

Sensory issues are linked to menopausal symptoms in autistic women

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Introduction

Menopausal transition: time where a change in hormone levels creates physical and psychological symptoms in women.

Menopausal transition **affects the health and well-being of autistic women** (Moseley et al., 2020). They seem to be differently and/or more affected by these hormonal changes. Their autistic symptoms, such as sensory issues, are reported to be increased during menopausal transition.

Aim: To assess which menopausal symptoms autistic women experience, and whether this is linked to autistic traits and sensory issues.

Results



ASD group had significantly higher scores (see Table 1) on MENQOL Physical, MENQOL Psychosocial Senses Total, Senses Hypersensitivity, and Senses Hyposensitivity

Significantly positive correlations (see Table 2) Senses Total, Senses Hypersensitivity & Senses Hyposensitivity with MENQOL Physical & MENQOL Psychosocial AQ with MENQOL Physical & MENQOL Psychosocial

Hierarchical multiple regression Senses Total improved prediction of MENQOL Physical & MENQOL Psychosocial above AQ Total ($R^2_{\text{Total}} = .189$ & $R^2_{\text{Change}} = .112$, $R^2_{\text{Total}} = .282$ & $R^2_{\text{Change}} = .078$, respectively, all $p < .001$)

Autistic women reported more sensory issues (61%) most controls reported no difference (61%). Distribution between both groups differed significantly ($U = 4069$, $z = 2.83$, $p < .001$).

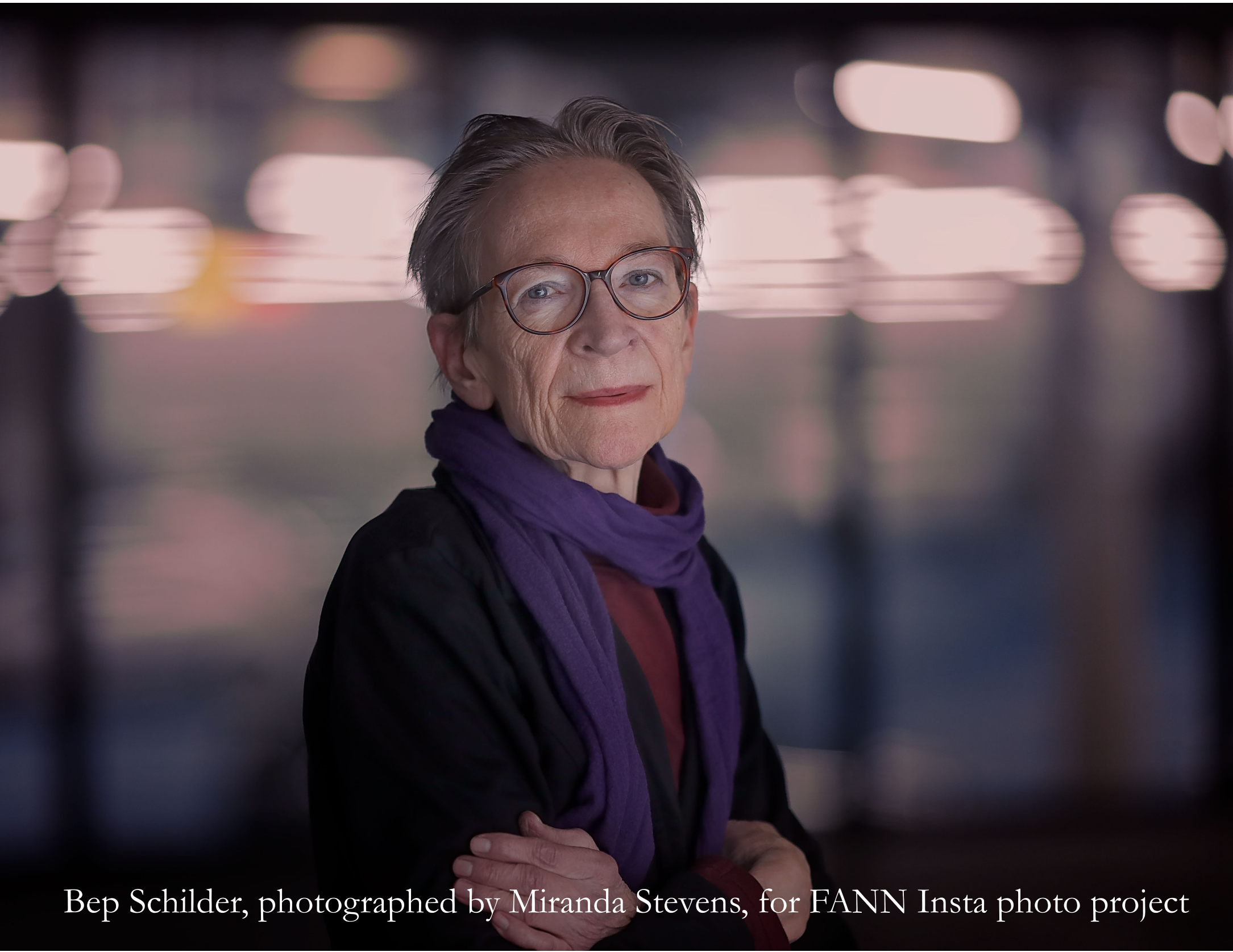
References
Groenman, A. P., Torenvliet, C., Radhoe, T. A., Agelink van Rentergem, J. A., & Geurts, H. M. (2021). Menstruation and menopause in autistic adults: Periods of importance? Autism, Online first.
Moseley, R. L., Druce, T., & Turner-Cobb, J. M. (2020). ‘When my autism broke’: A qualitative study spotlighting autistic voices on menopause. Autism, 24(6), 1423-1437.

