



De psychologie van suicidaal gedrag.

Derek de Beurs, PhD



Take home

- Psychologische modellen helpen suicidal gedrag beter te begrijpen
- Netwerk analyses helpen complexe samenhang beter te begrijpen
- Eerste stap zou een monitor naar psychologische risicofactoren onder veteranen kunnen zijn



30,000 active-duty personnel and veterans who served in the Military died by suicide compared to the **7,057** service members killed in combat in those same 20 years



Rijksinstituut voor Volksgezondheid
en Milieu
Ministerie van Volksgezondheid,
Welzijn en Sport

**Meer zelfdoding
bij militairen
die op missie
zijn geweest?**

*Onderzoek naar zelfdoding
onder mannelijke militairen
op basis van sterftecijfers*

Veteraan Daniël deed een zelfmoordpoging en vraagt nu aandacht voor mentale gezondheid

MILIEU EN GEZONDHEID

26 juni 2022, 10:43 - Update: 26 juni 2022, 11:26

Uitgezonden worden als militair is zwaar en kan voor veel trauma's zorgen. In Amerika sterven gemiddeld 22 veteranen per dag door suïcide. Daarvoor vraagt een stichting daar al jaren aandacht met een mars. Voor het eerst wordt die vandaag ook in Nederland georganiseerd door Daniël, een veteraan waarbij begin dit jaar ineens het licht uit ging. "De nasleep is enorm."

Multidisciplinaire
richtlijn
diagnostiek en
behandeling van
suïcidaal gedrag

de Tijdstroom

Samenvatting





Translation research into practice and vice versa



Psych Psychiatry, Psychology, and Behavioral Science

Evaluation of benefit to patients of training mental health professionals in suicide guidelines: cluster randomised trial

David P. O'Carroll, Michael A. O'Connell, et al. *BMJ* 2013;347:f1111

Psych Psychiatry, Psychology, and Behavioral Science

The vulnerability paradox in global mental health and its applicability to suicide

Michael A. O'Carroll, et al. *BMJ* 2013;347:f1111

Association between suicidal symptoms and repeat suicidal behaviour within a sample of hospital-treated suicide attempters

Michael A. O'Carroll, et al. *BMJ* 2013;347:f1111

Open Open Access

Discussing suicidality with depressed patients: an observational study in Dutch sentinel general practices

Chloé Corrigan, et al. *BMJ* 2013;347:f1111

Behavior Research and Therapy

Exploring the psychology of suicidal ideation: A theory-driven network analysis

Michael A. O'Carroll, et al. *BMJ* 2013;347:f1111

Behavior Research and Therapy

Exploring the psychology of suicidal ideation: A theory-driven network analysis

Michael A. O'Carroll, et al. *BMJ* 2013;347:f1111

Open Open Access

Applying Computer Adaptive Testing to Optimize Online Assessment of Suicidal Behavior: A Simulation Study

Michael A. O'Carroll, et al. *BMJ* 2013;347:f1111

Open Open Access

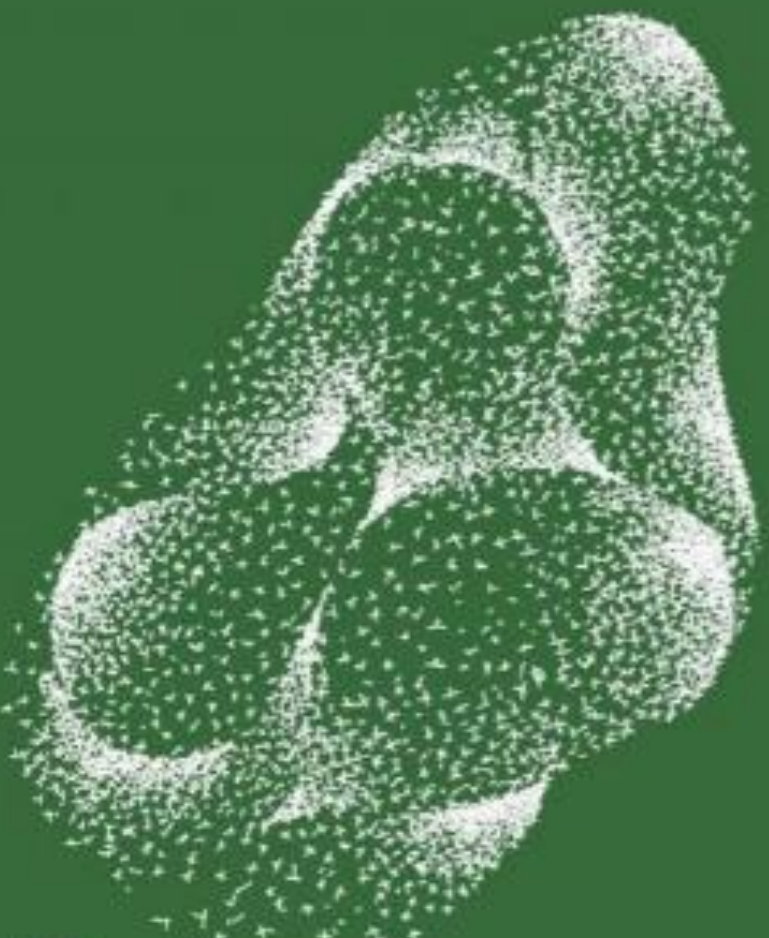
Toward an Objective Assessment of Implementation Processes for Innovations in Health Care: Psychometric Evaluation of the Normalization Maturity Development (NMD) Questionnaire Among Mental Health Care Professionals

Michael A. O'Carroll, et al. *BMJ* 2013;347:f1111

Open Open Access

Social environments and suicide mortality in Netherlands: a cross-sectional, ecological study

Michael A. O'Carroll, et al. *BMJ* 2013;347:f1111



Tweede druk

Handboek Suïcidaal gedrag

Kees van Heeringen, Gwendolyn Portzky,
Derek de Beurs en Ad Kerkhof
(redactie)

MYTHEN

OVER

Derek
de Beurs

ZELFMOORD

Boom

Opvattingen:

Vragen naar zelfmoord brengt mensen op een idee

De meeste mensen overlijden door zelfmoord rond de feestdagen

Iemand die aan zelfmoord denkt wilt dood

De media hebben invloed op het aantal zelfmoorden

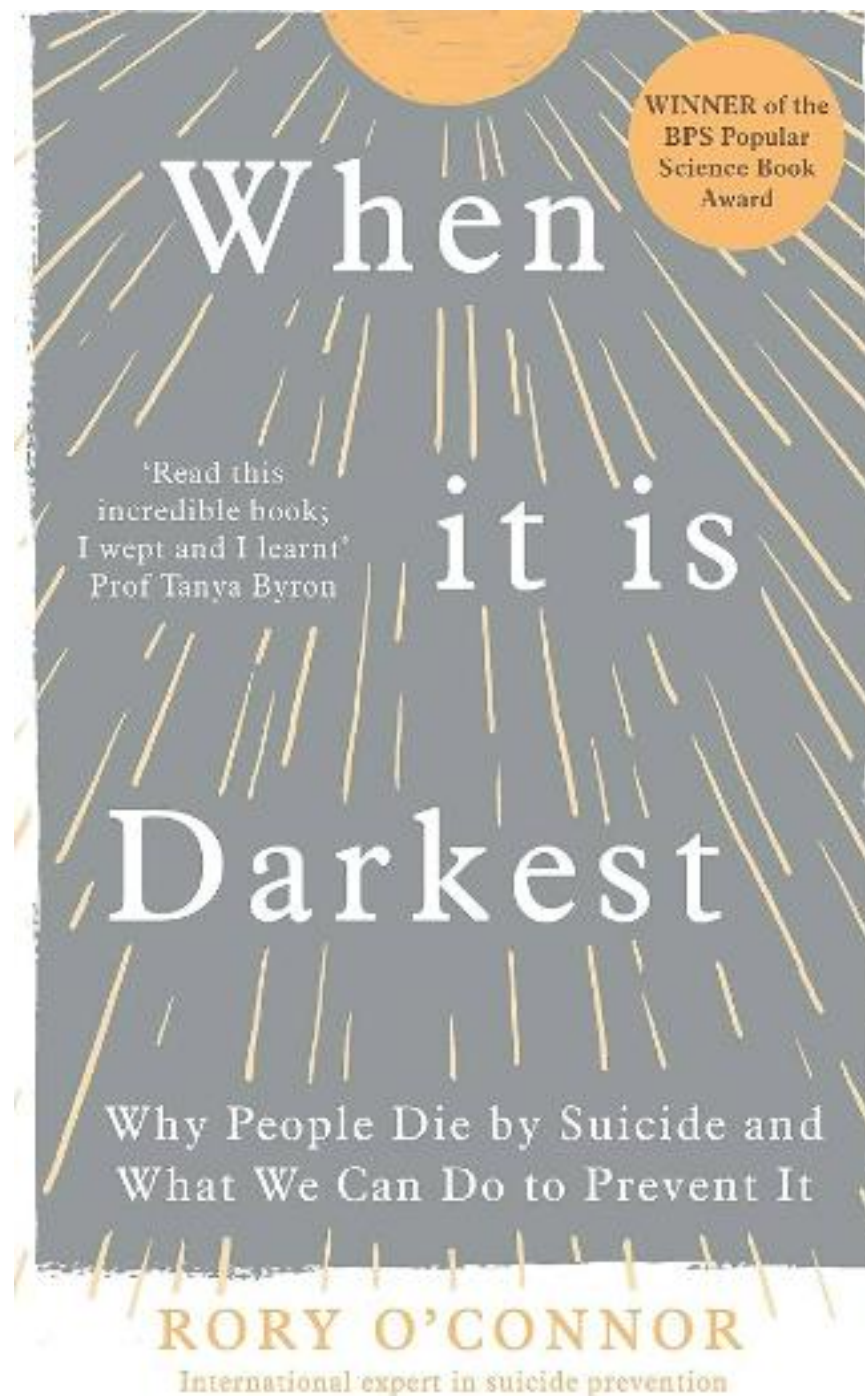
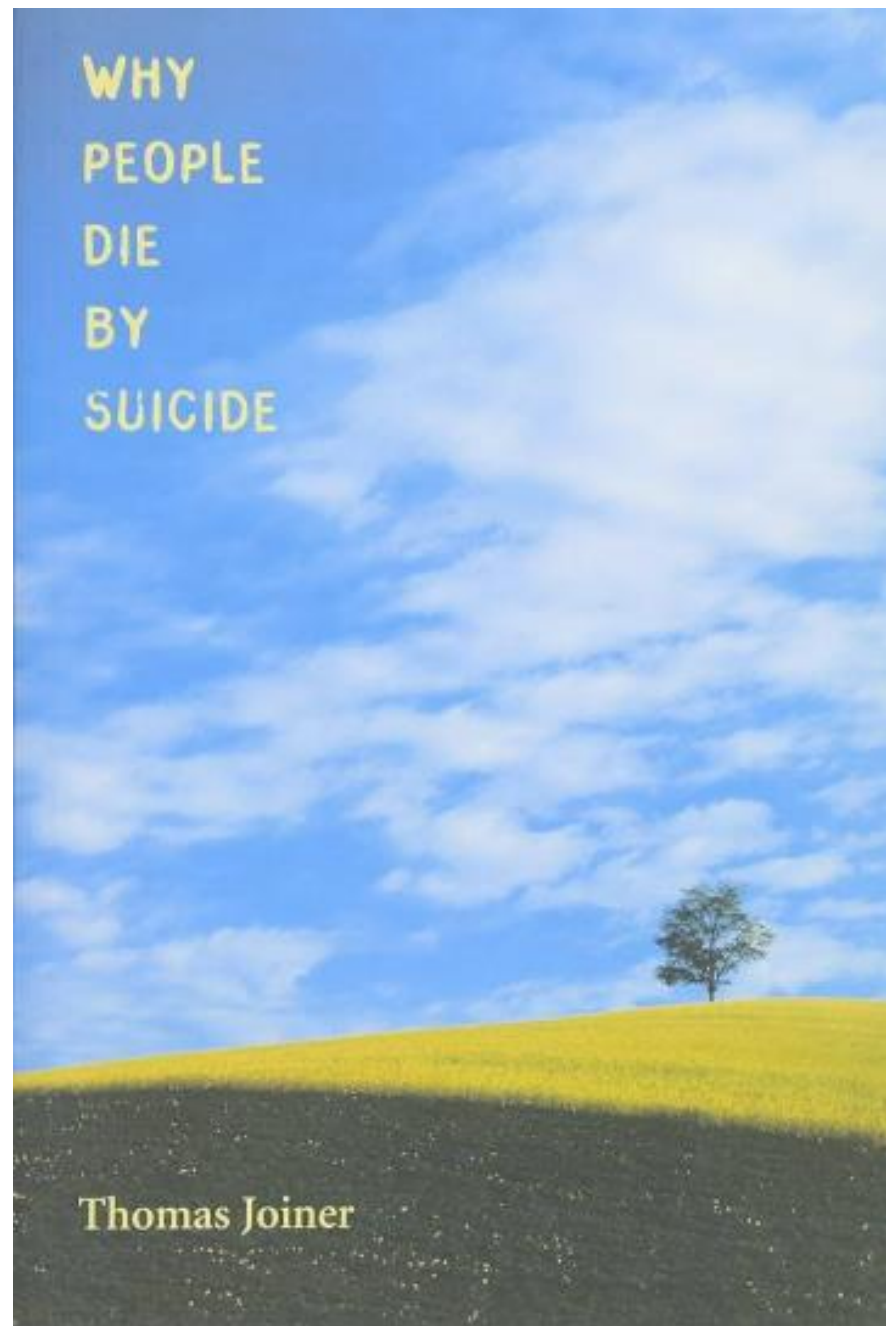
Antidepressiva verhogen het risico op zelfmoord

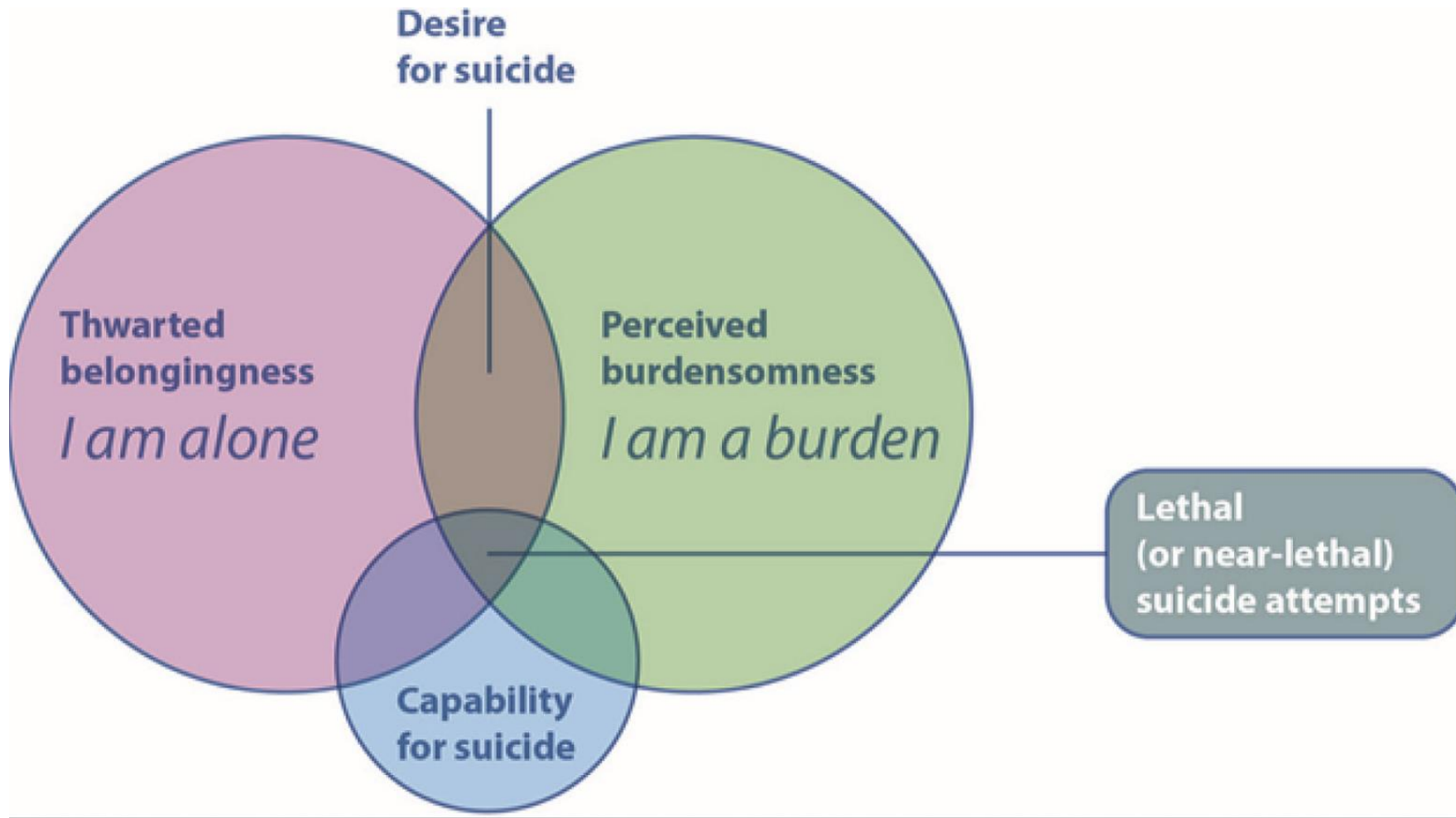
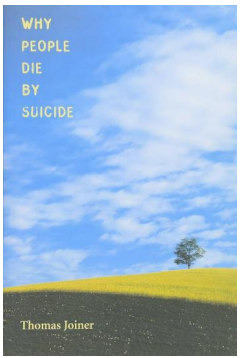
Kunstenaars hebben een verhoogd risico op zelfmoord

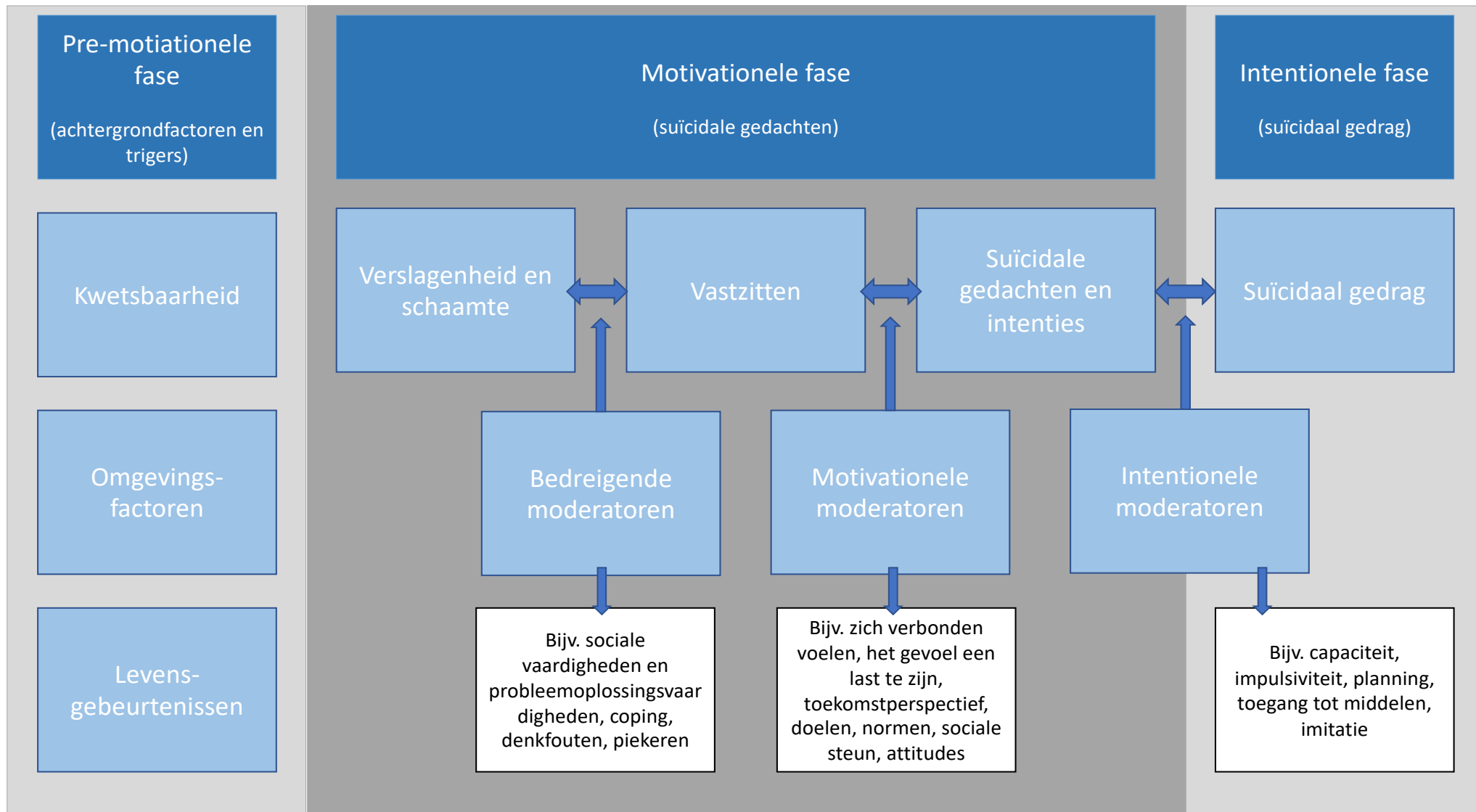
Zelfmoord zit in de familie

Vrouwen praten vooral over zelfmoord, mannen overlijden vaker

Het aantal zelfmoorden stijgt tijdens een economische recessie







Florida State University Libraries

Electronic Theses, Treatises and Dissertations

The Graduate School

2023

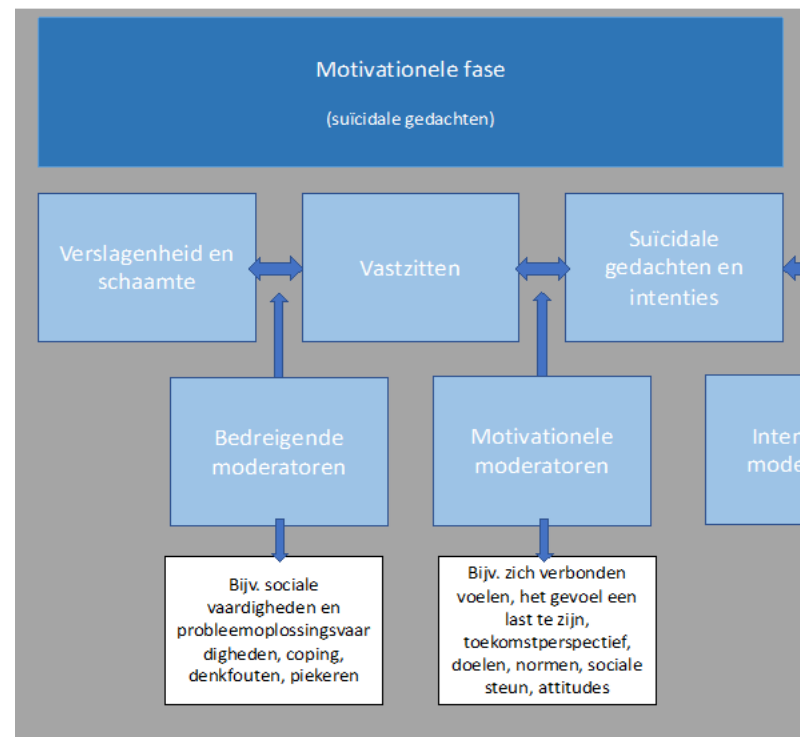
Veteran Suicide and the Ideation to Action Framework: A Critical Examination and in-Depth Analysis of Theory

Makenna N. Woods



Premotivational phase:

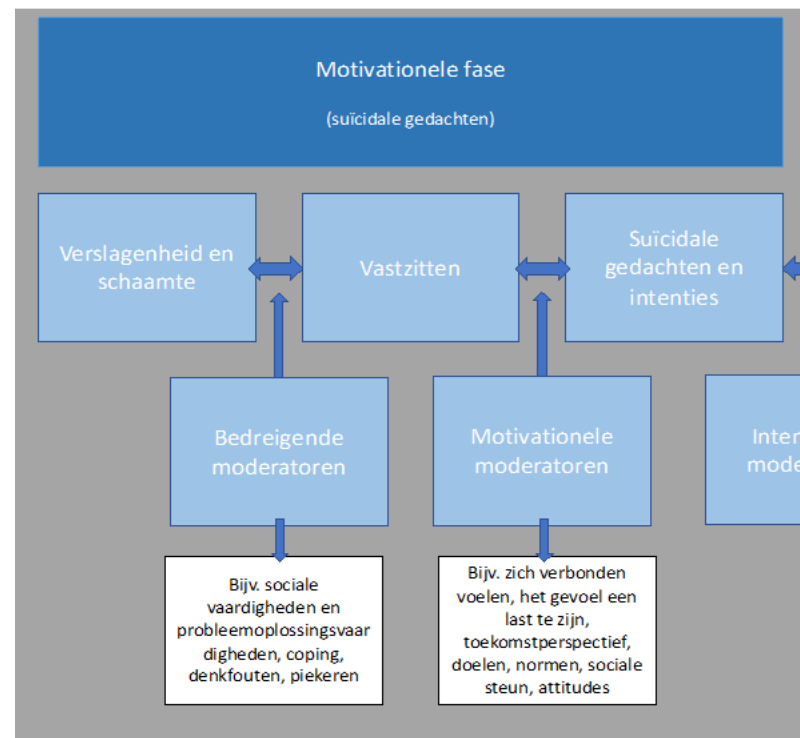
Knowing that anxiety, depression, and PTSD are highly comorbid disorders (Olf, 2017), especially for veterans (VA, 2019), the ASI's significant result is anything but surprising.



