

## Research

# Autism, gender, and identity in college students

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## Abstract

**Purpose** This study aims to investigate how assigned female at birth (AFAB) autistic individuals view their autism and gender identities and their relationships.

**Methods** This is a qualitative, interview-based study of 10 college students who identify as autistic and were assigned female at birth. Participants shared their experiences with autism diagnosis, gender identity, and navigating their sense of self.

**Results** The study found four themes: (i) Many types of diagnosis obstacles exist, as do mitigating factors for some of these obstacles; (ii) Various motives led participants to camouflage, but negative effects motivated many to reduce camouflaging behavior; (iii) Autism is related to both perceptions and enactments of gender; and (iv) Autism impacts identity in multiple ways outside of gender.

**Conclusion** This study makes observations and raises questions about autism's relationships with gender and transgender identities. This study largely agrees with and builds on patterns found in the existing literature while adding the voices of autistic individuals to the literature.

Autism diagnoses may be perceived by autistic individuals in many different ways, but they consistently allow autistic individuals to increase self-understanding. Many women who meet the criteria for autism have gone undiagnosed or misdiagnosed, but the relative prevalence of women diagnosed with autism has been on the rise in the last three decades (Solmi et al., [27]). For these reasons, the purpose of this study is to gain more insight into how autistic females<sup>1</sup> understand their identity in relation to their autism, gender, and other identity factors.

The autistic identity of an individual is complex and unique, and it often includes internal disconnects between one's autistic self-identity and one's identification with the autistic community [10], p. 272, [20]. Autistic individuals may perceive autism as causing challenges, but those challenges can be mitigated by the support and understanding offered by a diagnosis [16]. A diagnosis may also allow late-diagnosed individuals to "interpret life experiences in a new light, one where they were not to blame" and engage with themselves more authentically [18], p. 143.

Although there has been a relative increase in women diagnosed with autism [27], there are inconsistencies regarding autism diagnoses in women. Boys are more likely to be diagnosed with autism than girls with the same severity of symptoms [9], and Hull et al. [14] concluded that biases in clinical services prevent females from "receiving accurate, timely diagnoses" (p. 2520). Autistic adults are more likely to not entirely agree with their mental health diagnoses than

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<sup>1</sup> "Females", "women", "girls", and similar terms are defined by most studies included in the literature review as participants assigned female at birth (AFAB) or are not defined.

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non-autistic adults [1], and autistic women are more than twice as likely as autistic men to have received a misdiagnosis at their first evaluation [11]. Lewis's [19] 44% female self-diagnosed sample was more than double the representation of women with regard to formal autism diagnosis, which may be due to autistic women being overlooked by the system more than autistic men or a gender bias in self-sampling.

The failure to accurately diagnose autistic women is also observable by examining when diagnosis occurs. Autistic females were, on average, ten years older than autistic males when they were first referred to mental health services and when they received a diagnosis of autism [11]. Similarly, women screened for autism were more likely than men screened for autism to have their first interaction with psychological services in adulthood [12]. Wiggins et al. [28], in contrast, found that girls in their study were diagnosed with autism an average of eight months earlier than boys, but study participants were required to have been diagnosed before age eight.

These discrepancies may be a result of diagnostic processes based on autism's presentation in males compared to females [22, 24, 30]. The most stark gender difference in presentation is that autistic females have fewer observed social struggles than autistic males [23, 24], which may be in part due to compensatory strategies such as *camouflaging*. Camouflaging is defined by Hull et al. [15] as "coping skills, strategies, and techniques that function to 'mask' features of ASC during social situations" (p. 2523). It is unclear whether a gender difference exists in the frequency of camouflaging, as studies have shown both no gender difference [3, 15] and a higher frequency in females than males [14, 26, 29].

The social struggles of autistic girls can also be difficult to notice. Autistic girls are likely to be in the proximity of groups of girls socializing, but they often do not take advantage of the opportunities for connection, giving only the appearance of social connections [7], p. 686. Autistic and typically developing girls were rejected by peers less frequently than autistic and typically developing boys, for autistic girls, isolation is more likely to be shown in high numbers of reported friends compared to infrequent reports of being others' friends, which implies few mutual friends [8].

For autistic women, late diagnosis and masking may be correlated with a loss of identity, depression, victimization, and anxiety [30]. There is also regret and anger associated with delayed diagnosis [2], and late-diagnosed individuals may grow to believe, before their diagnosis, that they are to blame for their struggles [18]. How much an individual camouflages may be a more reliable predictor of their depression and anxiety levels than their sex or whether they had an autism diagnosis [3], and increased levels of self-reported camouflaging in autistic adults may be related to lower feelings of acceptance and higher levels of depression [5]. Additionally, camouflaging for prolonged periods of time may leave autistic women exhausted and unsure of their identity [2]. To mask, autistic individuals may hide their autism by "developing different personas or characters to use during social situations" [15], p. 2525. This may create a repeated disconnect between one's internal identity and the one they present to the world, which autistic individuals have reported as causing a lack of identity and an uncertainty in who they really are [15, 30].

Autistic individuals cite a variety of reasons for camouflaging, which Hull et al. [15] summarized into two categories: assimilation—camouflaging as a *required* tool for survival—and increasing connections—camouflaging as a *voluntary* social strategy. Female participants were more likely to give assimilation as their motivation for camouflaging, while male participants were more likely to cite increasing connections [15].

