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## Symptom network models in depression research

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## LIST OF PUBLICATIONS

This appendix contains a list of submitted and published publications (peer-reviewed and non peer-reviewed). Some of them are contained in this dissertation.

### PEER-REVIEWED PUBLICATIONS

#### SUBMITTED

\* shared first authorship in alphabetical order

**van Borkulo, C. D.**, Wichers, M.C., Boschloo, L., Schoevers, R.A., Kamphuis, J. H., Borsboom, D. & Waldorp, L. J. (2015). The contact process as a model for predicting network dynamics of psychopathology.

**van Borkulo, C. D.**, Waldorp, L. J., Boschloo, L., Kossakowski, J., Tio, P., L., Schoevers, R.A., & Borsboom, D. (2016). Comparing network structures on three aspects: A permutation test.

Boschloo, L., Borsboom, D., **van Borkulo, C. D.**, Bekhuis, E., Kendler, K.S., Schoevers, R.A. (2016). The impact of symptom heterogeneity on the course of depression: Results from a prospective cohort study.

Epskamp, S., **van Borkulo, C. D.**, Van der Veen, D.C., Servaas, M.N., Isvoranu, A., Riese, H., Cramer, A.O.J. Network models in personalized care.

van Rooijen, G., Isvoranu, A.M., Kruijt, O.H., **van Borkulo, C. D.**, Meijer, C.J., Wigman, J.T.W., Ruhé, H.G., de Haan, L., GROUP investigators. A state-independent network of depressive, negative and positive symptoms in male patients with schizophrenia spectrum disorders.

**IN PRESS**

\* shared first authorship in alphabetical order

Van Rooijen, G., Meijer, C.J., Isvoranu, A., **van Borkulo, C. D.**, Ruhé, H.G., De Haan, L., GROUP investigators. A Symptom Network Structure of the Psychosis Spectrum. *Schizophrenia Research*

Van Bork, R., **van Borkulo, C. D.\***, Waldorp, L.J., Cramer, A.O.J., & Borsboom, D. *Network Models for Clinical Psychology*. In The Stevens' Handbook of Experimental Psychology and Cognitive Neuroscience (Fourth Ed).

**PUBLISHED**

\* shared first authorship in alphabetical order

Schweren, L., **van Borkulo, C. D.**, Fried, E. I., Goodyer, I. M. (2017). Assessment of symptom network density as a prognostic marker of treatment response in adolescent depression. *JAMA Psychiatry*, doi: 10.1001/jamapsychiatry.2017.3561.

Borsboom, D., Fried, E. I., Epskamp, S., Waldorp, L. J., **van Borkulo, C. D.**, van der Maas, H. L. J., Cramer, A. O. J. (2017). False alarm? A comprehensive reanalysis of "Evidence that psychopathology symptom networks have limited replicability" by Forbes, Wright, Markon, and Krueger (2017). *Journal of Abnormal Psychology*, 126(7):989-999. doi: 10.1037/abn0000306.

De Beurs, D., **van Borkulo, C. D.**, O'Connor, R.C. (2017). Association between suicidal symptoms and repeat suicidal behaviour within a sample of hospital-treated suicide attempters. *British Journal of Psychiatry Open*, 3(3), 120-126; doi: 10.1192/bjpo.bp.116.004275.

Klippel, A., Viechtbauer, W., Reininghaus, U., Wigman, J., **van Borkulo, C. D.**, MERGE, Myin-Germeys, I. Wichers, M. (2017). The cascade of stress: A network approach to explore differential dynamics in populations varying in familial risk for psychosis. *Schizophrenia Bulletin*, DOI: 10.1093/schbul/sbx037.

Isvoranu, A. M., **van Borkulo, C. D.**, Boyette, L. L., Borsboom, D., Wigman, H. J. T. W., Vinkers, C. H., & Group Investigators. (2016). A network approach to psychosis: Pathways between childhood trauma and psychotic symptoms. *Schizophrenia Bulletin*; DOI: 3.393/schbul/sbw033.

Fried, E. I., **van Borkulo, C. D.\***, Cramer, A. O. J., Boschloo, L., Schoeffer, R. A., Borsboom, D. (2016). Mental disorders as symptom networks of problems: A review of recent insights. *Social Psychiatry and Psychiatric Epidemiology*. Social Psychiatry and Psychiatric Epidemiology, DOI 3.307/s00127-016-1319-z.

