

Understanding Strengths and Talents in Autistic Adults: Insights from Research

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Language Considerations

- I will primarily use identity-first language (“autistic person” rather than “person with autism”)
- Many autistic adults prefer identity-first language, though language preferences vary (Shakes & Cashin, 2019; Taboas et al., 2023)

Audience Reflection: What are your strengths?



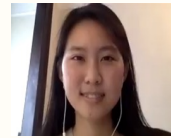
Why are strengths important?

- Most autism research has focused on challenges, without considering strengths
- Many adults are concerned with the lack of neurodiversity-affirming assessment and support methods ^{1,2}
- Capturing strengths, in addition to challenges, is important for...



¹Hartman et al., 2023; ² Woods et al., 2025

One behavior, different impact



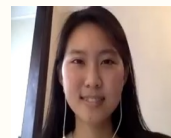
- Some autism-related behaviors can have benefits in some contexts and challenges in others

	Potential challenges	Potential benefits
Special interests	Can make it hard to shift attention	Can build expertise, positive emotion, identity, and connection
Stimming, repetitive movement	Can be misunderstood by others	Can support emotion regulation

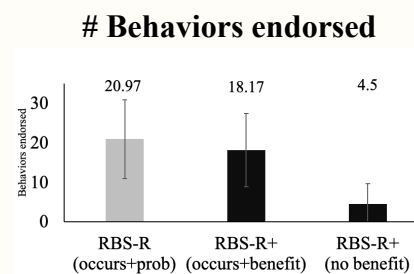


Bury et al., 2020; Winter-Messier, 2007; Harrop et al., 2019; Kapp et al., 2019; Lee et al., 2024, *Healthcare*

Complexity in assessment



- When given both options:
 - Report similar numbers of behaviors
 - Report similar or higher levels of benefit vs problem
 - Except for self-injury



Lee et al., 2024, *Healthcare*



Previous research on strengths in autism

- Most previous research has **focused on children**, and has only looked at **specific types of strengths** ^{1, 2, 3}
 - In SSC (n=1470), 46% of caregivers endorse extraordinary talents on ADI-R: ⁴



