Positive Body Image in Autistic Individuals: What it looks like and how to measure it

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Positive body image

- Defined as having an "overarching love and respect for the body" (Wood-Barcalow et al., 2010, p. 112)

- Studies have used qualitative and quantitative designs using self-report measures – namely, the Body Appreciation Scale-2 (BAS-2; Tylka & Wood-Barcalow, 2015)

- Research has explored PBI among people with physical disabilities and visible differences, identifying universal, but also unique, characteristics (e.g., Vinoski Thomas et al., 2019)

Autism and body image

- Autistic people commonly present differing bodily experiences – such as altered awareness of, and response to, bodily needs – and an increased risk for body and eating-related concerns (Trevisan et al., 2019; Westwood & Tchanturia, 2017).

- Only a small body of qualitative research (n = 4) has explored autistic individuals' experiences and perceptions toward their body and appearance – however, limited to body dissatisfaction (Longhurst, 2023 for review).

- Autistic individuals have described positive bodily experiences: for example, feeling joy and pleasure in the body while stimming and/or sensory-related experiences, such as listening to music (Sibeoni et al., 2022).

Motivations for this PhD...

- While certain characteristics of PBI may apply to autistic individuals, a universal conceptualisation may not be appropriate

- To address current limitations, there is a need to establish a holistic understanding of how positive body image is experienced among autistic people

- Currently, there are no available measures of PBI for use in the autistic community

- Based on current findings, autistic people may interpret and respond to existing measures of PBI, such as the Body Appreciation Scale-2 (Tylka & Wood-Barcalow, 2015), differently than the general population
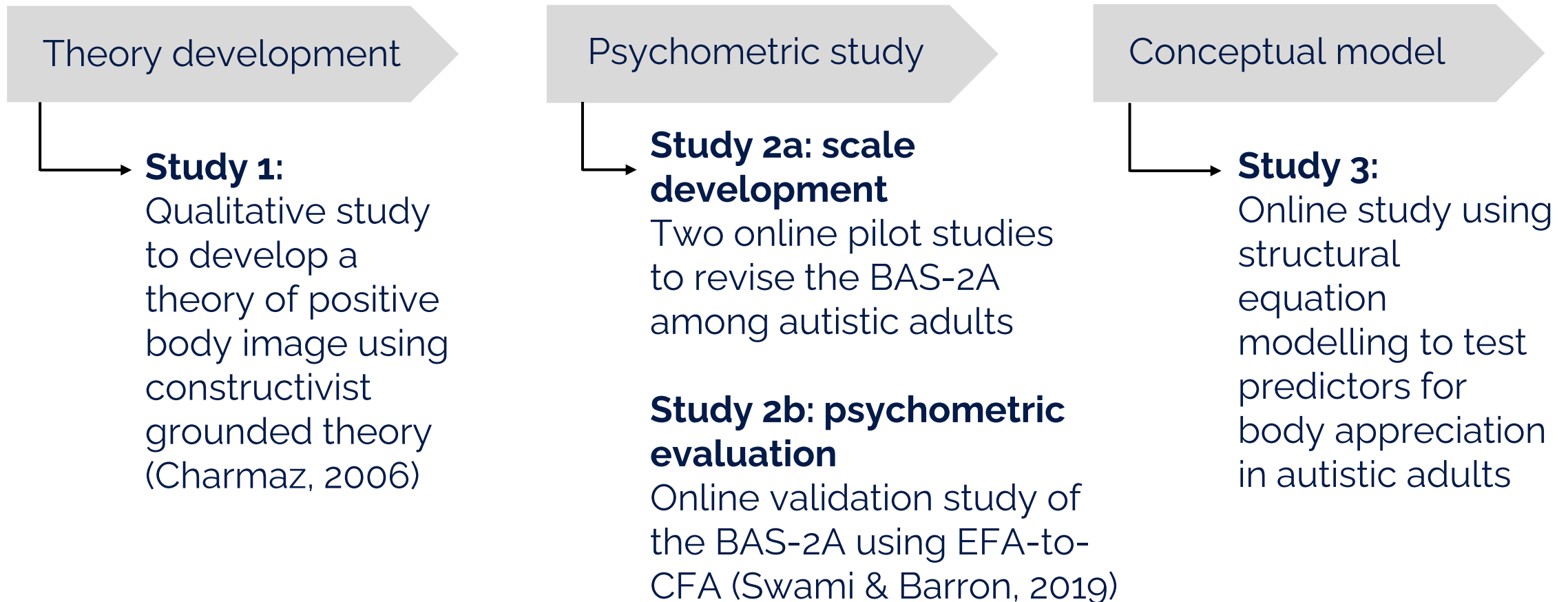
Project aim

