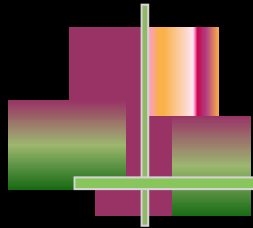


Predictors of outcomes in adulthood for children with autism



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Overview



- Part I:
 - Predictors of outcomes
- Part II:
 - Autism Centre for Employment

Case study: Andrew



- Problems: Sleep, feeding, potty training
- Delayed speech and LD
- Behavioural difficulties: Nursery and primary school
- Diagnosed at 5 yrs of age

Case study: Andrew



- Special needs school
- Still shows marked difficulties in social interaction and communication and likes his routines
- Lives in a home due to her complex needs

Case study: Chris



- Problems: Sleep, feeding, potty training
- Delayed speech and LD
- Behavioural difficulties: Nursery and primary school
- Diagnosed at 7 yrs of age

Case study: Chris



- Special needs school
- Still shows marked difficulties in social interaction and communication and likes his routines
- Lives with parents but has a part-time job at a local supermarket and volunteers in two different organisations

Case study: Peter



- Problems: Sleep, feeding, potty training
- Delayed speech, no LD
- Behavioural difficulties: Nursery and primary school-Exclusion
- Diagnosed at 34 yrs of age

Case study: Peter



- Mainstream schooling
- Completed a BA in art history
- Attempted a PhD -Mental health problems
- Currently- Unemployed and severe mental health problems

Case studies: Mary



- Problems: Sleep, feeding, potty training
- Delayed speech, No LD
- Behavioural difficulties: Nursery and primary school-Exclusion
- Diagnosed at 4 yrs of age

Case study: Mary



- Found the right school for her
- Fascination with computers
- Completed a BSc and an MSc in computer science- Made friends
- No longer meets the criteria for an autism diagnosis

Why do they have such different outcomes?

Can we predict outcomes?

Predictors of symptoms



- IQ and speech (specially before age 5) predict social interaction, communication skills in adulthood and repetitive behaviours
- Sensory issues are pretty stable across the life-span
- Gender, but this may be due to issues around diagnosis of women

Diagnosis



- Several studies have now shown that some children with ASD do not meet criteria in adulthood (optimal outcomes)
 - Prospective study of 100 males with AS from childhood Helles et al (2015)
 - T1: 76 adults (mean age 22 yrs) and T2: 50 adults (mean age 30 yrs)
- Results:
 - Using DSM-IV: Drop from 91% at T1 to 76% at T2
 - Using DSM V: Drop to 62% at T2
 - The best predictor of stable diagnosis was severity of symptoms

Predictors of diagnosis



Optimal outcome children vs HFA

Earlier diagnosis

Earlier parental concern

Earlier and more intensive intervention

Milder symptoms (especially social domain)

Higher cognitive scores

Higher motor skills at age 2

Mental health outcomes



- Estimated rates of anxiety and depression are high across the spectrum (Ghaziuddin *et al.*, 1998).
- High-functioning adults with ASD are at a higher risk of developing mental health difficulties than people with ASD who have learning disabilities
- Early interventions :
 - Interventions largely focused on the here and now, not so much on the future (i.e., careers, relationships)
 - Interventions largely focused on autism features more needed to prevent the development of mental health difficulties (i.e., depression and anxiety)

Summary



- IQ and speech are best predictors of symptoms in adulthood
- Stability of diagnosis predicted by severity, IQ and motor skills but also time and intensity of interventions
- The importance of well-being

After education...



