An Evaluation of the Homunculi Approach as an Intervention for Pupils with Autism Spectrum experiencing Anxiety

Harriet Maydew
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Dr Harriet Maydew
Overview

- What is the Homunculi Approach?
- Rationale for research
- Research questions
- Phase 1 and Phase 2
- Limitations and challenges of research
- Ideal set up for the intervention
- Implications for TEPs/EPs
- Next steps for research
- Tips to trainees
What is the Homunculi Approach?
What is the Homunculi Approach?

- Designed for pupils with Autism aged 7-18
- Targets 3-5 problem areas
- 10 week intervention
- Can be delivered by anyone!

(Grieg & MacKay, 2013)
Step 1 • Meeting the homunculi
Step 2 • Seeing the homunculi in action
Step 3 • Identifying problems and missions
Step 4 • Pre-evaluation
Step 5 • Creating agents and gadgets
Step 6 • Deciding how to plan the story/mission
Step 7 • Story development
Step 8 • Debrief
Rationale for research

1. School based research
2. Young people with Autism
3. Relevance for EPs
Rationale for research: school based research

- Schools have been identified as well placed to support pupils experiencing MHPs

- School staff do not feel adequately prepared to support young people’s mental health
Rationale for research: young people with Autism

• Overlap between features of AS and symptoms of high anxiety
• Barriers to young people with AS accessing CBT based interventions
Rationale for research: evidence based practitioners

- EPs as scientist practitioners (Dunsmuir, Brown, Iyadurai & Monsen, 2009).

Research to date:

- Case study: 13 year old with Asperger’s Syndrome. Pre and post measures: mental wellbeing, social skills and competence, and behaviour in school (Greig & MacKay, 2005)
- 6-8 individual participant’s:
  Effect sizes for anxiety (0.67), depression (0.98), anger (0.97), stress (0.95) (Greig & MacKay, 2008)
Research Questions

1. Does the Homunculi Approach reduce anxiety in pupils with AS in secondary schools when delivered by school staff?

2. What are staff perceptions of the factors which may affect the implementation of the Homunculi Approach when delivered by school staff in schools?
Participants

Participant criteria:
- Be in KS3 or KS4
- Have received a diagnosis of AS for at least a year
- High anxiety
- Attendance above 90%
- Not receiving psychological treatment

4 participants aged 12 to 15 across 4 different secondary schools.

Staff: Trained a member of staff in each school to deliver the Homunculi Approach with the young person.
Research Method: Phase 1

Single case experimental design: aim to produce “meaningful and reliable data at the level of the individual” (Robson, 2011)

Repeated Measures
- Paediatric Index of Emotional Distress (O’Connor et al., 2010)
- Observation measure of anxiety-related behaviours

Pre and post Measures
- Spence Children’s Anxiety Scale (Spence, 1998)
- School Anxiety Scale-Teacher Form (Lyneham et al., 2008)

Homunculi Approach Measures
- Scaling questions
- Evaluation questions
A graph to show William's score on the Paediatric Index of Emotional Distress during the baseline and intervention phase.

Baseline Phase:
- Score of PED: $y = 0.8x + 16.2$

Intervention Phase:
- Score of PED: $y = -0.5275x + 29.44$

Data Collection Dates:
- 20/09/2017
- 29/09/2017
- 03/10/2017
- 09/10/2017
- 19/10/2017
- Half Term
- 02/11/2017
- 07/11/2017
- 19/11/2017
- 23/11/2017
- 29/11/2017
- School Holidays
- 12/01/2018
- 16/01/2018
- 25/01/2018
- 02/02/2018
- 07/02/2018
- 14/02/2018
William

- No significant change on repeated measures
- No significant change on pre and post measures

To not get annoyed at school
A graph to show Sophie's score on the Paediatric Index of Emotional Distress during the baseline and intervention phase.