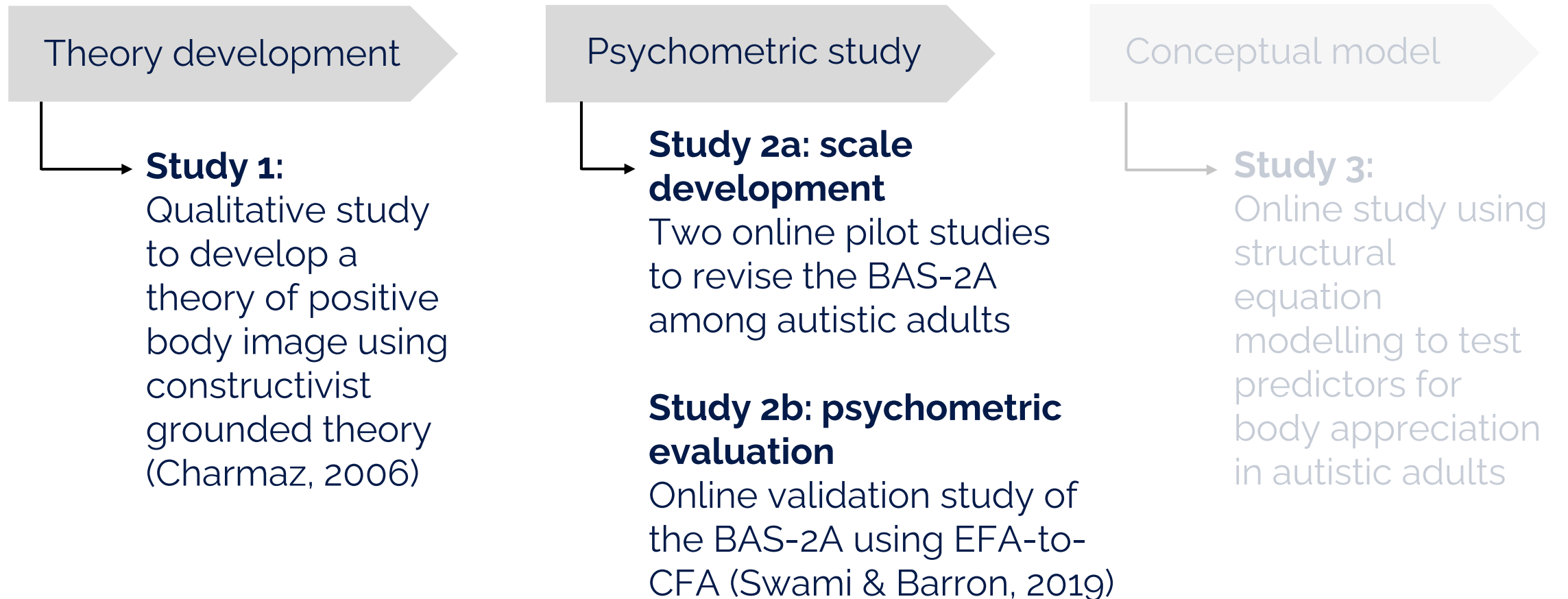To develop a novel theory of positive body image in autistic adults from the United Kingdom

Proposed PhD structure

This PhD follows a sequential, qualitative-led mixed methods design (see Creswell, 2014)

Theory development

Study 1: Qualitative study to develop a theory of positive body image using constructivist grounded theory (Charmaz, 2006)

Psychometric study

Study 2a: scale development Two online pilot studies to revise the BAS-2A among autistic adults

Study 2b: psychometric evaluation Online validation study of the BAS-2A using EFA-to-CFA (Swami & Barron, 2019)