Autistic males were more likely to endorse positive effects of camouflaging than autistic individuals of other genders, which may be due to differences in the types of camouflaging engaged in across sex/gender [15] and more stressful, demanding social situations for girls [3]. These findings suggest that camouflaging may be an important, differentiating factor in girls' experiences with autism regardless of frequency across sex.

Research on the relationship between the label of autism and identity is existent but minimal. Existing evidence suggests that personal relationships with one's autism diagnosis are complex and involve individuals "rework[ing] their sense of identity" [16], p. 105. In a group of five autistic teenagers, one participant reported that his autism diagnosis had no impact on his identity, and one viewed the diagnosis as oppressive and harmful to her, but the remaining three had diverse positive experiences with the diagnosis, which included uniqueness as a defining piece of identity and a sense of liberation [21]. Adults who had self-diagnosed with autism reported that the label gave them a sense of self-understanding and of belonging to a community [19], while Cohen et al. [6] found that, despite experiences of stigmatization and fears of discrimination or other negative outcomes, participants credited multiple positive abilities and traits to their autism. Some of these participants challenged deficit views of neurodiversity, arguing that autism and ADHD may not be inherently disabling conditions.

Identity in the public sphere as an autistic person is similarly complex. Autistic individuals have expressed a concern with publicly identifying themselves as autistic due to stereotypes, Othering, and fear of the label being used against them in some capacity [6, 16, 21]. However, several late-diagnosed autistic women reported that online communities of

autistic people had helped them come to terms with their diagnosis and move towards relating with autism in a positive way [2].

Many autistic women believe they do not fit the social roles of women and that attempting to play those roles makes them lose themselves [2]. Kanfiszter et al. [17] also found that autistic women felt a distance from societal conceptions of womanhood due to their disinterest in and/or perceived incompatibility with the gender constructs associated with womanhood. Autistic women may be rejecting societal conceptions of womanhood, forging identity instead through their passionate interests, known as special interests [2]. Research on the relationship between autism and gender identity for transgender and nonbinary individuals is lacking, but one participant in Hillier et al. [13] suggested that their autism had played a role in their transgender identity, while others reported that their gender identities and/or sexual orientations were not taken seriously due to their autism.

The relationships of autistic females with their autistic and gender identities are complex. Due to the societal position of autistic males as the default representatives of autistic identity and experiences, the relationships of autistic females to their autistic and gender identities have received limited attention in the literature. Therefore, these relationships warrant further investigation, which this study aims to provide. How does autism inform females' relationship with their identity, particularly in relation to gender and/or sex? How does camouflaging interact with diagnosis experiences, gender, and sex for autistic females?

## 1 Methods

### 1.1 Participants

Participants in this study were current college students who (a) identified themselves as autistic and (b) were assigned female at birth (AFAB) and/or identified as female. No strict definitions or requirements existed around those qualifications; participation was determined by how the individuals chose to identify themselves at the point of agreeing to participate in the study. Participation was restricted to college students for practical reasons, and participants were required to be AFAB and/or identify as female due to the researcher's interest in the experiences of autistic individuals outside of the normative gender/sex identity (i.e., cisgender male). The study was limited to 10 participants to allow for focus on all participants' experiences as individuals.

The 10 participants showed a range of gender identities and diverse diagnosis experiences/statuses (see Table 1). All participants were AFAB, but only four participants endorsed a female gender and/or did not state a gender identity separate from their sex. Five participants were formally diagnosed with autism, while three had self-diagnosed, and two received an informal label of autism. Other demographic information was not collected.

All participants were undergraduate students at a university in the Northeast. They were recruited via posts in an online newsletter and emails to relevant student groups. Interested participants submitted a survey indicating that they met the participation requirements (18+, AFAB/female, autistic), after which individual interviews were scheduled. Participants were selected in order of response to the survey.

### 1.2 Procedures

Interviews were semi-structured, starting from questions outlined in Table 2. All interviews took place in person, and they lasted from 5 to 25 min, with an average length of about 11 min. Interviews were considered complete when all baseline interview questions and any relevant follow-up questions had been answered and the participant expressed that they had nothing more to share. Interviews were recorded using a digital audio recorder and transcribed for analysis. The transcripts were labeled with participant-selected pseudonyms.

Interview transcripts were interpreted using thematic analysis. Thematic analysis was chosen because the study aimed to illuminate common experiences and attitudes among participants. The structure of the thematic analysis followed the six steps of Braun and Clarke's [4] model, beginning with initial observations of the data. Following guidance from Saldaña [25], the author then coded the interview transcripts using inductive concept coding to identify concepts illustrated by participants' thoughts and experiences. Next, the author returned to the data and grouped the concept codes using pattern coding, as seen in Table 3. This system highlighted the similarities and differences between the experiences of given concepts across participants. The groupings created by the second-cycle pattern coding were then reviewed for authenticity in relation to the data set as a whole. Finally, these groupings were defined and named as the four themes

