

Exploring the anxiety experience of adolescents with autism (aged 11 – 18) in a mainstream secondary school

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Background

Individuals with autism have a potentially higher risk of developing anxiety symptoms compared with typically developing individuals (Sukhodolsky et al., 2008). Meta-analyses demonstrated that approximately 40% of children and young people with autism meet the diagnostic criteria of an anxiety disorder (van Steensel et al., 2011).

Solomon et al. (2012) proposed the “Double Hit” hypothesis suggesting adolescent girls with autism are significantly more disadvantaged in developing anxiety than adolescent boys with autism and adolescents without autism. Limited research has been carried out in this area directly comparing gender differences of anxiety in children and adolescents with autism.

Mainstream secondary schools can be particularly challenging for students with autism due to the unpredictable nature of the environment and the increased demand on independence (Evans et al., 2005; Dann, 2011). There is currently a gap in the research literature about the factors that contribute to the anxiety experience of the adolescents with autism, and factors that could support them to manage and reduce anxiety in mainstream schools from their perspectives.

Research Questions

1. Do adolescents with autism experience a higher level of anxiety compared to adolescents without autism in a mainstream secondary school?
2. Do adolescent girls experience a higher level of anxiety compared to adolescent boys in a mainstream secondary school?
3. Do autism and gender have an interaction effect on the anxiety level of adolescents in a mainstream secondary school?
4. What are the factors that contribute to anxiety in adolescents with autism in a mainstream secondary school from their perspective?
5. What are the factors that are helpful in managing and reducing anxiety in adolescents with autism in a mainstream secondary school from their perspective?

Methods

- Explanatory sequential mixed method design
- Phase 1: Quantitative data collection
 - ❖ Online questionnaire
 - ❖ Screen for Child Anxiety Related Disorders (SCARED; Birmaher et al., 1999) – Self and parent reports
 - ❖ Strengths and Difficulties Questionnaire – Emotional Symptoms (SDQ; Goodman, 2001) – Teacher reports
- Phase 2: Qualitative data collection
 - ❖ Semi-structured interviews with adolescents with autism using an adapted version of Ideal School (Williams & Hanke, 2007)

Participants

Age: 11 - 18

Phase 1: Quantitative Phase

- Adolescent girls with autism (n = 8) without autism (n = 32)
- Adolescent boys with autism (n = 16) without autism (n = 34)

Phase 2: Qualitative Phase

- Adolescents with autism (n = 6)

Quantitative Findings

RQ 1: Effect of having autism on anxiety

Adolescents with autism obtained significantly higher anxiety scores than adolescents without autism:

- ✓ self reports ($\Lambda = .71$, $F(5, 67) = 5.42$, $p < .001$, $\eta_p^2 = .29$),
- ✓ parent reports ($\Lambda = .69$, $F(5, 26) = 11.72$, $p < .001$, $\eta_p^2 = .69$)
- ✓ teacher reports ($F(1, 23) = 21.97$, $p < .001$, $\eta_p^2 = .49$).

RQ 2: Effect of gender on anxiety

Adolescent girls obtained significantly higher anxiety scores than boys:

- ✓ self reports ($\Lambda = .75$, $F(5, 67) = 4.49$, $p = .001$, $\eta_p^2 = .25$),
- ✓ parent reports ($\Lambda = .55$, $F(5, 26) = 4.31$, $p = .005$, $\eta_p^2 = .45$).

No significant difference on anxiety was found:

- ✗ teacher reports ($F(1, 23) = 2.78$, $p = .109$).

RQ3: Interaction effect of having autism and gender on anxiety

Significant interaction effect was found:

- ✓ parent reports ($\Lambda = .63$, $F(5, 26) = 3.01$, $p = .029$, $\eta_p^2 = .37$).

No significant difference was found:

- ✗ self reports ($\Lambda = .94$, $F(5, 67) = .87$, $p = .502$)
- ✗ teacher reports ($F(1, 23) = 1.42$, $p = .246$).

Qualitative Findings

RQ4: Factors that contribute to anxiety in school

Social Interactions and Understanding

School Environment

Academic Demands

RQ5: Factors that helps to manage and reduce anxiety in school

Access to Additional Support

Positive Social Experience

Positive Learning Experience

Use of Coping Strategies

Implications

- Early screening and monitoring arrangement of anxiety should be put in place for adolescents with autism, particularly girls, in mainstream schools
- Multiple informants including the adolescents, parents and teachers should be included to obtain an accurate picture of the adolescents' anxiety level
- Ideal School technique can be a useful tool to seek voice of the adolescents with autism and explore their anxiety experience in school
- Support adolescents with autism to manage and reduce their anxiety levels in a preventative manner by providing access to additional academic, social and emotional support, considering their learning and social experience, as well as developing their coping skills
- Provide training and support for the teachers and the peers of adolescents with autism to enhance their social and learning experience