

Running Head: Autistic Camouflaging

Putting on a disguise to fit in: A mixed methods study of experiences in autistic camouflaging

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Abstract

Background: A 3:1 male-to-female autism diagnosis ratio may be partly explained by more prevalent camouflaging behaviours among females, which can mask autistic traits. **Methods:** This mixed-methods study examined gender differences in camouflaging among 110 autistic adults (aged 18–64) using the Camouflaging Autistic Traits Questionnaire (CAT-Q) and explored lived experiences through interviews with eight participants (aged 18–37). **Results:** Quantitative results showed that females reported significantly higher total camouflaging scores than males, particularly in the compensation subtype, while differences in masking and assimilation were not significant. Thematic analysis of interviews identified four key overarching themes: camouflaging motivations and consequences, level of consciousness, affected identity, and experiences of support. **Conclusions:** Findings highlight the complex impact of camouflaging on daily life and its potential role in delayed diagnoses and mental health challenges. Further research should include diverse gender identities and a broader representation of the autism spectrum to inform better support and interventions.

Keywords: Autism, Camouflaging, Masking, Assimilation, Compensation, Gender.

Introduction

The term "autism" derives from the Greek meaning of "self," with a diagnosis of autism spectrum disorder (ASD) typically given when challenges with social communication, restricted interests, and repetitive behaviours are present (American Psychiatric Association, 2013). Bleuler (1911) first coined the word autism to represent a self-connection difficulty with others. However, this meaning of "self" is often lost when ASD-diagnosed individuals disguise their authentic identity as a social survival strategy to conform and blend into environments where neurodiversity is not embraced or understood, the behaviour defined as camouflaging (Cook et al., 2021; Hull et al., 2017; Sedgewick et al., 2021). Camouflaging experiences vary across a spectrum from unconscious automatic reactions to conscious planned behaviours, demonstrating the complexity of this phenomenon (Cage & Troxell-Whitman, 2019; Cook et al., 2022; McQuaid et al., 2021).

Hull et al. (2019) categorised camouflaging into three distinct factors: compensation (adjusting for uncertainty in social situations), masking (presenting a non-autistic façade hiding autistic characteristics; Miller et al., 2021), and assimilation (blending in with others in social interactions; Cremone et al., 2023). Hull et al. (2017) found ASD-diagnosed individuals reported difficulties interpreting social situations, with compensation serving as a support strategy. Importantly, Livingston et al. (2019) identified no relationship between intensity of compensation tendencies and the complexity of ASD once diagnosed. Assimilation is documented as a survival strategy used by both neurotypical and neurodiverse individuals (Coulton & van Leeuwen, 2015), whereby evolutionarily humans copied the behaviours of close others. For autistic individuals, assimilation involves blending in to seek belongingness, such as adopting neurotypical behaviours to match a neurotypical group in particular social domains (McQuaid et al., 2021). Notably, Belek (2020) found when autistic individuals were in the presence of other autistic people, they reported no longer needing to camouflage, and assimilation consequently decreased.

Camouflaging does not always have a clear motivation, as it is not always a conscious behaviour (Cage & Troxell-Whitman, 2020), with some autistic individuals finding it difficult not to camouflage (Bernardin et al., 2021). Motivations differ between neurotypical and neurodiverse populations, with neurotypical camouflaging reported to enhance social success (Miller et al., 2021), whereas ASD camouflaging seems driven by avoiding negative social consequences (Cook et al., 2022). Autistic individuals report higher rates of bullying, physical assaults, and overall maltreatment when not camouflaging (Trundle et al., 2023), leading many to maintain camouflaging behaviours for personal safety and to avoid seclusion (Hull et al., 2017; Tubio-Fungueiriño et al., 2021; Petrolini et al., 2023). Despite mitigating loneliness-related negative emotions, connections formed while camouflaging are sometimes retrospectively viewed as fraudulent (Hull et al., 2017). Lai et al. (2020)

suggest personal rather than social factors may predominate in camouflaging motivation, such as stigma avoidance.

Research has identified a gender imbalance in ASD diagnosis with an estimated 4:1 ratio of males to females (Sun et al., 2014), with modern studies suggesting an adjusted 3:1 ratio (Loomes et al., 2017). Werling (2013) highlights the significance of camouflaging behaviour in this gender disparity, suggesting females may not be less likely to have ASD but less likely to receive a diagnosis due to their suppression of autistic characteristics through camouflaging (Dean et al., 2017; Hiller et al., 2016). Dworzynski et al. (2012) found that among individuals with comparable levels of autistic features, females receive ASD diagnoses less frequently than males. Additionally, Bargiela et al. (2016) established that late-diagnosed ASD women believed professionals overlooked their condition due to camouflaging and their traditional feminine identity conflicting with male-manifested ASD diagnostic criteria. To quantify camouflaging, Hull et al. (2019, 2020) developed the Camouflaging Autistic Traits Questionnaire (CAT-Q) measuring compensation, masking, and assimilation, finding that ASD-diagnosed females demonstrated higher total camouflaging scores than autistic males, especially on assimilation and masking subscales, though less for compensation. Additional research identifies that females camouflage more frequently than autistic males across all three CAT-Q subscales and in more varied situations (Cassidy et al., 2018; Milner et al., 2023; McQuaid et al., 2021).