**Table 1** Participant summary

Pseudonym <sup>a</sup>	Pronouns	Gender (if stated)	Diagnosis status/history
Mackenzie	She/they	Demigirl	Diagnosed with autism in 4th grade
Charlie	Any, primarily she/her	Nonbinary	No formal autism diagnosis but receives treatment based on the label and identifies with it
Juliet	She/her		Diagnosed with autism at 15yo; previously diagnosed with Asperger's at a young age
Apollo	They/them	Nonbinary	Diagnosed with autism approximately a month before the interview
Shannon	She/her	Female	No formal autism diagnosis and no interest in pursuing one
Cherry	They/them	Nonbinary	No formal autism diagnosis but planning to pursue one
Lucy	She/her		Labeled with autism by a therapist; no interest in pursuing formal diagnosis
Addy	They/them	Nonbinary	Diagnosed with autism in 7th grade
Elizabeth	She/her	"Woman with an asterisk"	Diagnosed with autism less than a year before the interview took place
Redd	He/him	Trans man & nonbinary	In the process of pursuing a formal autism diagnosis

No formal questions were asked regarding demographics, thus no details are reported here about race/ethnicity to avoid making assumptions based on appearance.

<sup>a</sup>All participant names are pseudonyms chosen by participants to maintain confidentiality

**Table 2** Interview questions

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Please describe your experience with the autism assessment and diagnosis process
How do you think being autistic affects your identity and the way you think/feel about yourself?
Can you describe the word “camouflaging” in relation to autism?
How do you relate or connect to womanhood, if at all?
If you would like to share any more comments on the interactions of autism, gender/sex, and identity, please do so

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that frame the findings section of this paper, and exemplars were selected. The results of this process can be observed in Table 3.

## 2 Results

Four themes emerged from the interviews, each containing clusters of related codes that may be viewed as subthemes; see Table 3. The thematic map in Fig. 1 additionally illuminates the overlap of codes between the themes.

### 2.1 Theme 1: diagnosis obstacles and mitigating factors

#### 2.1.1 Cluster 1—diagnosis obstacles

The diagnosis data in Table 1 reflects difficulty in receiving a timely diagnosis of autism. Half of the participants had received formal autism diagnoses at the time of their interview; two of those diagnoses were received less than a year before the interviews took place, and none were received earlier than fourth grade, which is approximately 9 years old. Of the five participants without formal diagnoses, two were seeking them.

Some participants reported that they faced doubt and dismissal regarding autism—ignoring childhood symptoms and/or denying that the participant could be autistic—from important adults in their childhoods, often due to high functioning and camouflaging behavior. Cherry explained:

...it’s been a very difficult journey to get [to the point of seeking a diagnosis], and I think a lot of that stems from the fact that I’m relatively functional, I do well in school, which is the functioning my parents care about.

Elizabeth, whose similarly-aged sister was diagnosed as autistic many years before Elizabeth was, said, “...it was harder to catch in me when I was younger because I would mask literally as soon as the symptoms would start to show, around two to like preschool age. [Adults] were none the wiser...”

Some undiagnosed participants reported that receiving a formal autism diagnosis was not a priority to them. Charlie, for instance, explained that receiving support for the struggles that impacted their life was their focus, and they had been provided that assistance without needing an autism diagnosis. However, Shannon directly attributed her disinterest to the practical obstacles of seeking out an autism diagnosis, explaining: “It takes money, it takes time. I’m good enough just knowing for myself.” Other participants also endorsed practical concerns such as money, time, unavailability of providers, and the lack of diagnostic tools for adults.

#### 2.1.2 Cluster 2—mitigating factors

In contrast, some participants who had received official diagnoses reported a simple process. Some believe that they were set up for success in their diagnosis process due to factors that put them on the radar of their parents and professionals. All participants who reported this belief credited it partially to having older siblings who had been diagnosed as autistic. In addition to having a diagnosed autistic brother, Mackenzie believed that their diagnosed mental health conditions assisted them in the diagnosis process by keeping them on the radar of mental health professionals.

For some participants who were not diagnosed or flagged for testing as children, self-advocacy allowed them to access testing or diagnosis as adults. Apollo, who had been diagnosed a month and a half before their interview, said, “I went through the process, I did all the self-tests on myself first, and then I got a psychiatrist after a lot of tries... I did it alone.” Redd was having a similar experience and emphasized the power of his new autonomy, saying:

