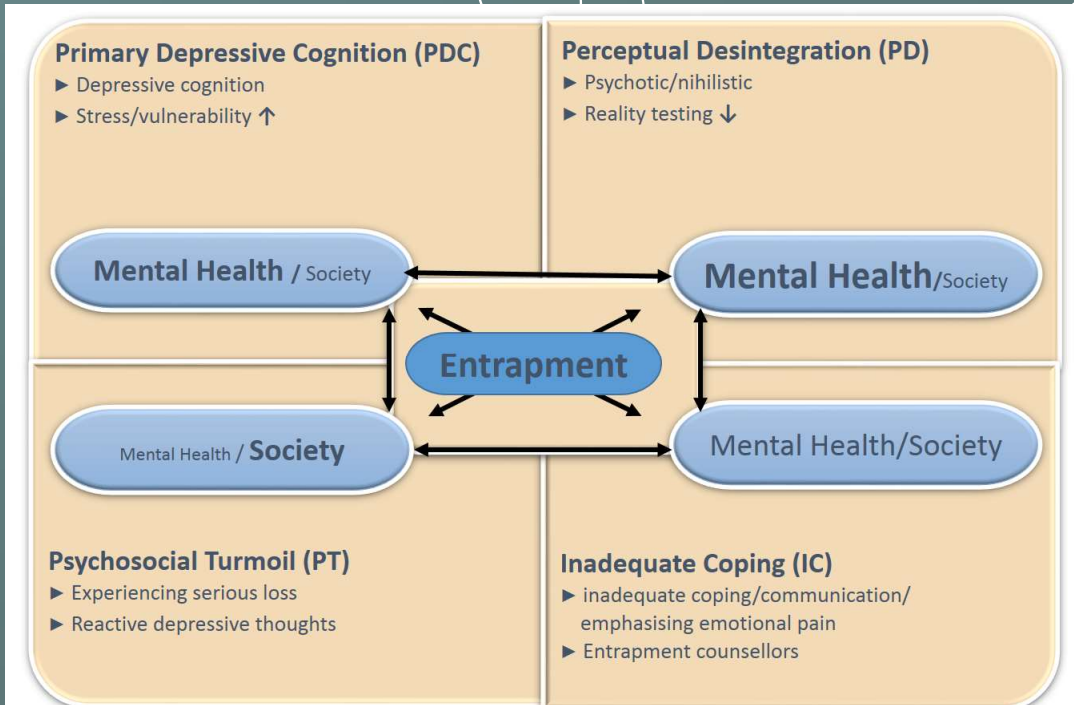
Winter, R.F.P. de (2009)

