Supplementary Materials

Appendix A: Positioning statements

At the time of interviewing, KA, the principal researcher, was 25-years old. She is a white, cis-gendered female with generalised anxiety disorder. She experienced intense sensory hypersensitivity as a child but has not been diagnosed as autistic. This research is part of her PhD, which focuses on exploring the role of interoception in the overlap between autism and mental health conditions. KA had no specific expectations about findings. JS and MB are both autistic adolescents. Both describe themselves as mixed race. JS is male and MB is female. Both volunteered to be a part of this project to provide insight into the lived experiences of autistic adolescents that was used to inform research design and analysis. Neither had a previous research background. GB is a professor of cognitive neuroscience with a wide range of research interests including autism and interoception. PW is a female researcher and clinical psychologist by background, with expertise in qualitative methods. Her research focuses on developing an understanding of, and psychological therapies for, adolescents with anxiety disorders.

Appendix B: Supplement Table 1

Considerations made guiding the information power approach to sample size

Could necessitate a larger sample size	Allows for a smaller sample size
Heterogeneity of autism	Interviewer's (KA) lived experience with anxiety
Planned diversity of sample	Steps taken to increase accessibility (e.g., the introductory call and individual adjustments)
Potential for communication difficulties in sample	
Interviewer (KA) has little experience with interviewing	
No consistent guiding theories from extant literature	

Appendix C: Supplement Table 2

The adolescent PPI group

Participant ID	Age (years)	Ethnicity	Gender	Parent/carer 1 job	Parent/carer 2 job
cyanwolf	16	Mixed or multiple ethnicities	Female	1.2	8
mauvebird	17	Mixed or multiple ethnicities	Male	1.2	2

Note. * Employed. NS-SEC analytical codes: 1.1: Large employers and higher managerial and administrative occupations; 1.2: Higher professional occupations; 2: Lower managerial, administrative and professional occupations; 3: Intermediate occupations; 4: Small employers and own account workers; 5: Lower supervisory and technical occupations; 6: Semi-routine occupations; 7: Routine occupations; 8: Never worked and long-term unemployed

Appendix D: Supplement Table 3

The parent PPI group

Participant ID	Age of adolescent (years)	Ethnicity	Gender of adolescent	Job
pinkgoose	14	White	Female	3
redhorse	14	White	Male	8

Note. * Employed. NS-SEC analytical codes: 1.1: Large employers and higher managerial and administrative occupations; 1.2: Higher professional occupations; 2: Lower managerial, administrative and professional occupations; 3: Intermediate occupations; 4: Small employers and own account workers; 5: Lower supervisory and technical occupations; 6: Semi-routine occupations; 7: Routine occupations; 8: Never worked and long-term unemployed

Appendix E: Supplement Table 4

Changes made following PPI

	Change
1.	The wording of certain questions was changed to avoid appearing patronizing. "How would you describe anxiety to an alien who has never felt it before?" was changed to "How would you describe anxiety to someone who has never felt it before?"
2.	We used visual aids that participants could use to non-verbally communicate. These included a sheet with a pause button, and one with the image of a toilet.
3.	Considering the comments of one parent of an autistic adolescent who had Irlen's syndrome, we chose to avoid the high contrast of black on white backgrounds (using a green colour instead).
4.	We decided to have a scheduled five-minute break in the middle and reduced the planned interview time from one hour to 45 minutes.

Appendix F: Topic guide

Exploring experiences of anxiety and interoception in autistic adolescents: A reflexive thematic analysis
Ethics reference: R85616/RE001

Section One: *Welcome and introduction!*

- Thank for participating
- Introduce myself and my research
- Tell them I will start recording and take notes
- Show them the information powerpoint again
- Ask them if they have questions
- Reiterate the right to withdraw, take breaks, or skip questions
- Make it clear there are no right answers
- Get verbal consent
- Show them tissues, pens, sensory toys etc.
- Re-establish communication preferences

Section 2: *General info*

I'm going to first ask you some questions about yourself so I can get to know you a little bit, and then I am going to ask a few more questions about your experiences of anxiety.

- Could you please tell me a little about yourself?

Prompts: experience in relation to their autism

- Could you tell me a little bit about your experiences of anxiety?

Prompts: diagnoses, treatment

Tip: use info and interests discussed here throughout to build rapport.

Section 3: *Anxiety*

Now, we're going to move on to some deeper questions about your anxiety. Would you like a break before we start?

- If you were going to describe anxiety to someone that has never felt it before, how would you describe it?

Prompts: hot cross bun model from CBT. Ask about thoughts, emotions, bodily sensations and behaviour.

- How do you think your autism affects your anxiety?

Tip: be aware of any stress in participant.

Section 4: *Alexithymia*

We're going to talk a bit now about emotions other than anxiety. These are things like happiness, sadness, or anger [show picture prompts]. As well as recognising emotions in other people, we can also recognise our own emotions.