Masking has been described in interviews with autistic individuals as an all-encompassing process that includes behaviours such as copying another's speech patterns and suppressing natural reactions in unfamiliar situations (Hull & Mandy, 2019; Miller et al., 2021). This uncertain sense of self may stem from incongruence between external presentation and internal identity (Miller et al., 2021), potentially maintained through observational learning of neurotypical behaviours (Tierney et al., 2016). This process can be particularly taxing for autistic individuals, as it requires constant monitoring and adjustment of behaviours to match social expectations that may not align with their natural expression. Research by Belek (2020) further elaborates that masking often involves specific techniques such as rehearsing conversations, practicing facial expressions, and explicitly learning social rules that neurotypical individuals might acquire intuitively. The cognitive load associated with maintaining these masks contributes significantly to the exhaustion reported by many autistic individuals. Interestingly, Hull and Mandy (2019) found that masking behaviours often become so ingrained that they can be difficult to distinguish from one's authentic self, creating additional challenges for identity development and self-understanding.

Wood and Freeth (2016) found students possessed negative stereotypes of ASD individuals, and masking helped avoid this stigma. Additionally, ASD-diagnosed individuals reported suppressing visible sensory processing due to perceived stigma (Shtayermman, 2009), thereby also serving as a coping mechanism for social anxiety (Spain et al., 2020). The female autistic phenotype (FAP) has been

identified as particularly vulnerable to stigmatisation compared to males (Frost, 2011; Miller et al., 2021). Social pressures experienced by females may contribute to this vulnerability, stemming from the intersectionality of multiple marginalised identities, placing greater expectations on those who identify as female and are diagnosed with ASD compared to either group alone (Cage & Troxell-Whitman, 2020). These factors might perpetuate motivations for ASD individuals, particularly females, to camouflage more extensively. Jones et al. (2015) found that many autistic individuals reported feeling pressure to adapt to neurotypical norms due to fear of rejection, ridicule, or even violence. This fear is often justified, as Beeger et al. (2013) documented higher rates of social exclusion and bullying among autistic individuals who displayed more visible autistic traits. The motivation to avoid such negative outcomes serves as a powerful driver of camouflaging behaviours, even when camouflaging itself leads to other negative experiences

While camouflaging behaviours can be helpful in certain contexts, they are not without impact on the individual (Alaghband-Rad et al., 2023). ASD-diagnosed individuals report heightened stress levels, exhaustion, identity loss, and feelings of suicidality, with suicide incidence in ASD populations seven times greater than in the general population (Cassidy et al., 2018; Hull et al., 2017; Radulski, 2022). Additionally, 79% of autistic adults had diagnosable mental health conditions, with camouflaging related to greater symptoms of anxiety and depression (Lever & Geurts, 2016). Whether camouflaging causes greater anxiety or anxiety prompts camouflaging remains unclear and requires caution in interpretation (Hull et al., 2019). Bradley et al. (2021) identified camouflaging as the greatest factor damaging ASD participants' mental health, highlighting the need for holistic research exploring camouflaging impacts to offer better support. Some positive implications exist, with male ASD-diagnosed participants reporting greater fulfilment in social situations compared to females (Hull et al., 2017; Scheerer et al., 2020). However, this success may be considered negative when based on false self-presentation. Similarly, while camouflaging reportedly improves connections, these relationships may appear disingenuous as they form around a changed version of oneself (Belek, 2023; Cook et al., 2018). Delayed diagnosis has emerged as a potential negative consequence of camouflaging. Gesi et al. (2021) found autistic females reported receiving diagnoses later in life than males.

Study Aims

de Giambattista et al. (2021) suggested that our understanding of autism is based on predominantly male-focused scientific literature, necessitating greater attention to female autism experiences, which may begin to explain behavioural differences. This research aims to avoid generalising male experiences to females, providing voice to lived experiences of ASD-diagnosed individuals across all genders. Knowledge of autistic experiences and camouflaging would benefit various stakeholders, including educational settings, social sectors, families of ASD-diagnosed

individuals, broader societal understanding of ASD, and ASD-diagnosed individuals themselves. Previous research has not thoroughly explored camouflaging experiences focusing on gender differences, consequences, and diagnostic effects using both questionnaires and interviews. Therefore, this mixed-methods study follows an epistemological stance of a social model of ASD and comprises two components: Study 1 will explore gender differences in camouflaging scores on the quantitative CAT-Q, while Study 2 will provide deeper insight into camouflaging experiences through qualitative interviews, acknowledging how to better support the neurodiverse community. Based on previous literature it is predicted that there will be significant gender differences in total camouflaging scores as well as in specific behaviours associated with compensation, masking and assimilation. Study 2 aims to address the following research questions: How do ASD-diagnosed adults describe their camouflaging experiences? And what is the perceived impact of autistic camouflaging on ASD-diagnosed adults?