Motivational phase

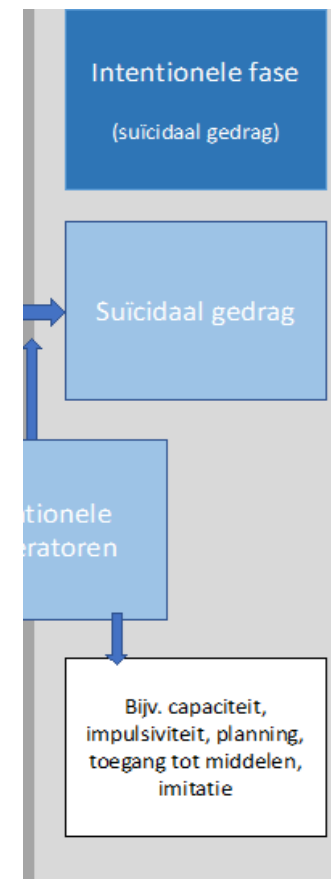
Thwarted belongingness, hopelessness, depression, and relationship status were all significant predictors.

The significance of the INQ-TB scale is in line with previous research on this construct that showed feeling out of place in civilian life (Selby et al., 2010), leads to a sense of isolation and less purpose now that their identity has shifted to that of a civilian



active-duty service members and their families share much in common with respect to social/interpersonal challenges that may be experienced as EE (e.g., reintegration to civilian society, deployment, access to support).

When a potentially [traumatic event](#) alters the veteran's fundamental assumptions ([Janoff-Bulman, 1989](#)), and being unable to integrate the experience within existing self-schema, SIB can be viewed as a possible recourse for punishing the self or for eluding intolerable [psychological distress](#).



Veterans who attempt suicide are characterized by more extreme dispositional tendencies toward low self-control and aggression, maladaptive behavior and coping patterns, and distress compared with depressed controls

The training, coupled with the extensive knowledge and understanding of firearms, shows that military service offers a niche pathway to increased capability for suicide



Special Article |  **Free Access**

A network theory of mental disorders

Denny Borsboom

First published: 26 January 2017 | <https://doi.org/10.1002/wps.20375> | Citations: 1,383

[UvA-linker Full Text](#)

```
graph TD; A[Depressie] --> B[Piekeren]; A --> C[Slapeloosheid]; A --> D[Hopeloosheid]; A --> E[In de val zitten];
```

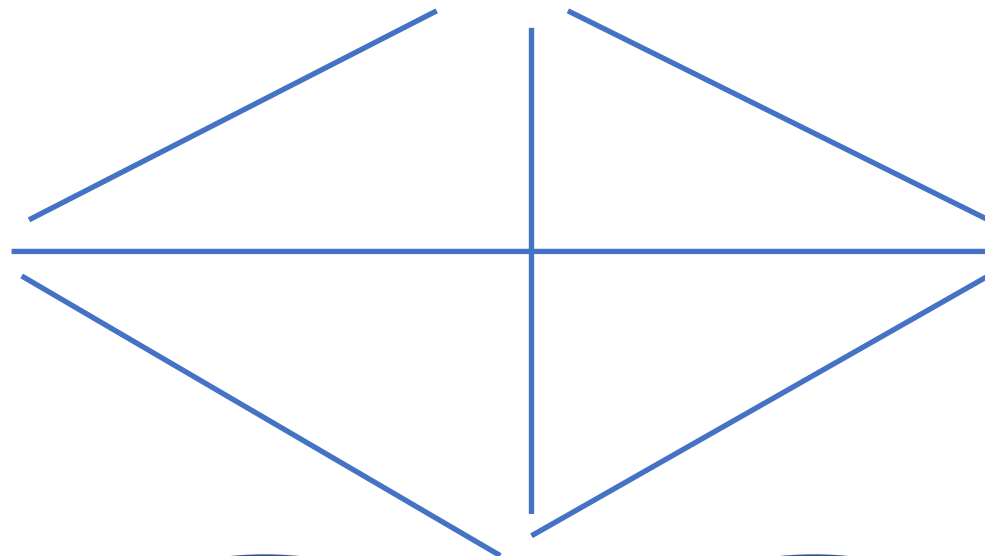
Depressie

Piekeren

Slapeloosheid

Hopeloosheid

In de val zitten



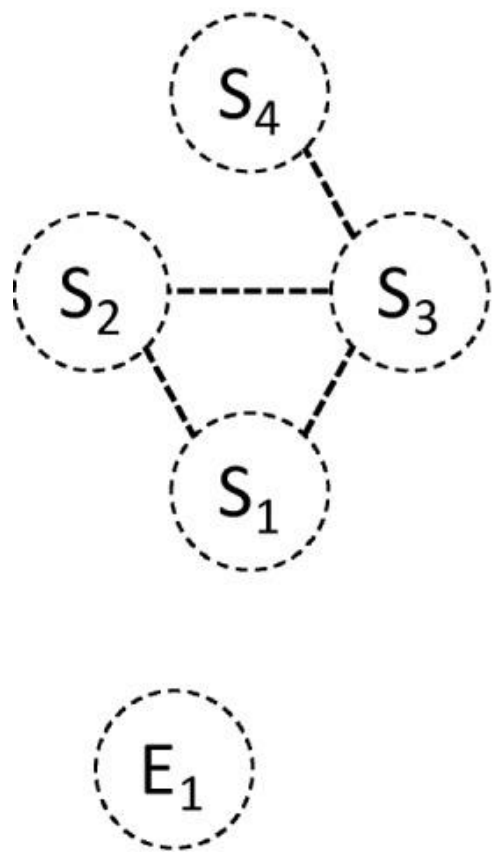
Piekeren

Slapeloosheid

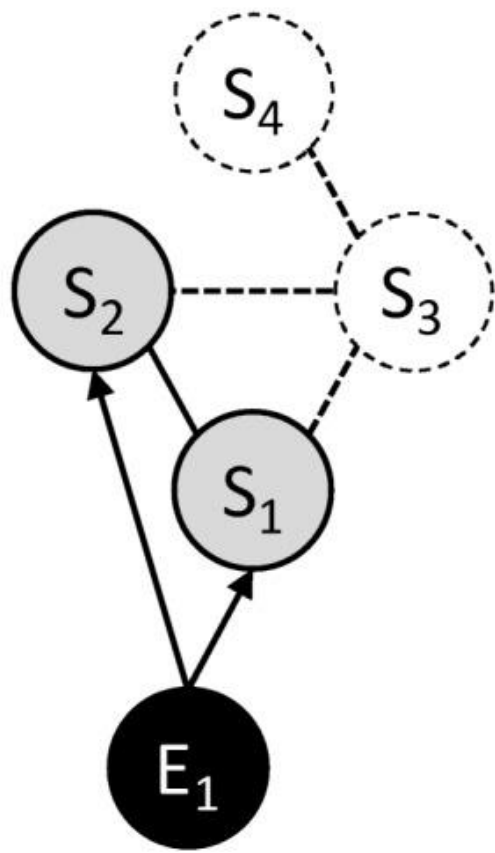
Hopeloosheid

In de val zitten

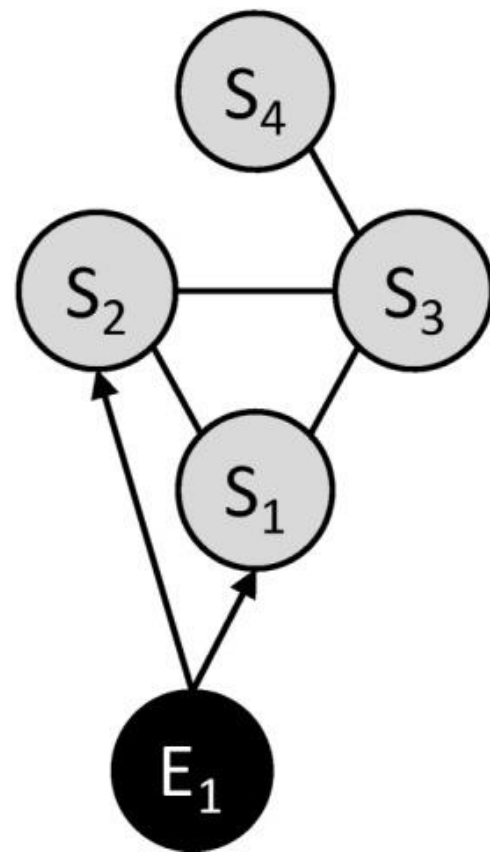
Phase 1.
Dormant network
in stable state



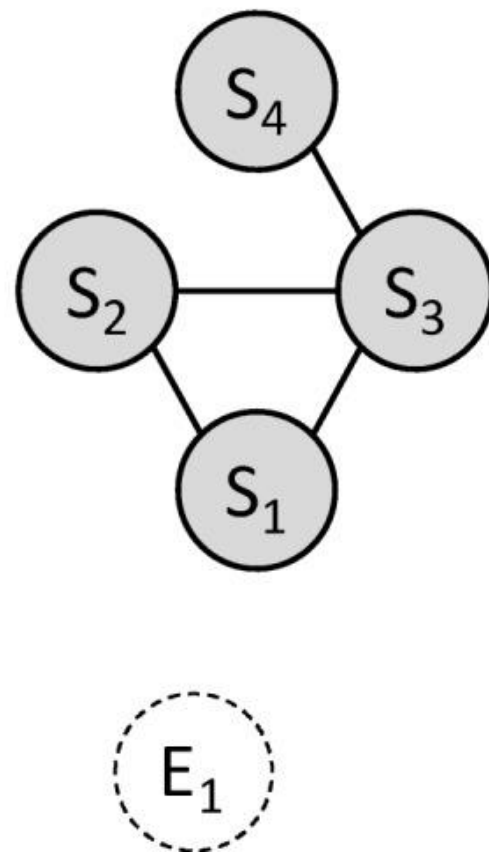
Phase 2.
Network activation



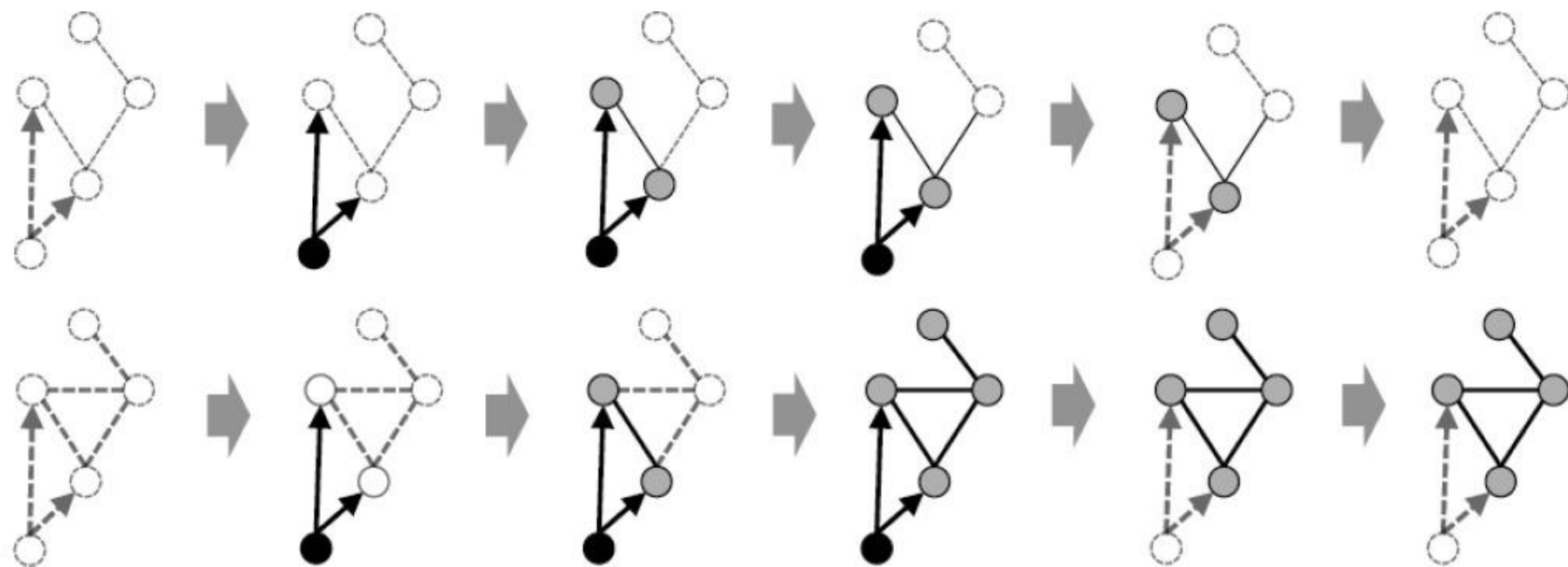
Phase 3.
Symptom spread



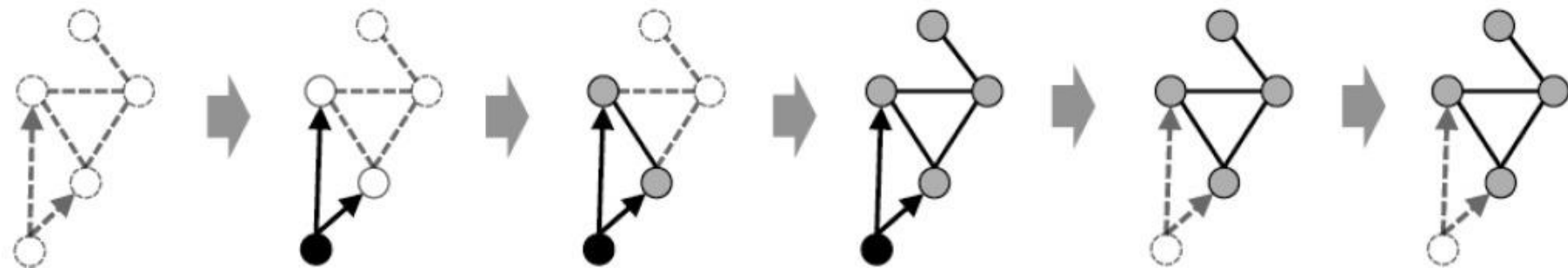
Phase 4.
Active network
in stable state

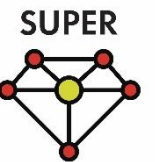
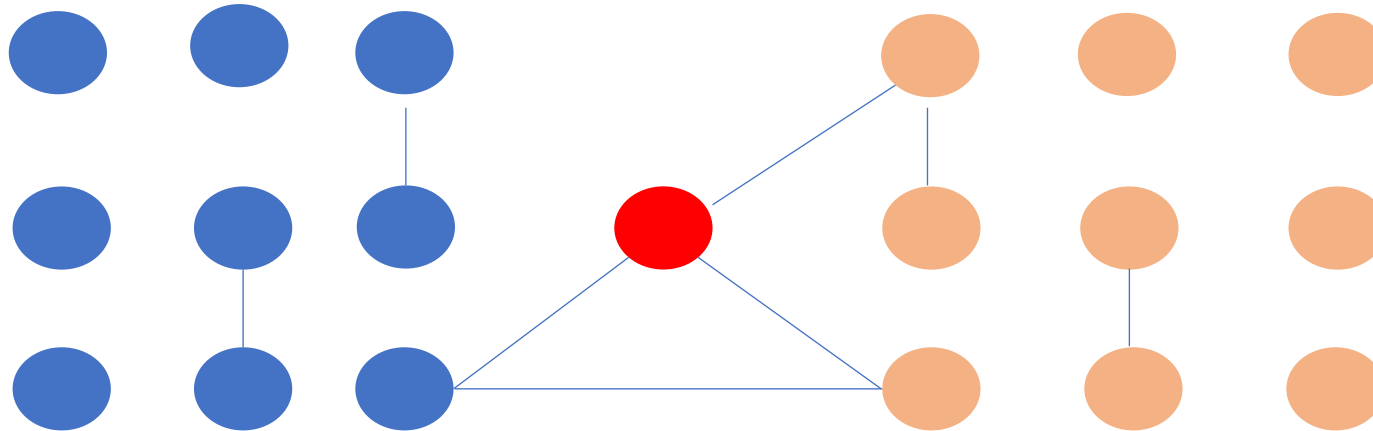
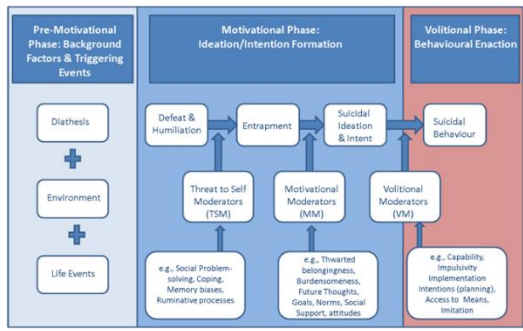


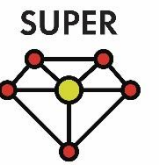
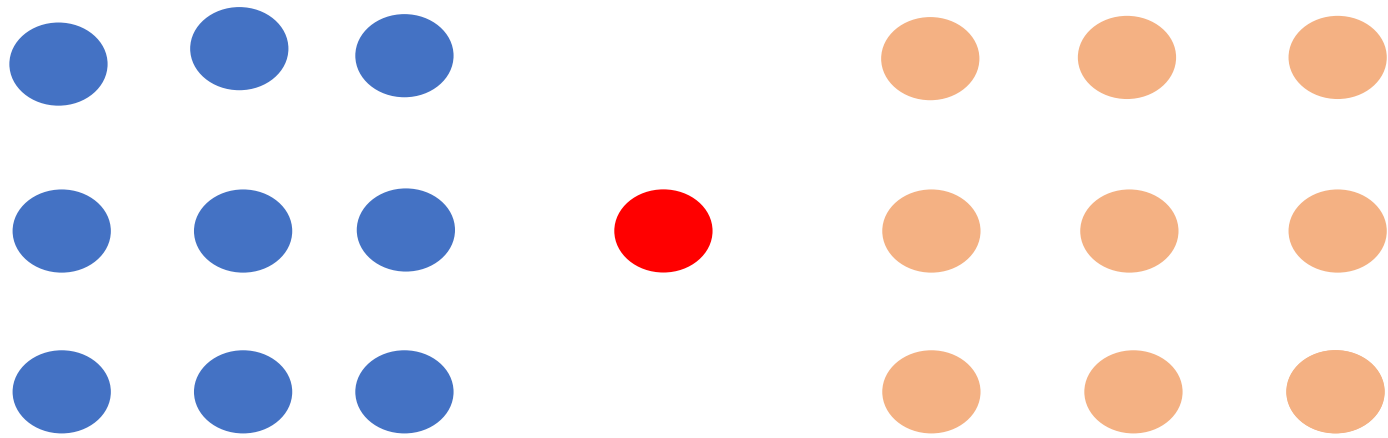
Resilient network

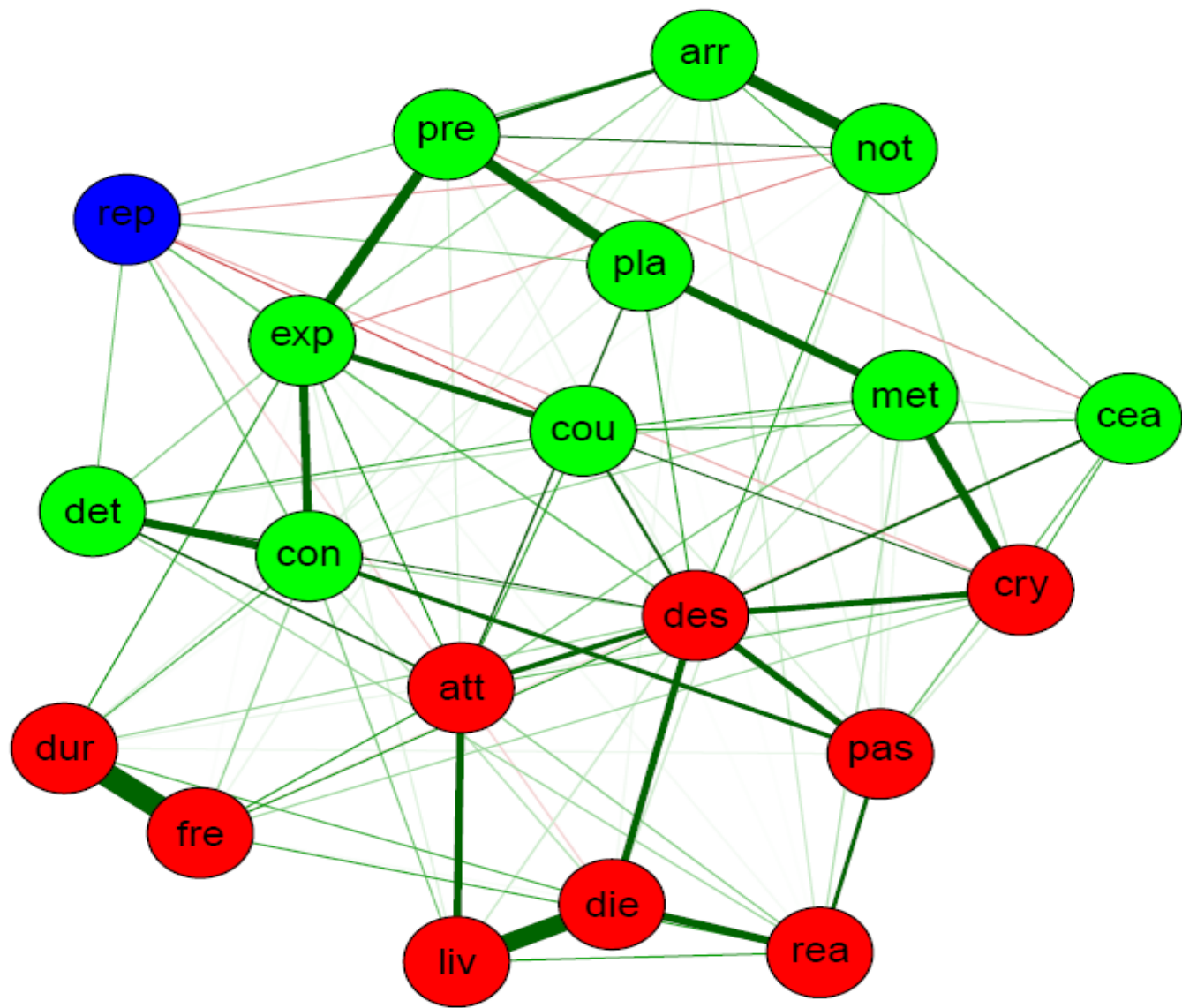


Vulnerable network



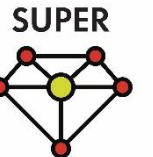






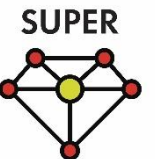
First try-out:

- 366 patients treated in scottish hospital for suicide attempt
- Within 24 hours, Beck Scale for Suicide Ideation was assessed
- Using national databases, it was determined how many people were treated again within 15 months