- How would you tell if you were feeling very happy? What if you were feeling sad?

Prompt: how easy/hard it is to tell how you're feeling?

Section 5: *Interoception*

As I said, I research our ability to feel signals coming from inside our body. Some examples are how fast our heart is beating, how hungry we are, or how badly we need the toilet. [[Shows pulse on wrist]]. For example, some people can feel their heart beating - even when they're not taking their pulse!

- Are you aware of these type of signals in your everyday life?

Prompts: which are you aware of? Which are you not aware of? Specific signals relating to different areas of the body

- Are there times you feel more or less aware of these signals?

Prompts: what about when you are anxious?

- How do these signals feel to you? Are they neutral, positive, negative?

Prompts: for example, if you feel your heart beating really fast, how does that make you feel?

- Ok, now we're going to focus on a specific example. Think about one signal that you feel is really obvious to you, or easy to talk about. How do you experience this?

Prompt: If they can't think of one, I can suggest something (e.g.: hunger/going to the bathroom/heartbeat)

- How does that impact your everyday life?

Section 6: *Cool down!*

So- we're coming to the end of my questions now. I just wanted to check if there was anything else you would like to add, or anything else you would like to talk about that we haven't yet?

- Tell them they will be sent transcripts when they are written, and they have the choice to edit these slightly but don't have to
- They will be sent the initial themes at the end of analysis, and can also provide feedback but don't have to
- Prior to publication, they will be sent a powerpoint with our findings
- Ask them to refer any friends they think would be interested in participating

- Explain how they will receive their voucher

Thank you so much for participating! This interview will really help us in our research.

Appendix G: Screening questionnaire

Start of Block: Introduction

Q1 Thank you so much for agreeing to take part. The next section involves questions to find out a bit more about you and to get your contact information.

We want to make sure our sample is as mixed as possible, so we can hear the experiences of people from different backgrounds (e.g., of different ages). This means that we are not able to interview everyone as the amount of data would be unmanageable. So, we will select people on the basis of the following information to get a good mix of young people in the study.

Remember, if you are not selected this time round, you can leave your contact details and we will get in touch with you about future studies. You can also opt in to a prize draw to win one of two £25 vouchers.

End of Block: Introduction

Start of Block: For the adolescent

Q2.1 These questions concern the **young person** who wishes to participate. You may answer these by yourself, or with your parent/guardian

Q2.2 What is your age in years and months?

Q2.3 Years
▼ 14 (1) ... 17

Q2.4 Months
▼ 1 (1) ... 12

Q2.5 What is your gender?

- o Male
- o Female
- o Non-binary or other gender (please write how you identify below)
- o Prefer not to say
- o _____

Page Break

Q2.7 What is your ethnic group? You may select multiple answers if you are mixed/multiple ethnic groups.

- White
- Asian or Asian British
- Black/African/Caribbean/Black British
- Other ethnic group (please enter)

_____

- Prefer not to state (5)

Q2.8 What type of anxiety do you feel? You can select more than one option

- Social anxiety (fear of social situations)
- Specific phobia (extreme fear of a certain thing)
- Panic attacks
- Separation anxiety (fear about being away from home, or from a caregiver)
- General anxiety (persistent worry about everyday situations)
- Selective mutism (not being able to talk in certain situations)
- Agoraphobia (fear and avoidance of situations where you could feel trapped or panicked)
- Other (please explain)

_____

End of Block: For the adolescent

Start of Block: For parent/carer 1

Q3.1 These questions concern **parent/caregiver 1**.

Q3.2 Who is this about?

- o Mum
- o Dad
- o Guardian
- o Other (please specify)

_____

Q3.3 Do you work?

- o No
- o Yes

Display This Question:
If Do you work? = Yes

Q3.4 What is your job?

_____

Q3.5 How old was your child when they received an autism diagnosis?

_____

Q3.6 If you can remember, please can you give us details of where your child was diagnosed with autism?

_____

Q3.7 Does your child have any of the following diagnosed anxiety disorders?

- Social anxiety disorder
- Specific phobia
- Panic disorder
- Separation anxiety disorder
- General anxiety disorder
- Selective mutism (not being able to talk in certain situations)
- Agoraphobia
- Other (please explain)

_____

Q3.8 Is there a second parent/caregiver?

- o No
- o Yes

End of Block: For parent/carer 1

Start of Block: For parent/carer 2

Q4.1 These questions concern **parent/caregiver 2**.

Q4.2 Who is this about?

- o Mum
- o Dad
- o Guardian
- o Other (please specify)

_____

Q4.3 Do you work?

- o No
- o Yes

Display This Question:
If Do you work? = Yes

Q4.4 What is your job?

_____

End of Block: For parent/carer 2