**Table 3** Codes sorted by theme

Code	Definition	Example
<b>Diagnosis obstacles and mitigating factors</b>		
Diagnosis not a priority	Participant reports that getting a formal diagnosis was/is not a priority	Charlie: "we were just focusing on what's going to help, not necessarily what label" Shannon: "It takes money, it takes time."
Practical diagnosis obstacles	Participant reports practical obstacles to receiving a formal diagnosis such as money and time	Cherry: "my parents... would pull me every time I got close to testing."
Doubt and dismissal	Participant expresses feeling that autism symptoms were dismissed or doubted by relevant adults (parents, doctors, etc.)	Cherry: "I kind of fell into that stereotype of like, 'they're so bright, they can't have a neurodivergence'"
Functioning as barrier to diagnosis	Participant reports that their intelligence/academic success acted as a barrier to an autism diagnosis	Elizabeth: "it was harder to catch in me when I was younger because I would mask literally as soon as the symptoms would start to show" Juliet: "If I was a boy, I probably would have been diagnosed earlier."
Camouflage and missed diagnosis	Participant reports that camouflaging contributed to not being diagnosed with autism in a timely manner	Cherry: "I had a hard time accepting that I had autistic traits or that I had autism."
Diagnosis gender discrimination	Participant comments on direct gender discrimination in the autism diagnosis process	Mackenzie: "she just kind of talked to my mom for a while, and I was allowed to play with the toys... she was like, 'Yeah, you have autism.'" Mackenzie: "my older brother also is autistic, so my parents knew the warning signs"
Self-denial of autism	Participant reports that they denied their autism and/or autistic symptoms	Apollo: "I did all the self-tests on myself first, and then I got a psychiatrist after a lot of tries."
Lack of diagnosis obstacles	Participant reports a stress-free and straightforward assessment/diagnosis process	Charlie: "A nurse observed and said that ASD might be a good avenue to look"
Set for success	Participant reports factors (other diagnoses, diagnosed siblings) that reduced diagnosis obstacles	Lucy: "my whole entire life I've participated in masking."
Self-advocacy	Participant reports playing an active role in their autism assessment/diagnosis	Apollo: "I literally studied, I got a book about social situations"
Childhood symptoms noticed	Participant reports that adults noticed symptoms of autism during the participant's childhood	Lucy: "even in the private, it still leaks in because of how much I do it in the public." Juliet: "then maybe the other kids wouldn't think I was so weird"
<b>Camouflage patterns, motives, and effects</b>		
Growing up masked	Participant reports camouflaging for a significant portion of their development	Mackenzie: "Then I learned that that's how you get bullied, so I started doing it at school."
Studied camouflage	Participant reports highly conscious efforts to learn camouflage through research	Charlie: "I got bullied for how I would talk" Elizabeth: "Masking is my way to get through and do my best to contribute to society."
Unconscious camouflage	Participant reports engaging unconsciously in camouflage behavior	Shannon: "it makes me proud to know that with practice, I can seem natural."
Camouflage to conform	Participant reports fitting in as a motivation for camouflaging behavior	Cherry: "it's also kind of sad... that it has to be that way."
Camouflage to protect	Participant reports self-preservation as a motivation for camouflaging behavior	
Bullying	Participant reports being the victim of bullying	
Camouflage to serve	Participant reports camouflaging to help others	
Camouflage as skill	Participant views camouflaging as a skill that can be honed and lead to benefits	
Camouflage as mandatory	Participant reports feeling that camouflage was not a choice	

Table 3 (continued)

Code	Definition	Example
Camouflage failure	Participant reports instance(s) of camouflage failing to be effective	Charlie: "it became too hard to hide the symptoms"
Not autistic, just weird	Participant reports that lack of label did not prevent stigma	Elizabeth: "I still had a very bad reputation of being a weird kid, but I think I did a good job of hiding it. Cuz when I tell people, they're still like, 'oh, wow, you do?'" Charlie: "that energy limit of hiding all that"
Exhaustion of camouflage	Participant reports that camouflaging is exhausting	Mackenzie: "There was a while where I was like, 'I don't know who I am, I'm just what I put on for everybody else.'"
Camouflage costs identity	Participant reports that camouflaging comes at the expense of their sense of identity	Charlie: "it was kind of like I didn't have to confront parts of my identity" and "I could push down my own wants or needs"
Camouflage as self-rejection	Participant reports that engaging in camouflage involves rejecting parts of oneself	Apollo: "I've been trying not to mask so much."
Rejection of camouflage	Participant reports a recent desire or effort to reduce camouflaging behavior	
Autism is related to both perceptions and enactments of gender	Participant reports a general sentiment that being autistic impacts their gender	Apollo: "informing my gender through my autism"
Autism and gender (general)	Participant reports a general sentiment that being autistic impacts their gender	
Social connections and gender	Participant reports a relationship between social connections and gender presentation/identity	Mackenzie: "I made some more female friends, I started realizing, 'Hey, I actually am a girl – I can do girl things.'"
Camouflage and gender	Participant reports a relationship between gender presentation/identity and camouflaging	Addy: "in recent years, as I've dropped that camouflage more, I've started to embrace femininity more... I've reconnected with womanhood"
What is gender?	Participant expresses lack of understanding of gender	Redd: "I don't understand how people perceive gender at all, I have no idea."
Situational gender	Participant reports that their gender identity depends (partially or wholly) on the situation	Charlie: "I feel like I am a woman in context with other women."
Gender as inherent (sex)	Participant expresses sentiment that their gender is tied to their body/unchangeable	Elizabeth: "I am still a woman in all – yes, scientifically, I was born a female"
Rejection of gender constructs	Participant expresses rejection of gender constructs and/or their societal importance	Charlie: "Those social roles are kind of irrelevant to me."
Breaking gender norms	Participant reports engaging in behavior that is/was seen as against gender norms	Elizabeth: "sometimes I do things that a woman wouldn't do."
Culture and gender norms	Participant reports that their home culture affects the role of gender norms in their life	Shannon: "I guess from where I come from, from like a Chinese family, women are still kind of stereotyped in terms of like, jobs, and stuff."
Disconnection from womanhood	Participant reports a sense of being partially or fully detached from the idea of womanhood	Mackenzie: "I still don't always fully feel connected to the identity."
Positive womanhood	Participant reports positive sentiments of womanhood	Elizabeth: "I still see myself as a girl, I like being a girl"
Womanhood as shared experiences	Participant reports that they relate to womanhood due to shared experiences	Charlie: "I have a lot of similar issues, and a lot of women have the same body that I do."
Womanhood as danger	Participant associates womanhood with danger and negative experiences	Juliet: "people don't always take you seriously. It's scary to be alone."

