Virtual Reality for the Understanding and Treatment of Paranoia

Poppy Brown

Outline

- Overview of rationale for PhD

- Summary of work

- Wider skills training, dissemination, and implementation of work

Two problems in the treatment of psychosis

1. **The treatments themselves**

Weak to moderate effectiveness for patients with severe and complex problems (Leucht et al, 2013; Van der Gaag et al, 2014)
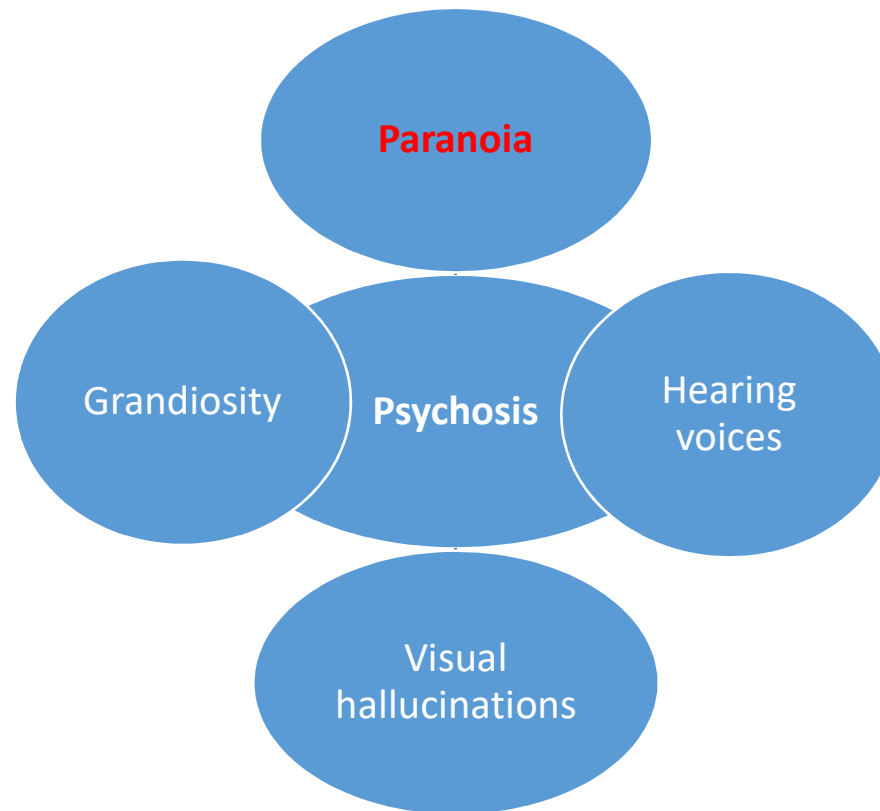
2. **Access to the treatments**

Only 6.9% of service users with schizophrenia offered CBT (Haddock et al, 2014).

Solution Part 1: Understanding

Understanding the problem better:

Focus on individual psychotic experiences → targeted treatments.

Solution Part 2: Causal Evidence

"Do you think all these film crews brought on global warming or did global warming bring on all these film crews?"

Need causal evidence beyond observation of correlations
→ Manipulation and intervention studies

Solution Part 3: Technology

Using Virtual Reality to:

1. Aid development of theory.
2. Increase accessibility – automated therapists.

Three intervention studies aiming to reduce Paranoia

- 100 individuals with high paranoia

- Randomised to experimental group (therapeutic technique) or active control group (neutral technique)

- Enter neutral virtual reality social environments

Three intervention studies aiming to reduce Paranoia

Intervention to increase **self-compassion** reduced paranoia

Intervention to increase **compassion for others** reduced paranoia

Intervention to increase **feelings of power** had no effect on paranoia

Annual Convention of the Association for Behavioural and Cognitive Therapies

The Oxford Approach to Understanding and Treating Persecutory Delusions

Beliefs about the self and others in paranoia.

ABCT

Wisdom of Purpose and Perspective: Extending the Social Impact of Cognitive Behavioral Science

53rd Annual Convention

November 21–24, 2019 | Atlanta, GA

Origin of Negative Beliefs

- Where do negative beliefs arise from?

- Parenting style may impact growth of vulnerability

- Parental **abuse**, **over-protection** and **lack of care** associated with schizophrenia, but not paranoia specifically

Parenting and paranoia

- Analysis on NCS-A dataset (N=10,148)

- Replicated in adult sample (N=1,231)