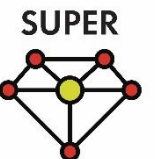


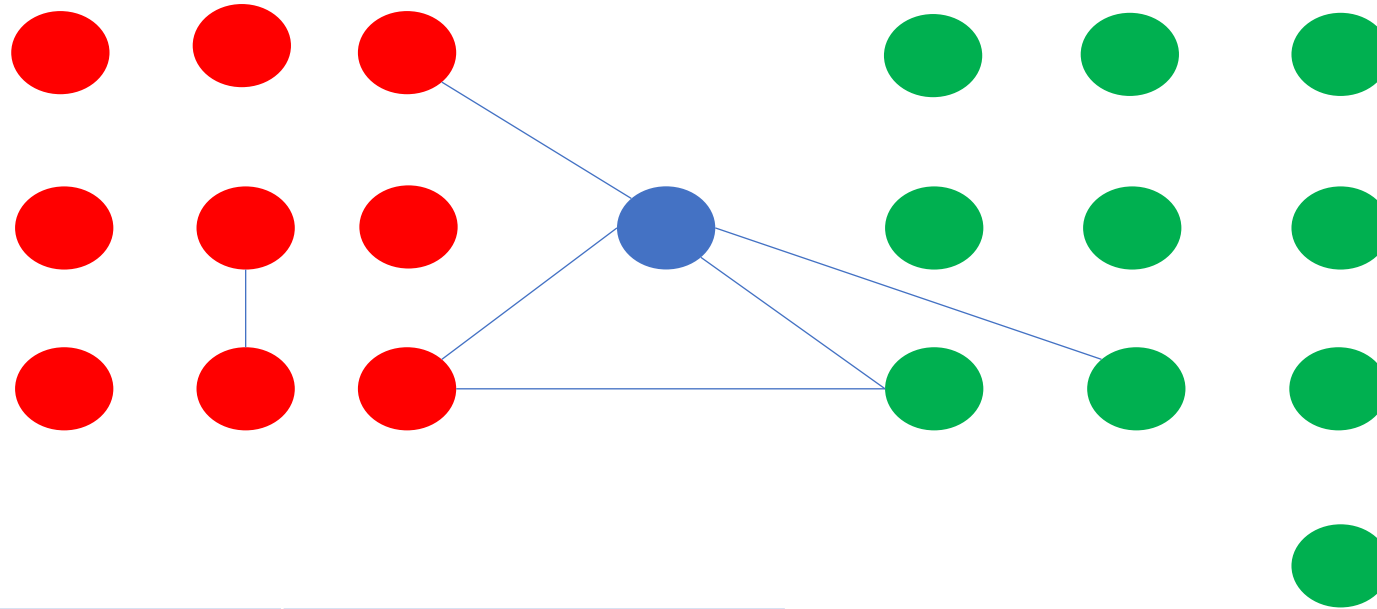
19 suicide items + follow up

1. wish to live;
2. wish to die;
3. reasons for living dying;
4. desire for active attempt:
5. passive desire
6. duration of suicide ideation
7. frequency of suicide ideation
8. attitude towards suicide
9. control over action
10. deterrents of attempt;
11. cry for pain versus cry for help
12. actual planning
13. availability of methods
14. Courage for actual behavior
15. expectancy of actual attempt
16. actual preparation
17. suicide note
18. arrangements after death;
19. concealment about ideation.
20. Repeated attempt at follow up (n = 94)

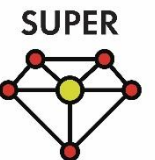


motivational	volitional
Wish to live	Control over action
Wish to die	Deterrents of attempt
Reasons for living	Actual planning
Desire for active attempt	Availability of methods
Passive desire	Courage for actual behavior
Duration of suicide ideation	Expectency of actual attempt
Frequency of suicide ideation	Actual preparation
Attitude towards suicide	Suicide note
Cry for pain versus cry for help	Arrangements after death
	Active concealment

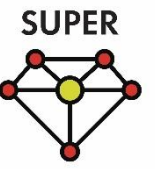
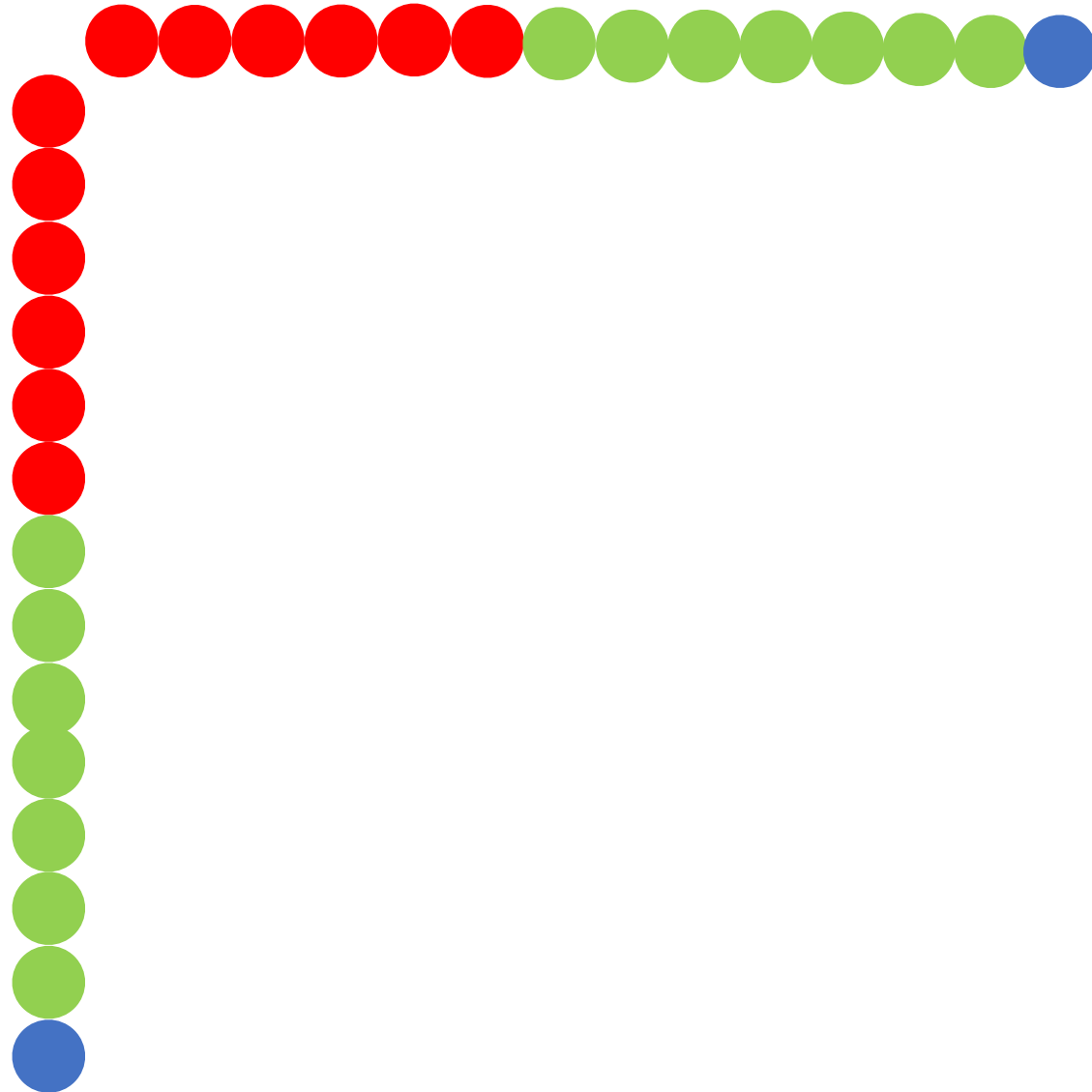




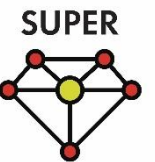
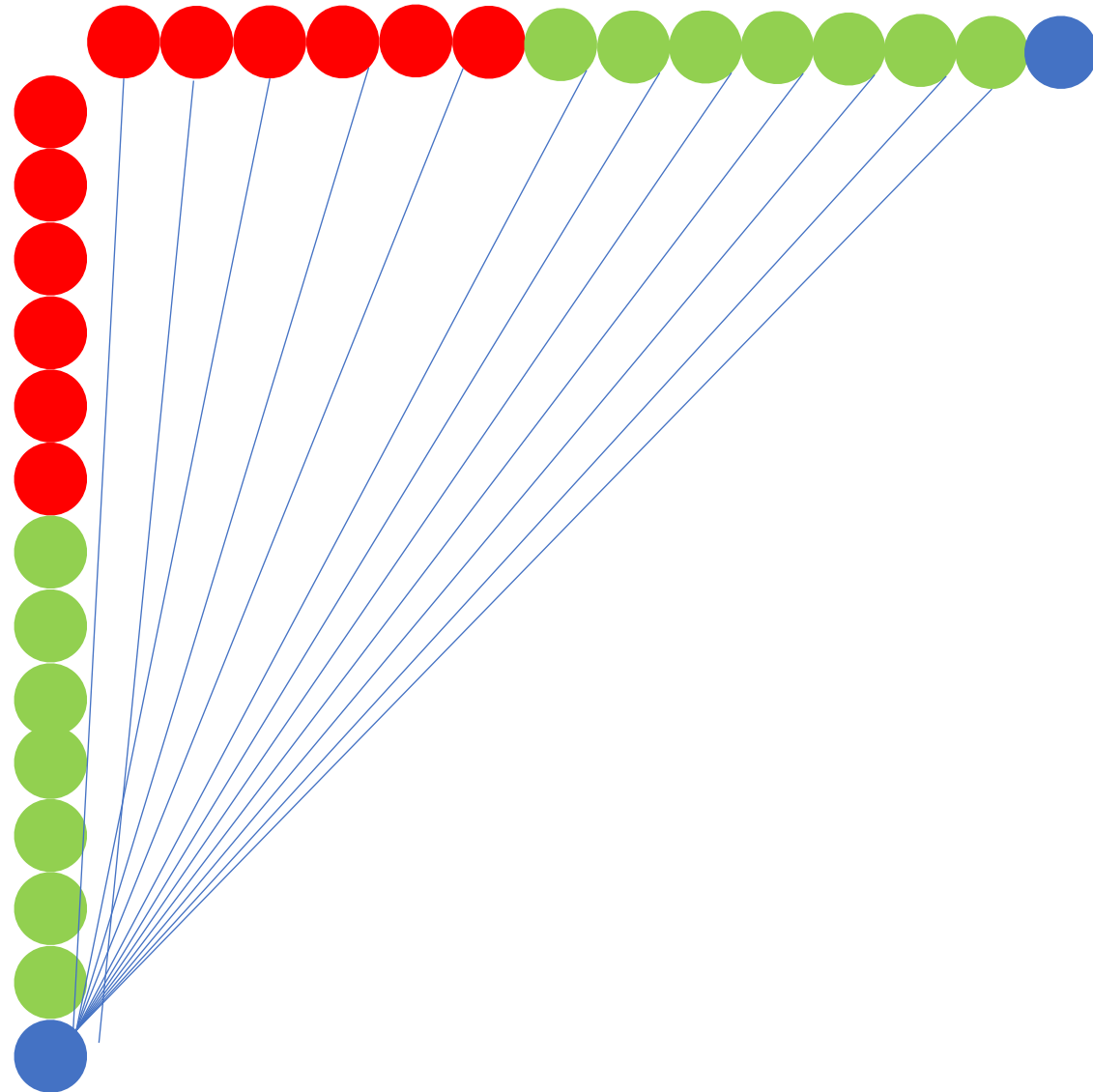
motivational	volitional
Wish to live	Control over action
Wish to die	Deterrents of attempt
Reasons for living	Actual planning
Desire for active attempt	Availability of methods
Passive desire	Courage for actual behavior
Duration of suicide ideation	Expectency of actual attempt
Frequency of suicide ideation	Actual preparation
Attitude towards suicide	Suicide note
Cry for pain versus cry for help	Arrangements after death
	Active concealment



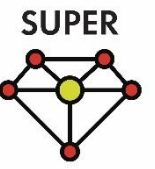
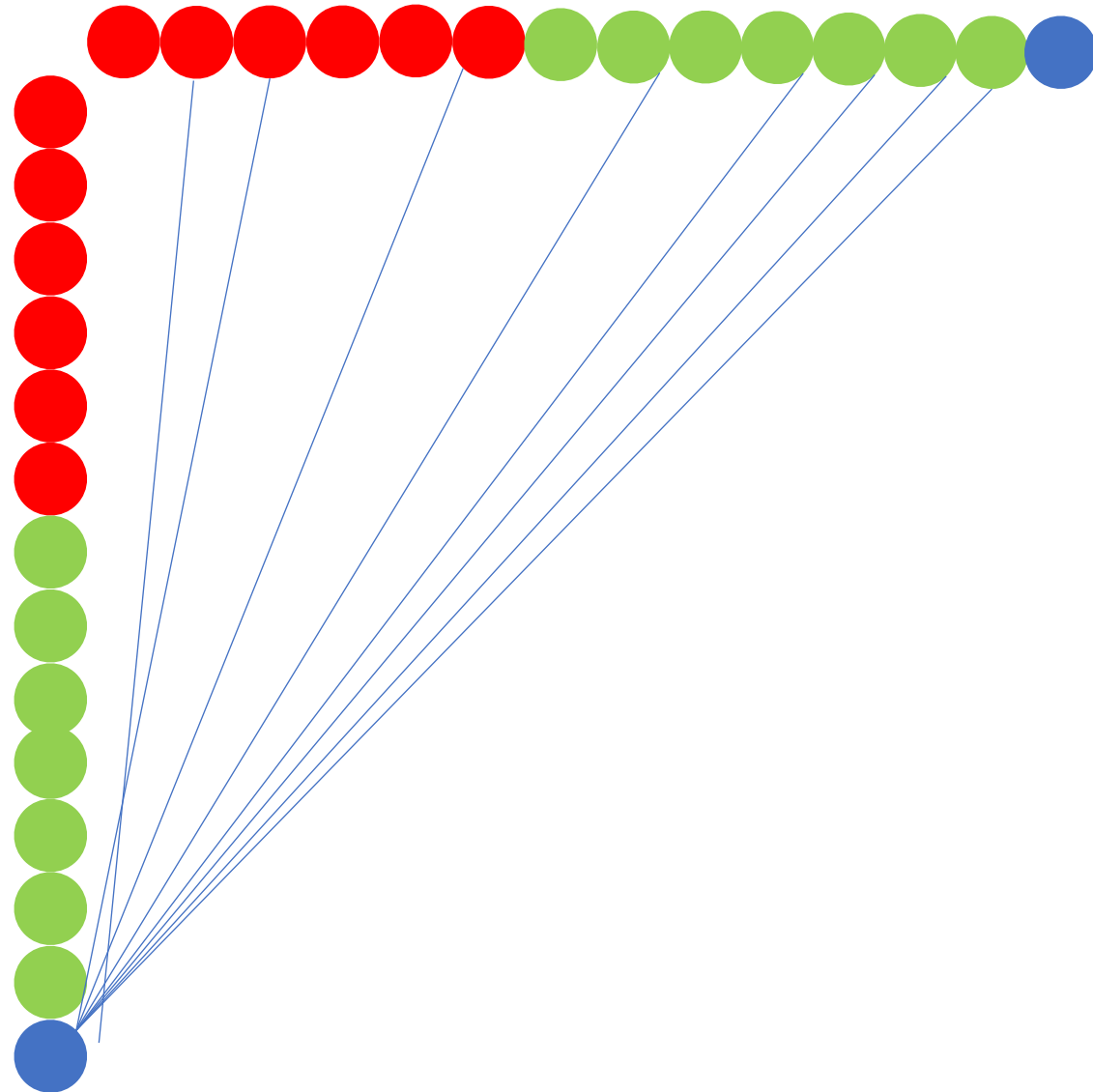
Data Matrix



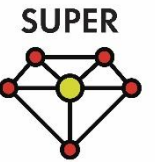
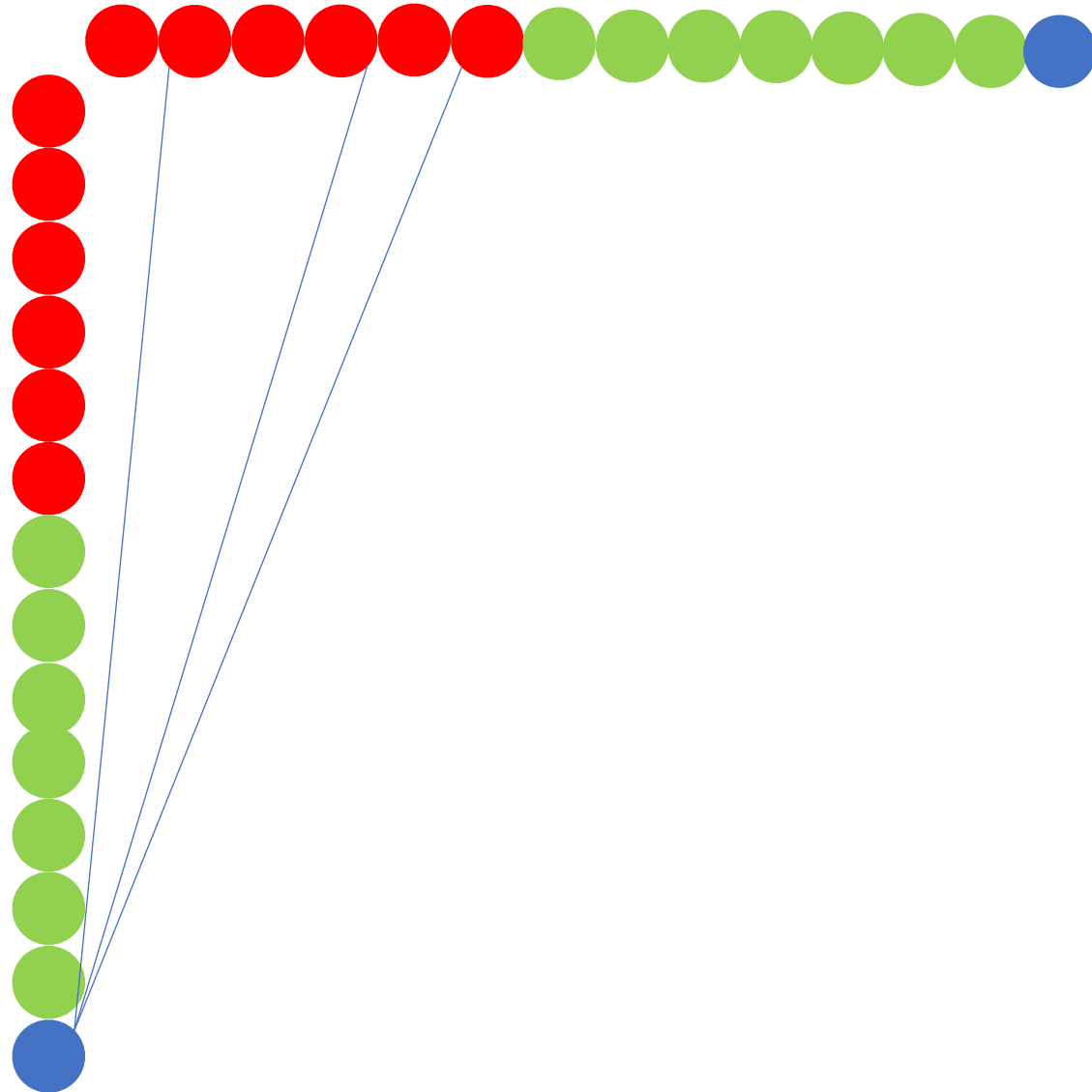
Correlation Matrix

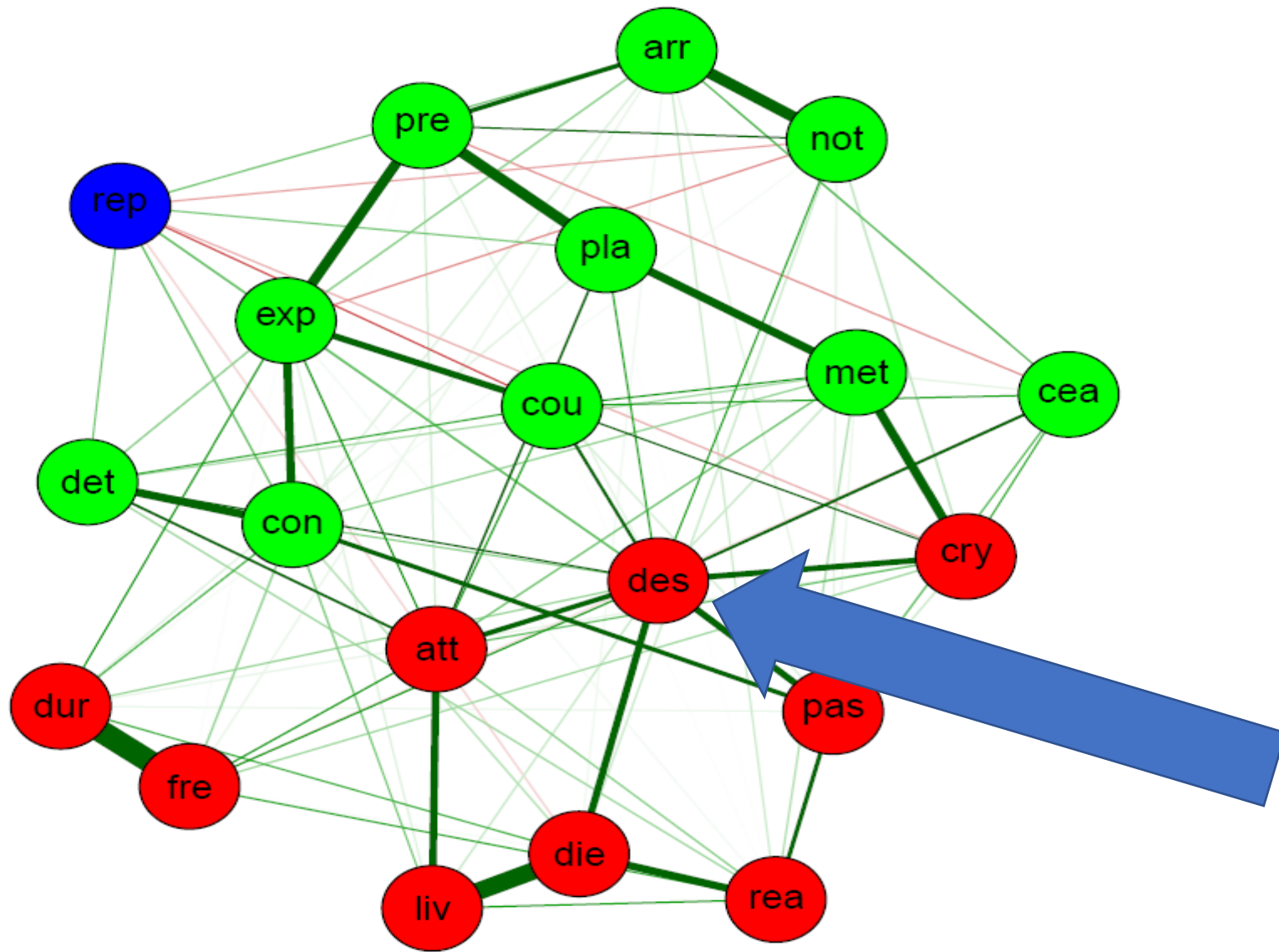


Partial correlation Matrix



L-1 Regularized partial correlation matrix
LASSO





Association between suicidal symptoms and repeat suicidal behaviour within a sample of hospital-treated suicide attempters