**Table 3** (continued)

Code	Definition	Example
Autism and non-gender identity		
Autism as identity (general)	Participant reports a general sentiment that being autistic impacts their identity	Mackenzie: "It definitely impacts how I view myself and my identity."
Special interests as identity	Participant reports that special interests play a large role in their identity formation	Mackenzie: "I kind of build my personality around certain topics"
Label as understanding	Participant reports that label of autism allows for increased self-understanding	Elizabeth: "And knowing that I have it is very important to me because it helps me understand what I can do to help myself."
Self-denial of autism	Participant reports that they denied their autism and/or autistic symptoms	Cherry: "I had a hard time accepting that I had autistic traits or that I had autism."
Autism as separation	Participant indicates that being autistic creates a gap between how they view themselves and others	Mackenzie: "I don't think of myself like everybody else."
Not autistic, just weird	Participant reports that lack of label did not prevent stigma	Elizabeth: "I still had a very bad reputation of being a weird kid, but I think I did a good job of hiding it. Cuz when I tell people, they're still like, 'oh, wow, you do?'"
Camouflage costs identity	Participant reports that camouflaging comes at the expense of their sense of identity	Mackenzie: "There was a while where I was like, 'I don't know who I am, I'm just what I put on for everybody else.'"



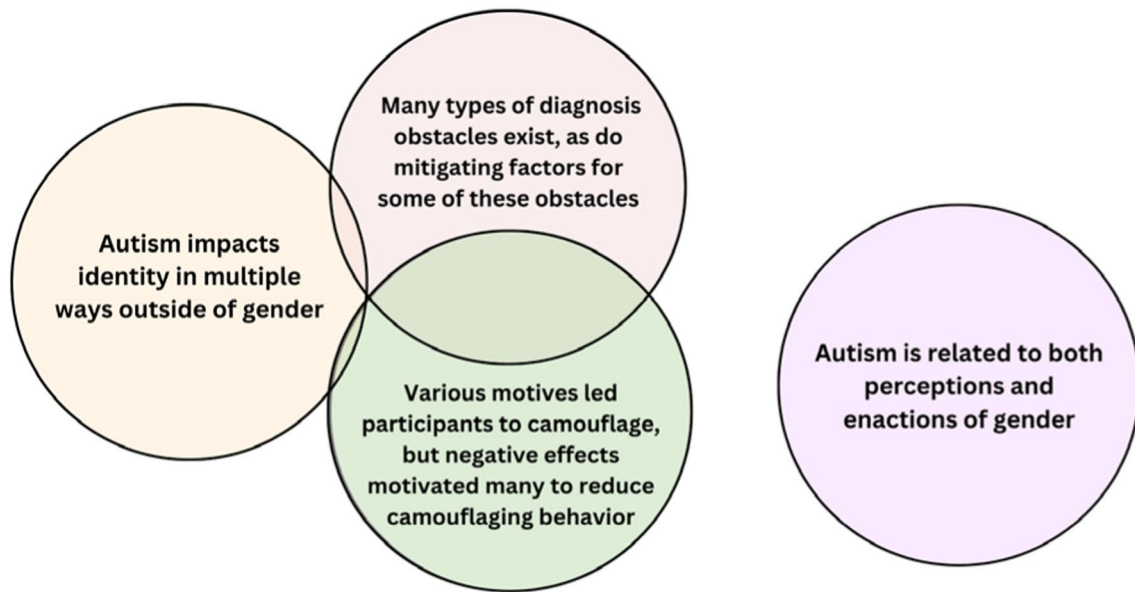


Fig. 1 Thematic map

I kind of went on my own exploration of my identity... And I'm still, you know, kind of in the process of trying to talk to a therapist again and get, you know, an actual assessment, now that I have the actual autonomy to get an assessment.

## 2.2 Theme 2: camouflage patterns, motives, and effects

### 2.2.1 Cluster 1—camouflage patterns

Some participants reported engaging in frequent camouflaging from a very young age, effectively causing them to grow up in a mask. Apollo explained, "I definitely was heavy, heavy masking most of my life." However, although all participants reported camouflaging, many participants did not explicitly state when their camouflaging behavior began, or at what frequency it occurred in their life.

Apollo and Redd reported highly conscious efforts to learn and mimic socially acceptable behavior, such as an instance from Apollo's childhood in which they went to the library and checked out a book on how to navigate social situations, leading to a deep interest in etiquette.

In contrast with this highly conscious camouflage, some participants reported that they noticed themselves engaging in unconscious camouflaging behavior. Lucy explained, "even in the private, it still leaks in because of how much I do it in the public," suggesting frequent voluntary camouflaging as the root cause of her involuntary camouflaging. Redd noted that this involuntary camouflaging had a negative effect on his romantic relationships—"someone would have feelings for me, and I would camouflage it so hard that I would convince myself that I had feelings for them, and I just like totally didn't."