Reading: 16%



Computation: 10%



Memory: 27%



Music: 8%



Visuospatial: 9%



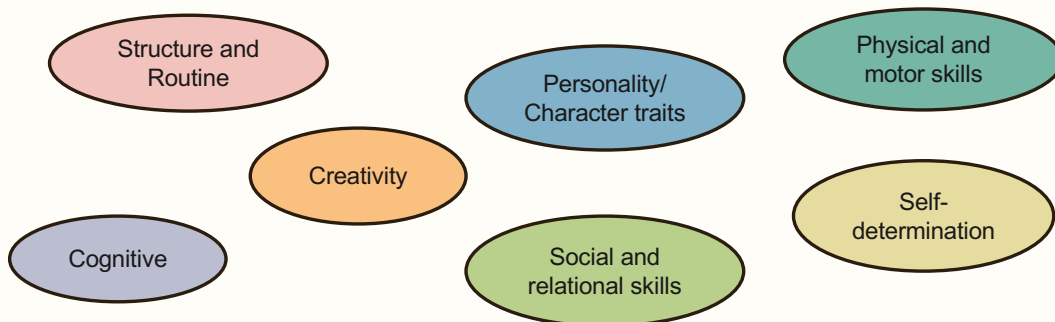
Drawing: 6%



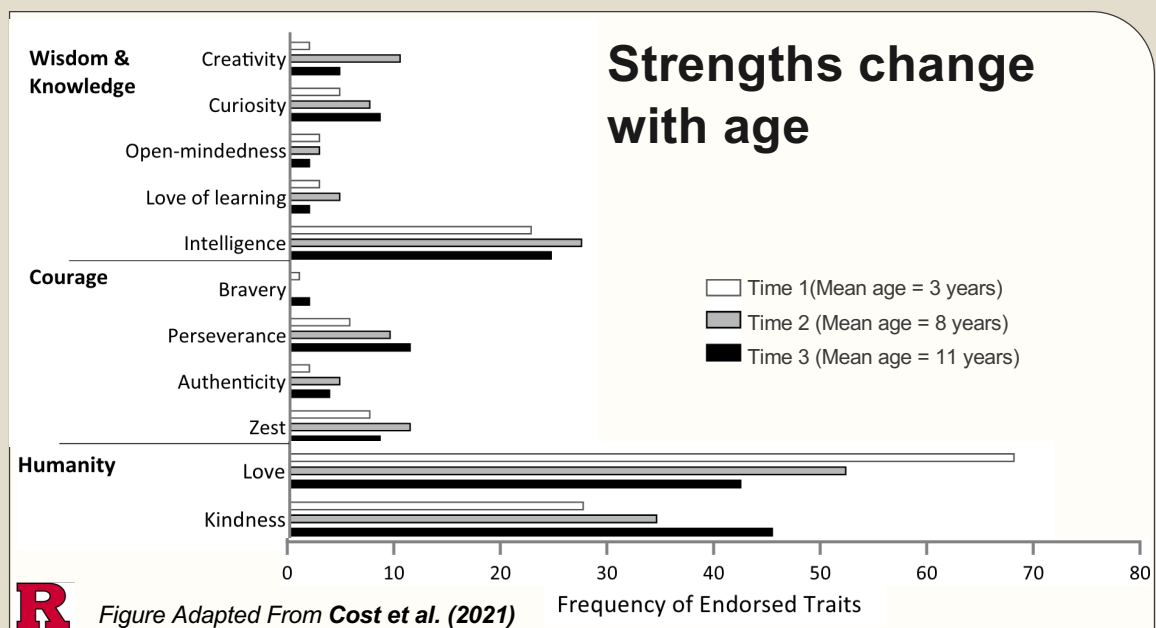
¹Daniel, E., & Menashe, I. (2020); ²Sabapathy et al. (2017); ³Warren et al. (2021); ⁴Bal et al. (2021)

Qualitative Studies in Autistic Children

- Qualitative research has expanded to include additional strengths:



Colavita (2014); Sabapathy et al. (2017); Warren et al. (2021)



What do we know about strengths in autistic adults?

- Most studies looking at strengths in autistic adults have used **informant report** rather than self-report ^{4, 5}
- More recently, small qualitative studies have begun looking at self-reported strengths in autistic adults ^{6, 7}



¹Daniel, E., & Menashe, I. (2020); ²Sabapathy et al. (2017); ³Warren et al. (2021); ⁴Howlin et al. (2009); ⁵Wilkinson et al. (2022); ⁶Russel et al. (2019); ⁷Cope & Remington (2022)

Caregiver-reported strengths in adults



“Describe the best things about your [adult] child.”

N=58 caregivers of autistic adults and adults with ID



Wilkinson, Vo et al., 2022

Self-reported Strengths in Autistic Adults

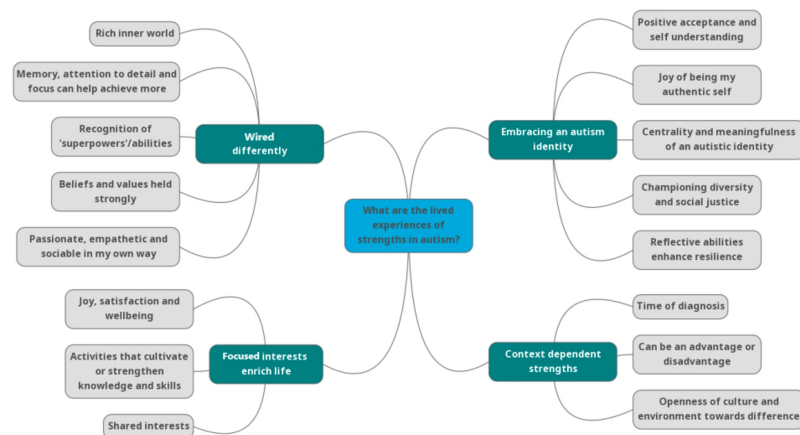


Figure 2. Thematic map of themes and subthemes. From “What Are the Lived Experiences of Strengths in Autistic Individuals? A Systematic Review and Thematic Synthesis” **Chow, C & Cooper, K (2024)**. *Autism in Adulthood*.