Study 1 Method

Participants

A total sample of 110 ASD diagnosed adults, aged between 18 and 64 years ($M = 35.88$ yrs, $SD = 12.89$) was recruited using a combination of volunteer and opportunity sampling. Eighty-nine (81.0%) participants were recruited through social media advertisement (specifically Facebook, Facebook groups, Mastodon and Instagram), 2 (1.8%) participants through a University ASD Support Group and 19 (17.2%) participants were recruited through the University of X Research Participation Scheme, and these were awarded course credit for participation. Gender was measured by asking participants to report their gender identity (Female $N = 65$, Male $N = 26$, Non-binary $N = 9$, Transgender $N = 3$ and Gender Fluid $N = 1$). Sampling inclusion criteria stated participants must be aged over 18, have received an official ASD diagnosis, and felt comfortable using predominantly verbal communication. Nonbinary, transgender, and gender fluid individuals were excluded due to insufficient sample size and one outlier was removed forming the final sample $N = 96$. The age range in the female sample ($n = 65$) was 18-59 years ($M_{age} = 34.09$ yrs; $SD = 11.82$) and in the male sample it was 18-64 years ($M_{age} = 39.61$ yrs; $SD = 14.38$). G*Power (G*Power 3.1, 2017) analysis determined a minimum of 28 participants (14 per condition) was necessary to detect a medium effect sized difference between male and female ASD participants camouflaging scores.

Materials

Camouflaging Autistic Traits Questionnaire (CAT-Q; Hull et al., 2019).

The CAT-Q (Hull et al., 2019) is a 25-item questionnaire, with each item on a 7-point Likert scale, from 1 strongly disagree to 7 strongly agree, with higher scores indicated greater camouflaging. The items measured 3 subscales of camouflaging: i) compensation (9 items, such as “I have developed a script to follow in social situations”); ii) assimilation (8 items, such as “I need the support of other

people in order to socialise”); and iii) masking (8 items such as “I always think about the impression I make on other people”). Relevant items were reversed scored with excellent internal consistency for the overall scale (Cronbach’s alpha, $\alpha = .92$), and each individual subscale showed good internal consistency: compensation ($\alpha = .89$), masking ($\alpha = .83$) and assimilation ($\alpha = .83$). Items were summed to give overall subscale scores for compensation, masking and assimilation, and these summed to give a total camouflaging score.

Procedure

Before collecting data, the University of X provided institutional ethical approval for both study components. Participants had the option to complete the questionnaire in their own time and location, using a smart phone, tablet, or computer and it took 17 minutes 42 seconds to complete on average. Eligible questionnaire participants accessed a link to online Qualtrics software (Qualtrics, XM), where a Consent Form and Participant Information Sheet regarding the contents were provided. Initial demographic questions were followed by the CAT-Q and concluded with a full debrief of the study aims and information for psychological support.

Analysis

Data were examined for outliers (± 3 standard deviations based on standardized residuals), normality (skewness and kurtosis within ± 1.96 ; visual inspection of histograms), and homogeneity of variance (Bartlett’s test). When the assumption of homogeneity of variance was violated, Welch’s correction was applied. Significant outliers are reported, and analyses were conducted both including and excluding these cases to assess their impact. One-way between-subjects ANOVAs were used to examine gender differences in total and subscale scores on the CAT-Q (FDR corrected).

Study 1 Results

Results – Study 1

CAT-Q Camouflaging Total Score

Camouflaging Scores were approximately normally distributed with no significant outliers (± 3 SD), as indicated by skew and kurtosis z-scores (± 1.96) and inspection of the histograms and standardised residuals. However, the Barlett test indicated that the assumption of homogeneity of variances was violated, $\chi^2(1) = 5.74$, $p = .017$. A Welch’s ANOVA was run to examine gender differences in camouflaging whilst controlling for unequal variances. There was a significant main effect of gender on camouflaging scores, $F(1, 42.80) = 9.00$, $p = .005$, $\omega^2 = .15$. As can be seen in Figure 1a, the female groups scored significantly higher on the camouflaging scores ($M = 131.84$, SD

= 18.32) as compared to the male group ($M = 115.70$, $SD = 26.57$). The effect size was large, indicating 15% of the variance in the camouflaging scores was explained by gender.

CAT-Q Sub Scales

In order to understand the origin of these gender-based differences, the total CAT-Q was examined in relation to its three sub scores: Compensation, Masking, and Assimilation. Multiple comparisons were addressed using the false discovery rate (Benjamini & Hochberg, 1995) and corrected p-values reported.

Compensation Score

Compensation scores were approximately normally distributed with no significant outliers (± 3 SD). However, the Barlett test indicated the assumption of homogeneity of variance had been violated, $\chi^2(1) = 9.10$, $p = .002$. A Welch's ANOVA was run to examine gender differences in compensation scores whilst controlling for unequal variances. There was a significant main effect of gender on compensation scores, $F(1, 40.41) = 8.19$, $p = .008$, $\omega^2 = .14$. As can be seen in Figure 1b, the female group scored significantly higher on the compensation score ($M = 44.92$, $SD = 8.83$) as compared to the male group ($M = 36.90$, $SD = 14.06$). The effect size was large, indicating 14% of the variance in the compensation scores was explained by gender.

Masking Score

For the masking sub-scale, there were 4 significant outliers with standardised residuals over 3 SD from the group mean in the male group. These were removed from the data prior to running the analysis. After removal the data met the assumptions of normality, although despite being in range, it was noted that there was negative kurtosis in the female group. The Barlett test indicated that the assumption of homogeneity of variance had been met, $\chi^2(1) = 2.99$, $p = .084$. Therefore, a One-Way between subjects ANOVA was performed to examine differences in masking between gender groups. There was a significant main effect of gender on masking scores, $F(1, 86) = 4.66$, $p = .050$, $\omega^2 = .04$. As can be seen in Figure 1c, the female groups scored significantly higher on the masking score ($M = 42.70$, $SD = 6.83$) as compared to the male group ($M = 38.93$, $SD = 9.04$). The effect size was small, indicating 4% of the variance in the masking scores was explained by gender. The analysis was run again with the outliers included demonstrating no difference in the statistical conclusions drawn, $F(1, 90) = 7.90$, $p < .001$, $\omega^2 = .07$.