Cramer, A. O. J., Giltay, E. J., **van Borkulo, C. D.**, van der Maas, H. L. J., Kendler, S. K., Scheffer, M., & Borsboom, D. (2016). Major depression as a complex dynamic system. *PLOS ONE*, 11(12):e0167490.

Bekhuis, E., R.A. Schoevers, **van Borkulo, C. D.**, Rosmalen, J.G.M., & Boschloo, L. (2016). The network structure of major depressive disorder, generalized anxiety disorder and somatic symptomatology. *Psychological Medicine*, 46(14), 2989-2998. DOI: 10.1017/S0033291716001550.

Boschloo, L., **van Borkulo, C. D.**, Borsboom, D., & Schoevers, R. A. (2016). A Prospective Study on how Symptoms in a Network Predict the Onset of Depression. *Psychotherapy and Psychosomatics*, 83 (3), 183-184.

Boschloo, L., Schoevers, R. A., **van Borkulo, C. D.**, Borsboom, D., & Oldehinkel, A. J. The network structure of psychopathology in a community sample of preadolescents. (2016). *Journal of Abnormal Psychology*, 125(4), 399-606.

**van Borkulo, C. D.**, Borsboom, & Schoevers, R.A. (2016). Group-Level Symptom Networks in Depression — Reply. (2016). *JAMA Psychiatry*, 73 (4); DOI: 3.301/jamapsychiatry.2013.3137.

Fried, E. I., **van Borkulo, C. D.**, Epskamp, S., Schoevers, R. A., Tuerlinckx, F., & Borsboom, D. (2016). Measuring Depression Over Time . . . or not? Lack of Unidimensionality and Longitudinal Measurement Invariance in Four Common Rating Scales of Depression. *Psychological Assessment*. DOI: 3.337/pas0000273.

**van Borkulo, C. D.**, Boschloo, L., Borsboom, D., Penninx, B.W.J.H., & Schoevers, R.A. (2013). Association of symptom network structure and the course of depression. *JAMA Psychiatry*, 72 (12), 1219-1226.

Boschloo, L., **van Borkulo, C. D.**, Rhemtulla, M., Keyes, K. M., Borsboom, D., & Schoevers, R. A. (2013). The network structure of symptoms of the Diagnostic and Statistical Manual of Mental Disorders. *PLOS ONE*; DOI: 3.1371/journal.pone.0137621.

Kossakowski, J.J., Epskamps, S., Kieffer, J.M., **van Borkulo, C. D.**, Rhemtulla, M.T., & Borsboom, D. (2014). The application of a network approach to health-related quality of life (HRQoL): Introducing a new method for assessing HRQoL in healthy adults and cancer patients. *Quality of Life Research*, Doi: 3.307/s11136-013-1127-z.

Fried, E. I., Boschloo, L., **van Borkulo, C. D.**, Schoevers, R. A., Romeijn, J-W, Wichers, M., de Jonge, P., Nesse, R. M., Tuerlinckx, E., & Borsboom, D. (2013). Commentary: "Consistent superiority of selective serotonin reuptake inhibitors over placebo in reducing depressed mood in patients with major depression". *Frontiers in Psychiatry* 6:117. doi: 3.3389/fpsy.2013.00117.

**van Borkulo, C. D.**, Borsboom, D., Epskamp, S., Blanken, B. W., Bosschloo, L., Schoevers, R. A., & Waldorp, L. J. (2014). A new method for constructing networks from psychometric data. *Scientific Reports* 4, 3918; DOI:3.338/srep03918.

## NON PEER-REVIEWED PUBLICATIONS

**van Borkulo, C. D.** Persistentie van depressie mogelijk bepaald door specifieke patronen in symptoomassociaties. *Tijdschrift voor Psychiatrie*, 58, 328-328 (2015).

**van Borkulo, C. D.** Wat zegt de netwerkstructuur van symptomen over het verloop van depressie? NESDA kerstnieuwsbrief 2013.

**van Borkulo, C.D.**, van der Maas, H.L.J., Borsboom, D., & Cramer, A.O.J. (2014). NetLogo Vulnerability to Depression. [http://ccl.northwestern.edu/netlogo/models/community/Vulnerability\\_to\\_Depression](http://ccl.northwestern.edu/netlogo/models/community/Vulnerability_to_Depression). Center for Connected Learning and Computer-Based Modeling, Northwestern University, Evanston, IL.