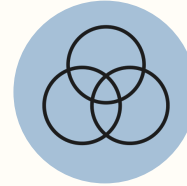
Current Study: Self-reported Strengths in Autistic Adults



Aim 1: Open-ended Strengths



Aim 2: Strengths on a Structured Questionnaire



Aim 3: Compare Overlap

Participants

- N = 127 autistic adults
 - 117 recruited through SPARK, 10 recruited from previous research studies

Variable	M (SD) or %	Range
Age (years)	35 (10)	20 - 70
Gender	-	-
Female	51%	-
Male	35%	-
Non-binary/Other	13%	-
Race	-	-
White	65%	-
Black	9%	-
Native American	8%	-
Asian	7%	-
Age of autism dx	22 (13)	2 - 58



SPARK

Simons Powering Autism Research



What did we do?

Batched recruitment through SPARK and via previous studies at Rutgers LifeSPAN Autism Lab

Interested participants emailed information and completed online screening form via REDcap (n=170)

Eligible participants sent e-consent and survey on REDCAP (n=151)

Compensated with \$50 gift card after completing the full survey (n=127)



How did we measure strengths?

Open-ended Strengths

- “What would you say are your greatest strengths?”
- “In addition to these strengths, do you have any special skills that stand out from your other abilities?”

Autism Related Psychological Strengths (ARPS)

(Taylor et al., 2023)

- 25-item questionnaire, items scored on a 7-point Likert scale
- Developed in autistic and non-autistic adults in the UK



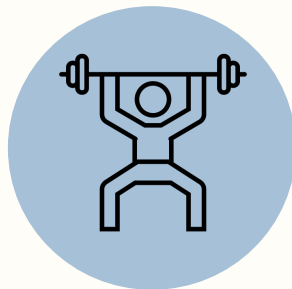
Community Partnership



- Study was carried out in collaboration with a group of autistic adults
- Two autistic team members provided feedback on the online surveys
- Two autistic team members actively involved in qualitative coding
- All team members involved in data analysis, interpretation, manuscript writing, and presentation preparation