Conceptual model

Study 3: Online study using structural equation modelling to test predictors for body appreciation in autistic adults

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Study 1 – A qualitative study of PBI

Aim: To develop a grounded theory of positive body image in autistic adults from the United Kingdom

Method: A qualitative framework using **constructivist grounded theory** (Charmaz, 2006) to centre lived experiences of autistic individuals

One-to-one semi-structured interviews were employed using photo-elicitation technique. Participants use photographs/images to discuss their ideas and experiences with the researcher

Participants: 20 autistic individuals – 7 women, 8 men, 5 non-binary/agender, aged 18 to 53 years (M = 30.63).

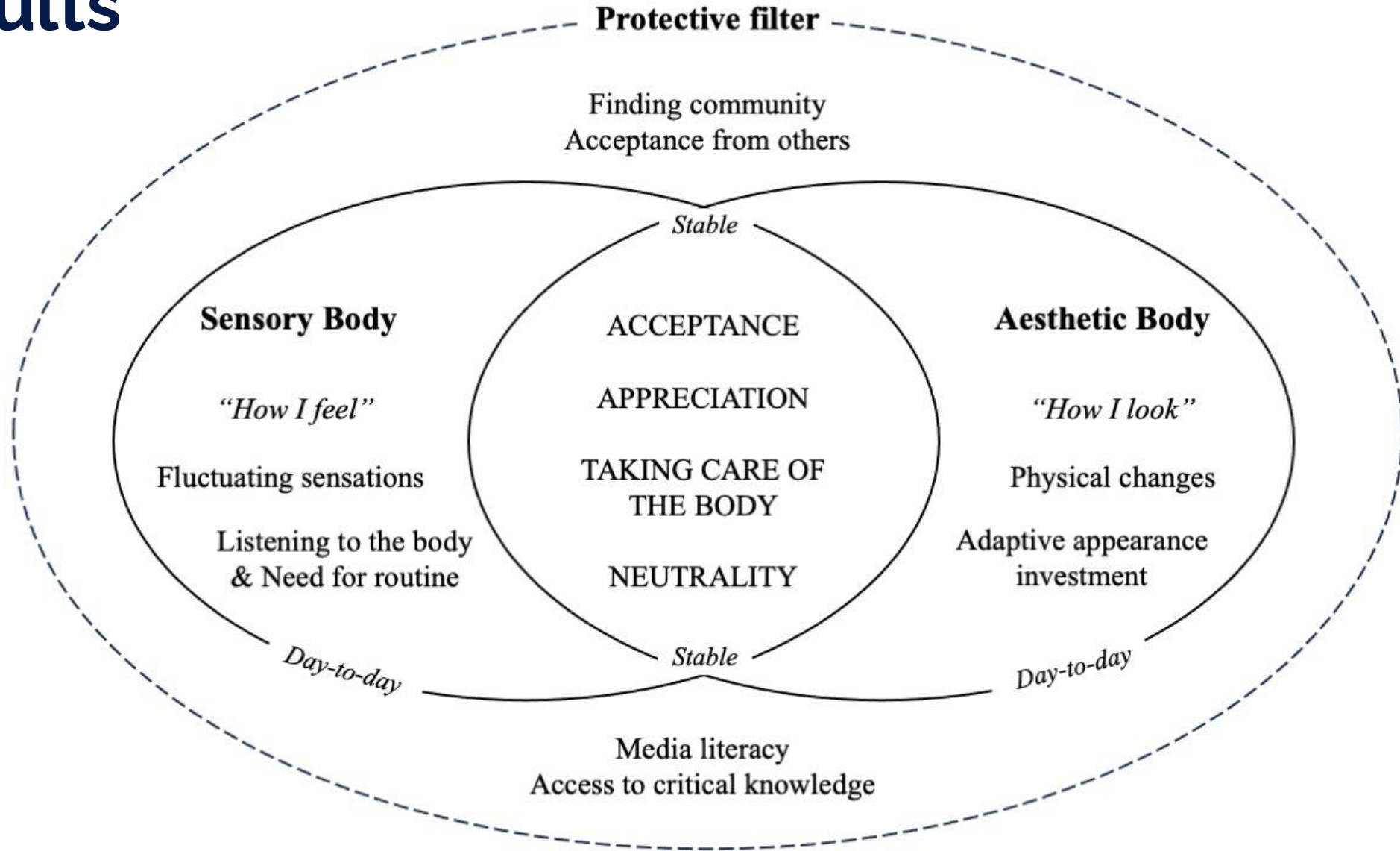# Results

Fig. 1 Conceptual model of PBI in autistic individuals

1. Body Connection

1. Understanding one's body.
"There's a kind of acceptance that **this is how I seem to go about the world**, and how my body kind of behaves, and how my head works" (Kieran).

2. Connecting with the body through physicality.
"...Pushing on things and feeling it pushing back, it's all about tension. Just the **feeling of using your body**". (Rachel)

3. Developing and expressing body-related agency.
"[Stimming is] an option I have to self-soothe, makes me feel positively about myself and my body because it's quite **a useful tool to have**." (Eleanor)

2. Body Acceptance

Allowing both the aesthetic and sensory body to just be.

"Any **change can be very difficult** for autistic people and body changes are not an exception to that, whether it would functionality, whether it'd be how you look […] For me, it's **learning to accept who we are** and learning to accept that [the body] will change over time as well." (Aaron)

Finding a (Neuro) Affirming Community and Body Acceptance from Others.

"[Finding] a space where it was predominantly filled with neurodivergent people, there was a kind of wave of acceptance and seeing that, for once, **you're not the odd one out**". (Kieran)

3. Appreciating Body Functionality and Neurodivergent Strengths

Emphasis for the body's physical...

"I'm much **less bothered about how it looks**

and much more bothered about can I move easily?
Can I do all the things that I want to do?" (Ruth)

...and creative/intellectual capabilities.