Assimilation Score

Assimilation scores were approximately normally distributed with no significant outliers (± 3 SD), as indicated by skew and kurtosis z-scores (± 1.96) and inspection of the histograms and standardised residuals. The Barlett test of homogeneity of variances indicated the assumption had been met, $\chi^2(1) = 0.06$, $p = .80$. Therefore, a One-Way between subjects ANOVA was performed to examine differences in assimilation scores between gender groups. When examining the impact of gender on assimilation scores, there was a non-significant trend observed, $F(1, 90) = 3.28$, $p = .074$,

$\omega^2 = .02$. As can be seen in Figure 1d, the female groups scored slightly higher on the assimilation score on average ($M = 42.68$, $SD = 6.78$) as compared to the male group ($M = 37.57$, $SD = 10.52$). However, this difference was small explaining only 2% of the variance and did not meet the threshold to be considered statistically significant.

Insert Figure 1 Here

Study 2 Method

Participants

Interview participants were a volunteer sample, all recruited via a statement at the end of the questionnaire in Study 1 asking respondents to leave their email address if they would be happy to be contacted to participate in an interview about their camouflaging experiences. Fifty-one participants responded to the statement, with 8 participants aged between 18 and 48 years of age ($M = 26.13$, $SD = 9.51$) randomly selected to form the sample, comprising 4 males, age range of 19 - 48 ($M = 27$, $SD = 11.18$) and 4 females, age range of 18 – 37 years ($M = 25.25$, $SD = 7.40$). The sample size of 8 participants followed Braun and Clarke's (2013) thematic analysis guidelines that stated that saturation is typically observed within 6-10 interviewee responses. Ethical approval for Study 2 was obtained from the University of X Research Ethics procedures.

Materials

Fourteen questions, with eleven sub-questions comprised the semi structured interview schedule adapted from Chapman et al.'s. (2022) interview schedule regarding autistic masking and open questions within Hull et al.'s. (2017) study. Follow-up questions were asked dependent upon participant responses that allowed for flexibility and variability in participant experiences. Microsoft Teams was used for the recording of the interviews.

Procedure

Interview participants were emailed an online Consent Form and Information Sheet to be completed and returned. Each then participated in an audio recorded interview which averaged 58 minutes (35.44 - 93.56) in length either on Microsoft Teams or in person at a small room on the University of X Campus at the participants' preference. After the interview the recordings were then transcribed, and the original recording deleted, with the interview transcripts stored in accordance with the University's data storage guidelines. Each transcript was then analysed using Braun and Clarke's (2019) and Braun et al.'s (2023) reflexive thematic analysis guidelines, with the aim to develop themes regarding autistic camouflaging experiences. Firstly, transcripts were familiarised, highlighted, and coded into a codebook by the first author, and the transcripts were examined by the last author. Secondly, these codes were subsequently grouped into themes and subthemes by the first author in

discussions with the last author. There was a good level of inter-rater agreement in coding between the first and last author (Cohen's Kappa = 82%) and theme development. Remaining minor discrepancies were subsequently resolved in a third and final meeting between the first and last authors with only themes and subthemes that both were in full agreement with retained.

Thematic Analysis

An inductive reflexive thematic analysis approach developed four overarching themes to answer both research questions, with a total of 11 subthemes, each arising from the coding of the transcriptions of the participants interviews (see Table 1). These four themes were as follows: (i) Camouflaging Motivations and Consequences; (ii) Level of consciousness; (iv) Affected Identity; and (v) Experiences of Support. Despite the categorisation process and forming distinct themes, it is probable that acknowledging their overlap and interaction may better represent the autistic experience. Each quote is labelled with the gender of the participant to explore any presented difference in their experiences (M = Male, F = Female).

Insert Table 1 Here

Description of Researchers

The authorship team are interested in the autistic experience and approaches to societal and community support for autistic individuals. One member of the authorship team is autistic while the last author has a close family member with an autism diagnosis. The primary researcher, the first author, who is not autistic, developed the research questions and study designs alongside the last author. An inductive reflexive thematic analysis approach (Braun & Clarke 2021; Braun et al., 2023) was chosen as much of the literature was heavily based on the male experience of autism and so a deductive approach based on prior literature could possibly have biased our analytic approach or obscured potentially important themes or subthemes. The remaining authors were highly involved in conceptualisation, analyses, and writing.

Study 2 Results

Camouflaging Motivations and Consequences

This overarching theme presents explores the intricacies of the behaviour, why individuals camouflage, the effects of camouflaging, with some positive effects but with a trend towards negative implications, while also reflecting upon areas of substantive specific impact.

People Pleasing. Participants reported both positive and negative aspects of camouflaging behaviour in terms of efforts around “the need to please people and stuff” (M). For instance, camouflaging behaviour was enacted to please others and act in the appropriate manner in a particular social context “I’ve kind of learned over the years what is acceptable and what isn’t”. Furthermore, camouflaging helped some interviewees connect with others from a form of empathy or understanding

which might present some benefits “it has helped me treat people better (F)” and perhaps some challenges “there is a lot of empathy, maybe too much empathy (F)”.