Table 1 Mean scores of MENQOL and Senses scales for both subgroups

	ASD (<i>n</i> = 134)	Controls (<i>n</i> = 49)	Statistics	Effect size
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>t</i> -test	(Cohen's <i>d</i>)
MENQOL Vasomotor	3.12 (1.39)	3.37 (1.42)	$t = 1.11, df = 181, p = .267$	
MENQOL Physical*	3.67 (0.96)	3.03 (1.06)	$t = -3.88, df = 181, p < .001$.99
MENQOL Psychosocial*	4.28 (1.07)	2.92 (1.24)	$t = -7.30, df = 181, p < .001$	1.12
MENQOL Sexual	3.18 (1.58)	3.00 (1.35)	$t = -.74, df = 181, p = .460$	
Senses Total*	46.72 (11.47)	15.37 (12.08)	$t = -16.14, df = 181, p < .001$	11.64
Senses Hypersensitivity*	23.22 (4.57)	9.33 (6.75)	$t = -13.33, df = 64.78, p < .001^{**}$	5.24
Senses Hyposensitivity	16.87 (6.45)	3.80 (3.52)	$t = -17.41, df = 154.20, p < .001^{**}$	5.82

* significant difference ** Welch's *t*-test due to non-homogeneity of variances

Note. Mean of MENQOL scales concern item means of that specific scale (items have a 6-point-likert scale); Senses Total ranges from 0-81, Senses Hypersensitivity and Hyposensitivity ranges from 0-30.



Bep Schilder, photographed by Miranda Stevens, for FANN Insta photo project

Table 2 Correlations between Senses, AQ and MENQOL scales in total research group

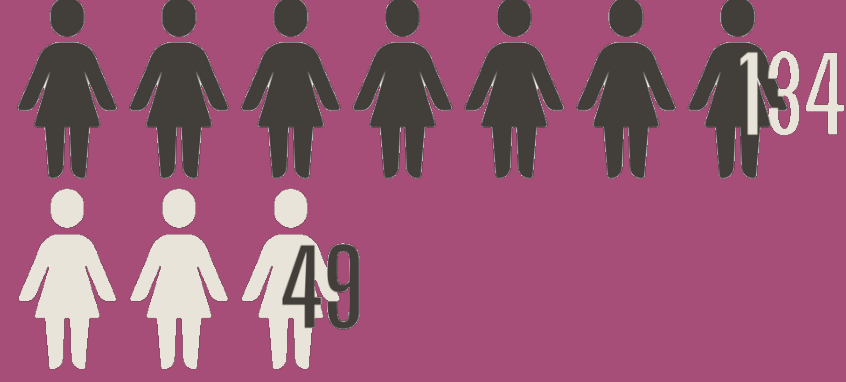
	MENQOL Vasomotor	MENQOL Psychosocial	MENQOL Physical	MENQOL Sexual
Senses Total	.01	.53*	.42*	.10
Senses Hypersensitivity	.01	.51*	.39*	.14
Senses Hyposensitivity	-.05	.45*	.33*	-.01
AQ Total	-.08	.45*	.28*	.07

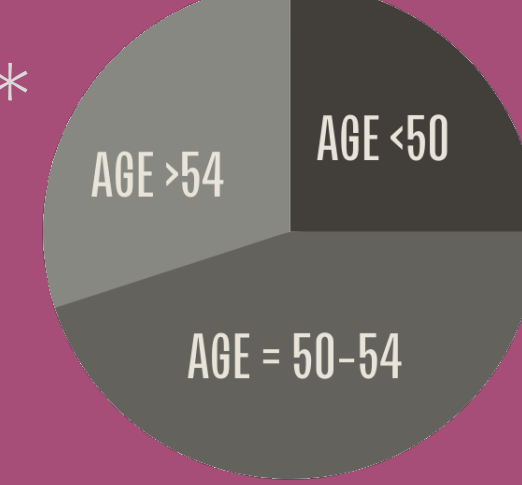
* significant $p < .001$

Note. When both groups are analyzed separately, same correlation patterns are visible, except for the AQ Total (no correlation with MENQOL scales in both groups).

Methods

Participants
Women were recruited by FANN via social media advertisements. **N = 183** Dutch women during/after menopausal transition

 134 ASD, AQ = 34.45 (SD = 5.57)**
49 CG, AQ = 12.35 (SD = 5.54)



- Measures**
- (1) **Menopause-Specific Quality of Life Questionnaire** (MENQOL, 29 items; Hilditch et al., 1996), measuring vasomotor, physical, psychosocial, and sexual menopausal symptoms
 - (2) **Senses** (27 items; Turkensteen & Blijd-Hoogewys, 2020), measuring hyper- and hyposensitivity
 - (3) **Autism-spectrum Quotient** (AQ, 50 items; Baron-Cohen et al., 2001), measuring autistic traits

Conclusions

In agreement with Groenman et al. (2021), **autistic women experienced more physical and psychosocial symptoms**, but not more vasomotor menopausal symptoms.

Sensory issues were linked stronger to menopausal symptoms, than autistic traits to menopausal symptoms. Notable is the **positive association of menopausal symptoms with hyposensitivity**. This was not an artefact of an underlying ASD diagnosis.

Menopause may worsen sensory issues. Groenman et al. (2021) hypothesized that autistic women may be more sensitive to bodily changes during (peri)menopause due to an overall increased sensitivity, making them vulnerable to experience menopausal complaints sooner and longer than non-autistic women.

Future research: Are the MENQOL group differences found unique for this age period or also seen in fertile autistic women?