### 2.2.2 Cluster 2—motives to camouflage

Most<sup>2</sup> participants reported that the desire to conform served as a motivation for them to engage in camouflaging behavior. Juliet described:

I always tried to do just things that would make me seem more normal. Like, I didn't always like playing outside but I thought that if, you know, if I did... then maybe the other kids wouldn't think I was so weird for wanting to sit under a tree or something... I just wanted to be liked, at the end of the day.

Participants also reported a desire to protect themselves from perceived negative consequences if they failed to conform or hide their autism. Addy described this motive as a desire to avoid "that threat of backlash against just expressing

<sup>2</sup> "Most" is used when the code was present in the interviews of 6 or more participants, which is equivalent to 60+ % of participants.

yourself as you are,” while Cherry defined camouflaging as “trying to blend in so that I don’t have to suffer the impacts of doing something that people don’t consider normal.”

For Mackenzie, experiences with bullying at school were their original motivation to camouflage: “There was like, the earlier school years, I didn’t [camouflage] at all. Then I learned that that’s how you get bullied.” Similarly, Elizabeth’s camouflaging was inadequate at completely removing stigma: “I still had a very bad reputation of being a weird kid, but I think I did a good job of hiding [my autism]. Cuz when I tell people, they’re still like, ‘oh, wow, you [have autism]?’”

On top of other motivations, Addy and Elizabeth reported that they were motivated to camouflage by a desire to help others. Addy explained that their autistic traits “might be considered weird by other people and... [they] don’t want to make other people uncomfortable.” Elizabeth went farther, explaining her experience as reflective of the general autistic female experience:

Masking is my way to get through and do my best to contribute to society. It’s a tool that especially autistic women use... it’s very common for women to hide it because we don’t want to be more of a burden to you.

Some participants reported that they were motivated to camouflage because they viewed camouflaging as a skill that could lead to benefits such as increased job opportunities. For Shannon, this perspective seemed to inform an overall positive opinion of camouflaging, which left her as an outlier in a group that viewed camouflaging negatively on the whole. Shannon explained,

I feel proud that I’ve gradually learned how to converse well with people... But I’ve learned that the more that I practice—and I do a lot of practicing—the easier it becomes and the more natural I seem. So, it makes me proud to know that with practice, I can seem natural.

Most participants also revealed through subtle use of language that they viewed engaging in camouflage as an obligation, not a decision. Lucy described her experience with camouflaging by saying, “I *have* [emphasis added] to put on a performance all the time.” Addy spoke similarly: “I *need* [emphasis added] to act in a way that is expected of me, as a person in this society.” In combination with this obligation to camouflage came a perceived inability to engage in visibly autistic behavior, as expressed by Elizabeth: “There are times where like, I really want to bite something or be erratic or ‘weird’, but I *can’t* [emphasis added] do that.”

### 2.2.3 Cluster 3—negative effects and rejection of camouflaging

Participants also discussed the exhaustion caused by consistently camouflaging. Mackenzie described camouflaging as “exhausting,” while Charlie called it “energy-draining.” Lucy went farther, painting a descriptive picture of what camouflaging involves on a mental level:

It’s also just really stressful, having those thoughts and this internalized checklist of like, “I have to do this, this, and this” while I’m monitoring the conversation and then I have to speak in an appropriate way – “oh, I’m not asking enough about, like, the other person’s life; I don’t seem engaged!”... It’s annoying to have like two programs running at once.

The most commonly-reported negative consequence of camouflaging was the toll it took on participants’ identity. Mackenzie summarized this toll:

It does kind of strip your identity away because it makes you feel like you’re acting all the time. Like you’re playing a role, you’re not being yourself. There was a while where I was like, “I don’t know who I am, I’m just what I put on for everybody else.”

Addy explained that in order to camouflage, “I have to push away this piece of myself that seems natural to me and seems like what I know.” Charlie agreed and elaborated on the idea of rejecting oneself through camouflage: “I didn’t have to confront parts of my identity... I could push down my own wants or needs for the comfort or wants of others.”

Most participants reported that they were making conscious efforts to reduce or eliminate camouflaging behavior. For Charlie, this journey revolved around self-discovery:

[B]reaking away from that has been more like: what are the qualities that I like in myself that I can project to others? Looking less at what others want, and more of like—maybe I'll attract more of what I want and what they want if we have the same vibes. Like, I don't have to change.

## 2.3 Theme 3: autism is related to both perceptions and enactments of gender

Although all participants were assigned female at birth, less than half used she/her pronouns and identified as female at the time of the interview. In fact, more participants identified themselves as nonbinary than female.

### 2.3.1 Cluster 1—correlation of autism and atypical gender experiences

Most participants stated that they believed their autism influenced their gender. Apollo, for example, described the process of “informing [their] gender through [their] autism” as they explored their identity in recent years. Elizabeth further said that “a lot of autistic people tend to identify as nonbinary or transgender, because they don't really see gender as important as others do,” even noting herself as an “outlier” for being cisgender.

Through their anecdotes of gender discovery and exploration, Mackenzie and Cherry discussed the importance of social connections—within which autism plays a large part—to their gender identities and perceptions. Mackenzie explained:

I was tomboy-ish, I was never really connected to being a woman or being a girl. As I got older, a lot of things changed. I made some more female friends, and I started realizing, “Hey, I actually am a girl—I can do girl things.”