Taylor & Seltzer (2011)	High functioning	Low functioning
No activity	23%	8%
Day centres	-	76%
Employed	23%	16%
Higher education	47%	

- 50-60% leave education with qualifications, 50-60% do not live independently (Levy & Taylor, 2009)

Life cycle



- Lack of qualifications/skills



- Unemployment



- Lack of independence



- Mental health difficulties



PART II



understanding
success
networking
development
experience
Jobs
recruiters
Self-esteem
employee
prospects

vocation
diversity
employer
part-time
relationships
planning
recruitment
individuality
career independence
employment
professional
commitment
vacancies
Autism
Centre for
Employment

work
creativity
confidence
opportunities
Curriculum Vitae
placement
skills
support
awareness

ACE

Developing an evidence-based, person-centred work programme

Evidence of
need

Barriers to
employment

NICE
guidelines

Evidence of need



- 15% of people with ASD in full time employment(NAS)
- ASD no LD vs LD: 23% vs 8% no daily activity
- Large majority of work programmes are aimed at people with ASD and LD, but not much support for those without LD

Barriers to employment



	Practitioners (n=43*)	Carers (n=28*)	Adults with ASD (n=28*)
External barriers			
Services	11.6%	7.1%	-
Application and interview process	18.6%	7.1%	-
Employer and staff lack of understanding	20.9%	39.3%	35.7%
Failure to make adjustments	16.3%	14.3%	42.8%
Other	7%	-	21.5%
Internal barriers			
Condition related	18.6%	7.1%	-
Confidence	7%	10.7%	-
Lack of coping strategies	-	14.3%	-

NICE guidelines



- Employment programmes are highly effective (Howlin et al, 2005; Mavranouzouli et al, 2013) but costly (NAS)
- Recommendations for supported employment programmes:
 - Employability skills
 - Careful matching the person to the job
 - Support for the employer and employee
 - Advice on making reasonable adjustments

Barriers for NICE guidelines



- How to match a person to a job?
 - No autism-specific assessment tools to identify career preferences, employability skills

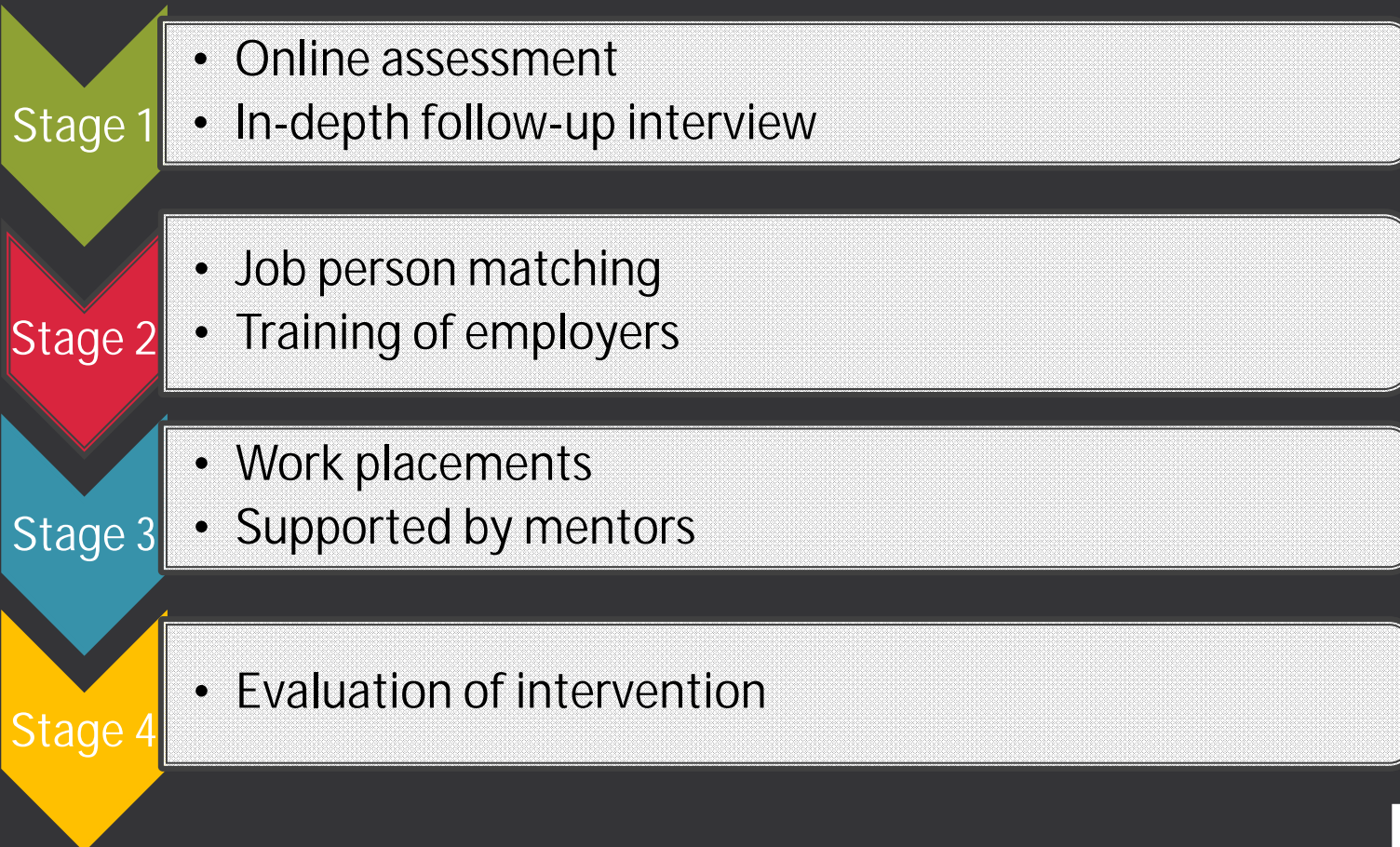
- How to support the employer and employee?
 - High variability in symptoms (Valla & Belmonte, 2013; Kargas, López et al, 2014)
 - Generic training to employers and mentors does not provide information about individual employee