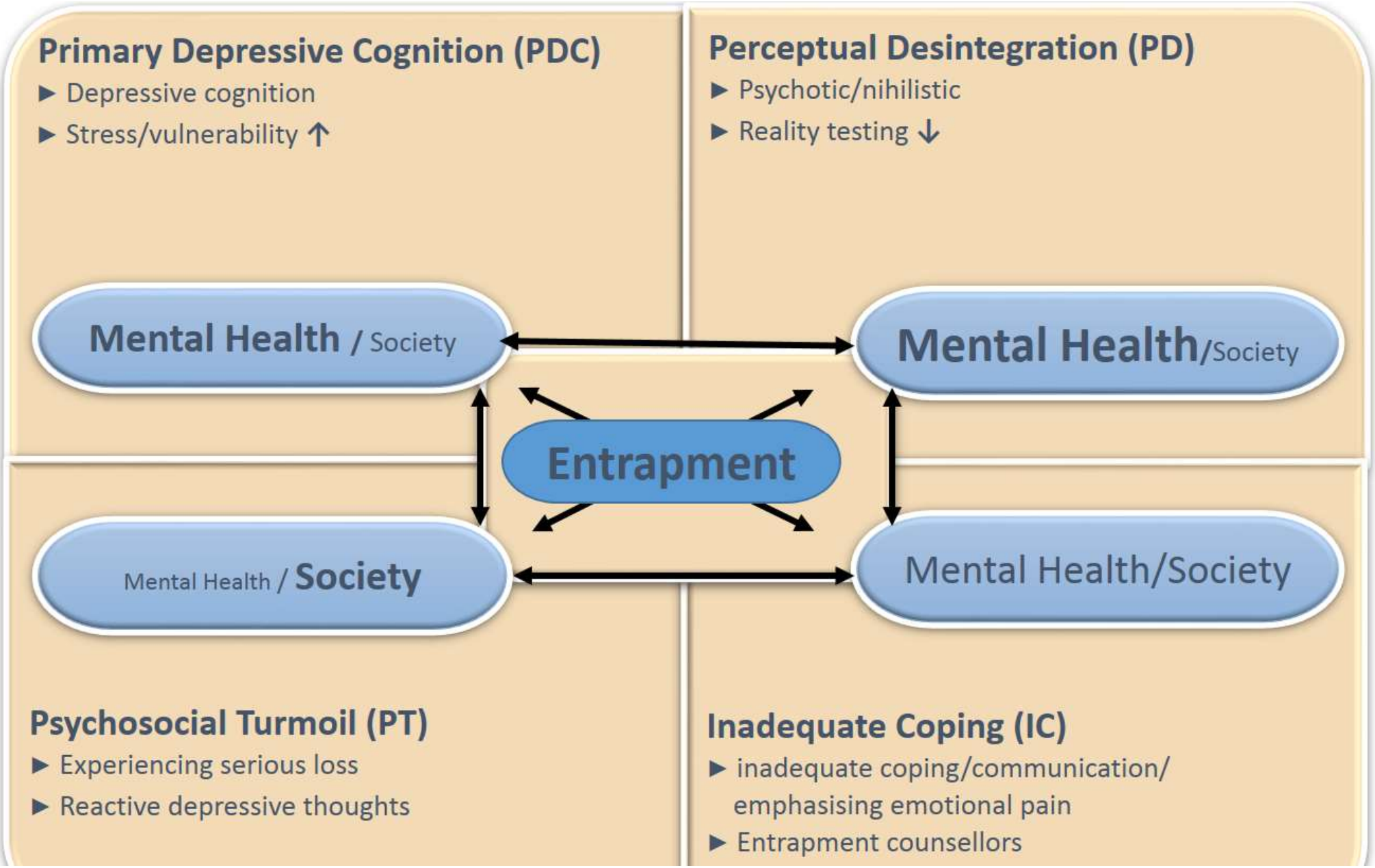
Towards an improvement of the differentiation of depressive disorders. A multidimensional approach

Doctoral Thesis

Development model: PROPOSED SUBTYPES SUICIDALITY

- **P**erceptual **D**isintegration(PD),
- **P**rimary **D**epressive **C**ognition (PDC),
- **P**sychosocial "**T**urmoil" (PT),
- **I**nadequate **C**oping/communication (IC)




Primary Depressive Cognition (PDC)
► Depressive cognition
► Stress/vulnerability ↑
Perceptual Desintegration (PD)
► Psychotic/nihilistic
► Reality testing ↓
Mental Health / Society
Mental Health/Society
Entrapment
Mental Health / Society
Mental Health/Society
Psychosocial Turmoil (PT)
► Experiencing serious loss
► Reactive depressive thoughts
Inadequate Coping (IC)
► inadequate coping/communication/ emphasising emotional pain
► Entrapment counsellors

Acute/chronic suicidality

More chronic?

1. Primary Depressive Cognition (PDC),
2. Inadequate Coping/communication (IC)

Acute on chronic?

More acute?