Aim 1: Open-ended Strengths

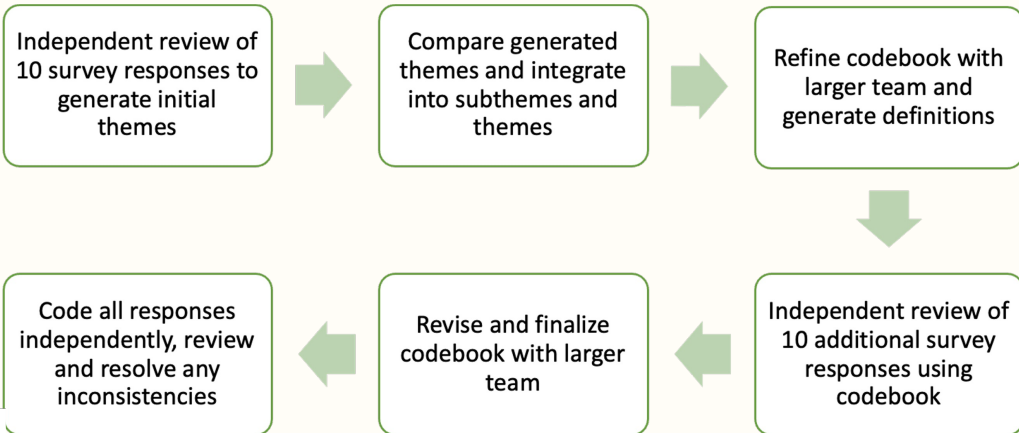


Characterize domains autistic adults' report as strengths or talents



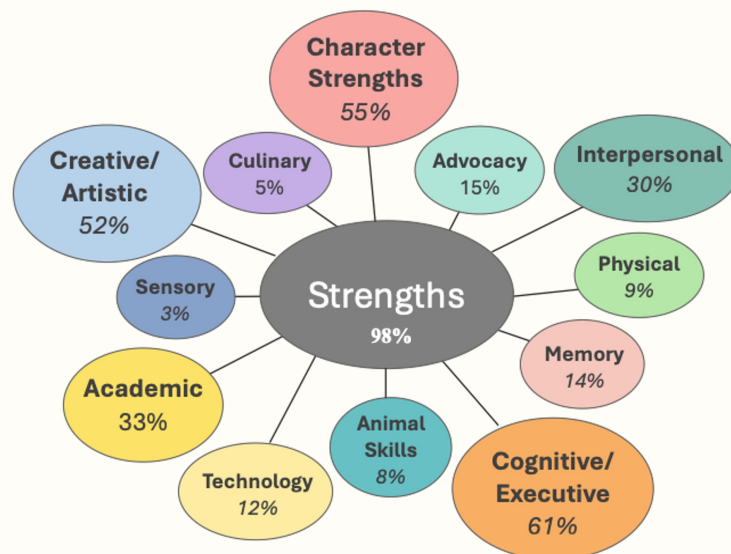
Categorizing Domains of Strengths

Qualitative Content Analysis (Elo & Kyngäs, 2008)



R

Qualitative Themes



R

Qualitative Subthemes Examples



Themes & Subthemes	Examples	N (%)
Cognitive/Executive Functioning		77 (61%)
Logical thinking	<i>I am talented at logical problem solving</i>	28 (22%)
Attention to detail	<i>analyzing the details to make sense of the whole</i>	23 (18%)
Intelligence	<i>I am a very intelligent person</i>	18 (14%)
Organization	<i>I am very organized</i>	14 (11%)
Character		70 (55%)
Goodwill	<i>caring and do anything to help</i>	29 (23%)
Determination	<i>working hard & persisting</i>	15 (12%)
Humor	<i>Making people laugh</i>	14 (11%)
Creative/Artistic		66 (52%)
Music	<i>I can play music by ear well enough my band mates noticed</i>	23 (18%)
Drawing, Painting, Sculpting	<i>I try a bunch of forms of art. I mainly sketch on paper, but I like sculpting clay</i>	12 (10%)
Crafting	<i>many handicrafts (such as crochet)</i>	12 (10%)
Creative writing	<i>I love to write creatively</i>	8 (6%)

Interpersonal - *Empathy*

"I have high empathy; I show a genuine part of myself that creates safety for others to be vulnerable around me."

Cognitive – *Attention to Detail*

"Attention to Detail. I tend to notice things more than others or pay attention to the smaller things."

Sensory

"Strong perceptions. sight, hearing, smell, touch"



Aim 2: Explore Strengths Domains on a Structured Questionnaire



Explore domains of strengths covered by an existing questionnaire (ARPS)



Individual Strengths Reported on the ARPS

ARPS Item	% Endorsed as Strength
Recognizing Patterns	91%
Logical Thinking	87%
Attention to Detail	83%
Problem-Solving	80%
Academic Ability	74%
Generating Ideas	73%
Creativity	76%
Artistic Ability	55%
Musical Ability	47%
Empathy	69%
Communication	47%
Social Skills	33%
Sensory Awareness	76%
Memory	63%
Adherence to Routines	71%
Learning New Things	78%
Repetitive Work	75%

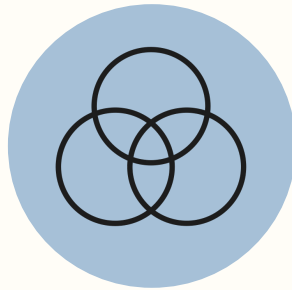


What domains did the ARPS capture?