- How to provide advice on how to make reasonable adjustments?
 - Generic training again, does not inform about individual needs

ACE



- Focuses on people with ASD and no LD
- Intervention focused on EMPLOYERS
- Develop assessment tools to assess individual employment profiles in order to:
 - Facilitate job-person matching
 - Provide person-centred training to employers
 - Support decisions of adjustment needs
- Provide work placements to evaluate the tools



Stage 1: Assessments



- Developed employment-specific tools to measure core difficulties in autism
 - Flexibility: I have trouble with tasks that have more than one step
 - Sensory sensitivities: I cannot work in rooms with fluorescent lights
 - Social and communication: I have difficulty making and receiving telephone calls

Stage 1: Assessments



- Occupational typology (Holland, 1985):
 - RIASEC: Realistic, Investigative, Artistic, Social, Enterprising and Conventional
- Employability skills:
 - Creative, numerical, practical, problem solving, social and interpersonal, influencing, verbal communication, organising, written communication
- Online questionnaires followed up by in-depth interview

Stages 2 and 3



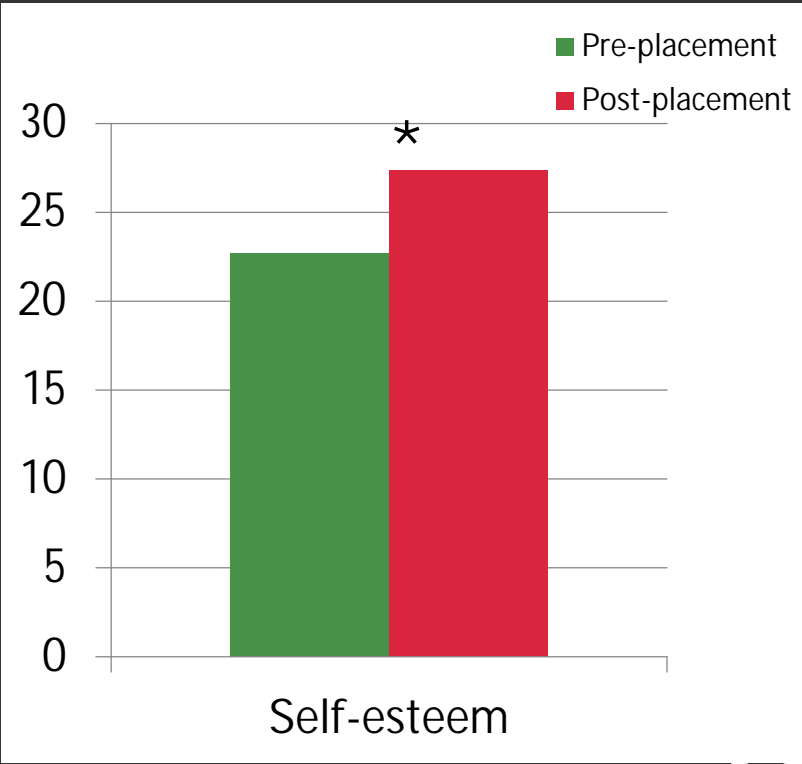
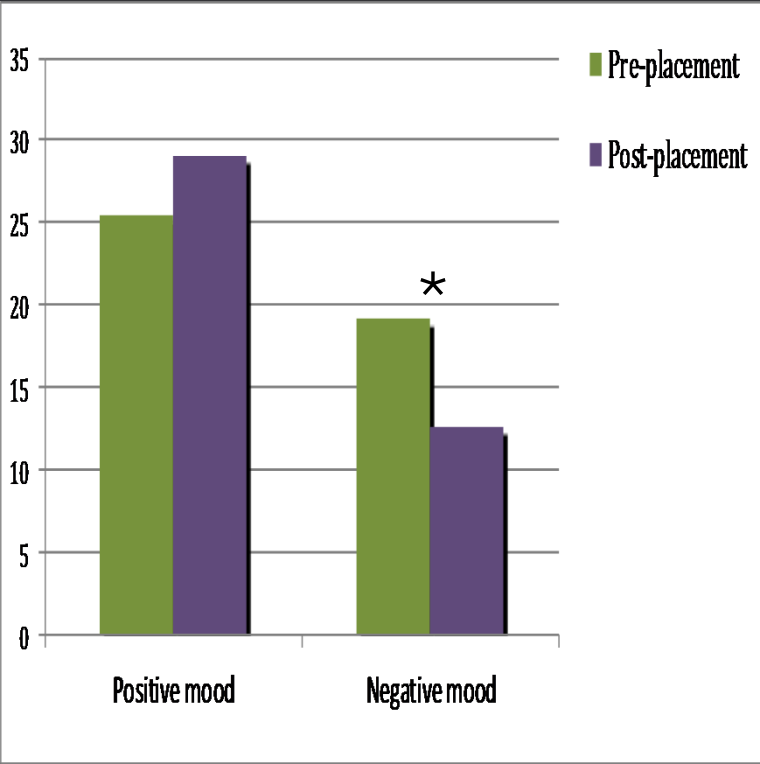
Type of work	No	Type of work	No
Retail assistant	3	Art gallery assistant	1
Data entry	3	Mobile app developer	1