Positive Motivations. Participants highlighted camouflaging acted as a coping mechanism for navigating social situations, acting as a form of safety, therefore providing a positive outcome. Additionally, intentions were consistently stated as for either approval from others and/or for avoiding judgement, “you don’t want people to judge you for being abnormal” (M). Positive consequences were reported as developing increased functioning, as well as being an empathiser, including being able to “fit in” (F).

Challenges in Diagnosis. Through this subtheme participants spoke of the journey and process of diagnosis being complicated, often self-leading their diagnosis, “I gave (a psychological practitioner) the latest research” (F). Participants also reported the medical systems for diagnosis were difficult and somewhat flawed “I had to battle with my GP” (M) and “was being missed by doctors” (F). This perhaps reflects a lack of knowledge or training on autism diagnosis in some general practitioners. Additionally, all participants mentioned the timeline of the diagnosis journey; it was reported to be delayed in all females and one male and those with delay reported the later diagnosis had negative implications. This builds on work by Beegeer et al. (2013), which highlighted age and sex differences in the timeline of autism diagnosis, by elucidating the adverse impacts and consequences for females in particular. An illustrative example of the negative impact of the challenges faced as a result of the delay in diagnosis in one female participant was reported: “I wouldn’t have struggled with so many different things had we understood sooner” (F) .

Participants reported questioning the diagnosis as a consequence of the delay also denying the experience of ASD, seeing their experiences as less valid, appearing frustrated at the diagnosis system believing it to be formed on questionable assumptions and societal views. It was striking that gender appeared as a barrier to diagnosis, “as a female, nobody had considered that autism might have been a reason” (F). This could be due to apparent camouflaging behaviour of females that more readily disguised autistic presentation in the form of more ‘neurotypical’ or ‘allistic’ social interaction, than the camouflaging behaviour of males. Indeed, camouflaging was reported to have impacted the access to diagnosis for 3 out of 4 female participants and 1 out of 4 male participants.

Negative Consequences. Participants expressed that camouflaging caused continuous exhaustion and burnout, leading to experiences of frustration at the debilitating effects of the tiredness. Camouflaging causing physical drain led to further implications including stress. Declarations of negative mental health concerns were reported by all participants and presented as trapped in a cycle or exacerbating the unpleasantness “misunderstanding, loneliness, depression, high anxiety, the anxiety of being discovered, the anxiety of being seen in this way and then being ostracized even further” (F).

Camouflaging was also described as overwhelming of the individual themselves. It was explained as a process that was difficult to stop if they tried and the mask was found to be a relatively permanent component of the camouflaging experiences “I think most of my life is a form of camouflaging” (F). Indeed, participants reported that camouflaging was a necessary function require in a constant pre-empting of any situation or social context. In male participants only, there was a distinct aspect of camouflaging as subsequently leading to negative eating behaviours.

Level of Consciousness

The overriding theme here reflects the reported cognitive reasoning behind whether ASD individuals have a choice in their camouflaging.

Deliberate. Participants reported their camouflaging as effortful and cognitively demanding. Camouflaging is described, therefore, as a complex mentally overloading and difficult thing to do, thus implying a deliberate and conscious awareness. Camouflaging was described as a combination of both unconscious and conscious behaviours, but many reported deliberately acting for neurotypical others. Additionally, participants mentioned the conscious awareness of the representation of autism, feeling a need to deliberately match a neurotypical world. Participants also frequently mentioned the idea of normal, and stated they deliberately sought to project this image “just so I had the outer appearance of someone that looked right” (F).

Subconscious Process of Camouflaging. Many participants also acknowledged the unconscious or subconscious element of camouflaging. Scripts and scenario plans were viewed as subconsciously learned from the environment “subconsciously learned from watching people” (F). Participants also described the unconscious nature as ubiquitous, “like skin” (F), and with low awareness “without necessarily realising” (M), “like a habit” (F), or an “automatic response” (M). Of particular note, one participant reported feeling a lack of agency or control over their actions due to camouflaging “like, I'm the puppet master but I've got no idea who's pulling the strings” (F).

Affected Identity

This overarching theme presents the types of influences camouflaging can have as well as the variety of components of identity affected.

Gendered. All participants acknowledged, regardless of gender, the influence of the male-dominated ASD presentation. Individuals understood the bias but suggested a lack of support or action upon it. The present study found that access to information reflecting diverse experiences of ASD, not solely the Male Autistic Phenotype (MAP), was critical for identity development and self-understanding. Male-centred presentation of autism as prevalent in society were reflected in statements such as “boys have autism” (F). This was acknowledged both in their own diagnosis and in the perspectives on the view of the public and psychological professionals “I had a pretty standard

diagnosis, which is probably because I'm a male and that's how autism diagnosis worked historically" (M) and "I've noticed that, like, women and girls get diagnosed really late in life and boys kind of get diagnosed when they're really young" (F). They described the societal understanding of autism as limited with a very narrow view lacking challenge or confrontation of previous ideas to achieve progress.