"I am far more interested in **furthering my knowledge** and my thinking processes and all that sort of thing, rather how much weight I can lift." (Lewis)

4. Having a Protective Filter for the Body

"…In the autistic community, there's kind of predilection of a desire for **truthfulness** and for **authenticity**" (Lucy)

Critiquing appearance ideals/messages

"Unrealistic is too mild of a word for what it is" (Rachel)

Knowledge is power.

"I follow, as well comment on, more the Health At Every Size movement" (Amelia)

Disengaging from appearance pressures

"Not conforming to things is something I'm very good at" (Kiri)

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5. Taking Care of the Body

Involved engaging in positive body behaviours to preserve the longevity of its health and functionality or seen as merely a practicality. Described in **two** ways:

1. Listening to the body

"[Taking] the time and space, being in a safe space to sort of decompress, and take away maybe some of the like external stimulus stuff." (Eleanor)

2. The need for routine

"I'll set a timer on my phone every thirty minutes or every forty-five minutes […] that will go off and tell me OK, get up, move and stretch, and hydrate yourself". (Kieran)

6. Body and Appearance Neutrality

An **affective** component, although neither a positive nor negative emotional state. For some, neutrality encouraged participants to de-emphasise how the body is seen, but also how it is felt

Recognising the transience of negative bodily experiences

"... A sense of sameness and stability and clarity and unity no matter what kind of day I'm experiencing [...] neutrality gives you that consistency, and through that consistency [comes] flexibility" (Lucy)

Difficulties with identifying and describing their feelings – alexithymia

"What does make me feel positive about my body is a lot harder to put into words" (Rachel)

Discussion

Several characteristics of PBI **consistent with existing theory** (Bailey et al., 2015; Wood-barcalow et al., 2010)

However, certain aspects (e.g., mindful body care) were often experienced **negatively** (e.g., feeling distressed from hunger/satiety cues) or **entirely inaccessible**

Unique PBI characteristics were associated with being part of a marginalised community – the body is perceived and/or acted through an **oppressive, in addition to an objectifying**, lens (see Botha et al., 2023)