3. Perceptual Disintegration(PD),
4. Psychosocial “Turmoil” (PT)

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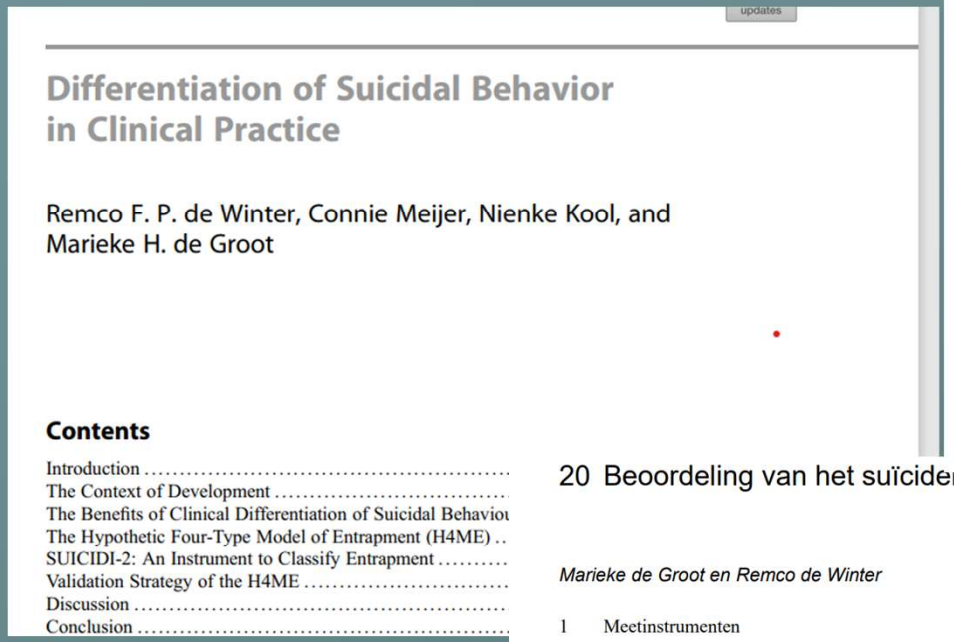
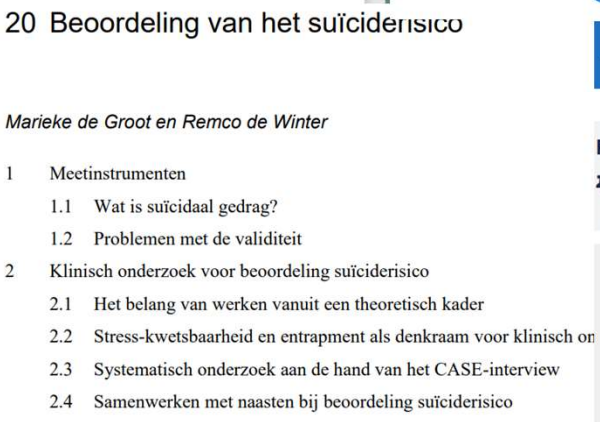
Explanation subtypes



Differentiation of Suicidal Behavior in Clinical Practice

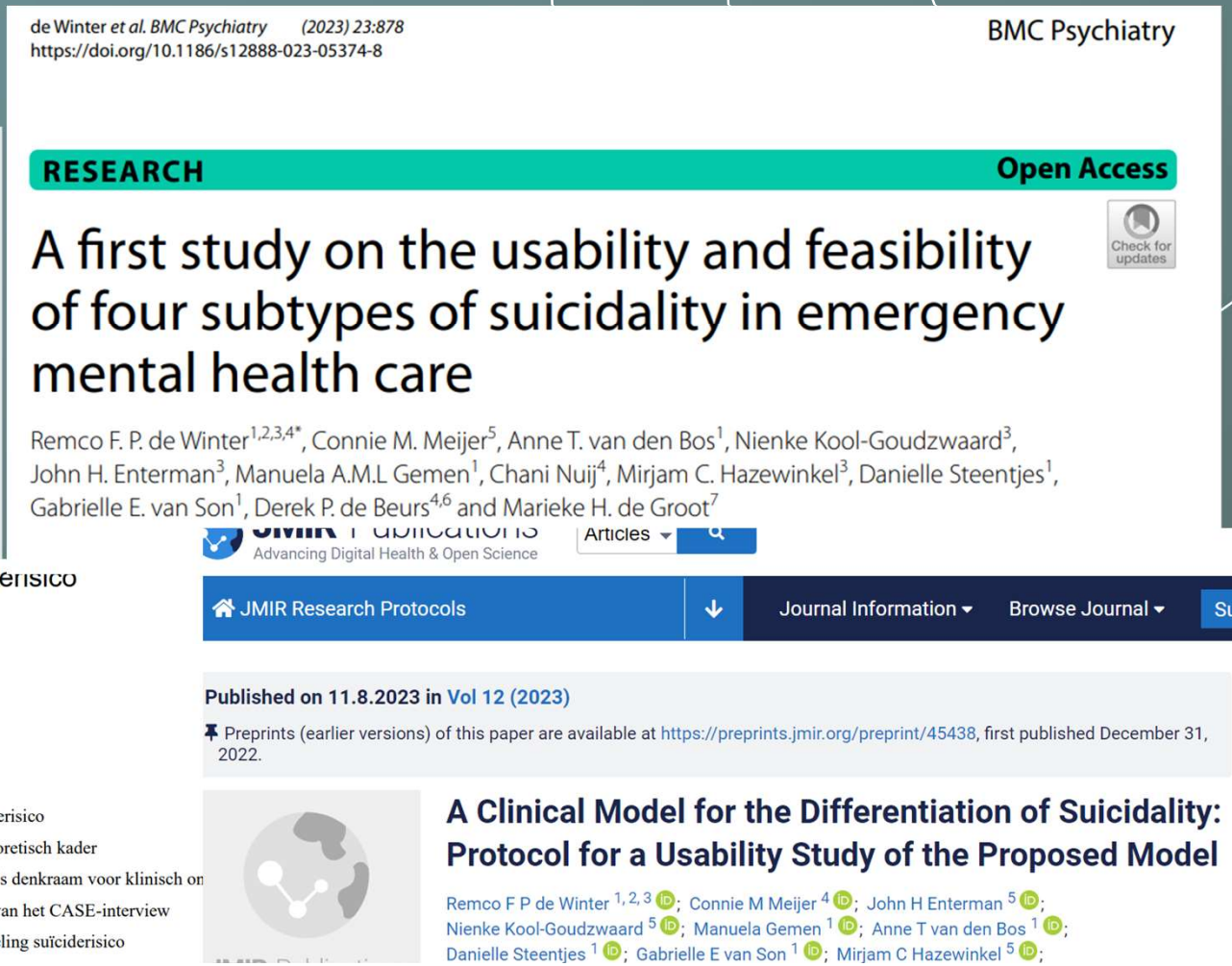
Remco F. P. de Winter, Connie Meijer, Nienke Kool, and Marieke H. de Groot

