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Understanding sensory experiences of neurodiverse adolescents in mainstream secondary schools

Submission date
01/04/2026

Recruitment status
No longer recruiting

Registration date
01/04/2026

Overall study status
Completed

Last Edited
01/04/2026

Condition category
Mental and Behavioural Disorders

[_] Prospectively registered
[X] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims
Many young people in mainstream secondary schools are neurodiverse, meaning they think, learn, and process the world in different ways. These differences are completely normal, but school environments are often not designed with neurodiverse learners in mind.

Who can participate?
Neurodiverse adolescents aged 10–19 years at the participating secondary school, Harton Academy, UK.

What does the study involve?
This study explored how participants experience sensory challenges at school, using interviews, drawings, and conversations to understand their daily lives.

What are the possible benefits and risks of participating?
Possible Benefits:
• Participants may gain a better understanding of their own sensory experiences and how these affect their school day.
• Taking part may help young people feel heard, valued, and able to share experiences that are often overlooked.
• The findings may contribute to improved support for neurodiverse adolescents in schools, including more sensory-informed environments and practices.
• Although there is no direct personal benefit, participation may help shape future educational and therapeutic approaches for other students.

Possible Risks
• Some interview questions may feel personal or emotionally sensitive, particularly when discussing stress, overwhelm, or difficult school experiences.
• Reflecting on sensory challenges may cause mild emotional discomfort or temporary distress.

• There are no physical risks associated with participation.
• Participants may pause, stop the interview, or withdraw from the study at any time without giving a reason.

Where is the study run from?
Sheffield Hallam University, UK.

When is the study starting and how long is it expected to run for?
September 2024 to April 2026.

Who is funding the study?
Sheffield Hallam University, UK.

Who is the main contact?
Tanya Oliver, tanya_oliver@hotmail.co.uk

Contact information

Type(s)
Public, Scientific, Principal investigator

Contact name
Ms Tanya Oliver

Contact details
Harton Academy
Lisle Road
South Shields
United Kingdom
NE34 6DL
-
tanya_oliver@hotmail.co.uk

Additional identifiers

Study information

Scientific Title
Sensory experiences of neurodiverse adolescents in mainstream secondary education: a qualitative phenomenological study

Acronym
SENSE

Study objectives
Primary Objective
To explore how secondary school–aged neurodivergent children experience sensory differences within the mainstream school environment and additional resource base (ARB) settings.

Secondary Objectives
To identify specific school-based sensory triggers and environmental factors that influence participation, learning, and emotional regulation.

To understand how adolescents describe and interpret their sensory experiences in their own words through semistructured interviews and optional artsbased methods.

To generate themes that can inform improved educational, therapeutic, and environmental strategies for supporting neurodivergent pupils in secondary schools.

Exploratory Objectives
To examine how sensory experiences vary across different school spaces (e.g., classrooms, corridors, dining hall, ARB).

To contribute qualitative evidence to the limited research base on sensory processing in neurodivergent adolescents within UK secondary schools.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 04/02/2025, Sheffield Hallam University Ethics Commitee (Howard Street Sheffield City Centre, sheffield, 11WB, United Kingdom; +44 01142255555; ethicssupport@shu.ac.uk), ref: None issued (UREC3 internal approval)

Primary study design
Observational

Secondary study design
Observational qualitative phenomenological design

Study type(s)

Health condition(s) or problem(s) studied
Neurodiversity; Sensory processing differences / sensory processing difficulties; Autism spectrum condition (ASC); AttentionDeficit/Hyperactivity Disorder (ADHD); Developmental Coordination Disorder (Dyspraxia); Dyslexia and other neurodevelopmental differences

Interventions
Study design
A qualitative phenomenological study exploring how neurodivergent secondary school pupils experience sensory differences within the school environment.

Setting
A large UK mainstream secondary school with an Additional Resource Base (ARB) for pupils with special educational needs.

Participants
Adolescents aged 10–19 with a diagnosed neurodiverse condition.

Identified through sensory profiling as having sensory processing differences.

Purposeful sampling, aiming for approximately 8 participants.

Data collection
Semistructured, openended interviews were conducted in the school therapy room during school hours.

Audiorecorded using Dragon Professional V16 and transcribed verbatim.

Optional artsbased methods (drawing/painting) are offered to support communication for pupils who find verbal expression difficult.

Field notes and observational reflections were recorded throughout.

Safeguarding and consent
Parental consent obtained; pupils provide assent.

Safeguarding procedures are followed in line with school policy.

Participants are reminded they can withdraw at any time.

Data management
All data is stored securely on the school's encrypted system (Veeam).

Files are passwordprotected and anonymised.

Unique identifiers are used for transcripts and materials.

Data analysis
Reflexive thematic analysis follows a sixphase iterative process.

NVivo is used to support coding and organisation.

Reflective diary and peer debriefing used to enhance rigour.

Themes developed collaboratively with the school SENCO.

Intervention Type
Other

Primary outcome(s)
1. Identify and describe the key sensory experiences of neurodivergent secondary school pupils within the school environment, measured using data collected during semistructured interviews (audiorecorded and transcribed verbatim), optional artsbased activities (drawings/paintings), field notes, and reflexive thematic analysis used to identify and interpret themes relating to pupils' sensory experiences. at single timepoint; data collected once during a scheduled interview session within the study period

Key secondary outcome(s)

Completion date
01/04/2026

Eligibility

Key inclusion criteria
1. Neurodiverse adolescents aged 10–19 years
2. A diagnosed neurodiverse condition (e.g., autism, ADHD, dyslexia, dyspraxia)
3. Identified sensory processing differences confirmed through sensory profiling
4. Attending the participating UK mainstream secondary school or its Area Resource Base (ARB)
5. Able to provide assent, with parent/guardian consent obtained

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
10 Years

Upper age limit
19 Years

Sex
All

Total final enrolment
8

Key exclusion criteria
1. Adolescents without a diagnosed neurodiverse condition
2. Adolescents without identified sensory processing differences
3. Students outside the age range of 10–19 years
4. Students not attending the participating UK mainstream secondary school or its ARB
5. Students unable to provide assent, or whose parent/guardian did not provide consent
6. Students whose participation would be inappropriate due to safeguarding concerns or inability to engage in interviewbased research

Date of first enrolment
01/09/2024

Date of final enrolment
31/03/2026

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Harton Academy
Lisle Road
South Shields
England
NE34 6DL

Sponsor information

Organisation
Sheffield Hallam University

ROR
https://ror.org/019wt1929

Organisation
Harton Academy

Funder(s)

Funder type

Funder Name
Sheffield Hallam University

Alternative Name(s)

Funding Body Type
Private sector organisation

Funding Body Subtype
Universities (academic only)

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Other files			01/04/2026	No	No
Participant information sheet	version 1.0	11/12/2024	01/04/2026	No	Yes
Participant information sheet			01/04/2026	No	Yes
Plain English results			01/04/2026	No	Yes
Protocol file	version 1.0	01/04/2026	01/04/2026	No	No