Derek P. de Beurs, Claudia D. van Borkulo and Rory C. O'Connor

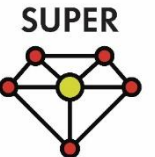
Background

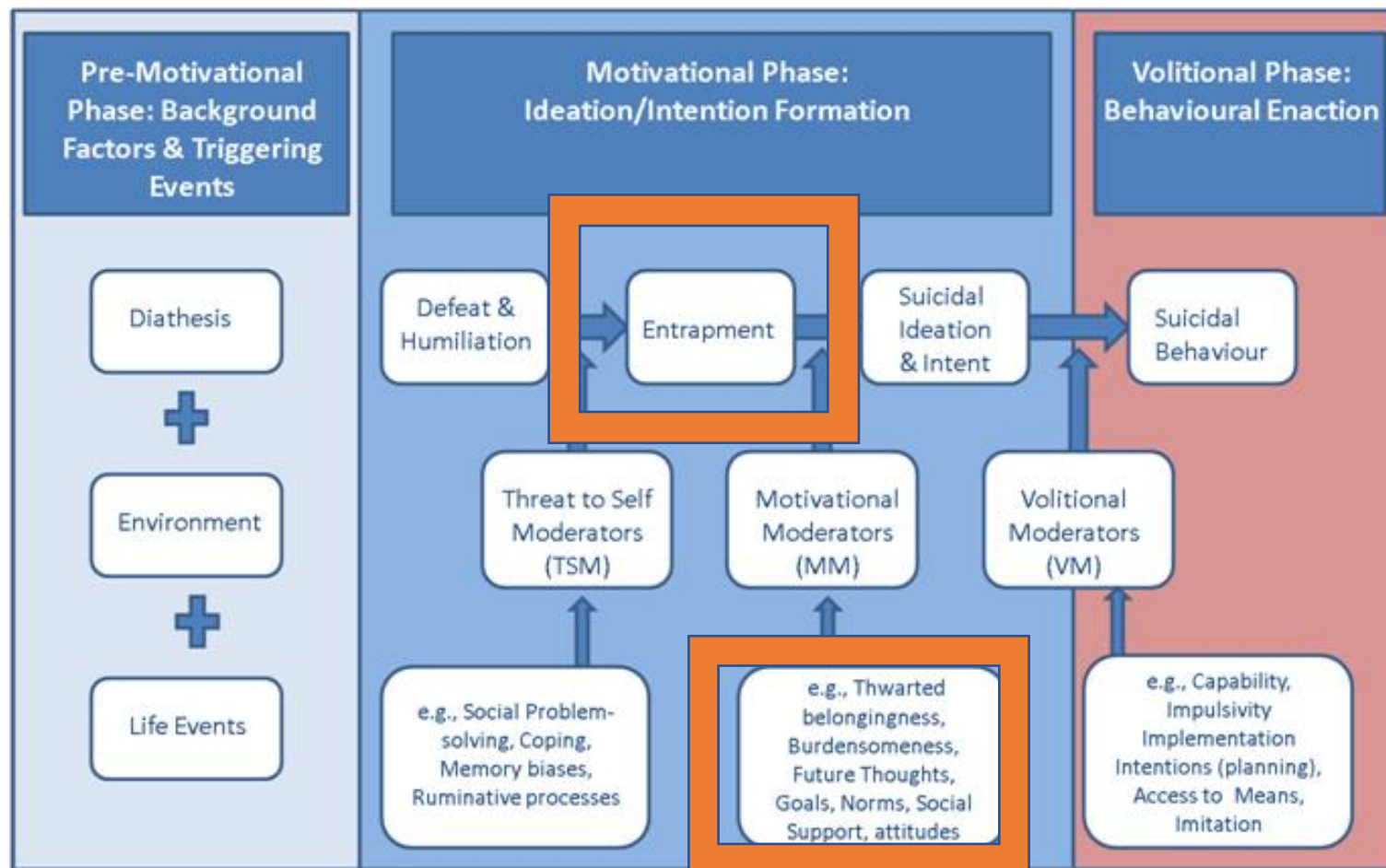
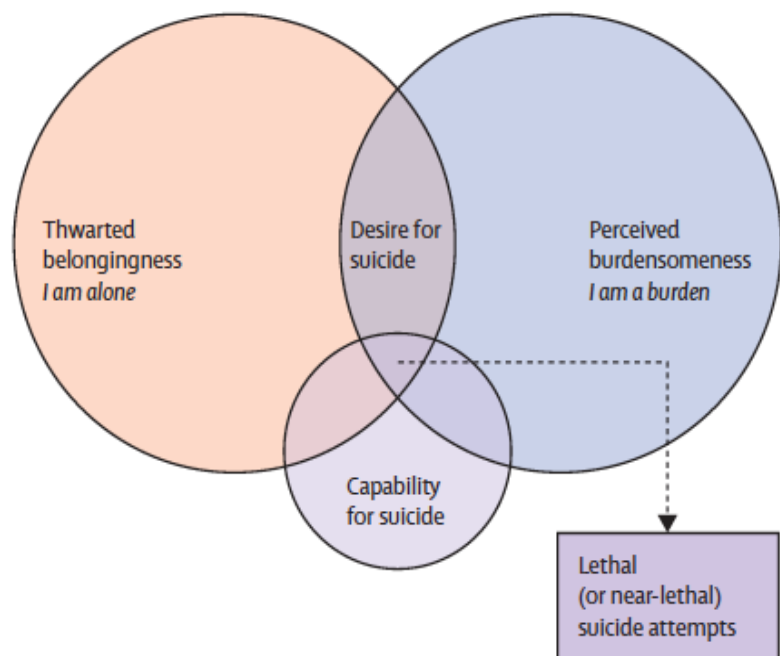
Suicidal behaviour is the end result of the complex relation between many factors which are biological, psychological and environmental in nature. Network analysis is a novel method that may help us better understand the complex association between different factors.

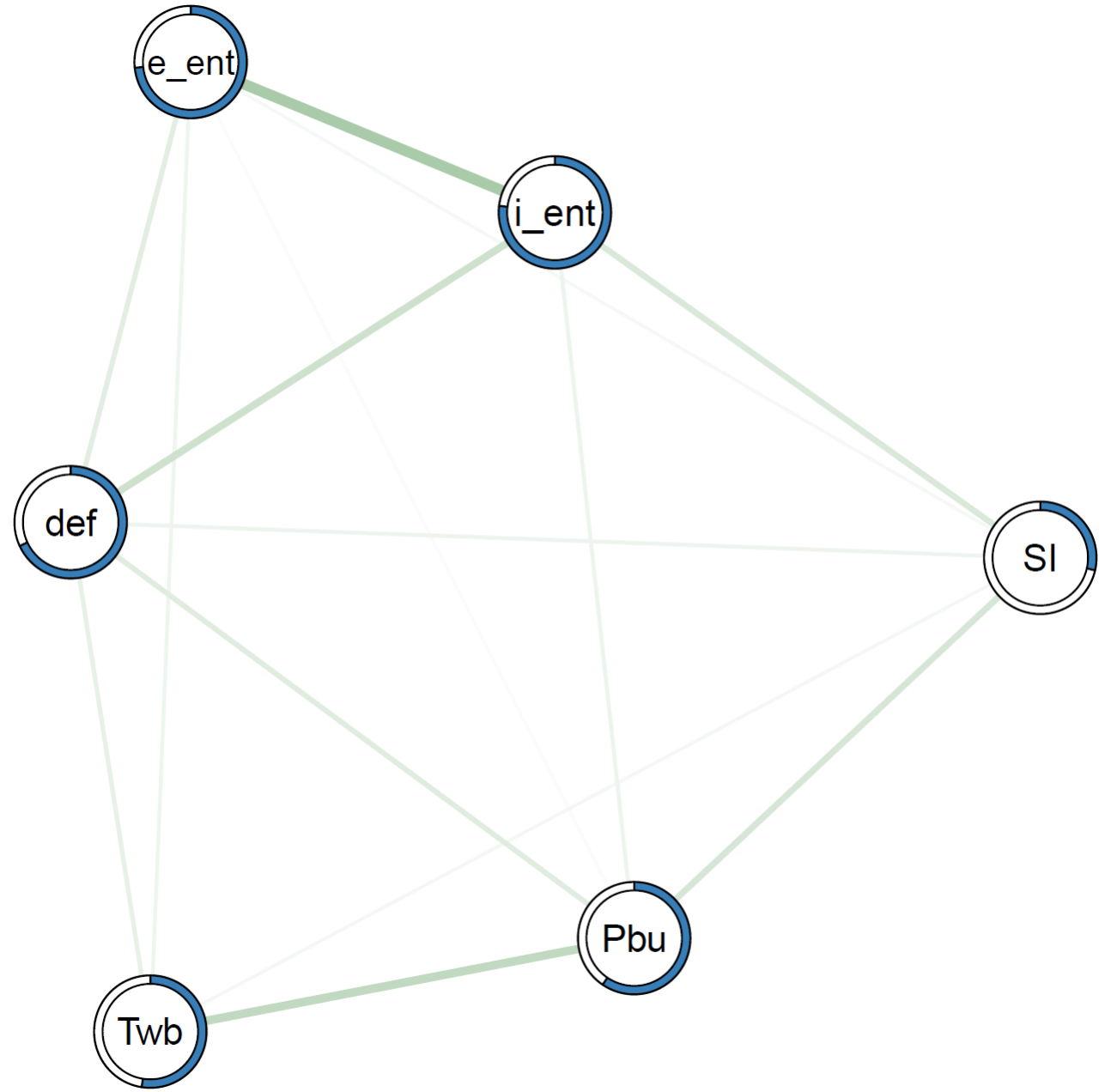
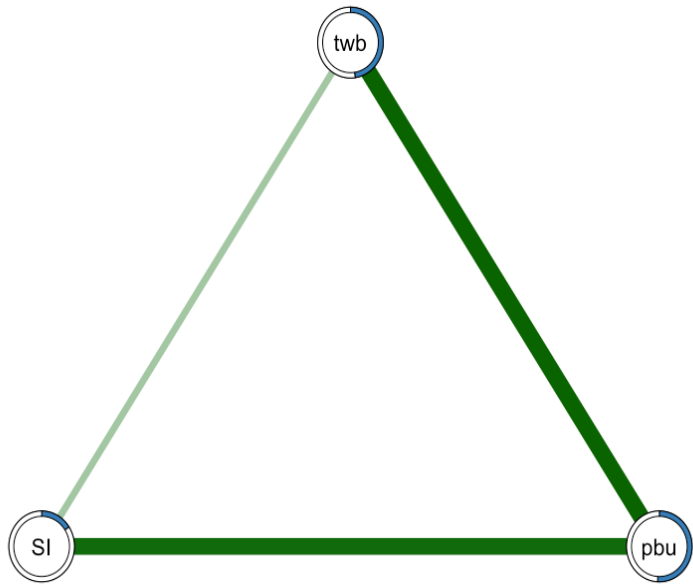
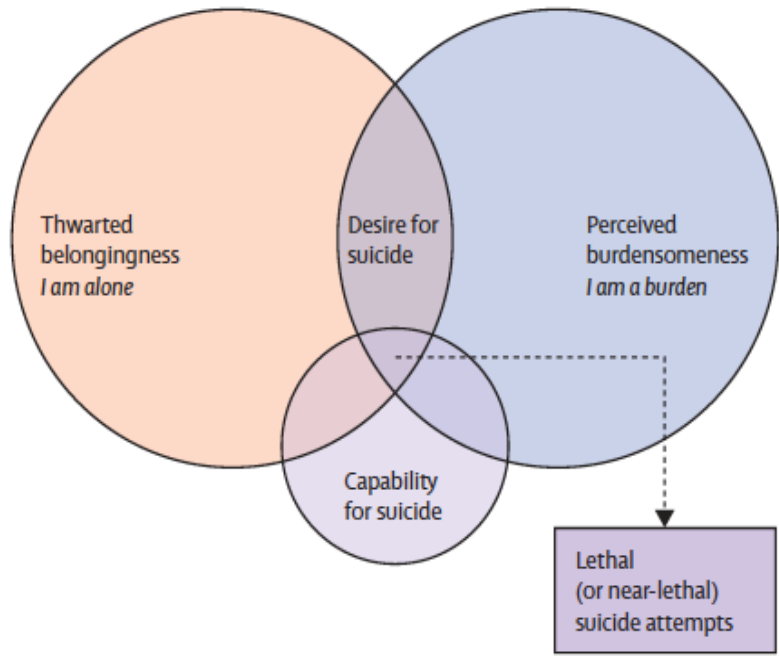
symptom. Of the 19 suicide symptoms that were assessed at baseline, 10 symptoms were directly related to repeat suicidal behaviour. When comparing baseline network structure of repeaters ($n=94$) with the network of non-repeaters ($n=272$), no significant differences were found.

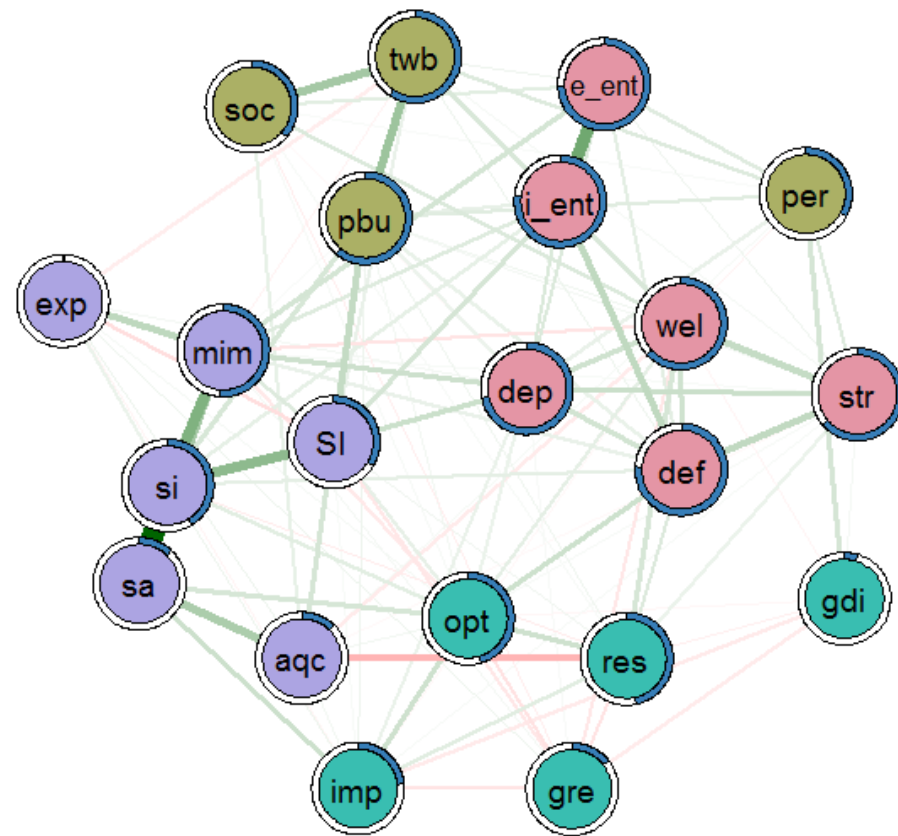
Scotisch well being study

- 3500 pp from community sample
- All possible constructs of the IMV model, and other models
- 12 month follow up of 2419 people
- 225 with suicide ideation (9%)
- 49 suicide attempts (2%)









Emotional wellbeing

- ◆ wel: Mental wellbeing
- ◆ str: Stress
- ◆ dep: Depressive symptoms
- ◆ def: Defeat
- ◆ i_ent: Internal entrapment
- ◆ e_ent: External entrapment

Interpersonal

- ◆ soc: Social support
- ◆ pbu: Perceived burdensomeness
- ◆ twb: Twarted belongings
- ◆ per: Perfectionism

Personality

- ◆ gdi: Goal disengagement
- ◆ gre: Goal re-engagement
- ◆ imp: Impulsivity
- ◆ opt: Optimism
- ◆ res: Resilience

Suicidal

- ◆ aqc: Acquired capability
- ◆ mim: Mental imagery
- ◆ exp: Exposure
- ◆ sa: History of suicide attempt
- ◆ si: History of suicide ideation
- ◆ SI: Current suicide ideation

Research paper




Suicide ideation as a symptom of adolescent depression. a network analysis

Mandy W.M. Gijzen ^{a, b, c} , Sanne P.A. Rasing ^{c, d} , Daan H.M. Creemers ^{c, e} , Filip Smit ^{a, f} , Rutger C.M.E. Engels ^b , Derek De Beurs ^{a, f} 


Show more 

Research Article

Examining the Interrelationships Among Suicide Cognitions, Suicidal Ideation, and Theoretically Derived Protective Factors

Nicolas Oakey-Frost , Tovah Cowan, Emma H. Moscardini, Sarah Pardue-Bourgeois, Derek de Beurs, Alex Cohen, Craig J. Bryan  & Raymond P. Tucker  [... show less](#)

Published online: 11 Jul 2022

 Download citation

 <https://doi.org/10.1080/13811118.2022.2096521>

 Check for updates

The inter-connections between self-harm and aggressive behaviours: A general network analysis study of dual harm

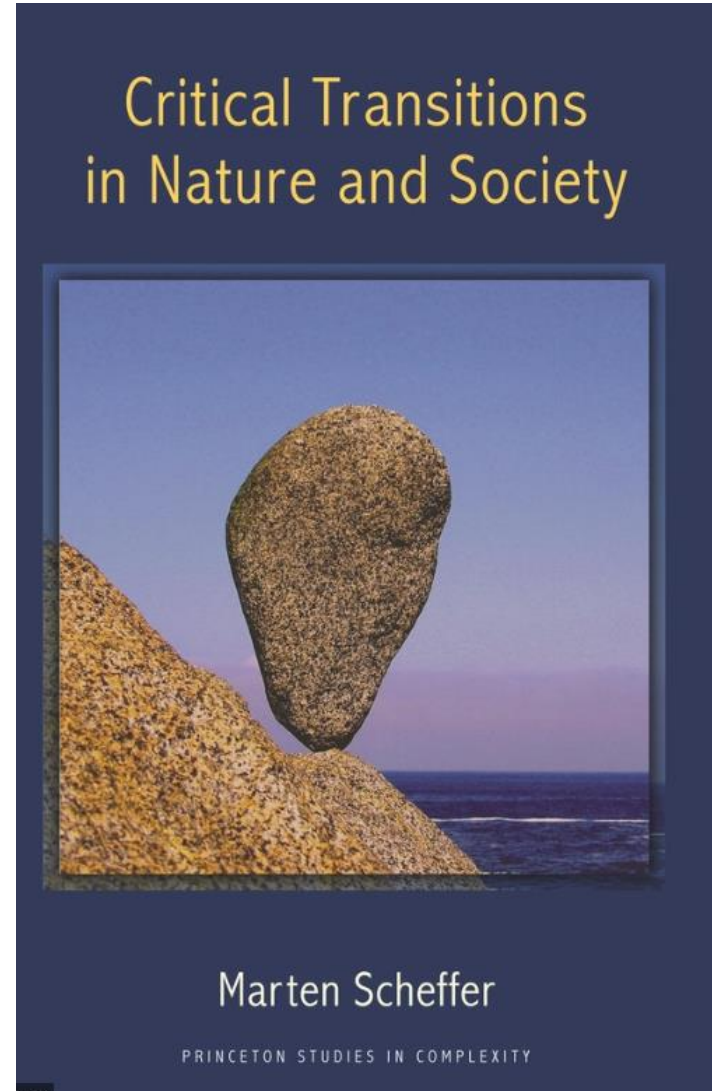
Matina Shafti^{1,2,*}, Sarah Steeg^{1,3}, Derek de Beurs⁴, Daniel Pratt^{1,2,3}, Andrew Forrester⁵, Roger T. Webb^{1,2,6} and Peter James Taylor^{1,2}

¹Manchester Academic Health Science Centre, The University of Manchester, Manchester

The interplay between psychopathological symptoms: transdiagnostic cross-lagged panel network model

UnYoung Chavez-Baldini, Karin Verweij, Derek de Beurs, Claudi Bockting, Anja Lok, Arjen L. Sutterland, Geeske van Rooijen, Guido van Wingen, Damiaan Denys, Nienke Vulink* and Dorien Nieman*

Complexity science



**Suicide and
Life-Threatening
Behavior**

*The Official Journal of the
American Association
of Suicidology*



Special Issue |  **Open Access** |  

A network perspective on suicidal behavior: Understanding suicidality as a complex system

Derek de Beurs , Claudi Bockting, Ad Kerkhof, Floortje Scheepers, Rory O'Connor, Brenda Penninx, Ingrid van de Leemput

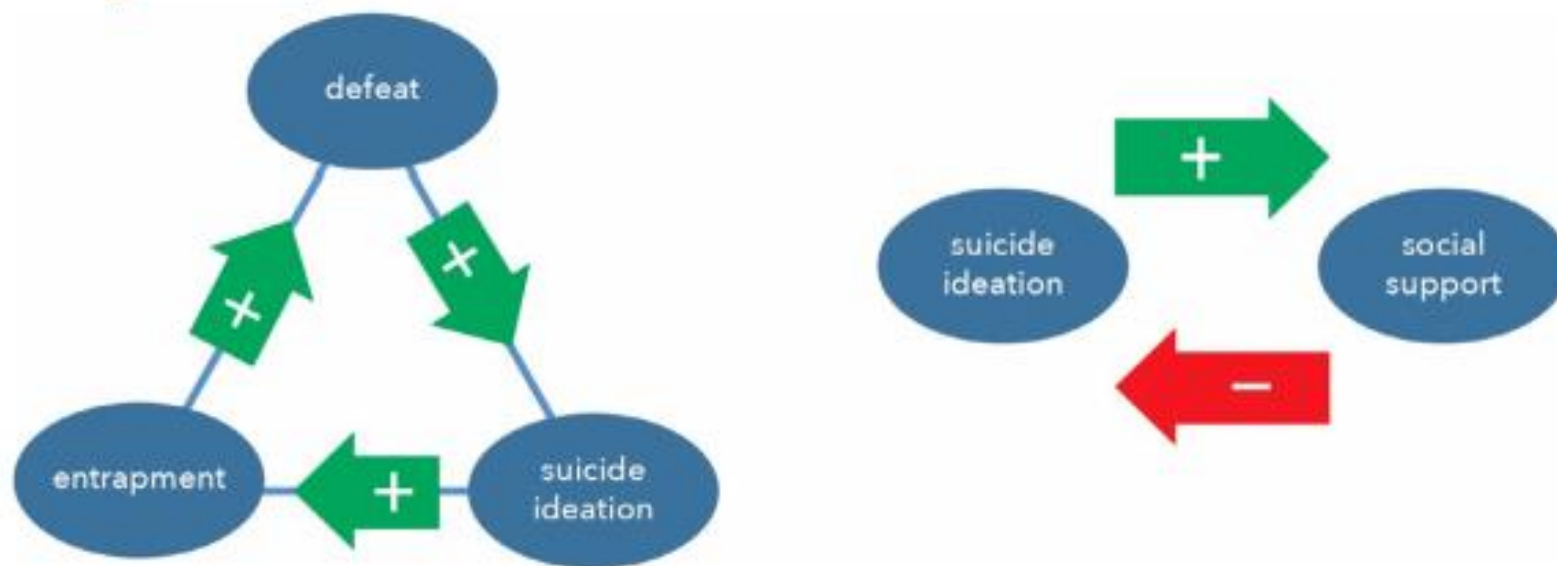
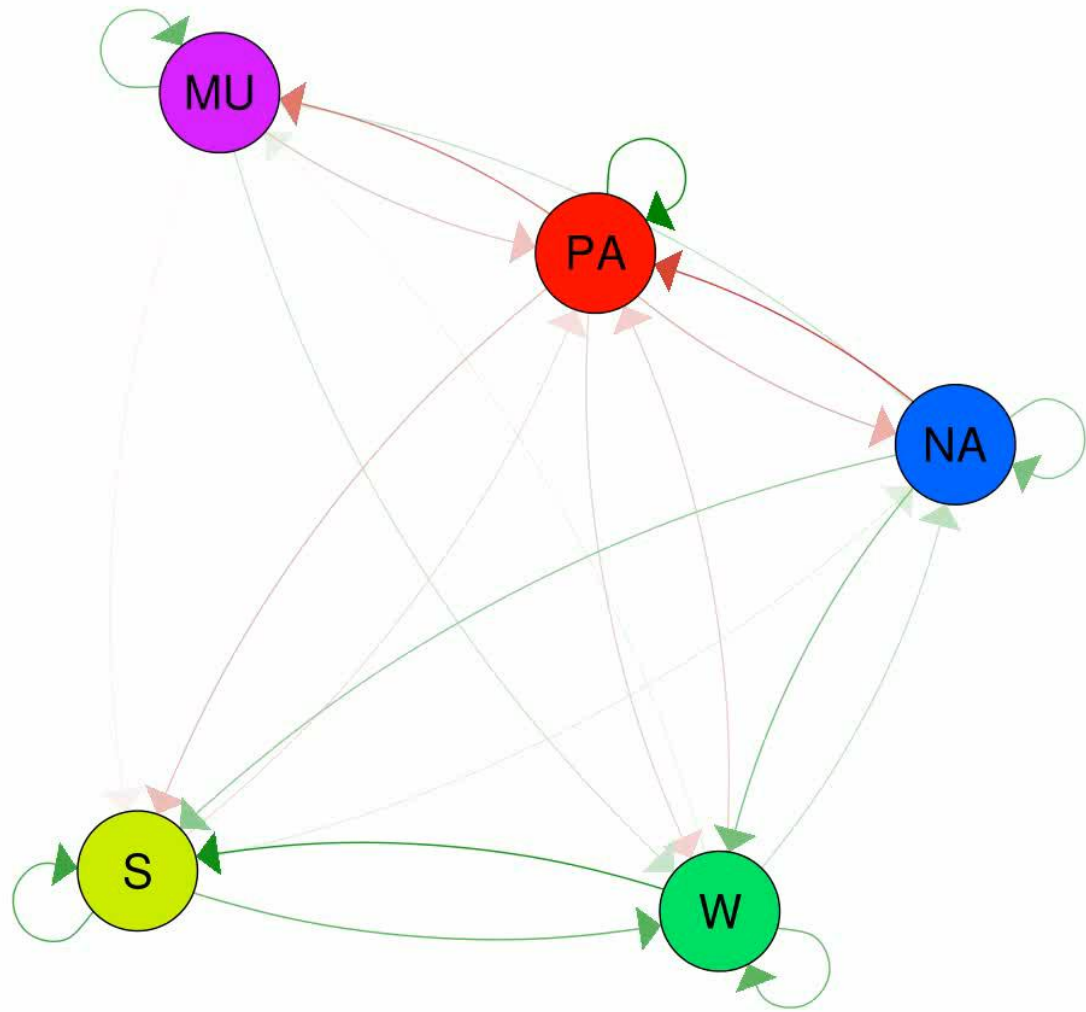