Contents



20 Beoordeling van het suïcide risico

Marieke de Groot en Remco de Winter



de Winter *et al. BMC Psychiatry* (2023) 23:878
https://doi.org/10.1186/s12888-023-05374-8

BMC Psychiatry

RESEARCH Open Access

A first study on the usability and feasibility of four subtypes of suicidality in emergency mental health care

Remco F. P. de Winter[1,2,3,4*], Connie M. Meijer[5], Anne T. van den Bos[1], Nienke Kool-Goudzwaard[3], John H. Enterman[3], Manuela A.M.L Gemen[1], Chani Nuij[4], Mirjam C. Hazewinkel[3], Danielle Steentjes[1], Gabrielle E. van Son[1], Derek P. de Beurs[4,6] and Marieke H. de Groot[7]

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Preprints (earlier versions) of this paper are available at https://preprints.jmir.org/preprint/45438, first published December 31, 2022.

A Clinical Model for the Differentiation of Suicidality: Protocol for a Usability Study of the Proposed Model

Remco F P de Winter [1,2,3]; Connie M Meijer [4]; John H Enterman [5]; Nienke Kool-Goudzwaard [5]; Manuela Gemen [1]; Anne T van den Bos [1]; Danielle Steentjes [1]; Gabrielle E van Son [1]; Mirjam C Hazewinkel [5];

Perceptual disintegration

- Psychotic features
- Nihilism
- Also: psychotic fear, very serious derealisation, mood(in)congruent, etc.
- Adjunctive substance influence and explore underlying etiology

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PRIMARY DESPRESSIVE COGNITION

- Mainly depressive thinking, no sudden reactive gloominess
- Suicidality primarily from an emotional aspect, but also existential wish for death
- Chronic stress

Psychosocial turmoil

- Acute reactivity to severe loss experience, or impending disaster and/or offence stemming.
- Mainly explained by acute stress.
- Impulsivity/temperament.

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Inadequate coping/communication

- Emphasising the pressure of suffering and/or prompting others to make changes (whether consciously or unconsciously).
- Limited coping skills.
- Among MH workers, varying experience of hesitancy to act