Many participants reported that camouflaging was linked to their gender, and experiences and diagnosis were identified as different across genders. Social dynamics were found to be juxtaposed between male and female ASD diagnosed individuals, including differing values and complexity: "it's really hard to fit in. I think women will go into really tight groups more than men" (F) and "social relationships with girls is like, is, is all subtext" (M). It was interesting to note that masking was avoided in areas of special interest for solely male participants.

External Influences. Institutions are reported by participants to have a considerable influence upon their identity and are perceived as responsible for many negative experiences, with educational systems to the fore. Additionally, the pressure within education of receiving a diagnosis makes the autism diagnosis appear critical to an individual's identity.

On the one hand, interviewees felt that the media has negatively impacted autistic identities through reporting to pathologise autism and the portrayal lacks representativeness the broad spectrum of autism "we are just at the beginning of showing what autism actually is, and it's still following the stereotypes" (F). Many societal assumptions are reported that have negative effects such as prejudice and discrimination towards autistic people: "It's not like I've got a disease or something" (M) and "discrimination despite the Equality Act" (M). As one interviewee put it, the view of a societal lack of reception of neurodiversity, extrapolates to their perception of their autistic identities not being accepted by society at large: "I don't think society is ready to accept neurodiversity" (F). On the other hand, some participants reported the media as useful tools for communicating and for the process of learning about autism in greater depth.

Tierney et al. (2016) documented that many participants described carefully observing neurotypical peers to learn appropriate reactions, expressions, and social responses. While this strategy provided valuable tools for navigating social environments, it also reinforced the message that natural autistic behaviours needed to be replaced rather than accepted. This appeared in a number of our interviews where participants expressed strong views regarding "curing" autism versus accommodation. Many participants rejected the framing of autism as a disease requiring cure, which they described as harmful to their sense of identity and self-worth. Jones et al. (2015) found similar sentiments, with participants expressing discomfort with the medical model of autism that positioned them as inherently deficient rather than differently-abled. This perspective contributes to some participants' dislike of diagnostic labels altogether.

Manipulated Identity. Participants commented that their identity is much more than being autistic “there’s a lot more to me than having autism” (F)”. Moreover, some interviewees reflected upon how the camouflaging behaviour impacted their own sense of identity and self-understanding by hiding who they really are behind the mask “I don’t really show any kind of true self” (M), and that they considered “undoing it [the camouflaging] to even figure out who I am” (F). Female participants described their changes in behaviour due to camouflaging as feeling fake and dishonest and their relationships were less genuine, appearing as having “fake friends” (F) and missing true connections, due to difficulties with honesty “finding it really hard to be honest when I first meet people” (F). Several female participants described feeling like they were performing rather than genuinely connecting with others, which created retrospective feelings that their relationships lacked authenticity even when they appeared successful to others. This aligns with Hull et al.’s (2017) findings that despite relationships appearing happy, they were retrospectively viewed as fraudulent.

Behavioural change was conveyed by participants in many forms, such as changing dependent on the other individual. Reports of blending and adaptation to the situations were made via “copying” (M) or “shift[ing]” (F) to match others. Additionally, the changes appear to be motivated by avoidance behaviours. Furthermore, participants reported a desire to want to change their behaviours both increasing and decreasing levels of a mask “I wish I masked it more” (M) and, by solely female participants, was viewed as a required asset to function well in social contexts. In addition to behavioural change, adaptations to personality were documented. Participants also appeared to camouflage through hiding parts of themselves and many disclosed that it appears as a form of suppression of the true individual. However, saliently, some participants also indicated awareness of manipulated identity as not something that might purely apply autistic individuals. For example, they mentioned how it is not solely a neurodiverse specific behaviour but a universal human behaviour “it’s hard to find people who don’t assimilate to some extent” (M), whereby the assimilatory behaviour is constantly viewed as adaptive to fit the necessary situation. This finding supports Coultas and van Leeuwen (2015).

However, an overriding sense in a number of interviews was that the pressure to camouflage might perpetuate stigma surrounding autism. This finding adds further support to a view among some researchers in the field that while camouflaging hides autistic characteristics, it limits awareness of neurodiversity, potentially perpetuating stigma and the perceived need to camouflage (e.g., Miller et al., 2021; Radulski, 2022).

Experiences of Support

This final overarching theme highlights the current help received by ASD individuals and suggestions for implementable help.

Personal Support. Participants outlined they experienced some support through receiving diagnosis. However, the deficit in support is also declared as child centred and when support was offered many attempts were corporate. Safe people and friendships acted as a mask for autistic individuals with friendships providing support via understanding and accommodation. Autistic individuals also reported developing their own personal strategies and techniques to aid in their coping with society, such as scripts and notes “I’ve got note pages on my phone of things to say for social situations” (M). Additionally, these personal support strategies are reported to be learnt through the process of observation of others and consequences of their verbal and non-verbal behaviour.

Societal Support. It is reported that neurodiverse individuals found greater safety through each other and not feeling obligated to mask. Support is reported as required by society due to a lack of awareness and acceptance of neurodiversity, with knowledge as a form of support emphasised. Participants also suggested that ways forward for support are education and holistic humane treatment “we need to educate so that we’re better aware and better prepped.” (F) and “everybody to be treated as a person” (M).