Domain	Description	Number of Items
Analytical Skills	Pattern recognition, problem solving	8
Cognitive Organization	Structured thinking, planning, memory	7
Perceptual Skills	Differential perception and use of sensory information	6
Social & Physical	Interpersonal and physical skills	3



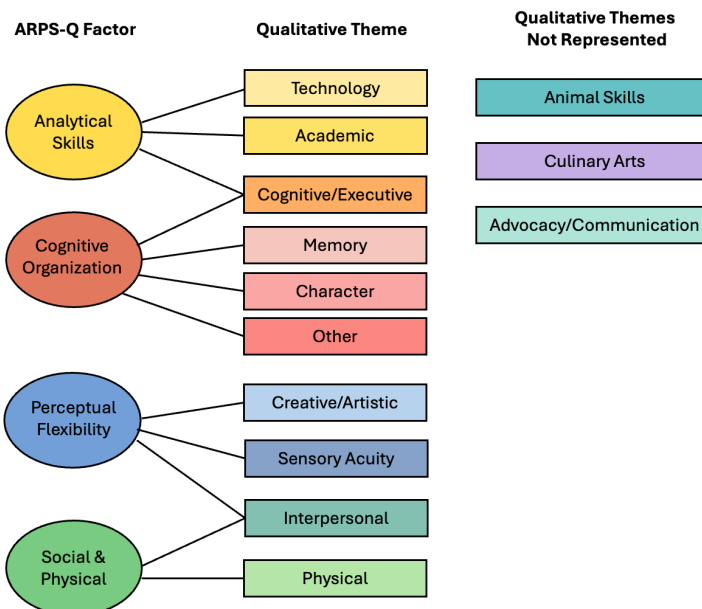
Aim 3: Compare Structured vs. Open-Ended Methods



Compare strengths captured via open-ended self-report with those captured on the ARPS



Content Overlap



We underestimate strengths if we do not evaluate systematically

Responses to open-ended prompts

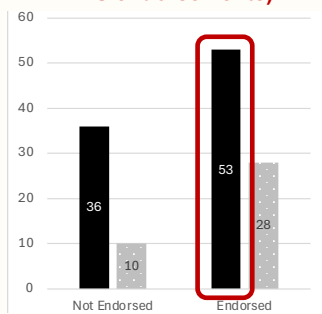
- = Reported
- = Not reported

**Misses 60-65% of those endorsing similar strengths on the ARPS-Q*



Social/Interpersonal strengths

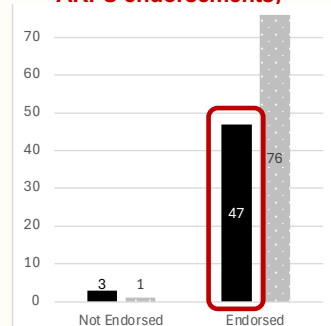
(open-ended response miss 65% ARPS endorsements)



ARPS Endorsement

Cognitive/Executive strengths

(open-ended response miss 38% ARPS endorsements)



ARPS Endorsement

***Same pattern seen across the four ARPS-Q domains**

Comparison of Measure Types

	Open-ended	Structured Questionnaire
+	Participant-driven, captures a diverse range of strengths	Systematic coverage of common domains
-	Misses strengths not spontaneously recalled, or felt to be less relevant	Limited scope, will not capture all self-identified strengths



Study Limitations

- Qualitative coding based on text-response, no elaboration on meaning
- Sample only included autistic adults who could legally consent for themselves and complete an online survey

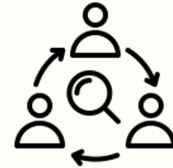
Study Strengths

- Community-partnered design
- Large sample size, especially compared to previous qualitative studies
- Greater representation of racial/ethnic minorities



Benefits of community-partnered designs

- Ensures that neurodiverse voices shape research questions, methods, and interpretation
- Reduces deficits-based framing and bias in qualitative coding
- Enhances relevance and trust of research findings



What's new about these findings?