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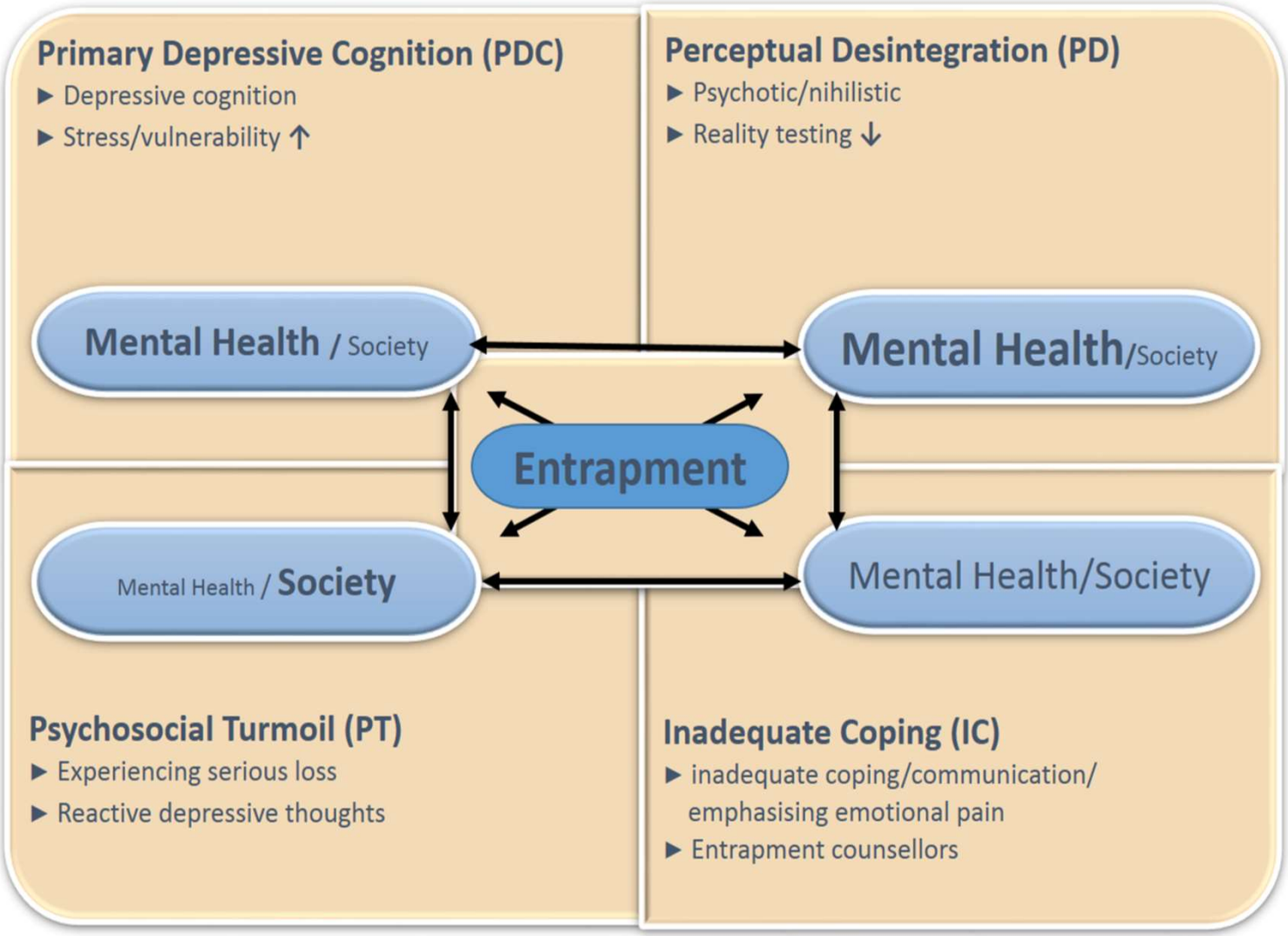

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?

- https://youtu.be/LIyyUKcxxCM

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?

- https://youtu.be/qD3z9giBC6o

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?

https://youtu.be/lURSK3XZ5MA

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Preparation

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Delphi rounds exploring clinical relevance

- Revision model (2 Delphi rounds)
  - Dichotomous model
  - Development SUICIdal Differentation (SUICIDI) -instrument

- 1) March 2017 (psychiatrists, people with lived experience, peer supporters, nurses, and psychologists) Parnassia > Feedback

- 2) April 2018 Discussion group Dutch Conference of Psychiatrists > Feedback

- Collecting data and anonymized conclusions (OPES)

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Questions for follow-up

- Capable of dealing with the model and the SUICIDI instrument?
- Can conclusions from patient records of high-risk patients with suicidality assessed by the outreach psychiatric emergency services be used for rating absolute and dimensional TA?
- Are the proposed subtypes (PD, PDC, PT, and IC) validly definable when various clinicians independently allocate cases to subtypes? How are subtypes distributed?
- Are these subtypes dimensionally delineated by using a gradual scoring, and is there consensus when different clinicians independently score them? What is the reliability of the different modes of scoring?
- Which form of dimensional scoring is preferred?
- If applicable, how can we improve the SUICIDI-II instrument?
- What feedback can we provide to raters when there is any indication that raters scored incorrectly?