Discussion

The present mixed-methods study ascertained valuable autistic experiences of camouflaging behaviours and important differences between genders. Study 1 found that females scored significantly higher than males in overall Camouflaging which supports some previous research in this field (e.g., Cassidy et al., 2018; McQuaid et al., 2021; Milner et al., 2023). Furthermore, this gender difference accounted for 15% of the variance explained in self-reported Camouflaging. In a more fine-grained analysis of the individual subscales of the CAT-Q, females reported significantly higher scores than males on Compensation and Masking subscales, but not the Assimilation subscale. The effect size accounted for by gender was substantially larger for Compensation (14%) than it was for Masking (4%). While the difference was non-significant, the trend in the Assimilation subscale data suggested that females reported slightly higher Assimilation scores but the effect size accounted for by gender was very small (2%). However, t-test findings juxtapose Hull et al.’s (2017) study, finding compensation as insignificant, and masking and assimilation as significant, suggesting a need for further research to explore behavioural nuances in additional diverse samples. Total camouflaging scores found that females scored significantly higher than males, but also indicated that camouflaging may be better considered holistically, not broken into smaller constructs that may not resemble the complexities of ASD experience.

The statistically significant gender difference in Compensation scores gains deeper meaning when examined alongside the qualitative theme of “Camouflaging Motivations and Consequences.” Interview data revealed that females recounted more socially based motivations and reported greater exhaustion from camouflaging efforts, which helps explain why female participants scored higher on

Compensation, a subscale measuring active adjustment strategies for social uncertainty. One female participant's description of having "developed a script to follow in social situations" directly mirrors the compensation items on the CAT-Q, while male participants more frequently reported selective camouflaging, particularly avoiding it during engagement with special interests. This qualitative nuance suggests that the quantitative gender difference in Compensation may reflect not just frequency but also the pervasiveness and cognitive burden of these compensatory strategies. Similarly, the significant but smaller effect size for Masking is illuminated by the "Level of Consciousness" theme from Study 2. Participants described masking as both deliberate ("acting for neurotypical others") and automatic ("like a habit," "without necessarily realising"), suggesting that Masking behaviours may be less consciously monitored and thus potentially underreported on self-report measures like the CAT-Q. This could explain why the gender difference in Masking was statistically significant but with a smaller effect size than Compensation. If masking becomes more automatic and less conscious, participants may have more difficulty accurately quantifying these behaviours on a questionnaire. Indeed, one female participant's metaphor of masking as being "like skin" suggests these behaviours become so ingrained they may be difficult to self-report accurately, potentially attenuating observed gender differences in this subscale.

The non-significant trend in Assimilation scores presents an interesting convergence-divergence pattern between quantitative and qualitative findings. While the CAT-Q data showed only a small, non-significant gender difference in Assimilation, the qualitative analysis revealed that blending behaviours were reported by both male and female participants, with males describing "copying" and females describing "shift[ing]" to match others. This convergence suggests that assimilatory behaviours may indeed be more universal across genders than Compensation or Masking, supporting the quantitative finding of minimal gender differences. However, the qualitative data also revealed gender-specific contexts for assimilation, with one female participant noting "women will go into really tight groups more than men" and male participants reporting they avoided masking in areas of special interest. This suggests that while the frequency of assimilation may be similar across genders (as reflected in the non-significant quantitative difference), the contexts and social dynamics driving these behaviours may differ substantially. This nuance was only captured through the qualitative interviews.

Study 2 thematic analysis data suggested that the complexity of autistic camouflaging experiences are reflected through four key themes that present a unique mosaic of camouflaging for autistic adults. Females recounted more socially based motivations and exhaustion, with males also blending with neurotypical individuals, but camouflaging to a lower frequency in particular contexts, for example, not masking when engaged in or encounter their special interests (Hull et al., 2020; Wood-Downie et al., 2021). Within the analysis the first theme of camouflaging motivation and consequences

contributes to RQ2, underscoring both negative and positive behavioural effects. One impact surrounding the complex diagnosis process included a trend of delay in female participants greater than male, seen similarly by previous research (Gesi et al., 2021).

The qualitative finding that three out of four female participants reported that camouflaging impacted their access to diagnosis, compared to only one out of four male participants, provides a compelling explanatory mechanism for the quantitative gender differences observed in Study 1. The higher total camouflaging scores in females may directly contribute to diagnostic overshadowing, where effective camouflaging masks autistic characteristics from clinicians. One female participant's statement that "as a female, nobody had considered that autism might have been a reason" exemplifies how the very behaviours quantified in the elevated CAT-Q scores can render autistic presentations less recognisable to professionals trained primarily on male-dominated diagnostic criteria. This integration suggests that the variance in camouflaging explained by gender has real-world clinical consequences beyond the numerical scores themselves.

This also suggests that delayed diagnosis is related to the greater camouflaging in female ASD diagnosed individuals, identified in Study 1. Nevertheless, camouflaging behaviours may not be the only reason for delayed diagnosis and could reflect the prior limited knowledge of neurodiversity across gender, only recently making progressions in the psychological field. The plethora of negative consequences of camouflaging identified in the analysis upon mental health runs parallel to prior findings (Alaghband-Rad et al., 2023, Hull et al., 2017), suggesting support is necessary to reduce impacts including opportunities for the ASD community to understand their feelings could be due to camouflaging.

