

NEWS

Community Newsletter: Autistic motherhood, synaptic imbalance, why neurodiversity is important for researchers

BY CHELSEY B. COOMBS

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Hello, and welcome to the Community Newsletter! I'm your host, **Chelsey B. Coombs**, *Spectrum*'s engagement editor.

Our first post of the week comes from the **Sheffield Autism Research Lab** at the University of Sheffield in the United Kingdom. The lab posted a link to its new paper in the journal *Autism*, "**Intense connection and love: The experiences of autistic mothers.**"

New ShARL article: "Intense connection and love: The experiences of autistic mothers" is now out! <https://t.co/bL8KZmxwSo> in [@journalautism](#) with [@ProfARThompson](#) [#openaccess](#)

— ShARL (@ShefAutismRes) **April 12, 2021**

The study was small, including only nine autistic women with children aged 5 to 15. All nine had at least one child whom they believed to be autistic. But the study “represents the first systematic in-depth analysis of the experiences of autistic mothers presented from their own perspectives,” the researchers wrote.

Semi-structured interviews with the women revealed that they found motherhood enjoyable and rewarding, and had strong bonds with their children. But their experience was also different from

that of neurotypical mothers, in part because it included negotiating others' misunderstandings and being judged and dismissed. To better serve these women, professionals need to learn how autism presents during adulthood and how women mask their traits, the researchers wrote.

Jodie Smitten, a graduate student at Sheffield Hallam University in the U.K., pointed out a section of the paper that she thought was "so poignant." It said, "The findings demonstrate that service-providers would benefit from training, ideally led by autistic individuals, on how autism presents in adulthood, masking, the potential for mismatching between emotional experience and facial expression, sensory needs (especially in pregnancy), and the double empathy problem."

I've not had chance to read the whole paper but this felt so so poignant. Alongside the experience of deep connection that others may have deemed neurotic!

<https://t.co/19LmMrwX8g> pic.twitter.com/5lXqYAwFI1

— Jodie (@JodieSmitten) **April 12, 2021**

Amy Pearson, senior lecturer in psychology at the University of Sunderland in the U.K., wrote that it was a "delight to see it in print."

A wonderful paper, and a delight to see it in print <https://t.co/kd89lk0wnB>

— Amy Pearson (@DrAmyPearson) **April 12, 2021**

Sarabeth Broder-Fingert, associate professor of pediatrics at Boston University in Massachusetts, tweeted, "Why does all the best #autism research come out of the UK? I love this paper!"

Why does all the best #autism research come out of the UK? I love this paper!
[@journalautism https://t.co/b60DZiud69](https://t.co/b60DZiud69)

— Sarabeth Broder-Fingert MD, MPH (@sbroderfingert) **April 13, 2021**

Our next thread this week is from **Laura Andreae**, senior lecturer in developmental neurobiology at King's College London in the U.K. She summarized her new paper published in *Molecular Psychiatry*: “**Cell-type-specific synaptic imbalance and disrupted homeostatic plasticity in cortical circuits of ASD-associated Chd8 haploinsufficient mice.**”

Our paper on synaptic imbalance and homeostatic plasticity in prefrontal cortex of Chd8+/- mouse is just out in Molecular Psychiatry! Great work by **@EllingfordRob** + **@MJpanasiuk** **@LorcanBrowne** & 3 brilliant UGs (not on twitter), collab with **@mikeyab6872**
<https://t.co/jKgHBzN15b> 6/7 [pic.twitter.com/5xnF6iBSX0](https://t.co/5xnF6iBSX0)

— Laura Andreae (@L_andreae) **April 9, 2021**

The group wanted to study synaptic transmission in the prefrontal cortex of mice that had lost one copy of the CHD8 gene. Mutations in CHD8 are strongly associated with autism. The mice had an imbalance in their excitatory and inhibitory transmissions, as well as lowered neuronal output with decreased spontaneous firing — effects that varied by cell type.

“These findings therefore directly implicate CHD8 mutation in the disruption of ASD-relevant circuits in the cortex,” the researchers wrote in the paper.

Andreae also posed a question in her thread: “Could how neurons respond to network alterations be a key differentiator for different ASD risk gene mutations..?!”