FIGURE 8 Example of a positive feedback loop (left-hand) and a negative feedback loop (right-hand) [Colour figure can be viewed at wileyonlinelibrary.com]



PA = Positive Affect S = Suspicion W = Worry NA = Negative Affect MU = Mental Unrest

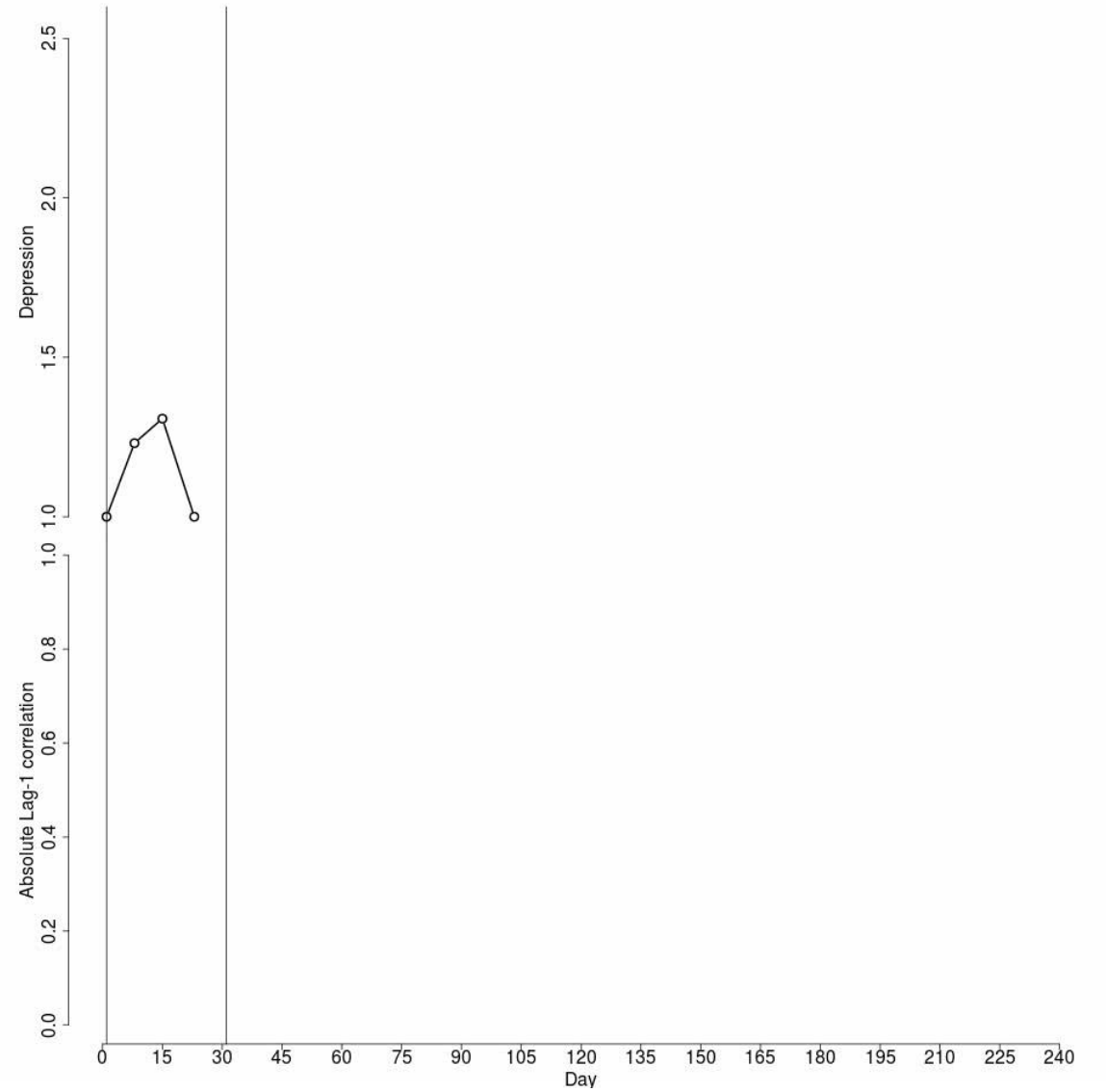




FIGURE 6 An conceptual representation of a stable state
[Colour figure can be viewed at wileyonlinelibrary.com]

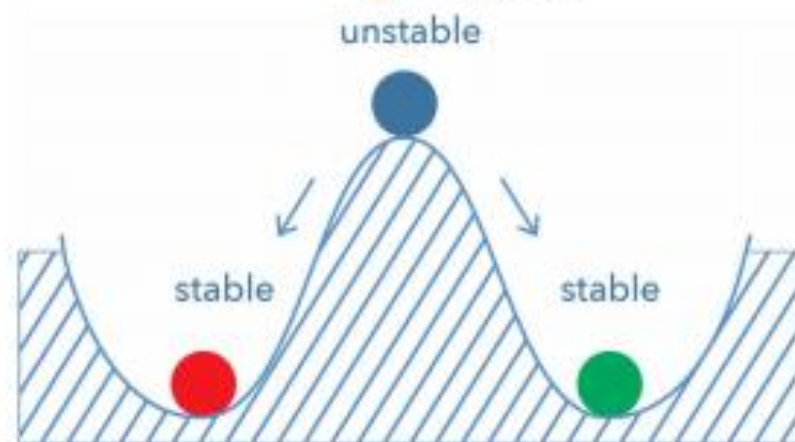
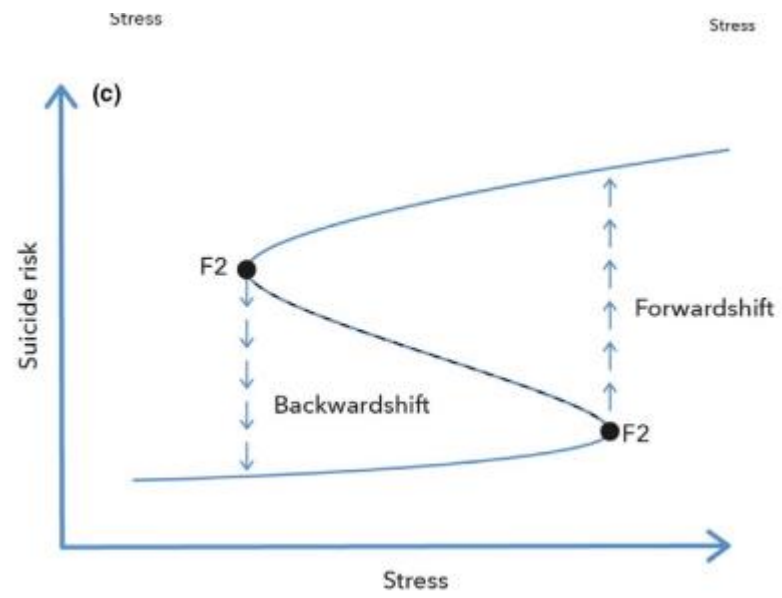
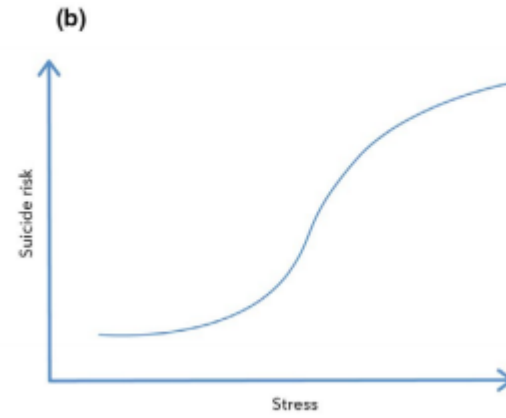
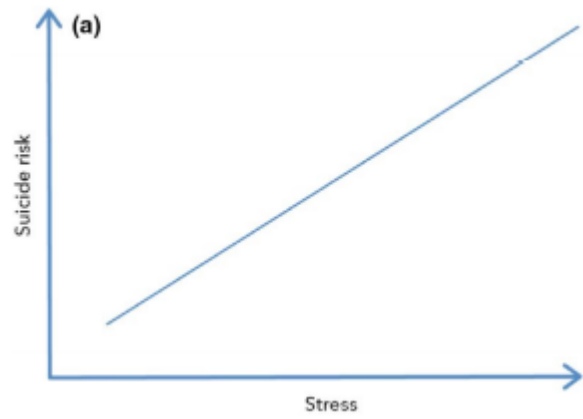


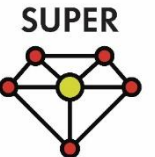
FIGURE 7 Some systems can have multiple stable states
[Colour figure can be viewed at wileyonlinelibrary.com]



AMBAS study

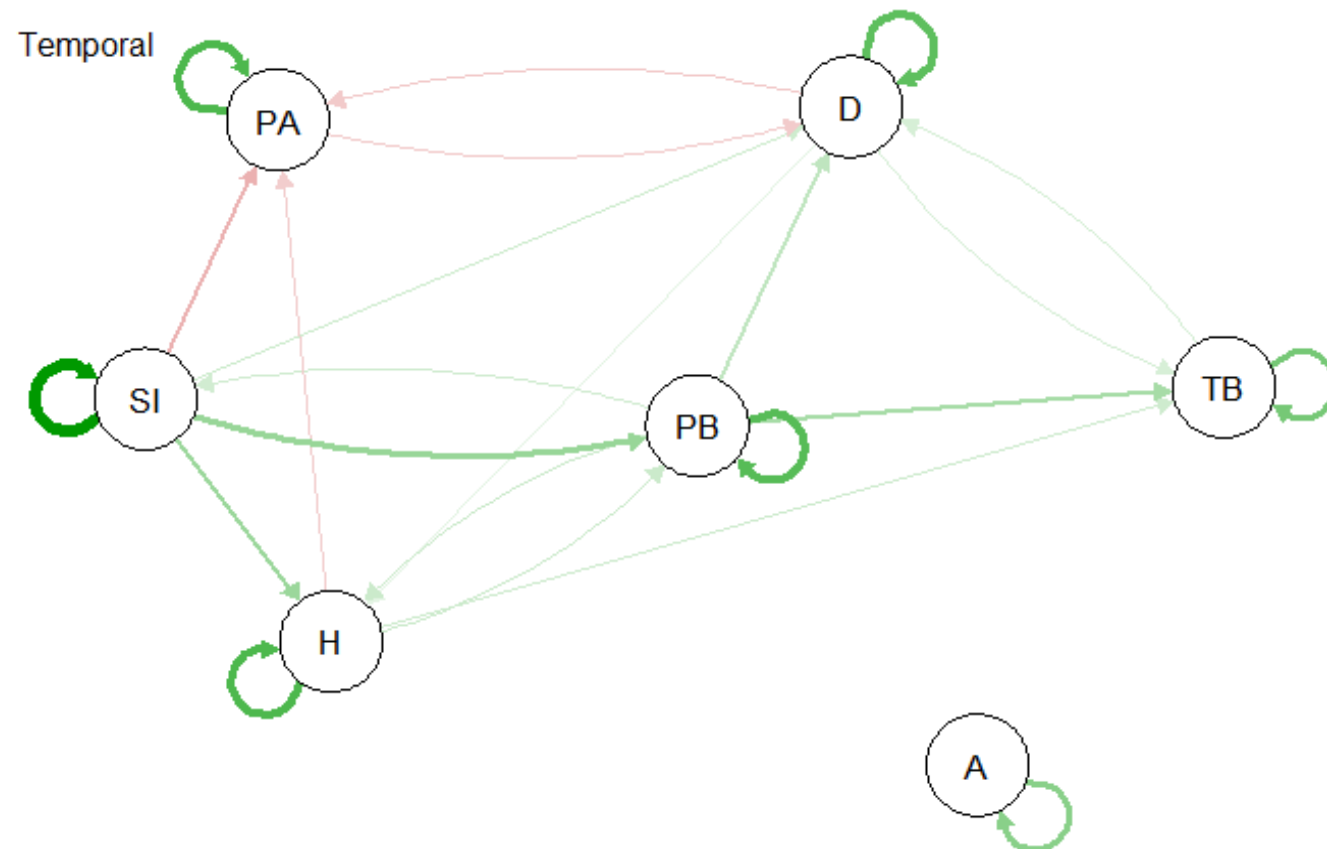
University of Leipzig/Aachen, Germany

- 74 depressed suicidal inpatients
- 10 assessments during 6 days
- 7 basic factors: depression, hopelessness, perceived burdensomeness, anxiety, positive affect and suicide ideation



AMBAS study

University of Leipzig/Aachen, Germany





Contents lists available at [ScienceDirect](#)

Internet Interventions

journal homepage: www.elsevier.com/locate/invent



Modelling suicide ideation from beep to beep: Application of network analysis to ecological momentary assessment data

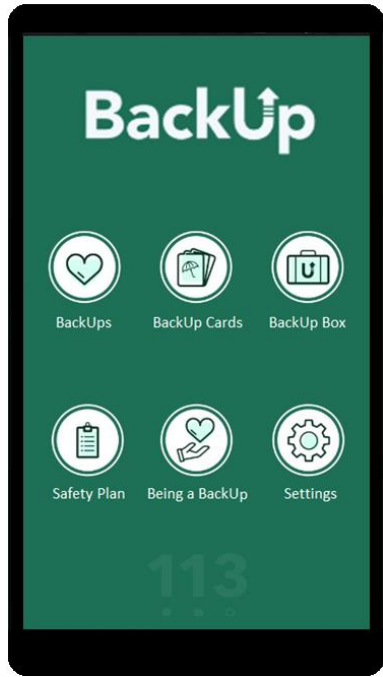
Dajana Rath^{a,*}, Derek de Beurs^b, Nina Hallensleben^c, Lena Spangenberg^c, Heide Glaesmer^c, Thomas Forkmann^a

^a Department of Clinical Psychology, University of Duisburg-Essen, Germany

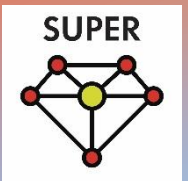
^b NIVEL, Utrecht, the Netherlands

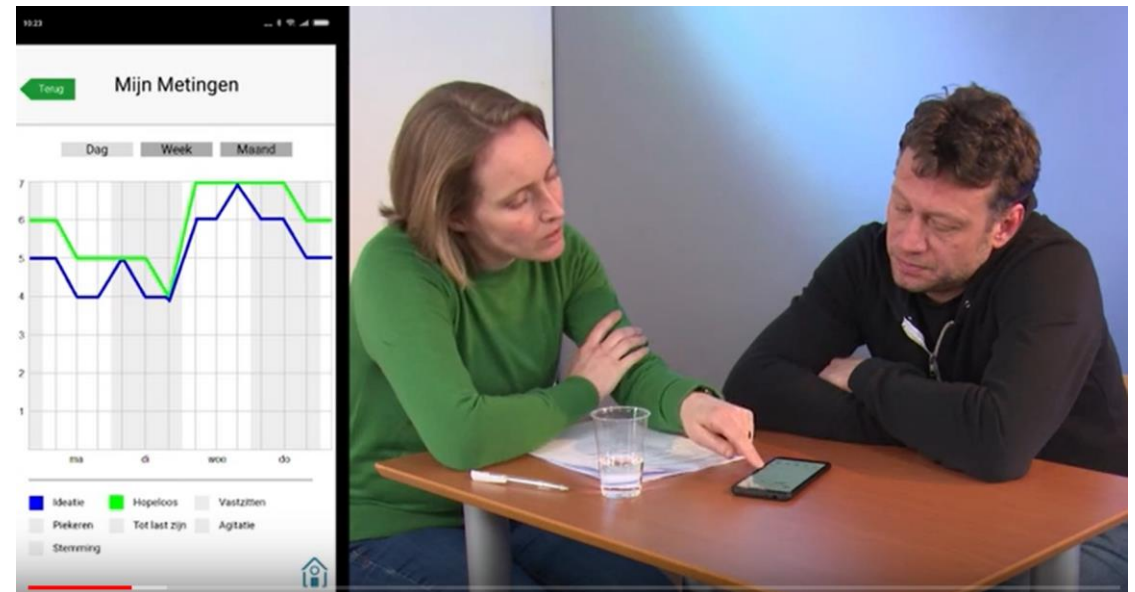
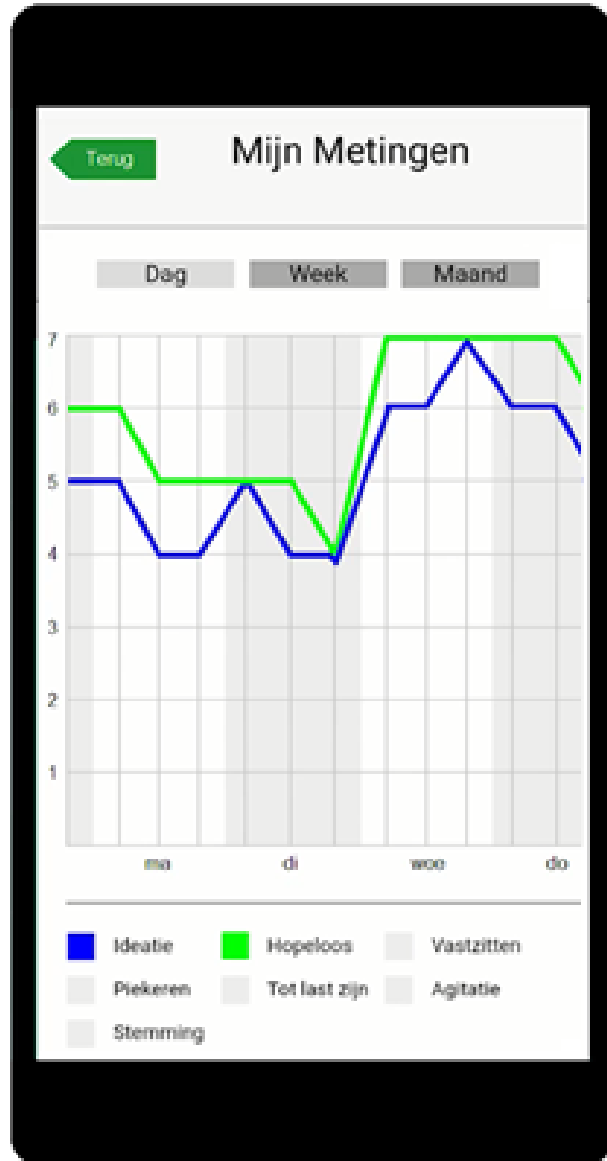
^c Department of Medical Psychology and Medical Sociology, University of Leipzig, Germany