Score on PI:ED

- Baseline Phase
- Intervention Phase
- Baseline Phase Trend
- Intervention Phase Trend

Data Collection Dates:
- 12/09/2017
- 22/09/2017
- 29/09/2017
- 06/10/2017
- 09/10/2017
- Half Term
- 24/11/2017
- 28/11/2017
- 05/12/2017
- 12/12/2017
- School Holidays
- 17/01/2018
- 23/01/2018
- 27/02/2018

Equations:
- $y = -0.4107x + 21.087$
- $y = 21.5$
Sophie

- Significant change on repeated PIED measure
- No observation data
- Significant change on pre and post measures (parent and teacher)

When a situation is really hard don’t give up because there are ways you can make it better.
A graph to show Alex's score on the Paediatric Index of Emotional Distress during the baseline and intervention phase.

- **Baseline Phase Trend**: $y = -0.2941x + 17.485$
- **Intervention Phase Trend**: $y = -x + 25$

Data Collection Dates:

- 03/10/2017
- 10/10/2017
- 17/10/2017
- 24/10/2017
- Half Term
- 07/11/2017
- 14/11/2017
- 21/11/2017
- 28/11/2017
- 05/12/2017
- 12/12/2017
- School Holidays
- 16/01/2018
- 23/01/2018
- 30/02/2018
- 06/02/2018
- 13/02/2018

Score on P-ED
Alex

- Significant change on repeated PIE measure
- No observation data
- Significant change on pre and post measures (child)

I’m always able to change my thoughts on a situation or approach it differently with an open mind and by thinking about the Homunculi the situation generally turns out more positively.
A graph to show Ben's score on the Paediatric Index of Emotional Distress during the baseline and intervention phase.

Baseline Phase:
- Trend line: $y = 0.2143x + 30.071$

Intervention Phase:
- Trend line: $y = -2.9x + 40.5$

Data Collection Dates:
- 29/11/2017
- 06/12/2017
- 14/12/2017
- 20/12/2017
- School Holidays
- 26/01/2018
- 07/02/2018
- 09/02/2018
- Half Term
- 01/03/2018
- 12/03/2018
- 21/03/2018
Ben

- No significant change on repeated PIED measure
- Change in observation data
- Significant change on pre and post measures (teacher)

I’ve developed more confidence and begun to address my problems
Conclusions from Phase 1

Does the Homunculi Approach reduce anxiety in pupils with AS in secondary schools when delivered by school staff?
Research Method: Phase 2

Activity Theory (Engeström, 1987)
Research Findings: Phase 2

Tools and/or artefacts:
- Homunculi Approach Resources:
  - Session outlines, worksheets, intervention manual and video clips were used.
- Other resources:
  - A variety of other resources were implemented including computers, games and school library resources.

Personal Skills:
- Building a rapport
- Using a flexible approach, led by the young person
- Previous experience/training which included training in AS, mental health and therapeutic interventions.
- Using experience to identify suitable young people.

Subjects:
- Secondary school staff in a range of roles.

Rules:
- Timetable flexibility
- Availability of rooms
- Other rules included:
  - Time of day the intervention was delivered
  - Other things being prioritised over the Homunculi Approach

Object: The implementation of the Homunculi Approach

Outcome aims:
- To conduct an individualised programme using the Homunculi Approach to reduce a young person’s anxiety levels.

Community:
- Young people’s level of engagement
- Young people’s parents’ level of support
- Other members of school staff i.e. SENCO and members of the senior leadership team
- Researcher’s involvement
- Influence of external factors on intervention

Division of Labour:
- Staff level of responsibility to deliver the intervention and time it took to plan each session.
- Role of the young person.
- Other staff commitments/staff roles in school.
- Parent involvement in completing observation measures.
Ideal set up for it

- Identifying appropriate young people
- Identifying appropriate staff
- Intervention delivery
- Wider systemic factors
Implications for TEPs/EPs

- Longer training for staff
- Supporting school at a systemic level
- Recognition of other factors which may be influencing the situation
Limitations/challenges of research

- Impact of external factors on findings
- It is a small sample size, generalisation of findings?
- Longer term outcomes
- Focused on anxiety but broader implications of intervention
- Traded service
Ideas of next steps

- Support transition from primary to secondary school?
- Implementing CBT principles in a preventative rather than reactive manner
- Ensuring mental wellbeing is prioritised over academic performance
- Exploring prerequisite skills required
Tips to Trainees

1. Do research in an area you’re interested in
2. Get your “team around the TEP”
3. Enjoy it!
Thank you for listening

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References

References


Thank you

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