

# Personalized descriptive ESM feedback

Modeling Intensive Longitudinal Data

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Advanced Application

# ESM and feedback in clinical practice

Possibly enhancing a patient's

- ▶ self-awareness
- ▶ insights
- ▶ self-management

Also without feedback! [Bos et al., 2019]

There are many different forms of personalized feedback [Bartels et al., 2023].



# ESM visualization

- ▶ What if we would dive deeper into the data and visualize it dynamically? [Bringmann et al., 2021]
- ▶ Qualitative information underused in ESM

Date van der Veen



Gert Stulp



Harriëtte Riese

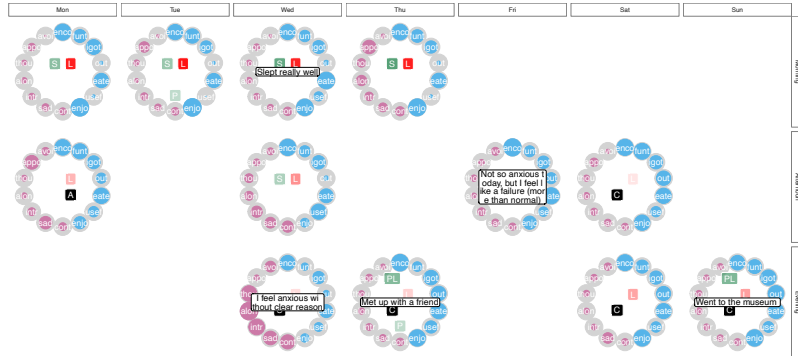


## Descriptive feedback: quantitative + qualitative



[Bringmann et al., 2021]

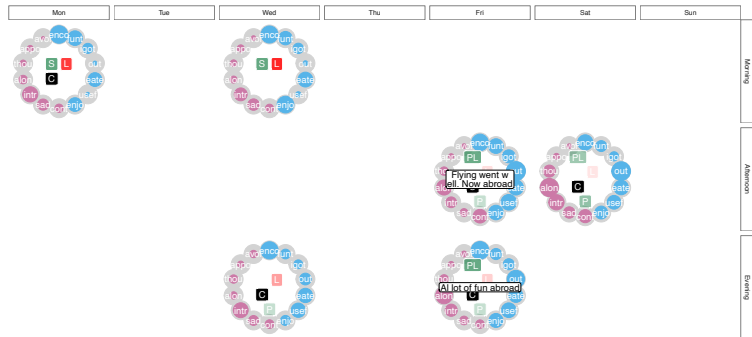
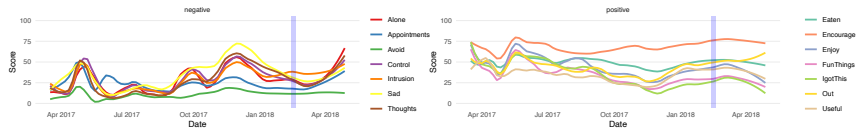
Period: 2017-08-14 – 2017-08-20



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<https://shiny.gmw.rug.nl/QLR/video/>

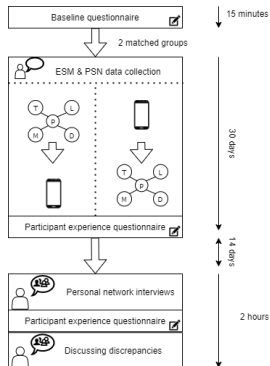
# ESM visualization: social context

- ▶ Social context is made very general
- ▶ You probably have multiple friends
- ▶ What if we would lay out your social network in a systematic way?

[Stadel et al., 2023]

# ESM visualization: social context

- ▶ Combining person networks with ESM based social networks
- ▶ Obtain a complete picture of a person's social context in the most participant-friendly way