- Autistic adults self-identify a broad range of strengths, beyond what previous research has focused on
- Strengths overlapped with autism diagnostic criteria, suggesting we should consider both strengths and challenges associated with autism-related behaviors
- Adults were more likely to report strengths when given structured prompts compared to open-ended questions



What does this mean for autistic adults?



- Learn what *you* consider your strengths
- Strengths don't need to only include exceptional talents
- Strengths don't have to be useful to someone else
- A strength can simply be something that brings competence, enjoyment, meaning, identity, or connection



What does this mean for families?

- Notice what comes naturally to your family member
- Pay attention to when they thrive
- Ask about strengths that may be less visible
- Use strengths as a bridge to supports
- Keep strengths and support needs in mind



What does this mean for clinicians?

- More nuance is needed in how we conceptualize autism, emphasizing both strengths and challenges
- Assess strengths systematically, in addition to support needs
- Use strengths to inform intervention
- Consider individualized perceptions of strengths



Cosden et al., 2006; Hartman et al., 2023; Johnson, 2022; Murthi et al., 2023; White et al., 2023, 2025; Woods et al., 2025

Strengths: De-stigmatizing autism



- Awareness of strengths may help reduce stigma by promoting a more neutral and balanced view of autism
- Reminding the broader community of the many strengths autistic people contribute to our society
- Dismantling biases and assumptions of what autistic people can or cannot achieve



Ferreira et al., 2024; Murthi et al., 2023

Strengths: Finding community

- Common interests and strengths can connect people and foster friendships
- Shared communities promote positive identity development and belonging
- When possible, choosing employment, classes, and other opportunities that align with passions promotes building of community through shared interests



Strengths: Promotion of well-being

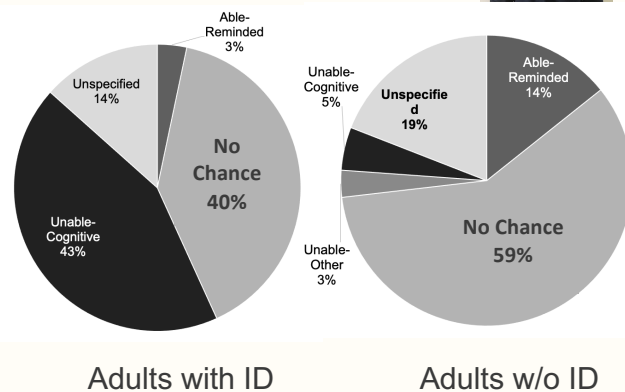
- Highlighting strengths in the assessment process, support planning, and general discussions around autism can:
 - Build self-confidence
 - Support positive identity development
 - Foster personal growth and resilience



The Importance of Opportunity



- **LACK OF OPPORTUNITY** was the most common reason that adults were not performing Daily Living Skills
- **Opportunities** to learn, practice, make mistakes and develop skills and strengths **are critical!**



Teh et al., 2023, JADD



Take Home Messages

- A range of strengths and talents are common in autistic adults
- Community-partnered research can shape how we understand strengths
- Strengths assessment should complement assessment of support needs
- We need to build more opportunities to develop strengths
- Focusing on strengths can help to de-stigmatize autism, promote positive identity development, and enhance well-being



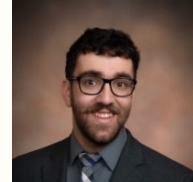


Ellen Wilkinson



THANK YOU!

Joseph Singer



Benjamin VanHook



Elizabeth Dicker



Xinyue Wang



Questions?