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Suicidi studies step 1

6 evaluators (3 psychiatrists, 3 nurses)

- Database n = 503 emergency psychiatry cases
- Scoring anonymized conclusions from letters crisis service

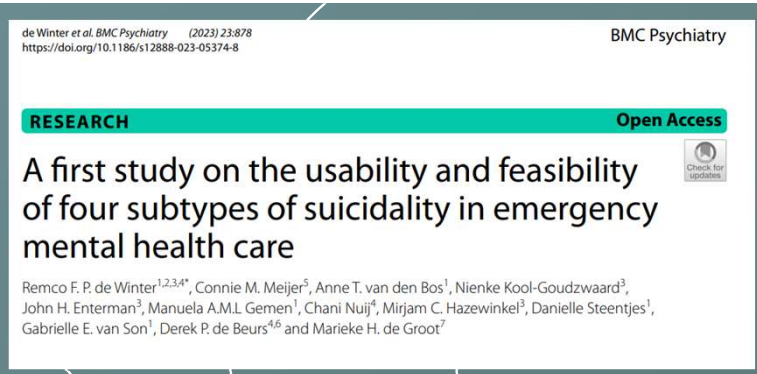
Pilot case no. 1-25 first validation

3 types Scoring: absolute, and gradual 0-2 and scoring 0-4

Extended validation no. 26 - 100

The questionnaire (SUICIDI) adjusted to a 0-4 scale

- 2 types of scoring: absolute and the revised SUICIDI



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Ethical Considerations

The Medical Research Ethics Committee Leiden the Hague Delft involving the Human Subjects Act (*Wet medisch-wetenschappelijk onderzoek met mensen*) was consulted prior to the start of this study. The committee decided in 2020 that no approval was needed (G21.021/PV/pv). The medical directorates and privacy officers of the Mental Health Institute Rivierduinen and Parnassia Mental Health Institute approved the study, and both institutes financed the study [3].

Intraclass correlation coefficient (ICC)

ICC VALUES AND RELIABILITY	
< 0.5	Poor
≥ 0.5 – 0.75	Moderate
≥ 0.75 – 0.9	Good
≥ 0.90	Excellent

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Gradual score and absolute score

0	helemaal niet
1	zeer klein gedeelte
2	gedeeltelijk
3	Groot deel
4	Helemaal (lichte twijfel mag altijd blijven bestaan)

Vink ook één subtype aan welke het meest uw voorkeur heeft! Geef een score per item.

	subtype	**TA score**	*V* **Absolute keuze (1 mogelijkheid)**
1	Verstoorde waarneming		
2	Primair depressieve cognitie		
3	Ernstige psychosociale draaikolk		
4	Inadequate coping/communicatie		
	Totaal altijd 4 punten	4	

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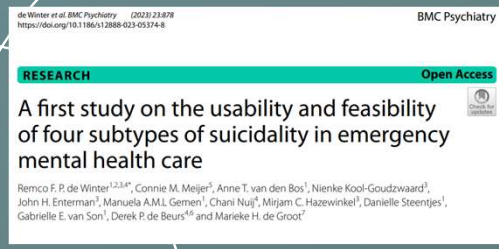
First study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Average measure	ICC	95% CI lower bound	95% CI upper bound	Value	Cronbach Alpha
All types (dichotomous score)	,854	,743	,927	7,795	,872
Absolute Perceptual (PD)	.836	..713	.918	6.930	.844
Absolute Depressive (PDC)	.913	.848	.957	11.861	.916
Absolute Turmoil (PT)	.821	.683	.911	5.436	.816
Absolute Communication (IC)	.820	.586	.910	6.000	.823
Dimensional score (0–4)					
Perceptual (PD) TA	,834	,710	,917	6,478	,846
Depressive (PDC) TA	,932	,880	,966	14,70	,932
Turmoil (PT) TA	,892	,809	,946	9,992	,932
Communication (IC) TA	,823	,690	,912	6,327	,842
Dimensional score SUICIDI questionnaire (0–2)					
Perceptual (PD) SUICIDI	,802	,654	,901	5,535	,819
Depressive (PDC) SUICIDI	,871	,774	,936	8,447	,882
Turmoil (PT) SUICIDI	,851	,740	,926	7,328	,864
Communication (IC) SUICIDI	,790	,634	,895	5,150	,806