In addition to the relationships already described, some participants reported a relationship between camouflaging and gender. Lucy explained, “It feels really difficult to connect to my more feminine side just because—it feels like another layer of performance.” Contrarily, Mackenzie explained: “I only grew up with brothers, so if I was copying everybody around me, I didn't really have girls to copy,” which led her to be “tomboy-ish.”

### 2.3.2 Cluster 2—what is gender?

Some participants expressed a general lack of understanding of what gender meant as a concept or how they were expected to perceive it. Redd explained, “I don't understand how people perceive gender at all, I have no idea.” Charlie and Apollo viewed their gender as situational, which Charlie explained: “I consider myself a lesbian because I feel like I am a woman in context with other women.” Meanwhile, Elizabeth explained, “I am still a woman in all—yes, scientifically, I was born a female.” Her overall comments reflected an understanding of complexities related to gender, but this comment suggests that she had not interrogated that complexity in her own identity.

### 2.3.3 Cluster 3—breaking the mold

Some participants explicitly rejected the gender constructs prevalent in society. Cherry said, “I don't think those social categories should exist at all, like I don't feel like there should be those pressures on women or men to be a certain way—or boys or girls.” Similarly, Elizabeth recounted her unconventional childhood interests: “When I was little, I loved both dolls—and like, girly toys—but I also liked Nerf guns and Hot Wheels—I loved them both.”

Shannon described that her perceived defiance of gender norms was influenced by the cultural background of her Chinese family.

I guess from where I come from, from like a Chinese family, women are still kind of stereotyped in terms of like, jobs, and stuff... with my identity to womanhood, I feel like I kind of break those cultural perceptions, at least from where I come from, in that—I like math, I'm good at science.

No other participants discussed the cultural backgrounds of their families, so the relative prevalence of this experience could not be determined.

### 2.3.4 Cluster 4—relating to womanhood

Many participants felt disconnected from womanhood. Lucy described a “difficult experience with womanhood,” and Mackenzie said:

I still don't always fully feel connected to the identity. It definitely caused gender confusion growing up to the point where I still don't fully identify as a woman anymore. The term demigirl is the closest thing I've found—like partially but not fully a woman. It's complicated.

Addy reported that they had spent much of their life intentionally disconnecting themselves from womanhood, driven by a mix of “internalized misogyny” and their nonbinary gender identity. Recently, in conjunction with their reduced camouflaging, they had begun “to embrace femininity more, like wearing makeup, jewelry, [and] dresses” and had “reconnected with womanhood.”

Charlie and Cherry both defined their relationship to womanhood based on the shared experiences that they had with other people who were treated as women. Charlie repeatedly mentioned this connection to womanhood throughout her interview, once saying, “we all kind of get the struggle. Even if I don't fully identify as a woman, the world sees me as one, and I'm treated accordingly.” Cherry echoed this sentiment, saying that they particularly related to the childhood struggles of other eldest daughters, even though they no longer identified as a woman.

Charlie and Elizabeth expressed positive views of womanhood. Elizabeth stated simply: “I like being a girl,” while Charlie explained:

I guess I find a lot of strength—like, I relate to a lot of people's resilience in womanhood. I think that a lot of women are extremely powerful and able to overcome things without making it the world's problem.

In contrast, some participants viewed womanhood as a source of danger. Juliet explained a fear of physical threats due to her womanhood, saying that “it's kind of scary... people don't always take you seriously. It's scary to be alone.” Addy, meanwhile, described the psychological danger that shaped their life:

I was always trying to hide my emotions. I think that also goes into the whole idea of women being emotional and stuff, you know? Like, expressing any kind of emotion and the backlash that they are faced for that.

## 2.4 Theme 4: autism and non-gender identity

Some participants directly stated that autism affects their identity; for instance, Addy reflected, “it is pretty obvious that it's a big part of who I am.” The remaining participants discussed specific interactions between autism and identity but did not make the general statement that autism affects their identity.

### 2.4.1 Cluster 1—relating to themselves

Some participants reported autism affecting their identities through their passionate interests, known as special interests. Mackenzie explained: “I kind of build my personality around certain topics, like, I like rocks, so I have rock stickers all over my computer, it's what I study in school.”

Some participants, regardless of official diagnosis status, reported that the “autistic” label allowed for an increase in self-understanding. Though it was sometimes preceded by denial of their autistic traits, participants' acceptance of their autism acted as a foundation for more compassion towards themselves and a greater ability to identify and address their needs. Elizabeth explained, “knowing that I have [autism] is very important to me because it helps me understand what I can do to help myself.”

Shannon built on this idea of self-understanding and explained that her diagnosis had led to increased self-compassion as well:

But once I thought of myself as autistic, things started to change in that I started to view myself differently. Like, I started to put less pressure on myself because I realized that the difficulty I have in social situations or like, making eye contact, or in conversations in general, isn't because I'm like, a bad social person, it's just because of the autism. So, it just loosened the pressure on myself.

### 2.4.2 Cluster 2—relating to others

According to some participants, being autistic created a disparity in how they view themselves and others, generating a mental isolation independent of social ostracization. Charlie and Cherry both said that they felt this sense of separation despite not having autism diagnoses; Charlie described knowing she “was different from all the girls” growing up, while Cherry described “a certain amount of dissociation I have with myself in my ability to connect with others, in my ability to relate with others.”