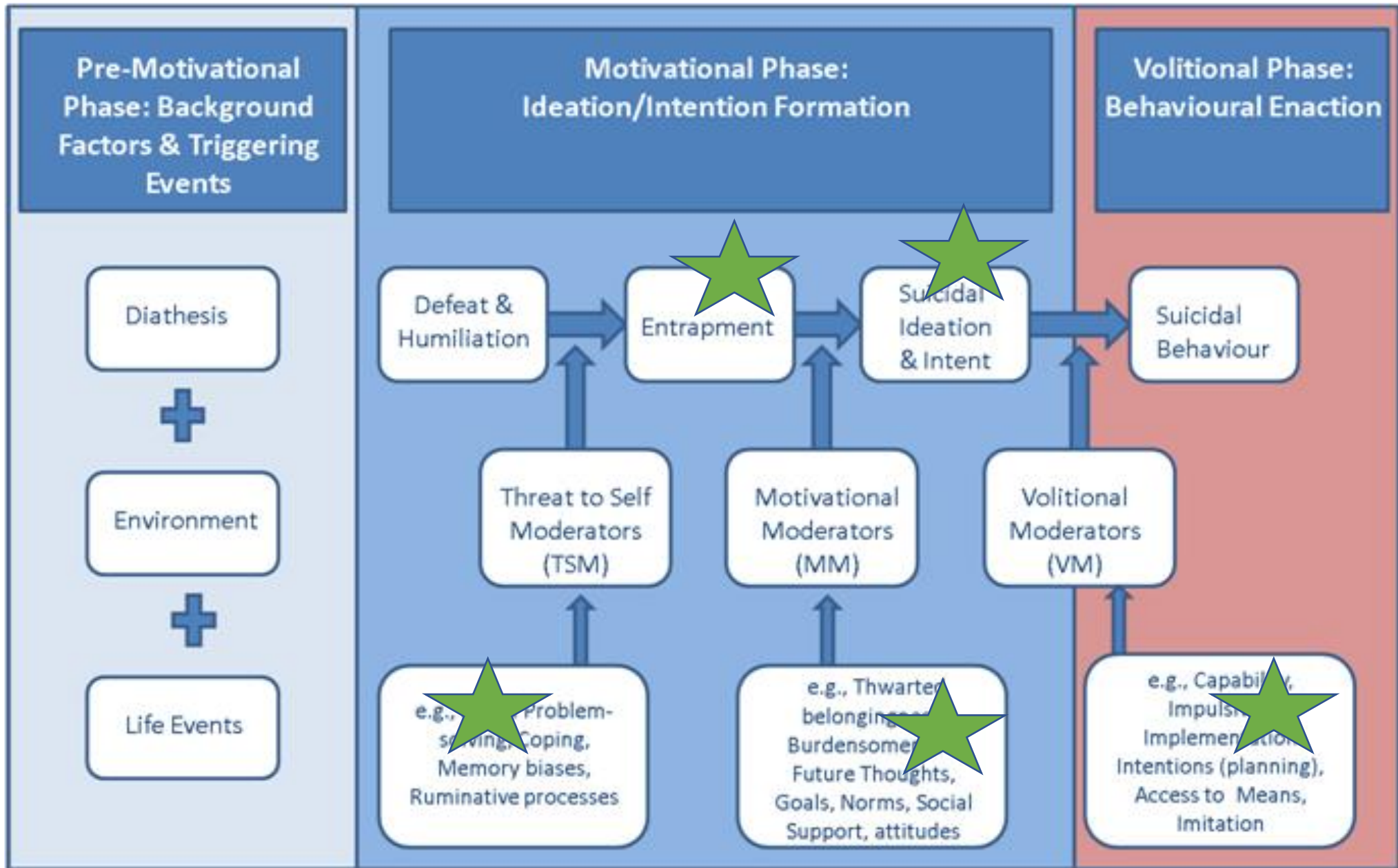




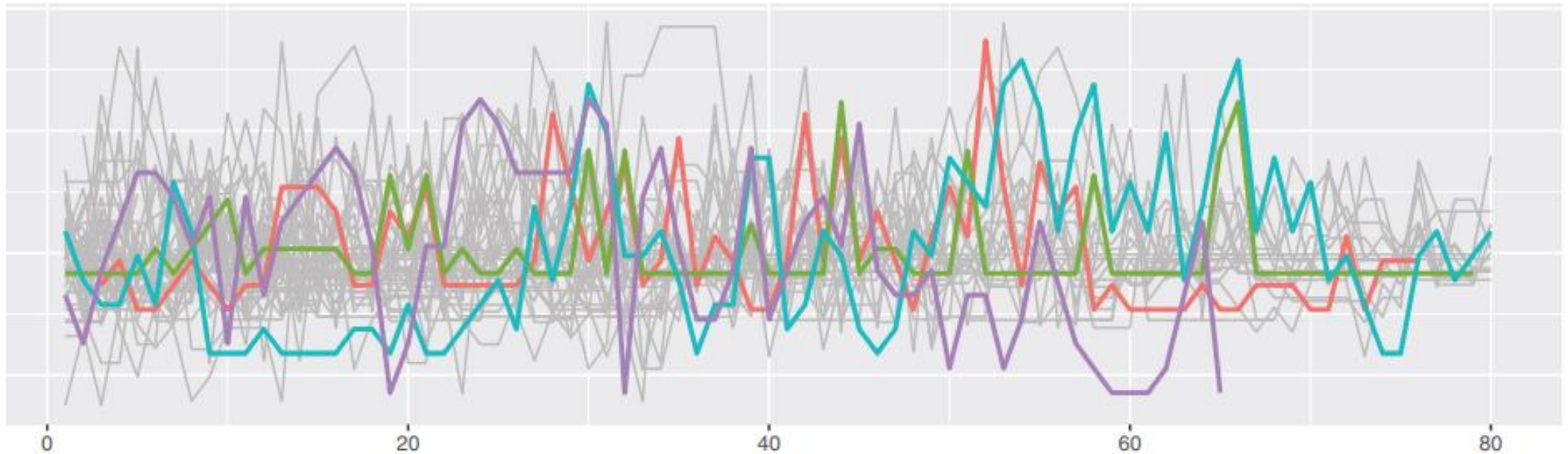
CASPAR

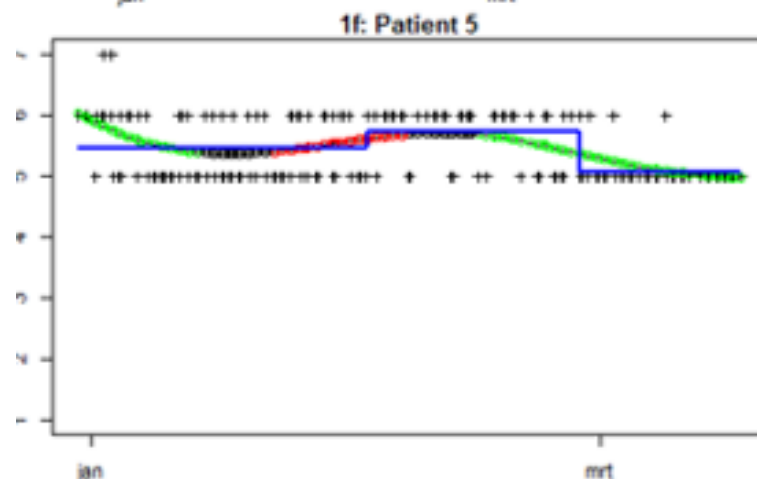
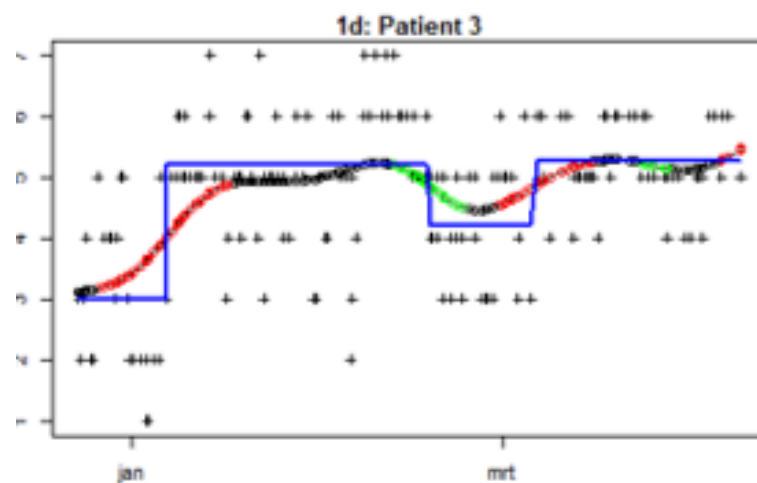
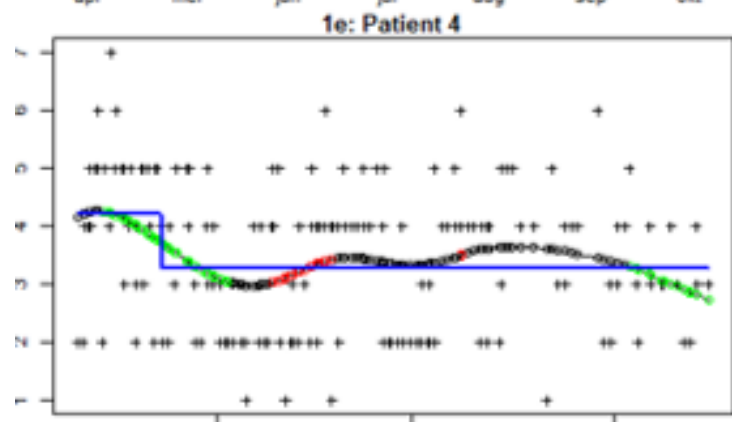
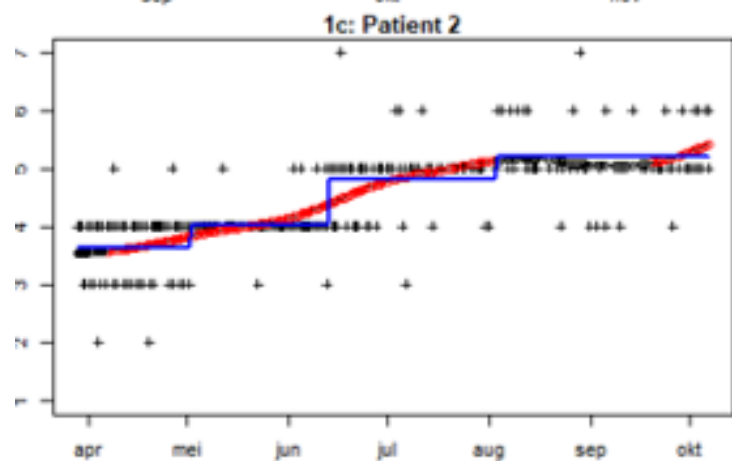
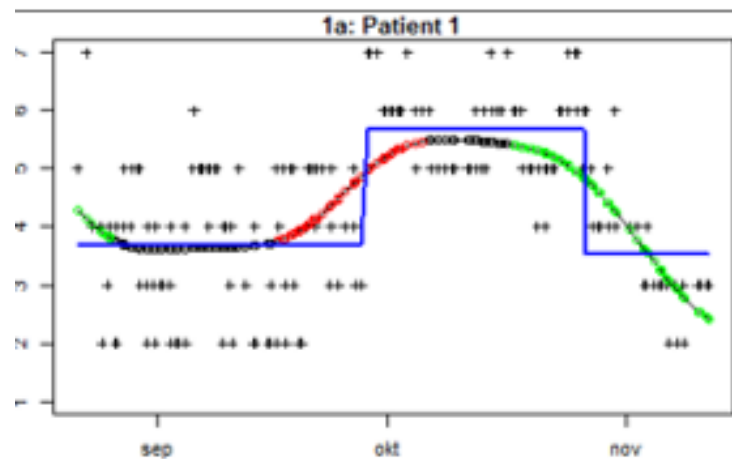


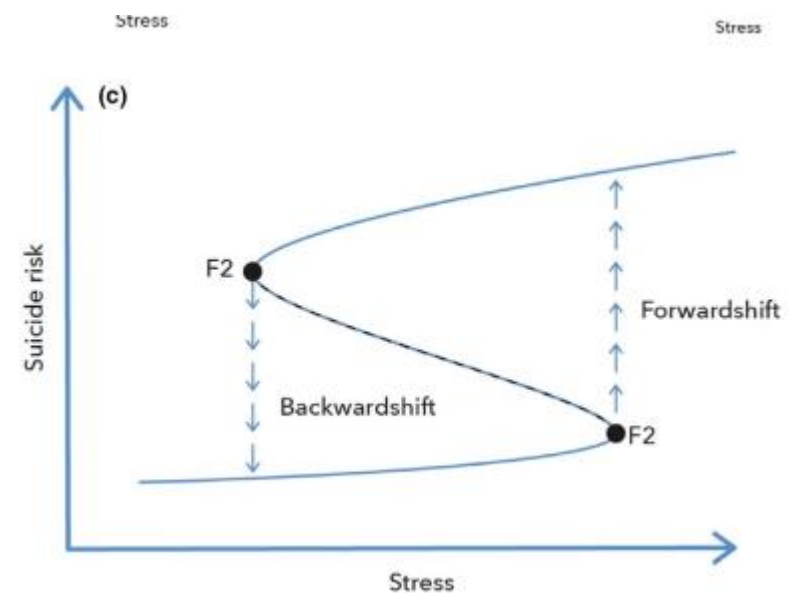
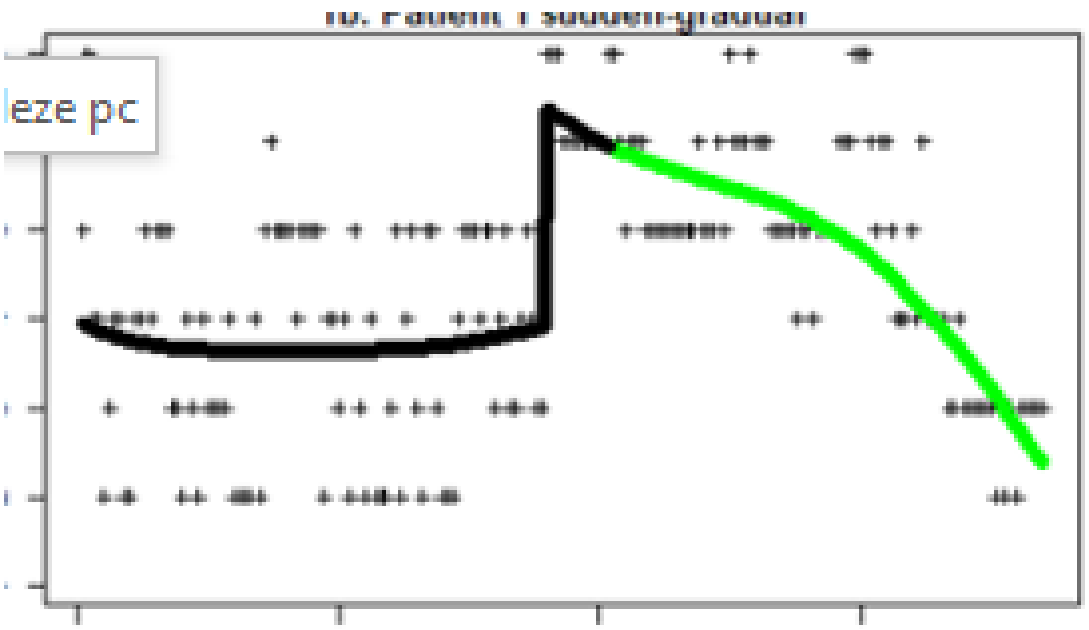


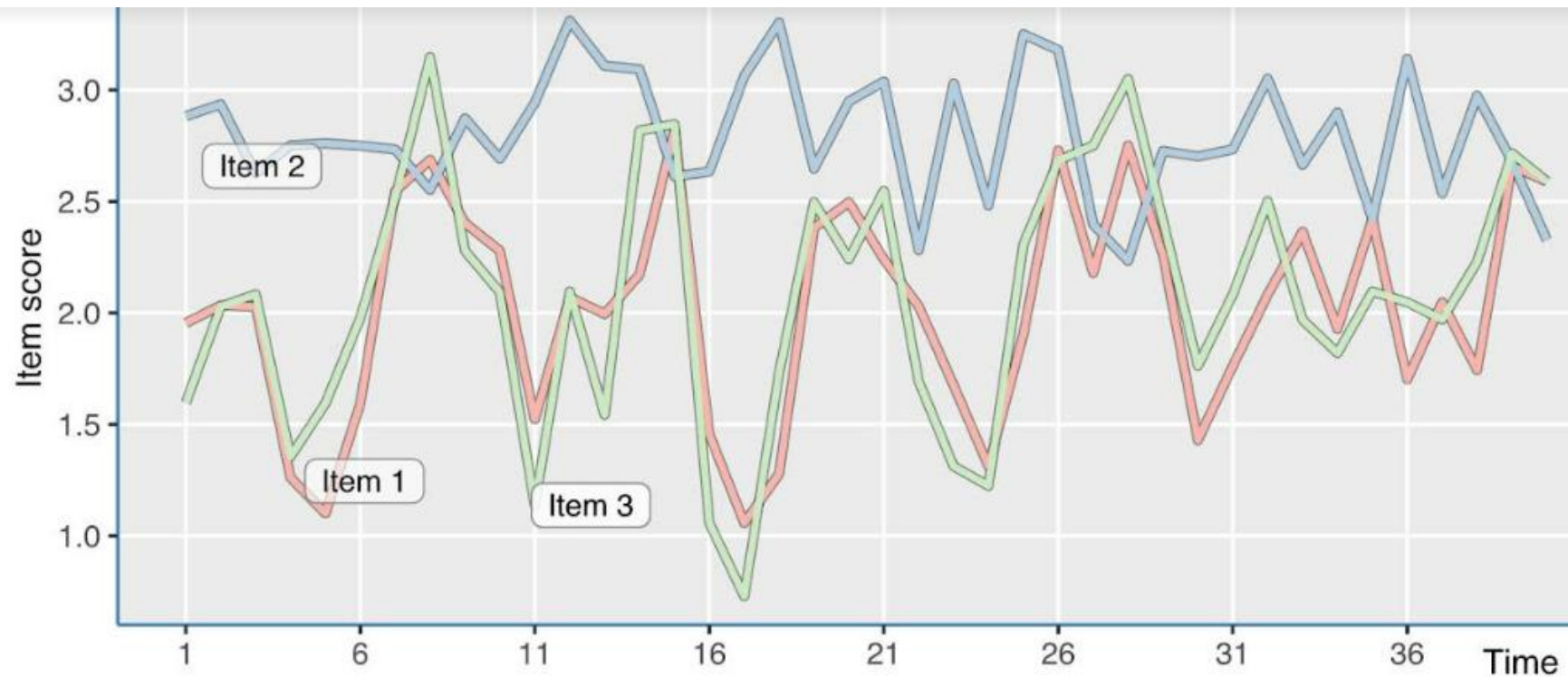


Kleiman, E. M., Turner, B. J., Fedor, S., Beale, E. E., Huffman, J. C., & Nock, M. K. (2017). Examination of real-time fluctuations in suicidal ideation and its risk factors: Results from two ecological momentary assessment studies. *Journal of abnormal psychology, 126*(6), 726.



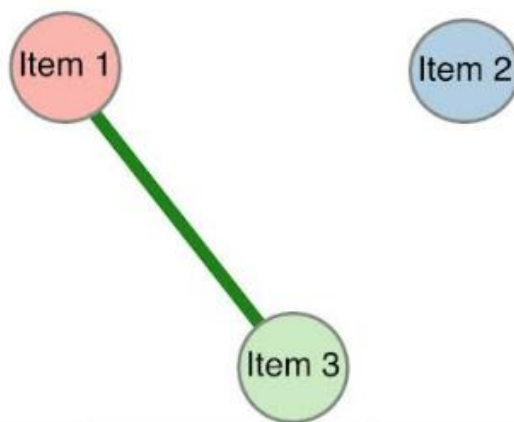




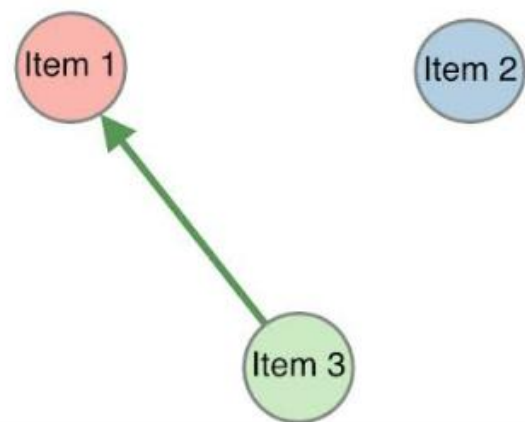


time	1	2	3	4	5	6	7	8
em_1	2.0	2.0	2.0	1.3	1.1	1.6	2.5	2.7
em_2	2.9	2.9	2.6	2.8	2.8	2.8	2.7	2.6
em_3	1.6	2.0	2.1	1.4	1.6	2.0	2.5	3.1

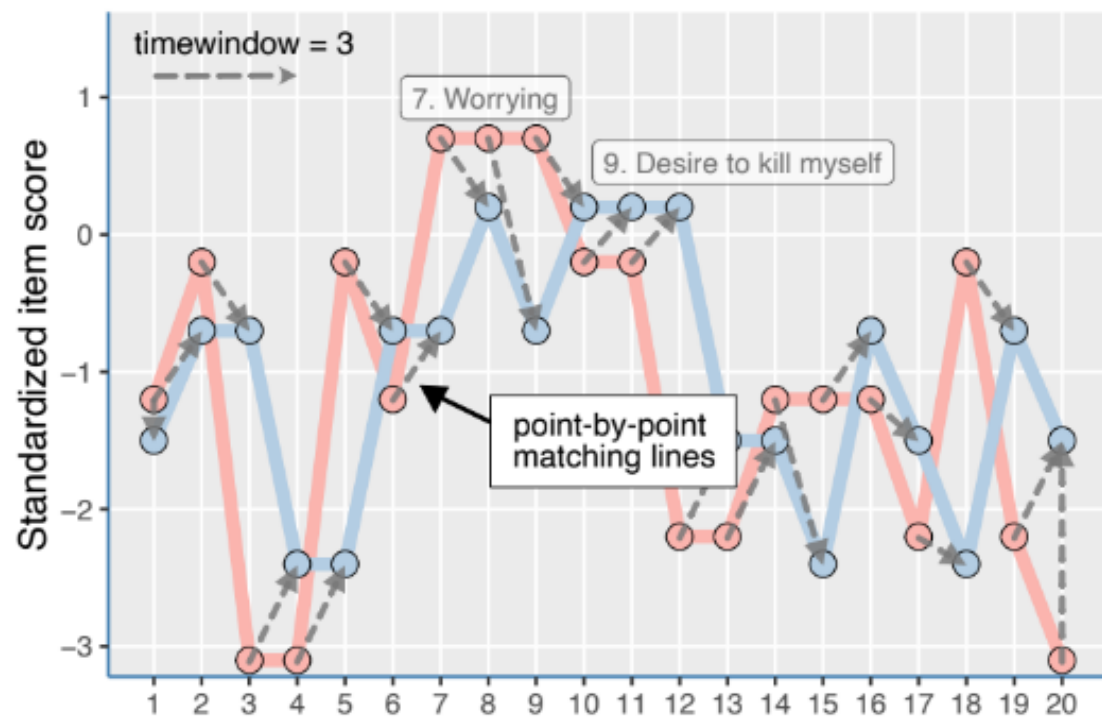
Undirected DTW network



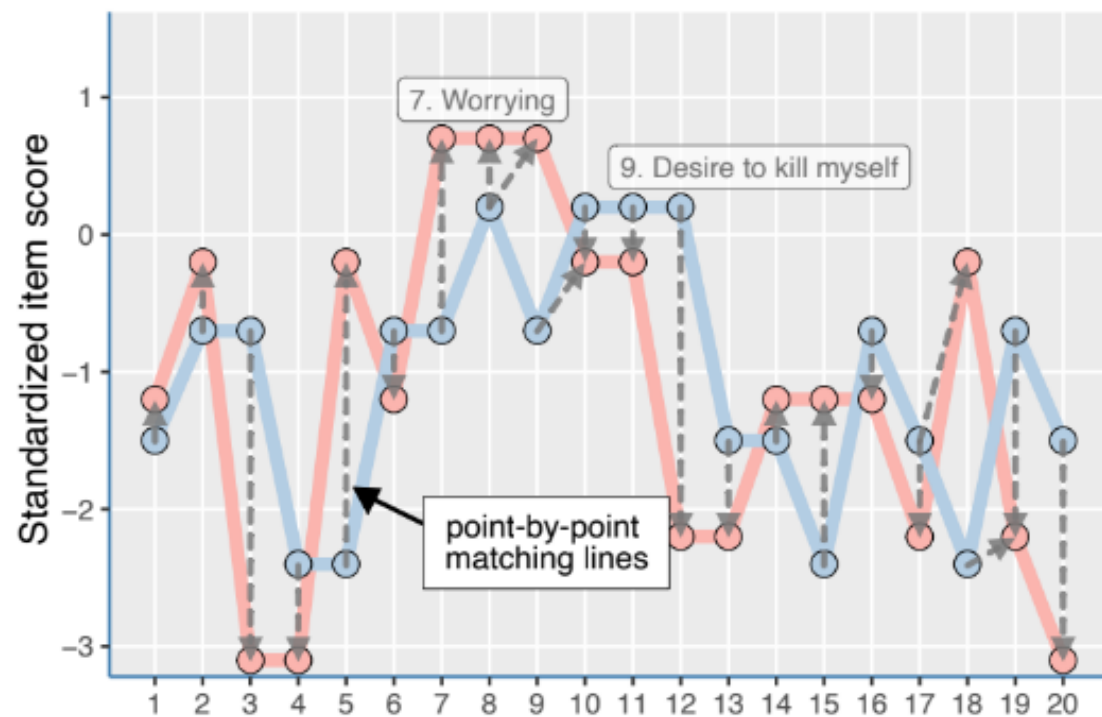
Directed DTW network



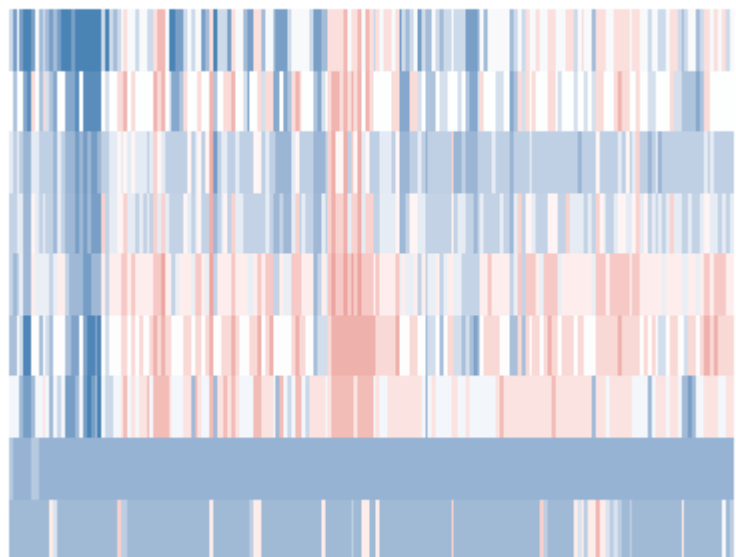
A. 7. "Worrying" predicting "9. Desire to kill myself"



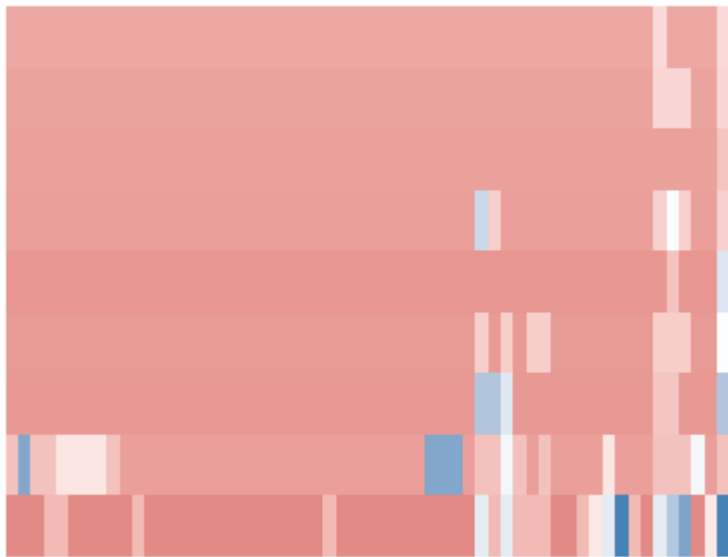
B. "9. Desire to kill myself" predicting "7. Worrying"