Step 2: extended
75 cases *manuscript in preparation*

- Reproduction
- Training same raters after feedback and training
- Revision SUICIDI instrument better

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Case	Perceptual	Depression	Turmoil	Coping	points	*Classification (other secondary classification(s), x and - is none)*
26	4	2			6	*DD (PSD)*
27		5		1	6	*PSD (–)*
28	5	1			6	*DD (–)*
29		4		2	6	*DD (AD)*
30		4	1	1	6	*DD (PSD, AS)*
31			2	4	6	*DD (PSD)*
32		6			6	*DD (–)*
33			6		6	*PSD (AS)*
34	1	5			6	*AD (DD)*
35	6				6	*PD (–)*
36		3	3		6	*DD (ADD)*
37		2	3	1	6	*DD (–)*
38			6		6	*PD (DD, AS)*
39	1	5			6	*ADD (LI)*
40	6				6	*PD (AS)*
41		5	1		6	*DD (AD)*
42		6			6	*DD (–)*
43		3	3		6	*DD (–)*
44			6		6	*AS (–)*
45	6				6	*BD (–)*
46		6			6	*DD (–)*
47	1	5			6	*DD (–)*
48				6	6	*PSD (–)*
49		1		5	6	*ASD (PSD,*

Types	pilot	Extended		Pilot 95% CI		extended 95% CI
All	,854	,947		.743 – .927		.926 – .964
Absolute PD	,836	,959		.713 – .918		.942 – .972
Absolute PDC	,913	,918		.848 – .957		.885 – .944
Absolute PT	,821	,832		.683 – .911		.764 – .885
Absolute IC	,820	,891		.586 – .910		.848 – .925
0 – 4 PD	,834	,973		.710 – .917		.960 – .981
0 – 4 PDC	,932	,957		.880 – .966		.932 – .968
0 – 4 PT	,892	,901		.740 – .926		.830 – .948
0 – 4 IC	,823	,927		.690 – .912		.893 – .948

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Discussion

1. Different suicidal subtypes are recognized
2. “Absolute types and gradual scores can be validly distinguished
3. Adjustment of SUICIDI
4. Further subdivision possible?
5. Possibility for more tailormade treatment
6. First clinical model with validated suicidal subtypes

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Limitations

1. Conclusions by assessing couple and psychiatrist?
2. No other discipline than psychiatrist/SPV no psychologists etc.
3. Replication?
4. Follow-up clinical, demographic relations and treatment algorithm"