- Significant associations between all parenting variables and paranoia in both datasets
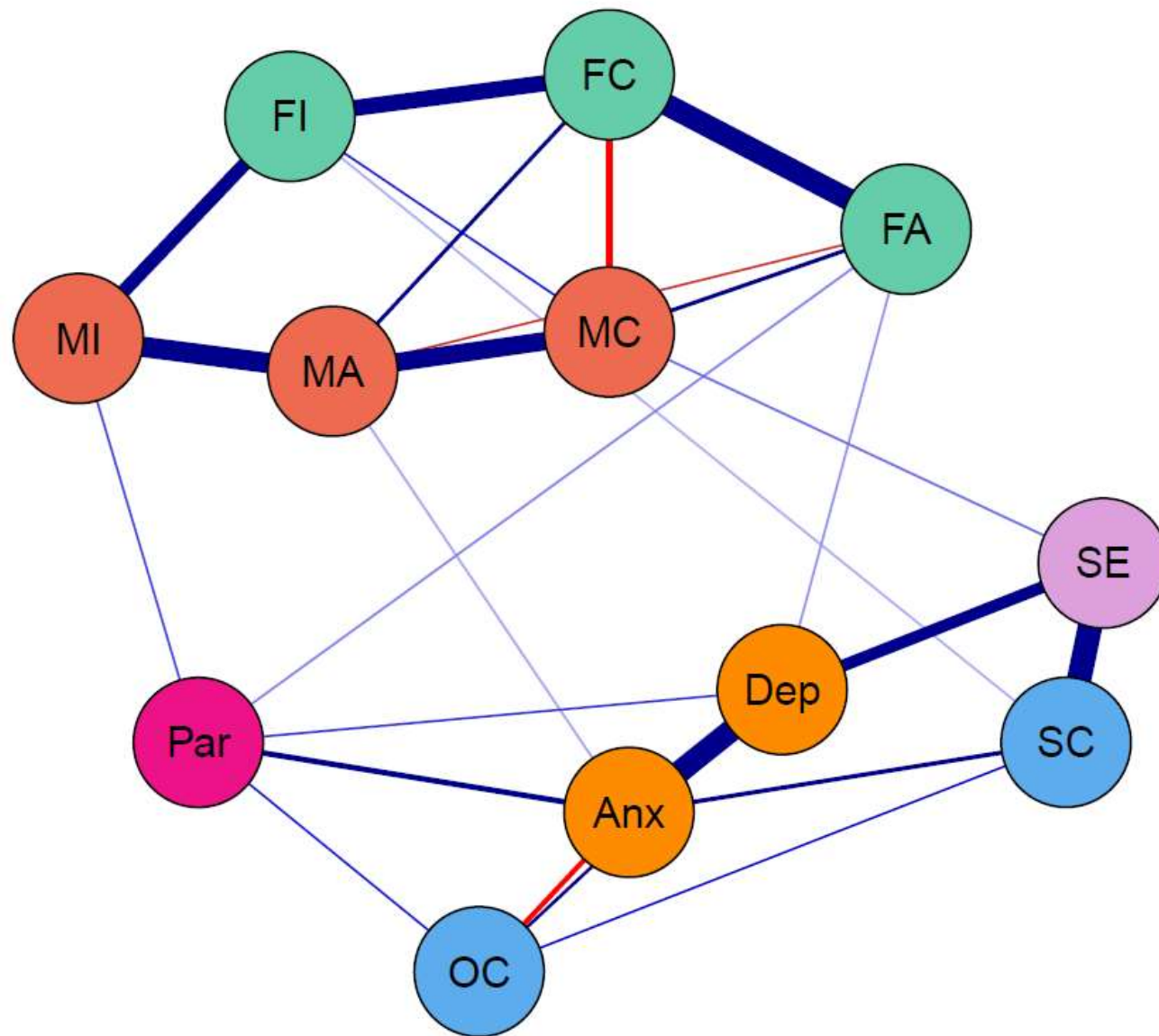
Psychological Networks Summer School

- Statistically estimates interactions between variables

- Allows greater learning from cross-sectional data

- Gives a visual display of strength of relationships, and potential causal pathways
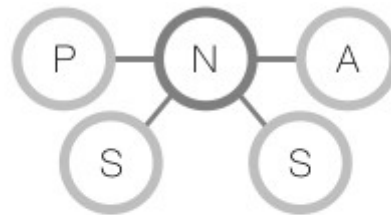
Psychological Networks
Amsterdam Summer School

A
- Par: Paranoia
- SC: Self-compassion
- OC: Compassion for others
- MI: Mother indifference
- MA: Mother abuse
- MC: Mother control
- FI: Father indifference
- FA: Father abuse
- FC: Father control
- Anx: Anxiety
- Dep: Depression
- SE: Self-esteem

Translation into Policy and Practice

How can we implement findings into clinical practice, and policy more generally?

Three month secondment in the Mental Health Policy Team of Department of Health and Social Care.

Final study on the implementation of VR therapy onto inpatient psychiatric wards.

Implementation of VR Therapy

- Severe paranoia leads to withdrawal

- Wards further remove patients from everyday situations

- Limited access to psychological therapy or preparation for discharge

Method

- **Aim 1:** Explore staff and patient expectations of VR therapy

- **Aim 2:** Apply an implementation framework (NASSS) to assess feasibility of adoption

- **Aim 3**: Identifying potential differences across sites for implementation

Thank you!

Poppy Brown