In addition to **how the body looks**, autistic individuals placed equal – if not greater – emphasis for **how the body feels** (see also Nimbley et al., 2023)
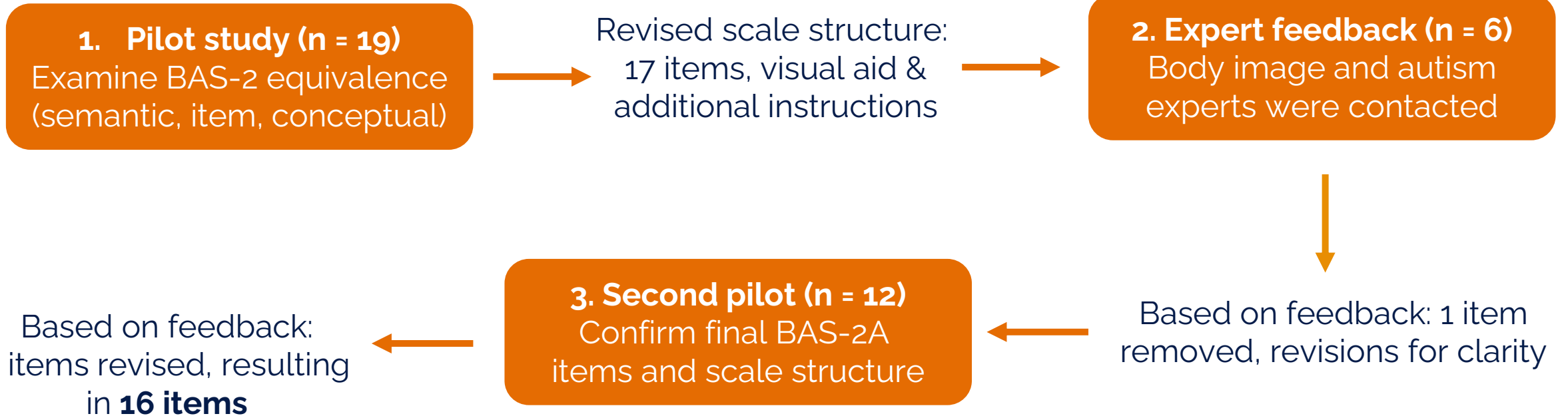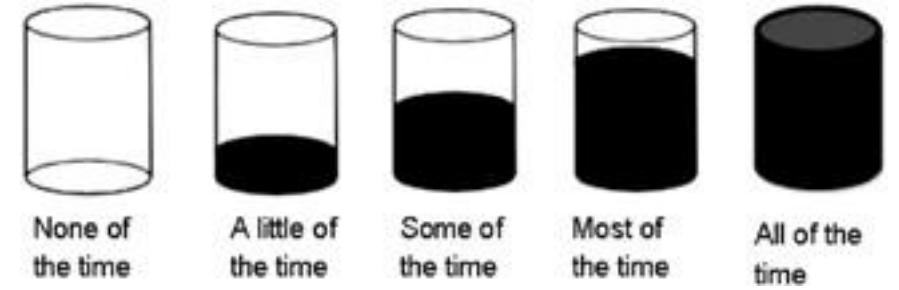
Study 2 – A psychometric study of PBI

Aim: Develop a revised version of the
Body Appreciation Scale-2 for use in autistic adults (BAS-2A)

Method: Consisted of two studies – (1) development of the BAS-2A, and (2) psychometric investigation using exploratory factor analysis (EFA) to confirmatory factor analysis (CFA) (Swami & Barron, 2019)

Participants: Mainstage (EFA-to-CFA) – **550 autistic adults** (269 men, 281 women), aged 18 to 72 years (M = 33.07, SD = 10.07), 89.3% White/White British, 71.8% with a formal diagnosis

Development

None of the time · A little of the time · Some of the time · Most of the time · All of the time

1. Pilot study (n = 19)
Examine BAS-2 equivalence
(semantic, item, conceptual)

→

Revised scale structure:
17 items, visual aid &
additional instructions

→

2. Expert feedback (n = 6)
Body image and autism
experts were contacted

↓

Based on feedback:
2 items revised, resulting
in **16 items**

←

3. Second pilot (n = 12)
Confirm final BAS-2A
items and scale structure

←

Based on feedback: 1 item
removed, revisions for clarity

Results: Exploratory factor analysis (EFA)