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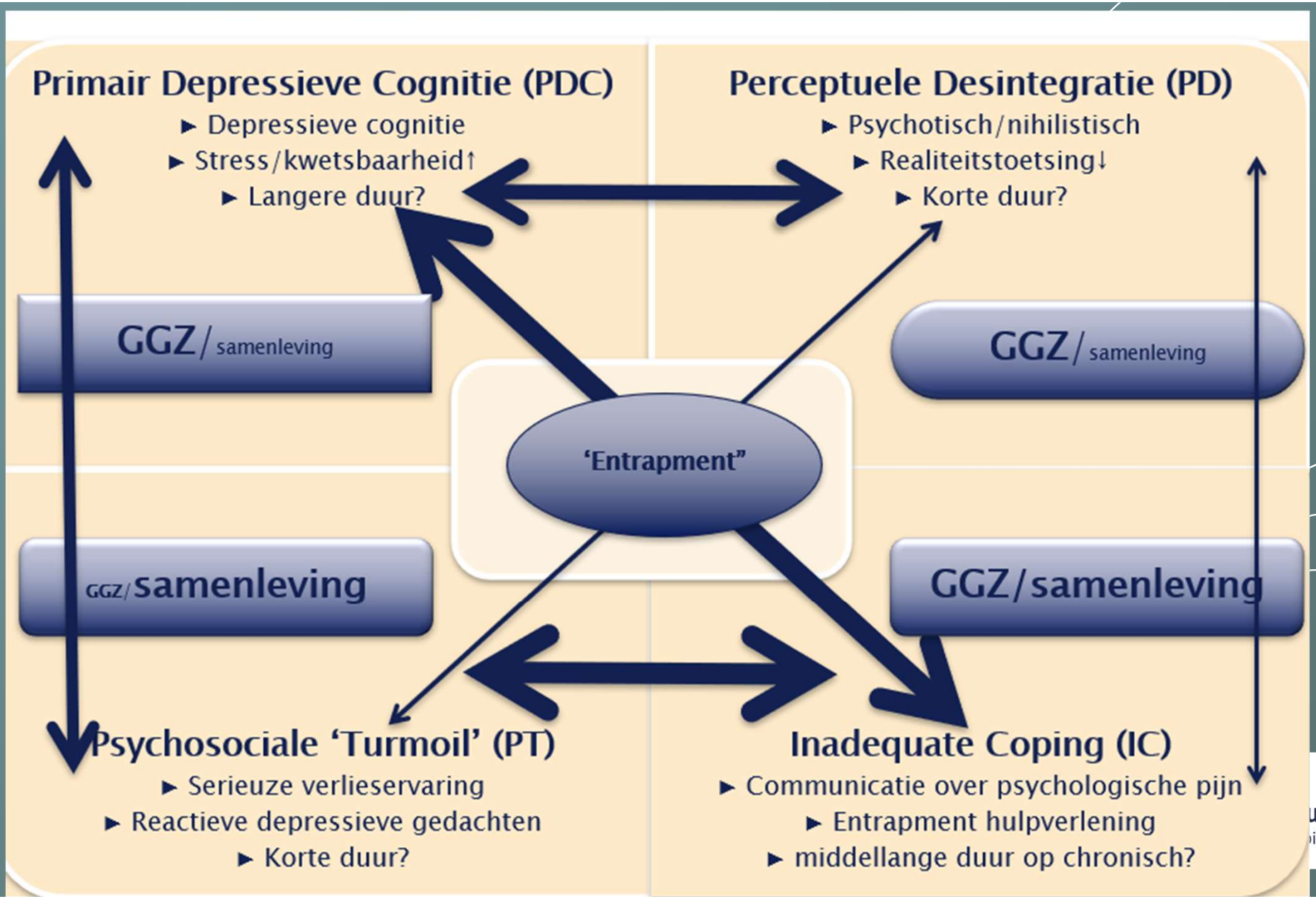
Primair Depressieve Cognitie (PDC)
► Depressieve cognitie
► Stress/kwetsbaarheid↑
► Langere duur?
Perceptuele Desintegratie (PD)
► Psychotisch/nihilistisch
► Realiteitstoetsing↓
► Korte duur?
GGZ/samenleving
GGZ/samenleving
'Entrapment"
GGZ/samenleving
GGZ/samenleving
Psychosociale 'Turmoil' (PT)
► Serieuze verlieservaring
► Reactieve depressieve gedachten
► Korte duur?
Inadequate Coping (IC)
► Communicatie over psychologische pijn
► Entrapment hulpverlening
► middellange duur op chronisch?

Further research

1. Clinical and demographic variables for subtypes……
2. Different settings (prevalence?) ….
3. Replication by psychologists (GGZ Friesland)…..
4. Psychological autopsy studies (mental health, general population)….
5. Follow-up and consistency of model…..
6. Overlap of subtypes….
7. Suicidal severity ratings…….
8. Subtypes related to, other demographic, social ,personality biological and genetic factors?
9. Relation to networktheory
10. Different treatment algoritms
11. Relation with historical theoretical subtypes

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KINDLY THANK YOU FOR YOUR INTEREST
ARE THERE ANY QUESTIONS?

REVIEWING PRESENTATION?

MORE INFORMATION?

Remco de Winter, Connie Meijer, Anne van den Bos,
Nienke Kool, John Enterman, Manuela Gemen, Mirjam Hazewinkel,
Danielle Steentjes, Chani Nuij, Derek de Beurs, Marieke de Groot

Parnassia Groep

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Lentis

NHS Sussex Partnership NHS Foundation Trust

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	PD	PDC	PT	IC	
Totaal	73 (12.2%)	239 (39.3 %)	132 (22.0%)	156 (26.0%)	600 (100%)

Marieke de Groot, Connie Meyer, Nienke Kool, Riet Lochy, Manuela Gemen, John Enterman, Danielle Steentjes, Anne van den Bos, Roland van der Sande, Melissa Hoek-Hus, Wilma Neumann, Arjan van den Berg, Mieke Hartgers, Aram van Reijsen, Mirjam Hazewinkel, Ad Kerkhof, Derek de Beurs

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