**van Borkulo, C. D.**, Borsboom, D., Nivard, M.G., & Cramer, A. O. J. (2011). NetLogo Symptom Spread model. [http://ccl.northwestern.edu/netlogo/models/community/Symptom\\_Spread\\_Model](http://ccl.northwestern.edu/netlogo/models/community/Symptom_Spread_Model). Center for Connected Learning and Computer-Based Modeling, Northwestern University, Evanston, IL.

## MEDIA

Overal netwerken van A naar B. Interview on AmsterdamFM, Radio Swammerdam, June 11th, 2017. <https://soundcloud.com/swammerdam/overal-netwerken-van-a-naar-b>

Berkhout, K. Veel symptomen maken depressie hardnekkiger. *NRC*, November 14th, 2015.

Specific symptom associations may determine persistence of depression. Interview on MedicalResearch.com. <http://medicalresearch.com/mental-health-research/depression/specific-symptom-associations-may-determine-persistence-of-depression/19352/>



## Research Institute SHARE

This thesis is published within the Research Institute SHARE (Science in Healthy Ageing and healthcARE) of the University Medical Center Groningen / University of Groningen. Further information regarding the institute and its research can be obtained from our internet site: <http://www.share.umcg.nl/>

More recent theses can be found in the list below.  
((co-) supervisors are between brackets)

**2017**

### **Schans J van der**

ADHD and atopic diseases; pharmacoepidemiological studies  
(*prof E Hak, prof PJ Hoekstra, dr TW de Vries*)

### **Berhe DF**

Challenges in using cardiovascular medications in Sub-Saharan Africa  
(*prof FM Haaijer-Ruskamp, prof K Taxis, dr PGM Mol*)

### **Heininga VE**

The happy, the sad, and the anhedonic; towards understanding altered reward function from a micro-level perspective  
(*prof AJ Oldehinkel, dr E Nederhof, dr GH van Roekel*)

### **Oers AM van**

Lifestyle intervention in obese infertile women  
(*prof A Hoek, prof BWJ de Mol, dr H Groen*)

Magnée T Mental health care in general practice in the context of a system reform  
(*prof PFM Verhaak, prof FG Schellevis, prof DH de Bakker, dr DP de Beurs*)

### **Zon SKR van**

Socioeconomic inequalities in work and health  
(*prof SA Reijneveld, prof U Bültmann*)

**Most PJ van der** Development of bioinformatic tools and application of novel statistical methods in genome-wide analysis  
(*prof H Snieder, Prof P van der Harst, dr IM Nolte*)

### **Fleurke-Rozema H**

Impact of the 20-week scan  
(*prof CM Bilardo, prof E Pajkrt, dr RJM Snijders*)

### **Schripsema NR**

Medical students selection; effects of different admissions processes  
(*prof J Cohen-Schotanus, prof JCC Borleffs, dr AM van Trigt*)

### **Ven HA van de**



Shift your work; towards sustainable employability by implementing new shift systems  
(*prof JLL van der Klink, prof MP de Looze, prof U Bültmann, prof S Brouwer*)

**Hoekstra F**

ReSpAct: Rehabilitation, sports and active lifestyle  
(*prof LHV van der Woude, prof CP van der Schans, dr R Dekker, dr FJ Hettinga*)

**De Carvalho Honorato T**

Diminished ovarian reserve and adverse reproductive outcomes  
(*prof A Hoek, prof HM Boezen, dr H Groen, dr ML Haadisma*)

**Olthof M**

Patient characteristics related to health care consumption; towards a differentiated capitation model  
(*prof SK Bulstra, prof MY Berger, dr I van den Akker-Scheek, dr M Stevens*)

**Bessem B**

The young athlete's heart; an electrocardiographic challenge  
(*prof J Zwerwer, prof MP van den Berg, dr W Nieuwland*)

**Husarova D**

Barriers to active participation of school-aged children  
(*prof SA Reijneveld, prof A Madarasova-Geckova, dr JP van Dijk*)

**Schenk HM**

Affect and physical health; studies on the link between affect and physiological processes  
(*prof JGM Rosmalen, prof P de Jonge, prof JPJ Slaets*)

**Wilk AD van der**

Patient centered development and clinical evaluation of an ankle foot orthosis  
(*prof GJ Verkerke, prof K Postema, dr JM Hijmans*)

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