# Capturing Social Context - Feedback Report

2022-08-03

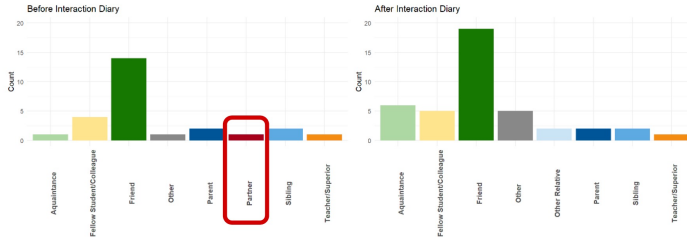
## Your Social Enviroment

Network & Relationships

Daily Interactions

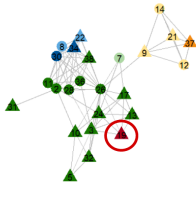
Extras

### Your Social Relationships

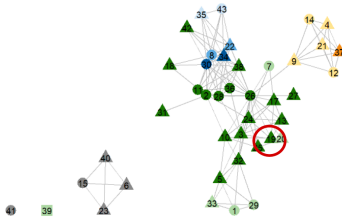


# Your Social Network

Before Interaction Diary

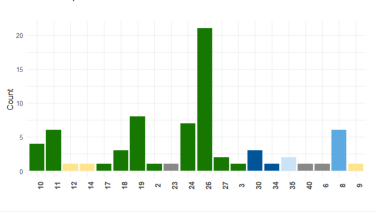


After Interaction Diary

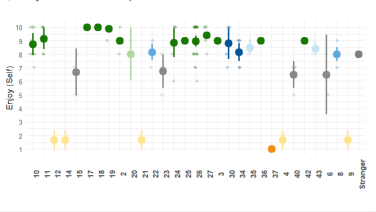


# Quantity & Quality of Your Social Interactions

Interactions per Interaction Partner



Quality of Interactions per Interaction Partner



Which interaction partner(s) do you want to look at?

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43

Which mood do you want to look at?

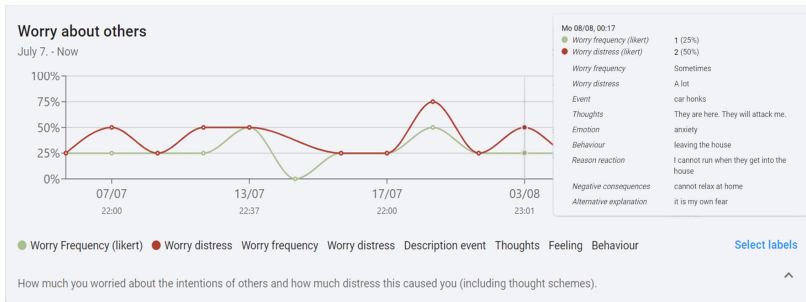
Happy

### Social Interactions & Mood

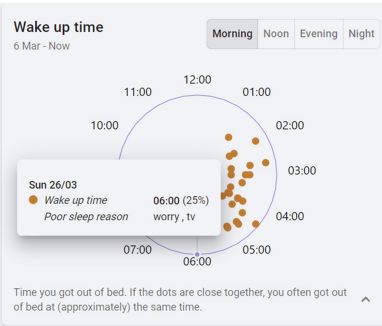
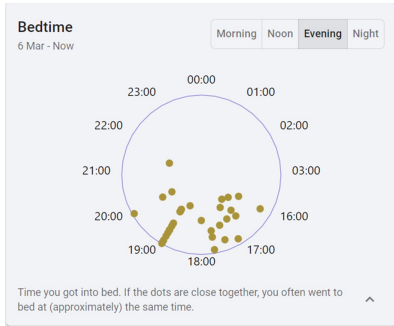


See also [von Klipstein et al., 2023]

# Feedback for individuals with persecutory delusions



[Tolmeijer et al., 2023] <https://m-path.io/landing/>



<https://m-path.io/landing/>

## Possible other explanations

July 7. - Now

It is my own fear  
I feel insecure  
Others have also feelings  
Coincidence  
Drug

Possible other explanations for the situations you did not trust.

## Helping thoughts

7 May - Now

Coincidence exists  
I have to work  
Setting fun goals helps against uncertainty  
It's not real. My home is a safe space!

Thoughts that helped you feel better.

<https://m-path.io/landing/>



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Sharing science,  
*shaping tomorrow*



# Citations I



Bartels, S. L., van Zelst, C., Moura, B., Daniëls, N. E., Simons, C., Marcelis, M., Bos, F. M., and Servaas, M. (2023).

Feedback based on experience sampling data: Examples of current approaches and consideration for future research.

*Heliyon*, 9(9).



Bos, F. M., Snippe, E., Bruggeman, R., Wichers, M., and van der Krieke, L. (2019).

Insights of patients and clinicians on the promise of the experience sampling method for psychiatric care.

*Psychiatric Services*, 70(11):983–991.



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*Quality of Life Research*, 30(11):3179–3188.

# Citations II



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Testing the combination of feeling safe and peer counselling against formulation-based cognitive behaviour therapy to promote psychological wellbeing in people with persecutory delusions: study protocol for a randomized controlled trial (the feeling safe-nl trial).

*Trials*, 24(1):644.

# Citations III

-  von Klipstein, L., Servaas, M. N., Schoevers, R. A., Riese, H., et al. (2023). Integrating personalized experience sampling in psychotherapy: A case illustration of the therap-i module. *Heliyon*, 9(3).