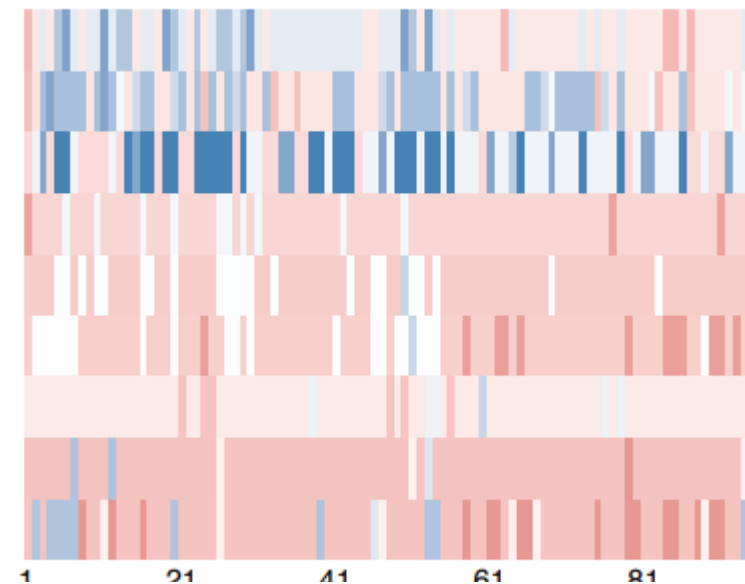
B. Standardized item scores over time



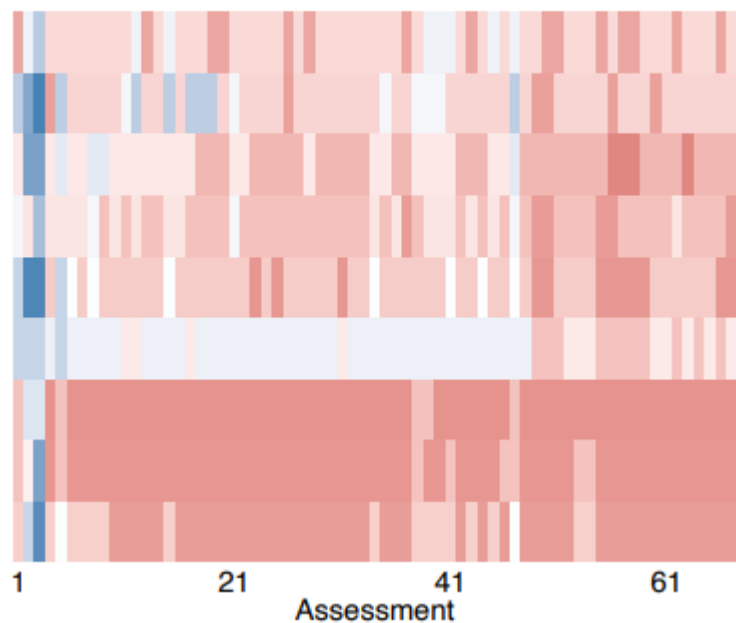
B. Standardized item scores over time



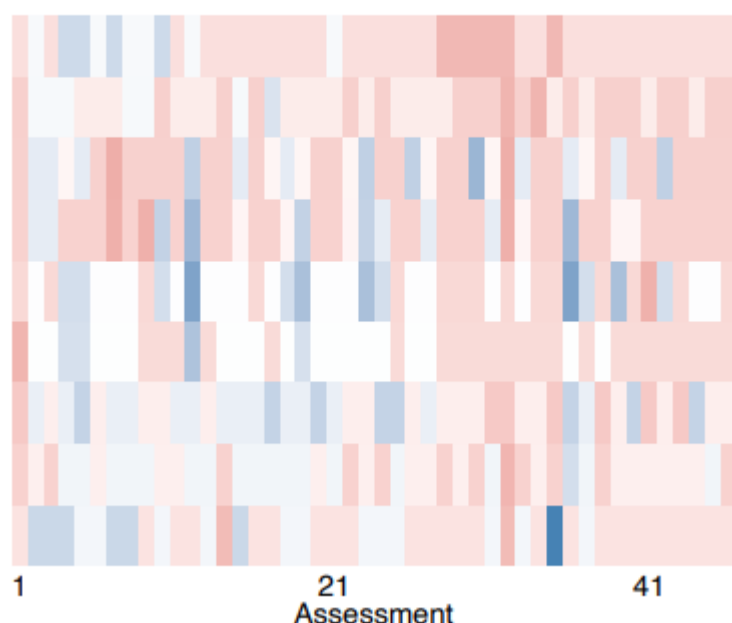
B. Standardized item scores over time



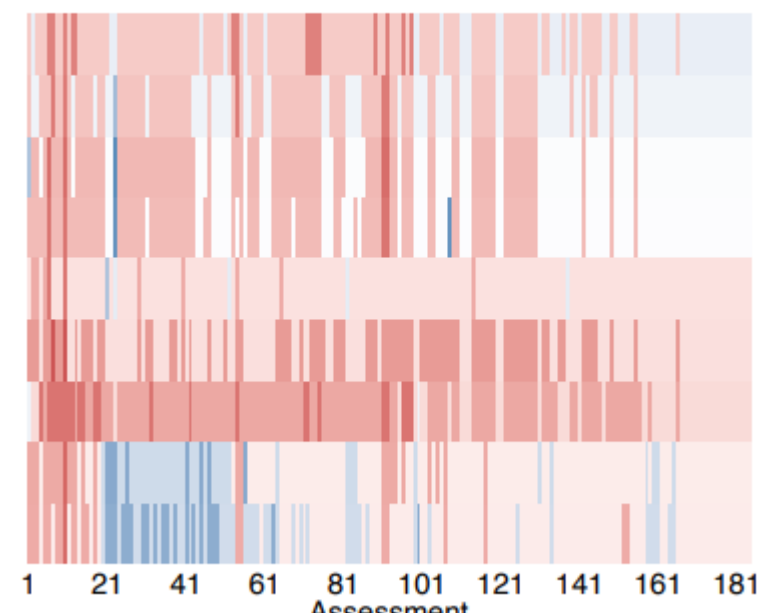
B. Standardized item scores over time



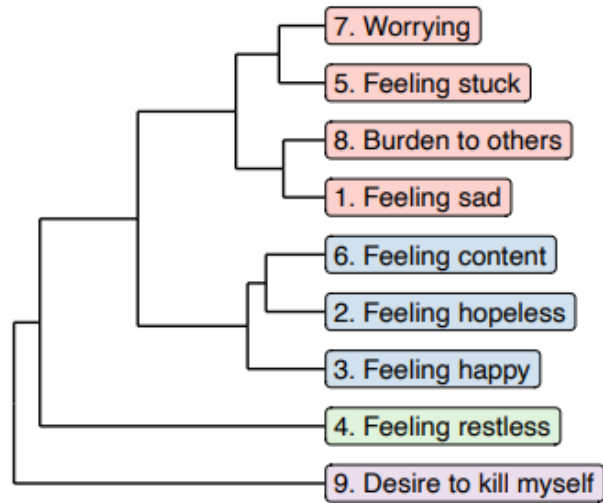
B. Standardized item scores over time



B. Standardized item scores over time

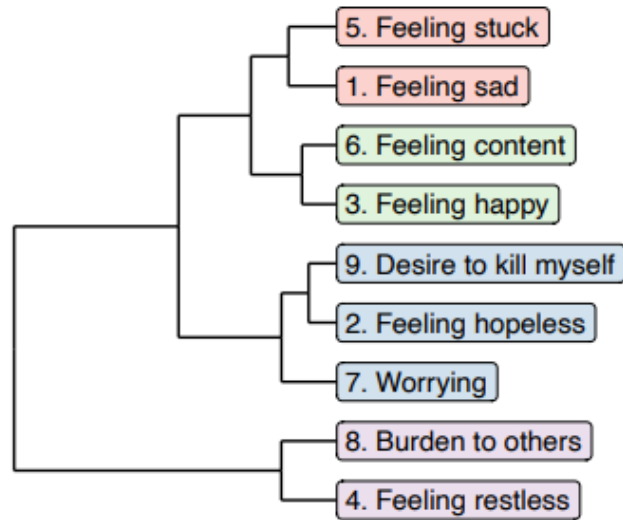


A. Dendrogram

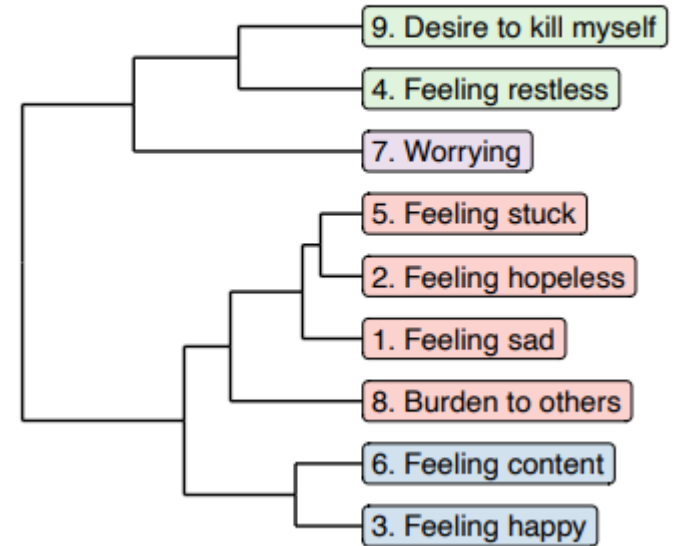


E

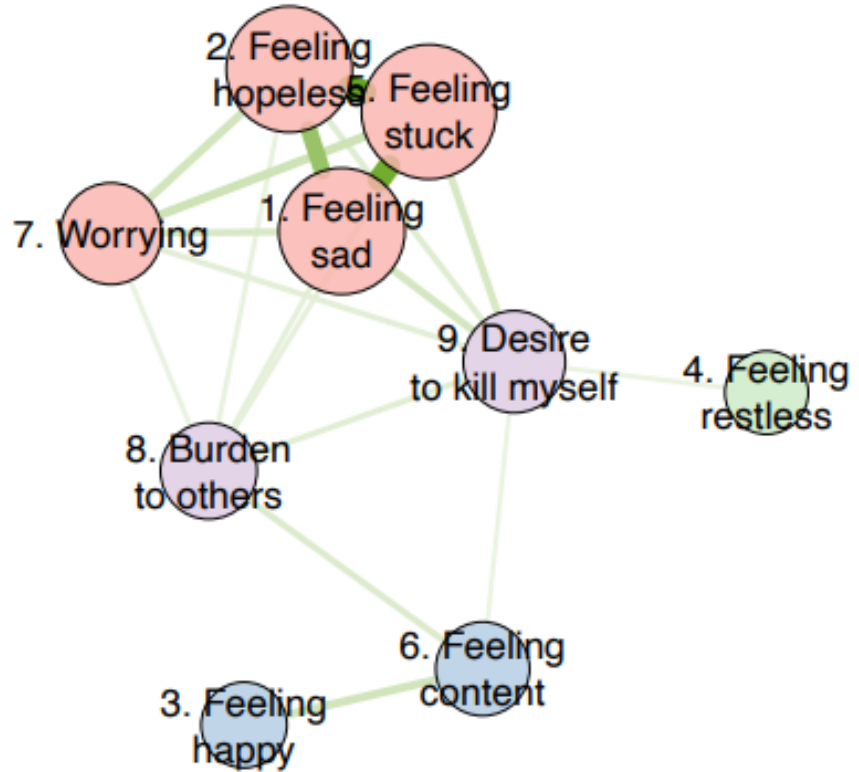
A. Dendrogram



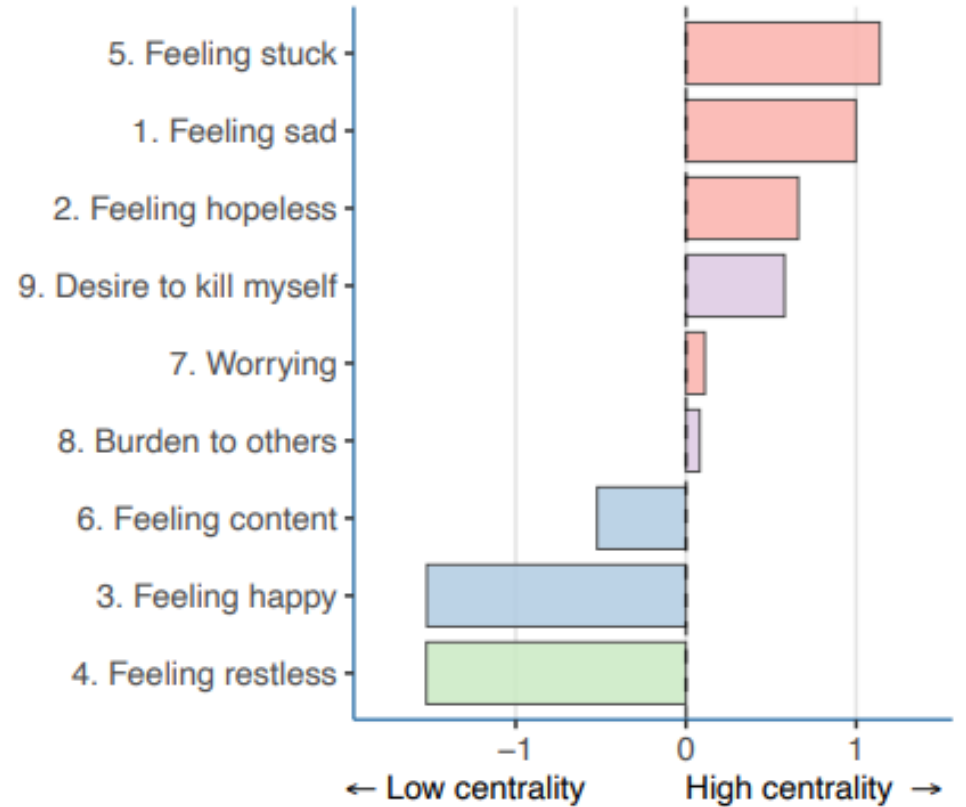
A. Dendrogram



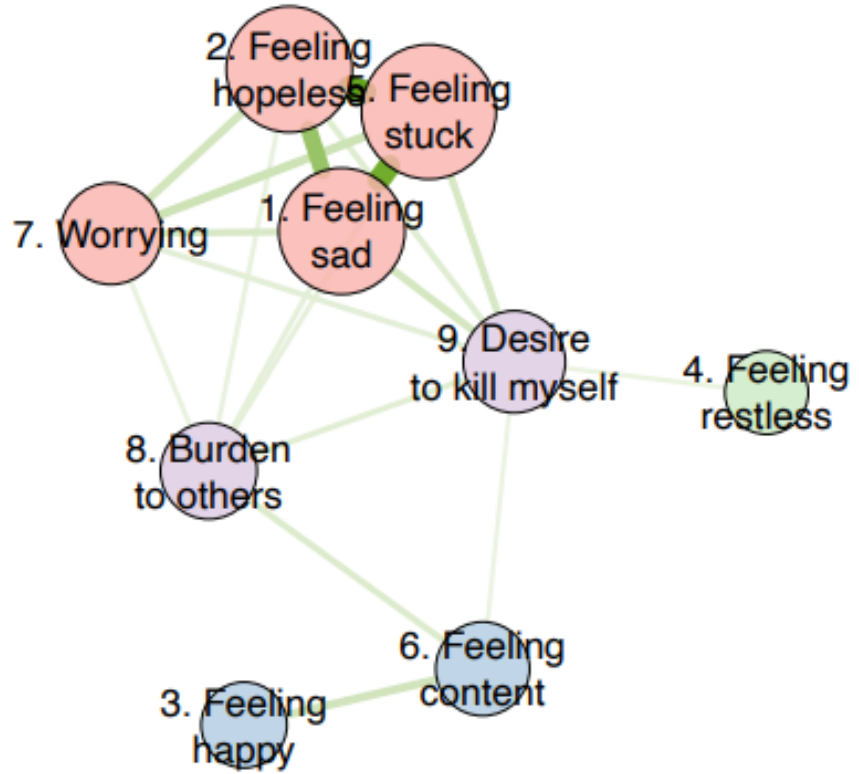
C. Undirected symptom network



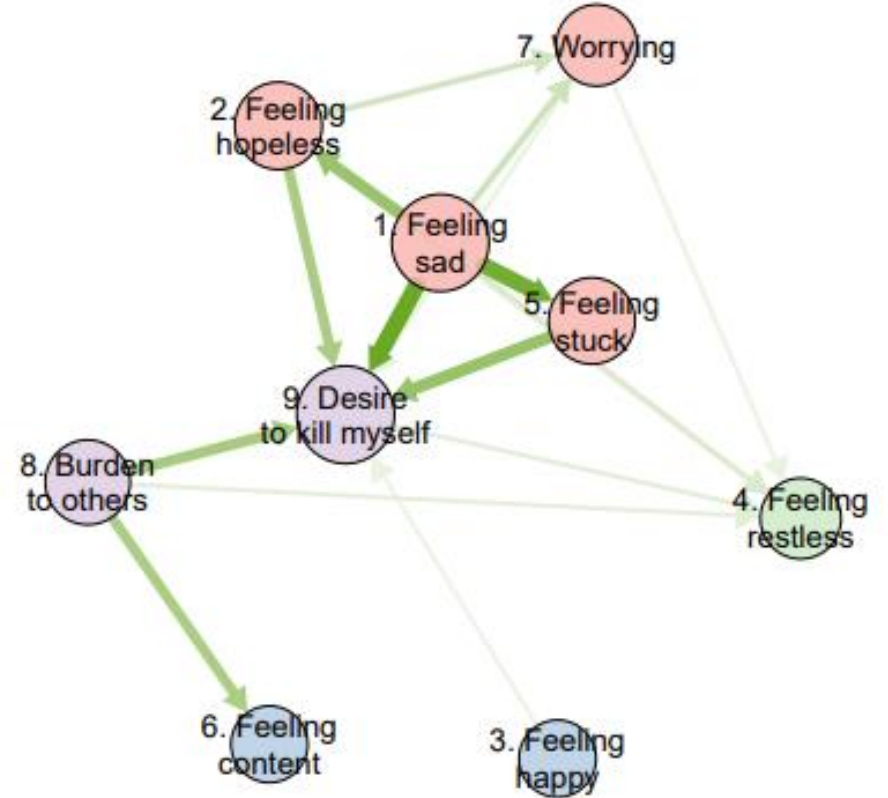
D. Strength



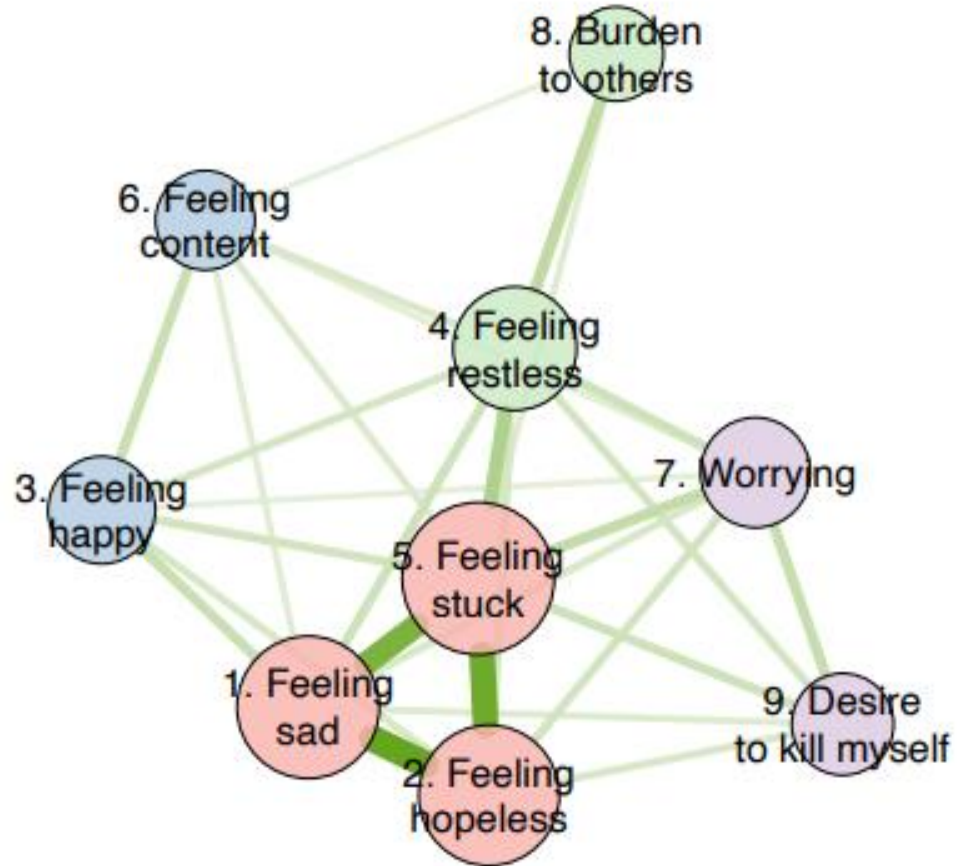
C. Undirected symptom network



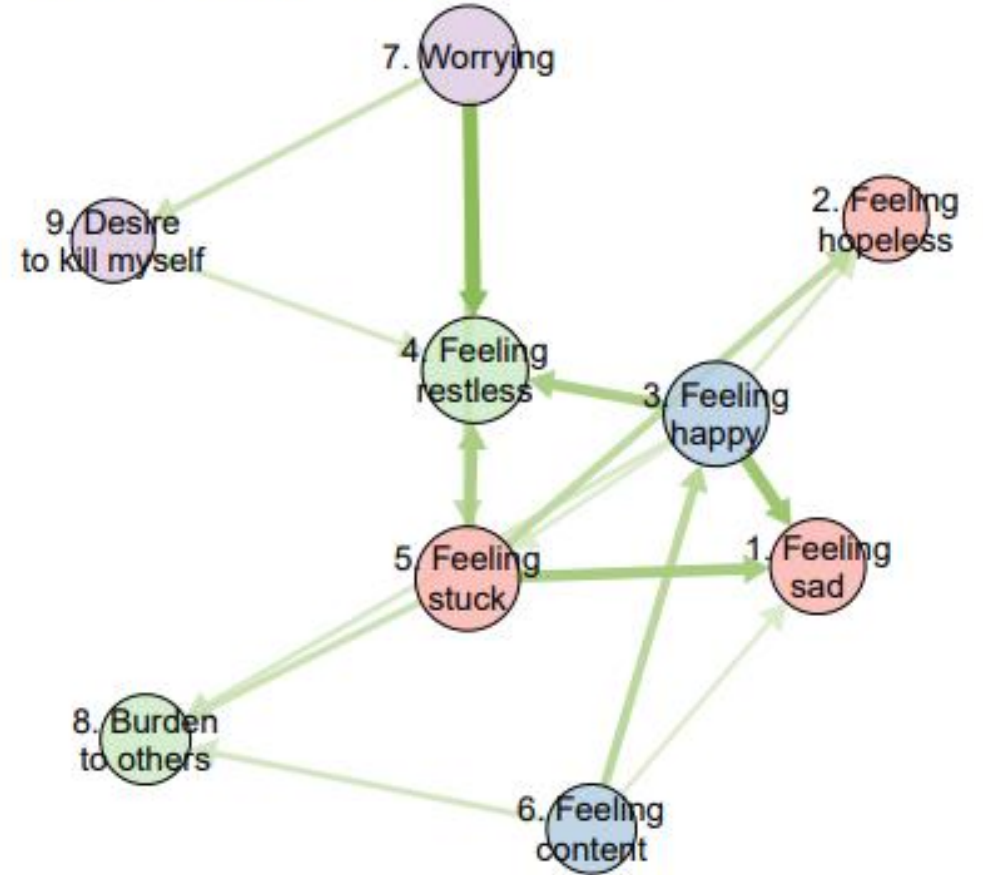
Patnr 5: time window = 3



C. Undirected symptom network

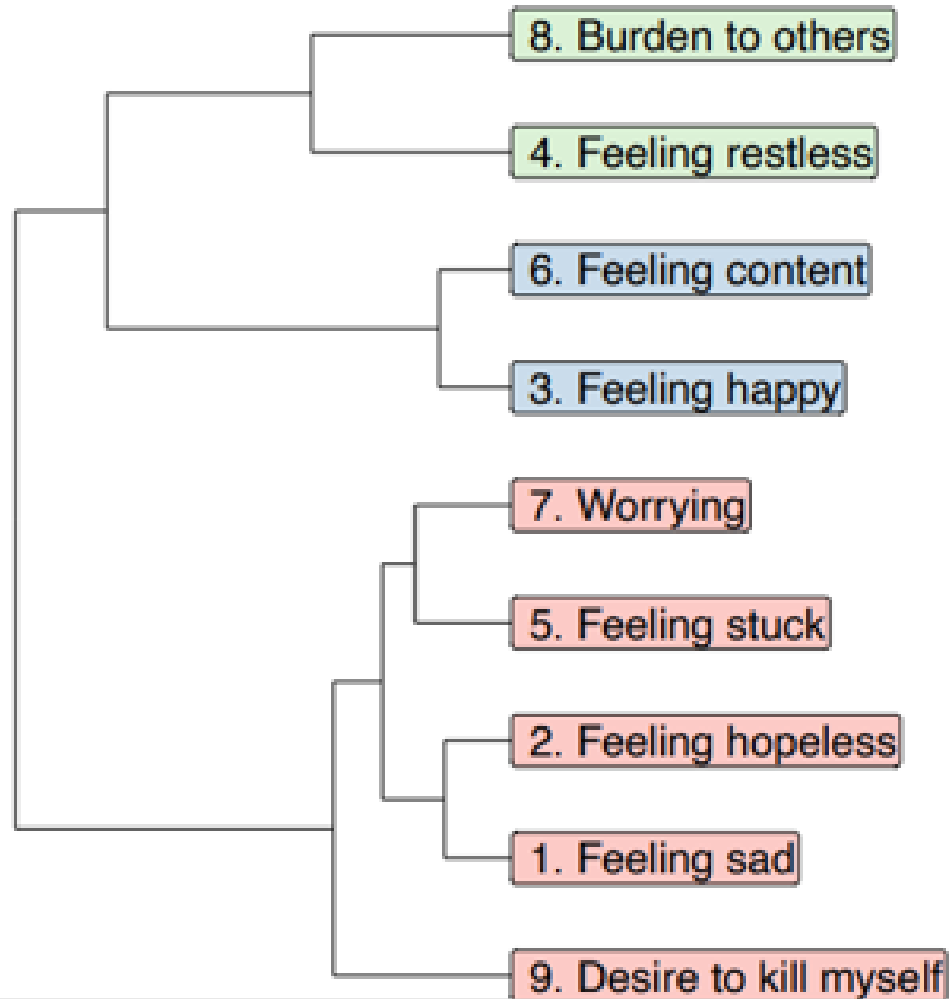


Patnr 2: time window = 3

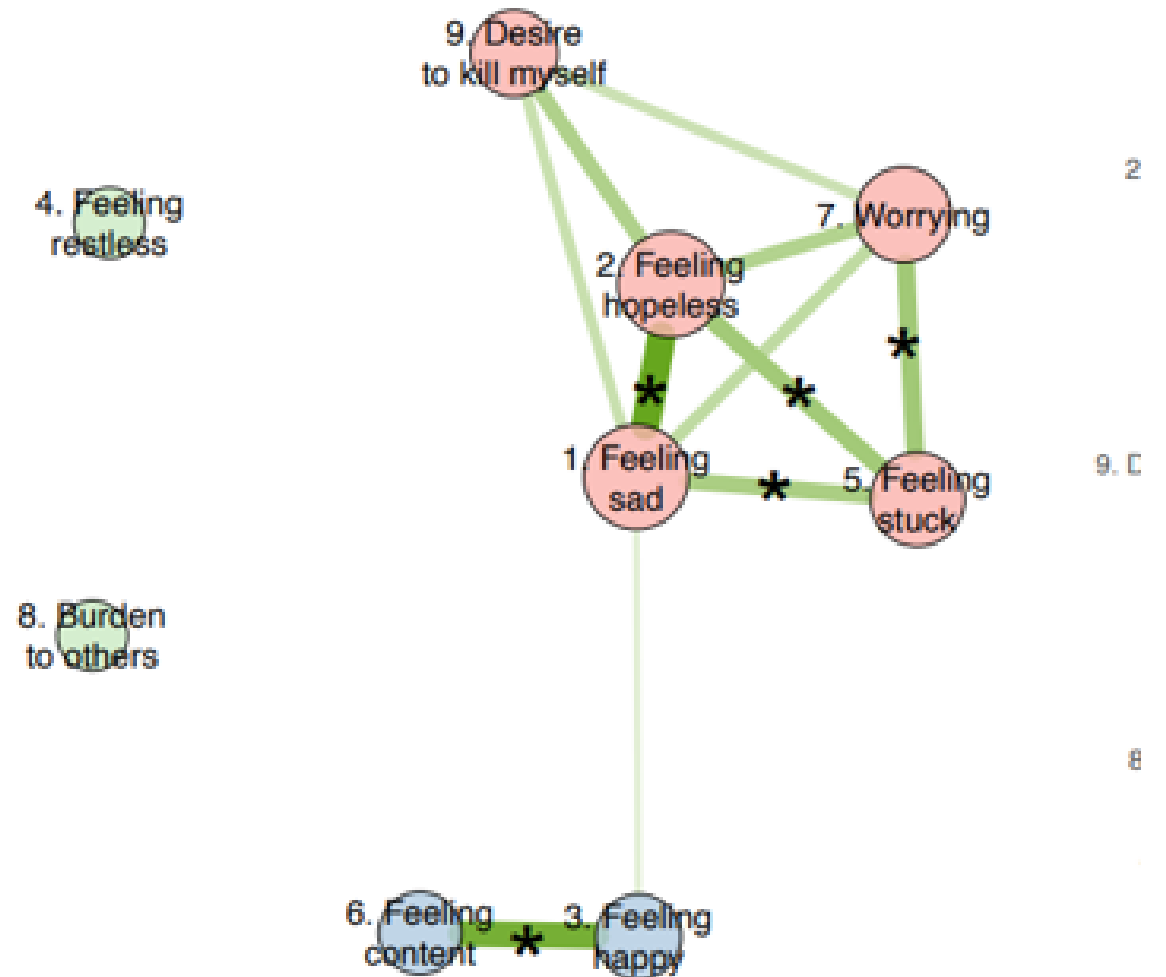


Group-level findings (n=11)

A. Dendrogram

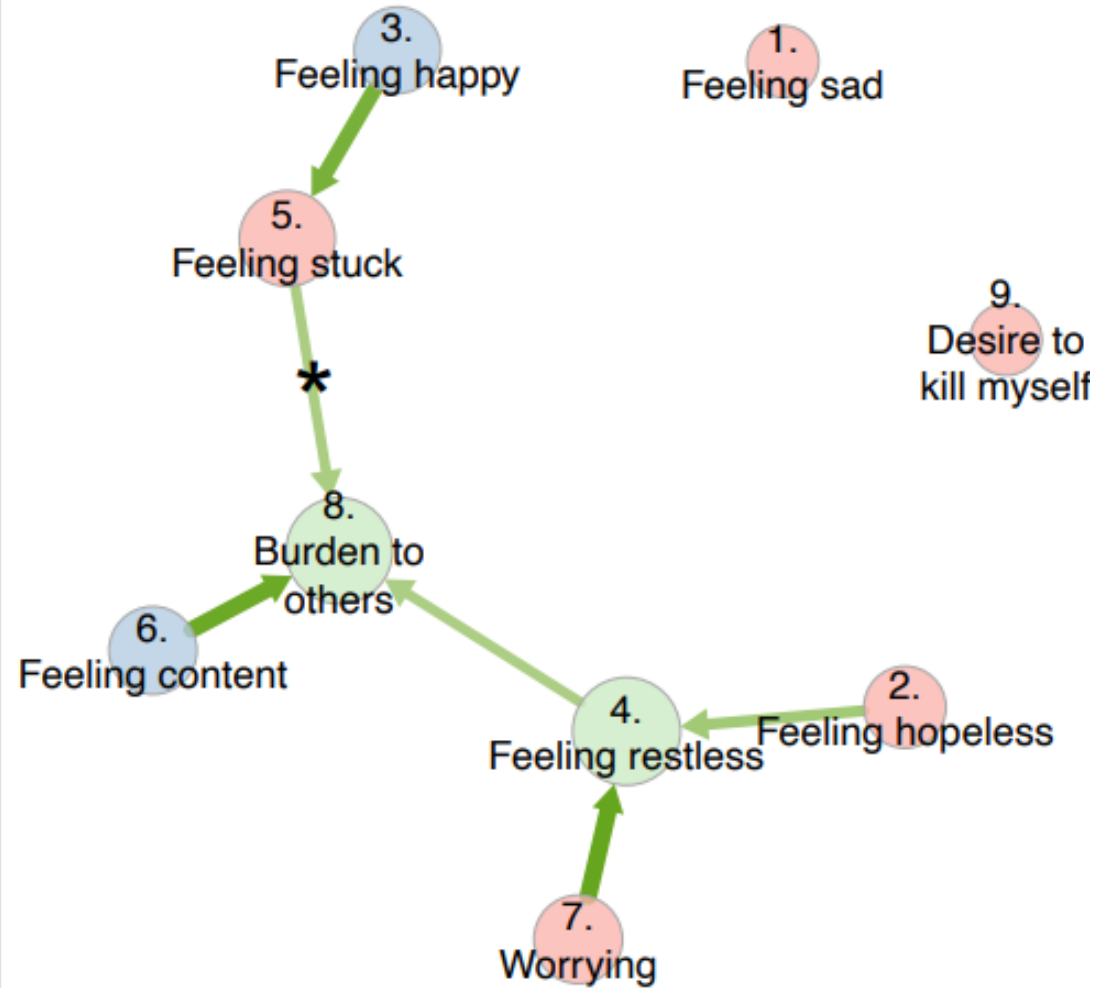


B. Undirected network



Group-level findings (n=11)

A. Directed network





ELSEVIER

Contents lists available at ScienceDirect

Behaviour Research and Therapy

journal homepage: www.elsevier.com/locate/brat



Symptoms of a feather flock together? An exploratory secondary dynamic time warp analysis of 11 single case time series of suicidal ideation and related symptoms

Derek de Beurs^{a, 1, *}, Erik J. Giltay^{b, 1, **}, Chani Nuij^c, Rory O'Connor^d, Remco F.P. de Winter^{e, f}, Ad Kerkhof^c, Wouter van Ballegooijen^c, Heleen Riper^{c, g}

^a Department of Clinical Psychology, University of Amsterdam, Amsterdam, the Netherlands

^b Department of Psychiatry, Leiden University Medical Center, Leiden, the Netherlands

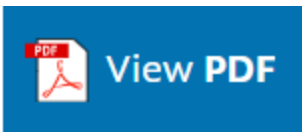
^c Faculty of Behavioral and Movement Sciences, Department of Clinical, Neuro- and Developmental Psychology, Vrije Universiteit Amsterdam, the Netherlands