## 3 Discussion

This study’s first question focused on how autism informs females’ relationship with their identity, particularly in relation to gender and/or sex. Findings suggest that for autistic AFAB individuals, gender—as a performance and internal experience—is a complicated facet of identity that is deeply intertwined with autism. Additionally, autistic AFAB individuals tended to view their autism diagnosis as a positive part of their identity development, and no negative views of the diagnosis were reported. The study’s second question asked how camouflaging interacts with diagnosis experiences, gender, and sex for autistic females. Findings demonstrate that autistic AFAB individuals tended to perceive camouflaging as harmful, particularly to identity, and sought to reduce its use. These findings align with and extend upon the existing literature.

The large percentage (50%) of self-diagnosis among participants in this study expands on Lewis’s [19] findings of frequent self-diagnosis in autistic females by suggesting that autistic people from gender minorities may also demonstrate higher self-diagnosis rates than autistic males. The late diagnoses—between upper elementary school and early adulthood—found in this study similarly expanded on the findings of Gesi et al. [11] and Geurts and Jansen [12] that autistic females tend to receive diagnoses and mental health services later in life. However, the participants in this study were all AFAB, so it is unclear whether the same findings would be observed in AMAB autistic people from gender minorities.

Participants in this study reported a wide range of motives to engage in camouflaging behavior, of which the most commonly reported were (a) to conform and (b) because they viewed camouflage as mandatory. This may align with Hull et al. [15]’s findings that *assimilation*—camouflaging for survival—is often associated with camouflaging in autistic females. Participants in this study reported two major negative consequences of engaging in camouflaging behavior: exhaustion and identity loss. This aligns with the existing literature’s consensus that camouflaging leads to depression, exhaustion, identity loss, and other negative outcomes, particularly for women [2, 3, 15, 30].

Within this study, despite all participants being assigned female at birth, few participants believed that they performed and connected to femininity as was expected of them. Similarly, Bargiela et al. [2] found that autistic women did not fit the socially expected roles of women and experienced a sense of disconnection from womanhood. Further research is needed on this topic, but the combined results of this study and Bargiela et al. [2] suggest that connections to womanhood among autistic AFAB individuals are often atypical. In fact, many participants in this study reported non-woman/transgender gender identities and referenced their autism as a cause of their atypical relationship with gender constructs.

This finding is particularly meaningful when viewed alongside Hillier et al.’s [13] findings that autistic individual’s transgender identities may not be taken seriously due to their autism diagnosis, rather than allow autism to create skepticism surrounding an individual’s gender identity, professionals should consider the ways in which an individual’s autism may directly inform this gender identity. It is possible that autism may act as a protective factor against social biases regarding gender minorities and thus reduce the barriers to identifying as transgender.

Half of the participants in this study said that the “autistic” label presented an opportunity for increased self-understanding. This aligns with previous findings that being labeled autistic through self-diagnosis provided individuals with a sense of self-understanding [19] and the autistic label provided individuals a sense of freedom from self-blame [18, 21]. The majority positive perspectives on autism diagnosis found in this study contrast the negative perspectives found in Huws and Jones [16], a disparity that may be due to over a decade’s worth of social changes between the studies.

The results and conclusions found by this study are limited in two major ways. First, this study is intended to be exploratory and not generalizable in any way. The sample was not necessarily representative of the larger autistic AFAB population, nor was it intended to be. Second, all participants chose to self-identify and thus may hold a particular interest in the questions focused on by this study. It is possible that this self-selecting sample is more likely to hold the views demonstrated in this study than the general population of autistic AFAB individuals.

## 4 Future research

With these findings and takeaways in mind, further research should continue to look into the questions posed by this study, particularly those regarding gender. This may include studies on the experiences of autistic individuals who were assigned male at birth, particularly transgender individuals, as the AMAB population was not included in the present study and may have different experiences to share relating to their gendered autistic experiences. Additionally, the effect of other factors such as ethnicity, age, and education level on autistic and gender identity warrant investigation. Any further research should continue centering the voices and perspectives of autistic individuals.

## 5 Conclusion

One implication of this study is that instances of transgender<sup>3</sup> identities in autistic populations may be higher than previously believed; in this study, more than half of the sample identified as transgender. There are possible confounding variables that may have artificially inflated this percentage, including age/generation, intelligence, support needs, and the self-selection bias mentioned above. However, it is also possible that the unique relationship with gender described by many participants has caused a more significant percentage of autistic individuals to identify as transgender than was expected. Additionally, participants expressed positive views of autism diagnosis and negative views of camouflaging that may inform practitioners and educators in what services to prioritize when serving autistic individuals.

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**Data availability** The data that support the findings of this study are not publicly available. The data are, however, available from the author upon reasonable request.

**Code availability** Not applicable.

## Declarations

**Ethics approval and consent to participate** This study consisted only of interviews with consenting adult participants. The University of Connecticut Research Ethics Committee has confirmed that no ethical approval is required. Informed consent was obtained from all individual participants included in the study.

**Competing interests** The author has no competing interests to declare that are relevant to the content of this article.

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<sup>3</sup> In this study, transgender is defined as any gender identity that does not conform to the gender assigned at birth, including individuals who identify as nonbinary.

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