

ASD & GD: What about relations?

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❑ In individuals with gender-related concerns/questions, GI/GD:

- ASD is more **common**

❑ In individuals with ASD:

- Gender incongruance/dysphoria, inappropriate sexual/gender behaviors, , sexual orientation variants, ...
- Are more **common**

(Skagerberg et al., 2015, Akgül et al., 2018;)

- Is it a **real link**?
- **Why** does it occur?
- Can it lead to **better understanding** the **etiology** of both conditions?
- Is the **clinically important**?
- Does it have an **impact on mental health**?
- What **clinicians** have to do?
- **How to evaluate?** (*e.g., tests, measures, questionnaires,..?*)
- Are there **necessary interventions**?

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□ A bulk of research has focused

- On the **prevalence** of
- **ASD** traits in **GD/GI** people.
- **GI/GD** traits in **ASD** people

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- **There is a real link between ASD & GI/GD at:**
 - **Cognitive level**
 - **Behavioral level**

□ Patients with GD:

- 5.5% have ASD

→ *More prevalent than in the general population (2%)*


❑ In people with ASD there is a higher prevalence of:

- Gender **variance**
- **Nonbinary** people
- Gender **incongruency/dysphoria**
- **Varied & fluid** sexual **orientation**
(*higher prevalence of homosexuality (5–10%) & asexuality*)
- **Inappropriate** sexual **behaviors**
(*e.g., hypersexuality or paraphilias*)

- *Is it a real link?*

➤ **Why does it occur?**

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- **Relation of GD & ASD:**
 - **Biological theories**
 - **Psychosocial theories**

□ Biological theories & findings:

❖ GI/GD & ASD

- Exhibit **common genetic** patterns

✓ Evidence favors:

- **Genetic** predisposition.
- **Endocrine** disrupting chemicals

❑ Sexual differentiation of the genitals:

- Occurs in the **1st trimester** of pregnancy

❑ Sexual differentiation of the brain:

- **Starts** during the **2nd half** of pregnancy

→ These 2 biologic processes:

- May **play roles independently** of each other
- That **predispose** an individual to **transsexuality**

□ Comorbidity of ASD & GI/GD may be explained by:

- **Shared risk factors**
- **Shared brain mechanisms**
- **Shared biochemical pathways**



□ **1. Shared risk factors:**

❖ Toxoplasma infection

□ 2. Shared brain mechanisms:

- Abnormal **lateralization**
- **Abnormal** sexual brain **differentiation**
- **Disturbances** in **body image**
- Disturbances of **body maps** in the **parietal** cortex

□ 3. Shared biochemical pathways:


➤ Endocrine disruptions:

➤ Prenatal hormonal imbalances, e.g.,:

- Reduced **BDNF** expression & release
 - Abnormal **prenatal testosterone** exposure
- Are **found** in both **autism, & GD**

□ Biological theories:

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- **Relation of GD & ASD:**
 - **Biological theories**
 - **Psychosocial theories**

□ Psychosocial theories & findings:

- ASD features, predispose the individual to develop:
- GI/GD feelings
- **Disidentification** with **birth-assigned** gender

(Leef et al., 2019)

❑ ASD experiences an unique psychosexual development:

- **Difficulty in self- sexual/gender identification & awareness**
- **Difficulty in social executive function → Unique social development**
- **Difficulty in narrating**
- **Difficulty in empathizing**
- **Lack of adequate sex education**
- **Limitations in the social environment**

□ Sexual/gender awareness:

- Is **lower** in patient with **ASD**
- A significant proportion of young **ASD** people
- Become aware of their **transidentity**
- During the **body changes** that occur in **puberty**

(Ehrensaft, 2018).

□ It is unclear:

- Whether the **development of sexual/gender identity**
- In **autistic & non-autistic** children
- Follows the same **cognitive/developmental pathways?**

□ Autistic traits complicate:

- **Recognizing sexual needs**
- **Communicating sexual needs**
- **Self-identification of sexual orientation.**

- → being **misunderstood** and **isolated**

❑ ASD people experience:

- **Similar** trajectories in their gender **narratives**
- But follow a **different timeline** (*than normally developing individuals*)
- → **reduce social interaction**
- → **fewer opportunities to explore their sexual/gender identity.**

□ The development of gender identity is correlated with:

- **Social skills**
- **Communication skills**
- **Interpersonal skills**
- **Theory of mind**
- **Cognitive style**
- **Mental age**

□ Executive function disorders:

- Make it **difficult** to manage **social issues**

□ ASD individuals have deficit in EF

- → May display **differing patterns** of social **development**
- → May impact their **gender** identity formation

□ ASD individuals have difficulty in:

- **Narrating their gender/sexual experiences**

❑ ASD people have deficits in empathy:

- This **feature** can be **associated** with GI/GD
- ❖ *Females use **empathy** as a **preferential** mode of **interaction***
- ❖ *Males use “**systemizing**” more prominently than empathizing*
- ❖ Deficits in empathy:
- → may cause **ASD females** communicate more readily with **males**

❑ **Lack of adequate sex education**

❑ **Limitations in the social environment**

❖ **Both:**

● → **Reduce adequate social experiences**

➤ → **Can not live their sexuality smoothly**

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- **High co-occurrence** between **ASD** & **GD/GI**
- **Is underrecognized** among health care **professionals**

(Murphy & Livesey, 2017).

□ → It is helpful to be attentive to:

- The **development of gender identity in ASD**
- From the **early ages.**

□ Screening for:

- **Sexual/gender issues** in people with **ASD**
- **ASD** in people with **sexual/gender issues**
- **is recommended!**

(Mahfouda et al., 2019; Strang, Meagher, et al., 2018).

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❑ Self/parent report measures:

- Have **not** been **validated** in the **ASD** population,

❑ People with ASD:

- Have difficulty in **narrating** their gender experiences
- → lower **credibility** of their reports.

❑ Autistic people with suspected GD:

- Should be **referred** to **psychosexual specialists**
- For further **assessment**

(Strang, Meagher, et al., 2018).

□ GI/GD people with suspected ASD:

- Should be **referred** to psychodevelopmental **specialists**
- For further **assessment**

(Strang, Meagher, et al., 2018).

□ Better understanding of this cooccurrence:

- Can lead to their:

- Better **psychological** health

- Better **physical** health and

- Better overall **functioning**

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➤ **Are there necessary interventions?**

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