Research assistant	3	Web developer	1
Library assistant	2	Journalist	1
Administrator	1		

Stage 4: Outcomes



	Strongly agree	Agree	Total
1. Participating in this work scheme has helped me gain confidence on my skills.	36%	55%	91%
2. Participating in this scheme has made me feel better about myself.	36%	55%	91%
3. Taking part in this scheme has helped my chances to find work in the future.	27%	27%	54%
4. Participating in this work placement has helped me gain skills that will help me to find a job in the future.	9%	36%	45%
5. I have enjoyed taking part in the work placement.	55%	27%	82%
6. I have made friends with colleagues from the work placement	36%	36%	72%
7. My employer has made the right adjustments for me in the work placement.	36%	45%	81%
8. I would have liked more hours of mentoring support in the work placement	9%	0%	9%
9. Having a mentor to support has made me feel more confident about doing well in the work placement.	27%	36%	63%
10. The quality of the support provided by my mentor was very good.	27%	45%	72%

Employee's outcomes



Outcomes summary



- Positive outcomes in self-esteem and negative mood
- Almost all clients (81%) felt that the employer had made the right adjustments in the work place
- Cost-effective: 1 hour mentorship per week by week 3
- Not so good: Despite positive feedback only 50% likely to employ someone with ASD in the future

What next?