^d Suicidal Behavior Research Laboratory, Institute of Health and Wellbeing, University of Glasgow, Glasgow, UK

^e Mental Health Institution GGZ Rivierduinen, the Netherlands

^f MHeNs School for Mental Health and Neuroscience, Maastricht University, Maastricht, the Netherlands

^g Department of Psychiatry, Amsterdam University Medical Center, Vrije Universiteit, Amsterdam, the Netherlands



Trends in Cognitive Sciences



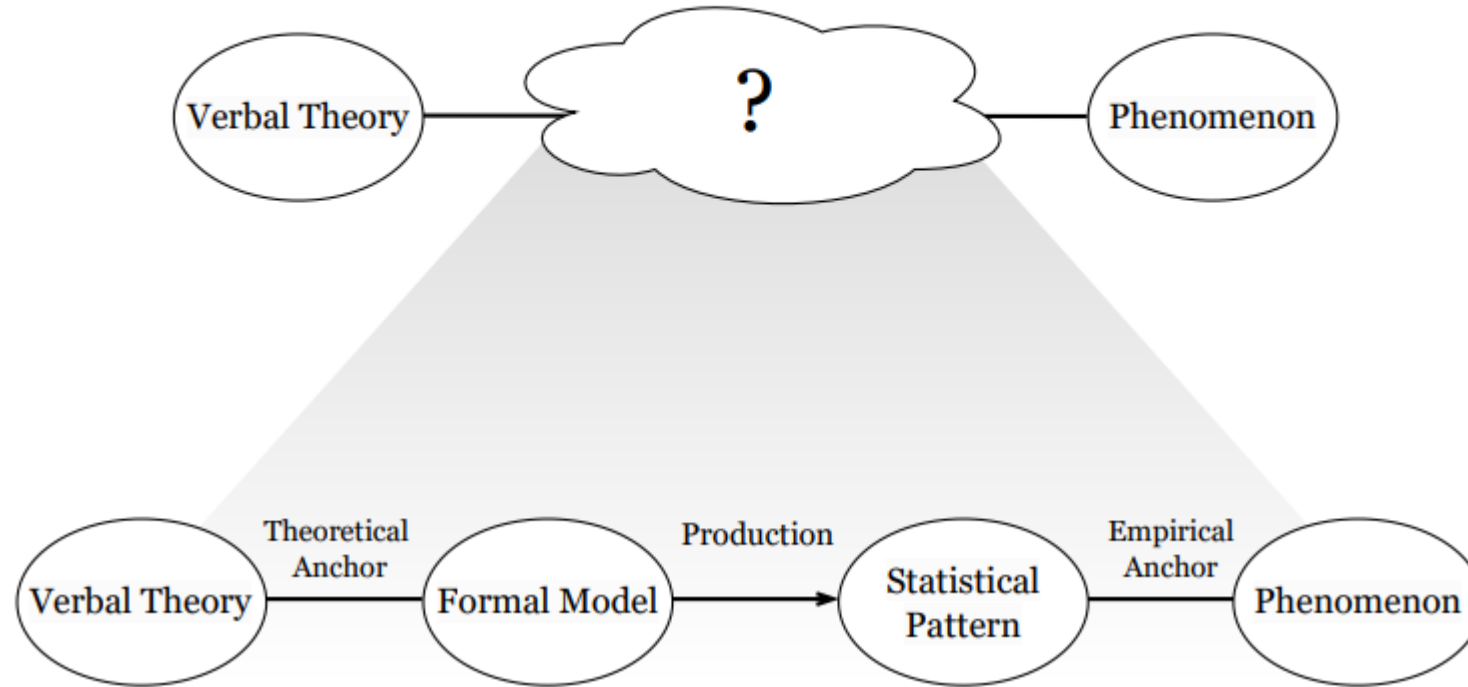
Volume 24, Issue 9, September 2020, Pages 704-716

Opinion

Advancing the Understanding of Suicide: The Need for Formal Theory and Rigorous Descriptive Research

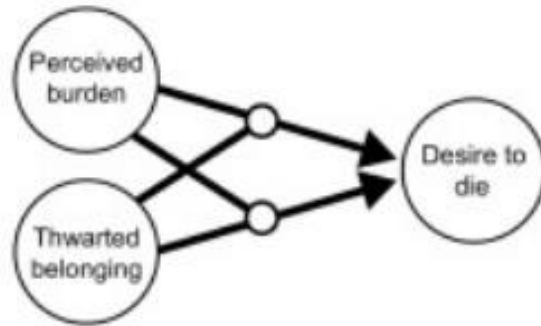
[Alexander J. Millner](#)^{1 2}  , [Donald J. Robinaugh](#)^{3 4}, [Matthew K. Nock](#)^{1 2 3}

Figure 1
Explanation as Production.



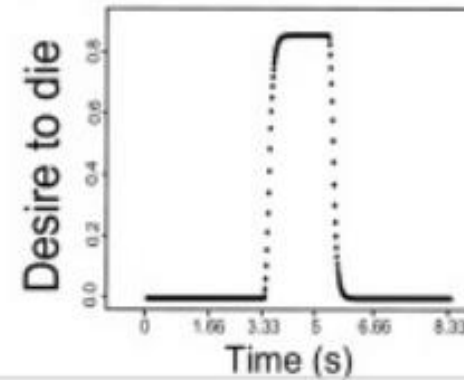
Step 1: Formal theory specification

Specify theory components and relationships among them in a mathematical or computational model



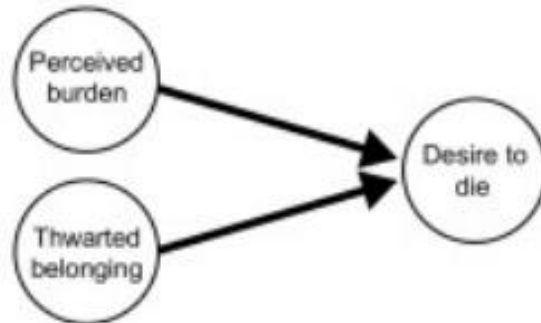
Step 2: Theory simulation

Simulate data from model and observe theory-implied behavior



Step 4: Theory refinement

Revise theory to better align with robust findings from empirical research



Step 3: Theory evaluation

Compare theory-implied and empirical results



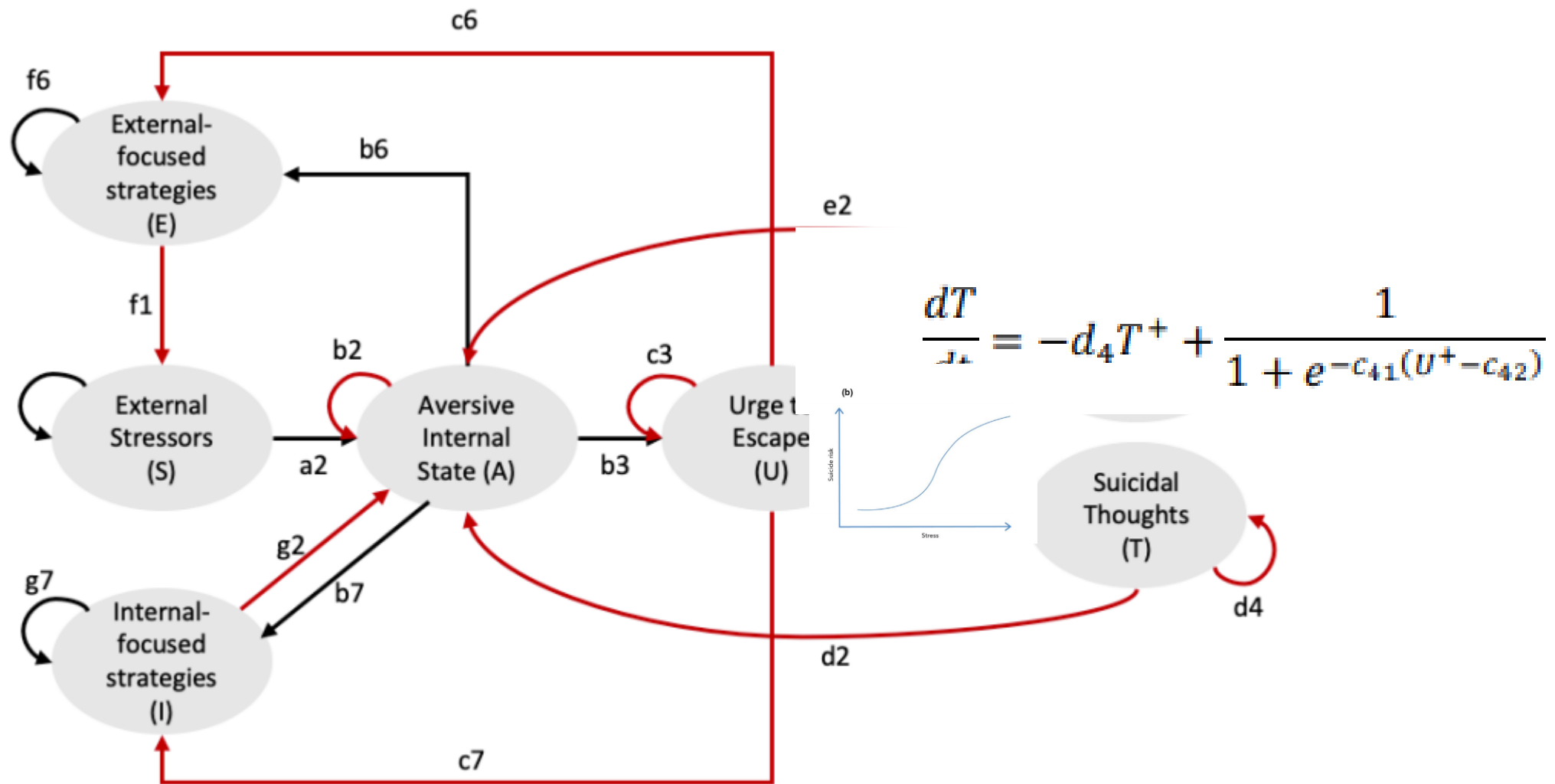
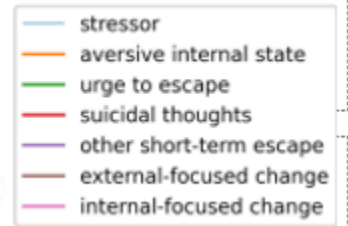
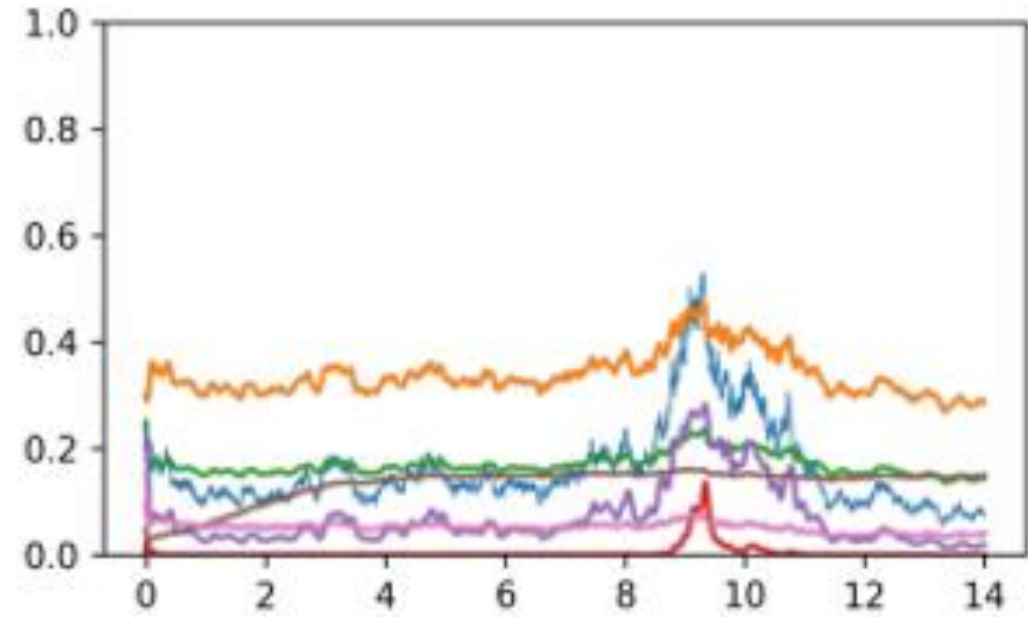
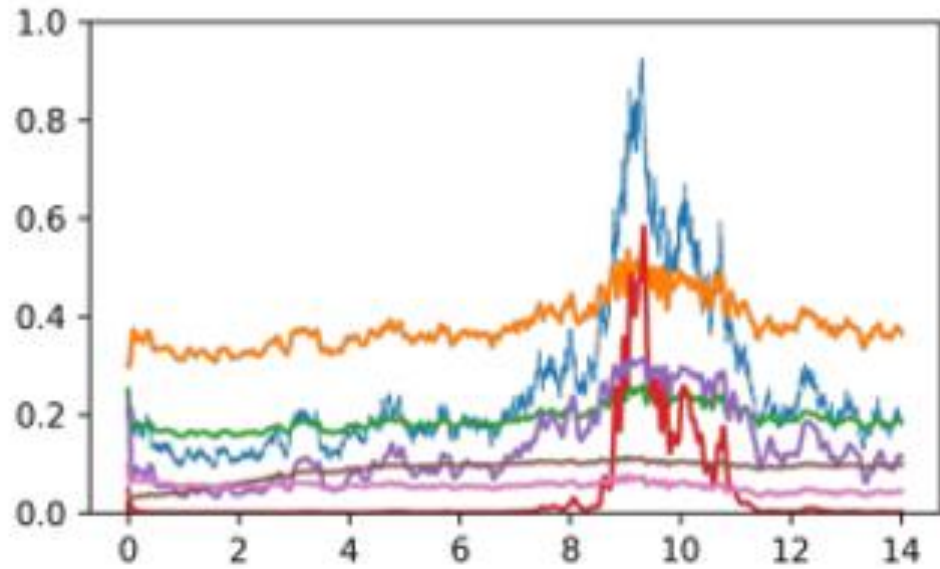


Figure 1. Core components of the General Escape Theory of Suicide. Black arrows represent positive effects and red arrows represent negative effects.

Wang, S., Robinaugh, D., Millner, A., Fortgang, R., & Nock, M. K. (2023).
 Mathematical and Computational Modeling of Suicide as a Complex Dynamical System.



Wang, S., Robinaugh, D., Millner, A., Fortgang, R., & Nock, M. K. (2023).
 Mathematical and Computational Modeling of Suicide as a Complex Dynamical System.

Take home

- Psychologische modellen helpen suicidal gedrag beter te begrijpen
- Netwerk analyses helpen complexe samenhang beter te begrijpen
- Eerste stap zou een monitor naar psychologische risicofactoren onder veteranen kunnen zijn