But the Chd8+/- neurons failed to show this compensatory response, & instead had abnormal responses to a different paradigm which had no effect on WT neurons. Could how neurons respond to network alterations be a key differentiator for different ASD risk gene mutations..?! 6/7 **[pic.twitter.com/YKojofFKro](https://t.co/YKojofFKro)**

— Laura Andreae (@L_andreae) **April 9, 2021**

Wei Wen, a postdoctoral researcher at Brandeis University in Waltham, Massachusetts, wrote that it was a “cool characterization of developmental homeostatic plasticity deficits in the PFC of

Chd8+/- mice!”

Cool characterization of developmental homeostatic plasticity deficits in the PFC of Chad8+/- mice! <https://t.co/DYp81KNeW4>

— Wei Wen (@wwneuro0007) **April 10, 2021**

The **Grubb Lab**, headed by **Matt Grubb**, senior lecturer in neuroscience at King’s College London, tweeted that it was “Fantastic to see this lovely story out in the wild.”

Yes! Fantastic to see this lovely story out in the wild <https://t.co/HDJfEkM9qn>

— Grubb Lab ????? (@GrubbLab) **April 9, 2021**

Beatriz Rico, professor of developmental neurobiology at King’s College London, wrote that the “beautiful” paper was a “tour de force.”

Congratulations **@EllingfordRob @L_andreae @mikeyab6872** and colleagues for a tour the force-beautiful paper! <https://t.co/hwe1JSQGho>

— Beatriz Rico (@Rico_lab) **April 9, 2021**

Our final tweet comes from **Kathy Leadbitter**, a research fellow at the University of Manchester in the U.K., whose new work, “**Autistic self-advocacy and the neurodiversity movement: Implications for autism early intervention research and practice**,” was published in *Frontiers In Psychology*.

In writing this paper, Leadbitter tweeted, “I felt like I got things off my chest!”

New paper out today.

Really enjoyed writing this paper with Leneh, Ceri, & Martijn. I felt like I got things off my chest! Thanks to [@LauraMayCrane](#) for editorial support, [@SueReviews](#) and [@KristenBott](#) for such constructive (open) reviews and to [@UoMLibrary](#) for open access fees???? <https://t.co/EGLtZmv3mp>

— Kathy Leadbitter (@LeadbitterKathy) **April 12, 2021**

She and her colleagues make the case that autism intervention researchers and practitioners need to understand and engage with autistic self-advocates and the neurodiversity movement.

“There is a pressing need for increased reflection and articulation around how intervention practices align with a neurodiversity framework and greater emphasis within intervention programmes on natural developmental processes, coping strategies, autonomy, and well-being,” they write.

Lorcan Kenny, head of research at the U.K.’s national autism research charity, Autistica, recommended people read the article “if you're an autism researcher interested in interventions or if you're an autistic person who is uncomfortable with the word intervention.”

This is an excellent paper. Read it if you're an autism researcher interested in interventions or if you're an autistic person who is uncomfortable with the word intervention.

Thanks [@LeadbitterKathy](#), [@AutisticInertia](#), [@Ceri_Ellis](#) & [@autimodo](#) for writing <https://t.co/13T216yxBu>

— Lorcan Kenny (@LorcanKenny) **April 13, 2021**

Nicola Stewart, a school counselor in the U.K. who works with autistic people, said it was a “fantastic paper bringing together current research and practice, calling for more autistic

engagement.”

“All autism intervention stakeholders need to understand and actively engage with the views of autistic people and with neurodiversity as a concept and movement.” Fantastic paper bringing together current research and practice, calling for more autistic engagement. <https://t.co/FdQ6H0dIAQ>

— Nicola Stewart (@sch_counsellor) **April 12, 2021**

“It’s great that things are changing in the way autism research is conducted and the respect shown to autistic people,” tweeted **Caroline Hearst**, autism awareness trainer at Autism Matters in the U.K.

Specialist speech and language therapist **Dominique Hill** responded, “Reducing ‘Autistic behaviours’ does not necessarily improve quality of life for an individual. Person centred care is so important.”

This looks to be a very positive article, its great that things are changing in the way autism research is conducted and the respect shown to autistic people. <https://t.co/bb7eArISco>

— Autism Matters (@carolinehearst) **April 12, 2021**

That’s it for this week’s edition of *Spectrum’s* Community Newsletter. If you have any suggestions for interesting social posts you saw in the autism research sphere this week, feel free to send an email to me at chelsey@spectrumnews.org. See you next week!