Using one split-half of the mainstage sample

Men:
- KMO = .93, Bartlett's (p <.001)
- Parallel analysis indicated **one factor** (λ_1 = 8.04 > 1.64, λ_2 = 0.67 < 1.50).
- Explained **50.0%** of the common variance
- Fit indices, besides SRMR (= .06) and χ^2_{normed} (2.49), were less-than-ideal

Women:
- KMO = .93, Bartlett's (p <.001)
- Parallel analysis indicated **one factor** (λ_1 = 8.18 > 1.63, λ_2 = 0.61 < 1.48).
- Explained **51.0%** of the common variance
- Fit indices for this model, besides SRMR (= .06), were less-than-ideal

Scale purification

❌ **Rule 1: items #9, #13, and #15** were excluded

❌ **Rule 5: item #6** conceptually overlapped with item #10 ("I appreciate how my body works and moves the way that it does").

✅ Item 10 was included due to presenting greater item-factor loading/communalities

Rules for inclusion:
1. "Fair" communality/item-factor loadings (>.35)
2. No inter-item correlations
3. Factor similarity between men and women (~>.95)
4. Improved practical use

Scale purification

❌ **Rule 1: items #9, #13, and #15** were excluded

❌ **Ru** ...use overla... appre... moves...

> **Retention of 12 items:**
> fit indices improved (CFI = .940 men, .950 women)
> and explained 56% of the variance in the total sample
> 🥳

✅ Item 10 was included due to presenting greater item-factor loading/communalities

Results: Cofirmatory factor analysis (EFA)

Using the other split-half sample (n = 277)

- Fit indices were suggestive of an **acceptable fit** to the data: $SB\chi^2_{normed}$ = 2.68, robust CFI = .943, robust TLI = .930, SRMR = .05, robust RMSEA = .088 (90% CI = .071, .105)
- Standardised estimates for **factor loadings** were all **adequate**
- **Strict invariance was supported** across time (Scalar vs strict: ΔRobust CFI = .002), gender (Scalar vs strict: ΔRobust CFI = -.009) and autism status (Scalar vs strict: ΔRobust CFI = -.001)
- **No difference between gender and autism status**
- A significant difference between baseline and at 3-weeks – indicating a **lack of temporal stability**

Results: Validity

Construct validity

Body appreciation was
positively correlated with (men, women):
Self-esteem
Well-being
Psych. QoL
Social QoL
Environ. QoL
Adaptive coping

Negatively correlated with:
Weight/shape overvaluation
(r = -.32**, -.36**)
Body dissatisfaction (r = -.39**, -.40**)
Depression (r = -.41**, -.51**)

Incremental validity

Self-esteem as criterion
Step 1: body dissatisfaction

incremental

For men
Significantly contributed **30.6%** of incremental change (ΔR² = .31, p <.001).

Body appreciation predicts self-esteem
over-and-above body dissatisfaction

Why is this important?

Body appreciation may be **beneficial for promoting positive physical and psychological outcomes**, and thus a potential target of prevention and intervention for autistic adults

The Body Appreciation Scale-2A

1. I **appreciate my body**, its appearance, and its sensations.
2. I feel that my body has many good qualities.
3. I take a p...
4. I **accept** ...
   its physi...
   change ...
5. I value th...
   character...
6. I am grateful for my body, even if **it has different needs** to other people.
7. I feel confident expressing myself and moving my body freely, **without hiding my autistic characteristics** (for example, stimming).

8. I appreciate how my body works and moves the way that it does.
9. I am grateful that I can **experience joy** ... le, while ... or laughing).
... (s) toward ... **ul societal** ... pearance.
... ven during ... ample, when I am **feeling over-stimulated**).
12. I think my body is wonderful, **even if I look different** from images of social media influencers, models, actors, and so on.

Body appreciation is captured as:

1. Holding a positive view towards the aesthetic and sensory body, including its unique characteristics and needs;
2. Resisting harmful societal messages regarding appearance,
3. Caring for the sensory body.

Published papers and what's next?

Qualitative study on positive body image

Psychometric study of BAS-2A

I am currently...

- Examining a conceptual model of body appreciation in autistic adults
- Further evaluating the BAS-2A among intersectional autistic groups
- Photovoice study on intuitive eating in autistic people
- In need of pizza and a nap