- Revising tools and developing an entirely online-based version
- Expand use to schools
- Develop an LD version
- Develop supporting materials for employers

Autism Research Network



Beatriz López



Vasu Reddy



Encarna Sánchez



Niko Kargas



Tomas Rubin



Alessandra Fasulo



Karl Nunkoosing





CURRENT RESEARCH PROJECTS

How does autism develop over time?

Autism is a genetic developmental disorder yet very few studies have investigated how autism develops over time. Examining how autism develops across the lifespan is important to predict outcomes. This study offers an innovative approach to establish how the three main areas of difficulty in ASD, (i) repetitive behaviours, (ii) sensory impairments and (iii) social difficulties, unfold over time. The findings from this study will enable us to understand which difficulties present at different points in the life-span.

The results of this study can be downloaded here: [Developmental trajectory summary](#)



Barriers to employment in autism

Despite the many qualities of people with ASD, people with ASD find it difficult to find a job, hold a job and switch jobs often. This study investigates the main barriers people with autism encounter when accessing the job market, why they find it difficult to retain a job and what has been the impact of the Adult Autism strategy. In particular, this study focuses on the extent to which employers make reasonable, necessary adjustments in the workplace for people with autism. This project is the result of a collaboration with the Wales Autism Research Centre, Portsmouth City Council and Hampshire County Council.

You can download a research report summarising the results of this project here [Employment report](#)



Prosody and auditory processing

Speech and language difficulties are one of the defining characteristics in autism spectrum conditions (ASC). However, explanations of exactly why this is the case are still contradictory. One of the factors that seems to be crucial for language is prosodic ability, yet this ability has not been





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[Maps and Directions](#)

The Autism Research Network (ARN) has been set up in response to informal discussions with parents and practitioners in the Hampshire area.

The primary aim of ARN is to create a forum to promote a genuine communication channel amongst researchers, practitioners, carers, parents and individuals with Autism Spectrum Disorders (ASDs) in order to improve the lives of autistic individuals and their families. We hope to achieve this aim by:

- creating opportunities to disseminate and discuss, research findings.
- sharing information regarding services and regarding the latest advances in interventions.
- facilitating collaborative links between scientists and clinicians interested in the study of ASD's working in the UK.
- providing useful online information about autism.
- raising awareness of autism in the wider community.



We also seek to consult people with autism and their families, as well as professionals before we start a research project to ensure their views are reflected and their needs are met by our research projects.

Autism Centre for Employment

A ground-breaking new project that aims to help people with autism into work has been given a huge funding boost. The Autism Research Network (ARN) has recently been awarded a grant of £65,000 from the Department of Health's Autism Innovation Fund. Dr Beatriz Lopez and her team will be working in partnership with Portsmouth City Council, Hampshire County Council, Southampton City Council, Isle of Wight Council, Hampshire Police, Autism Hampshire, and the Department of Work and Pensions to set up an Autism Centre for Employment (ACE). For more information please visit [our website](#).

Research Update

The Autism Research Network produces a quarterly publication, Research Update, which provides research summaries in accessible terms on specific areas relevant to autism. You can download this publication from the links provided below.

Issue 1: [Sensory issues](#)

Issue 2: [Employment](#)

Issue 3: [Relationships](#)

Issue 4: [Women](#)

Issue 5: [Diet](#)

Issue 6: [Diagnosis](#)

Issue 7: [Interventions](#)

Issue 8: [Challenging Behaviours](#)

Issue 9: [Anxiety](#)

Issue 10: [Early Signs of Autism](#)

Issue 11: [Quality of Life](#)

Issue 12: [Epilepsy](#)

Issue 13: [Early Interventions](#)

Issue 14: [Sleep](#)

Issue 15: [Positive Contributions](#)

Issue 16: [ARN Issue 16 Autism and Sport](#)



For more information and accessible research monographs visit our website:

<http://www.port.ac.uk/arn/>

For information about ACE please visit:

<http://www.port.ac.uk/ace/>

Or email us at:

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