Considerable overlap was consistently observed when reviewing our mixed-methods findings, for example, while Study 1 demonstrated that females scored significantly higher on total camouflaging, Study 2 revealed that all interview participants, regardless of gender, reported negative mental health consequences, with one participant describing "misunderstanding, loneliness, depression, high anxiety, the anxiety of being discovered" as creating a trapped cycle. This suggests that while females may camouflage more frequently and intensively (as reflected in higher CAT-Q scores), the psychological toll of camouflaging may be severe across all genders who engage in these behaviours. The qualitative data thus contextualises the quantitative findings by revealing that it is not merely the presence of camouflaging that matters, but the exhausting, "overwhelming" nature of maintaining these behaviours that contributes to negative outcomes. This highlights that interventions should target not only the frequency of camouflaging (as measured quantitatively) but also the cognitive and emotional burden it imposes (as revealed qualitatively).

The two themes of Camouflaging Motivations and Consequences and Affected Identity provide insight to RQ1, as both experiences of the presence and the lack of camouflaging were presented, with a trend towards an essential need to camouflage, incorporating aspects of clear behavioural change also noted by prior studies (e.g., McQuaid et al., 2021). Additionally, the types of camouflaging as measured in the CAT-Q (Hull et al., 2019) were evident in the subthemes of blending representing assimilation, and hiding encapsulating masking, suggesting support for. Furthermore, the female specific code 'fakeness', acknowledges a common finding of Hull et al.'s (2017) study that despite interpersonal relationships appearing happy, they were retrospectively viewed as fraudulent, suggesting nuances within positive experiences. The emergence of 'fakeness' as a female-specific code in the qualitative analysis provides important context for understanding why females scored higher on the Masking subscale in Study 1. The CAT-Q items measuring Masking include statements about creating impressions and presenting a non-autistic façade. Female participants' qualitative descriptions of having "fake friends" and "finding it really hard to be honest when I first meet people" suggest that this dimension of camouflaging carries identity-related implications for females that may motivate higher engagement in these behaviours. The fact that no male participants used this language of fakeness, despite males also reporting masking behaviours, indicates a potential gender difference not just in the frequency of masking (captured quantitatively) but in the subjective experience and meaning attached to these behaviours (captured qualitatively). This suggests that the observed gender difference in Masking scores may represent a more profound difference in how masking is experienced and integrated into identity formation across genders. Thus, our findings extend the work of Hull et al. (2017) regarding gender differences in social experiences who found that male ASD-diagnosed participants reported greater fulfilment in social situations compared to females when camouflaging. A consequence of camouflaging that did appear If camouflaging hides autistic characteristics, it limits awareness of neurodiversity, potentially perpetuating stigma and the perceived need to camouflage (Miller et al., 2021; Radulski, 2022).

In the theme level of consciousness, abilities to consciously introspect on their neurodiverse experiences is highly valuable to allow neurotypical individuals to better understand what camouflaging is, supported by Cage and Troxell-Whitman (2020). Additionally, a new finding to the psychological field is that some behaviours were not completely conscious with some camouflaging and masking responses reported as being automatic and instinctual. This qualitative finding regarding the automatic nature of some camouflaging behaviours raises important questions about the validity of self-report measures like the CAT-Q used in Study 1. If participants engage in camouflaging "without necessarily realising" or describe it as "like a habit," they may systematically underestimate the frequency or intensity of these behaviours when completing questionnaires. This methodological insight suggests that the gender differences observed in Study 1 may underestimate the true differences, as automatic behaviours are notoriously difficult to self-report accurately. The finding that some CAT-Q items use

the word "deliberately," implying conscious intention, may be particularly problematic for measuring unconscious camouflaging, as noted in the limitations. This steering between methods reveals that while the CAT-Q provides valuable quantitative data, the qualitative interviews capture dimensions of camouflaging that may be invisible to questionnaire assessment, highlighting the essential complementarity of mixed-methods approaches in this research area. Likewise, this is critical to consider when outlining negative implications of the camouflaging behaviours as potentially appearing deterministic. In other words, the apparent inability to stop camouflaging may implicate ASD individuals as feeling unable to escape negative repercussions of behaviours that may unintentionally appear as socially or situationally inappropriate (Björnsson & Shepherd, 2020).

The third theme of affected identity highlighted all participants' acknowledgement, regardless of gender, of the influence of the male dominated ASD presentation. Individuals understood the bias but suggested a lack of support or action upon it, therefore, it is critical for individuals to access information reflecting their experience of ASD, not solely the male autistic phenotype. The qualitative theme of "Gendered Influences" provides crucial context for interpreting the quantitative findings from Study 1 regarding gender differences in camouflaging. Participants' recognition that diagnostic criteria and societal understanding of autism are "male-centred," with comments such as "boys have autism" and acknowledgment of "a pretty standard diagnosis, which is probably because I'm a male," suggests that the higher camouflaging scores observed in females may be partially a response to being evaluated against male-normative standards. In other words, the quantitative gender difference may reflect not an inherent gender difference in autistic presentation, but rather a compensatory response to a diagnostic and social system that fails to recognise diverse autistic phenotypes. This integrated understanding challenges the interpretation that females "camouflage more" and instead suggests that females may need to camouflage more to be recognised as autistic or to navigate a world that defines autism through male experiences. This synthesis demonstrates how the mixed-methods approach reveals systemic issues that would remain invisible in purely quantitative analysis.

Additionally, camouflaging should not only be associated with a female specific presentation of autism, as could further reverse any progress (Bradley et al., 2021), with a critical balance necessary to acknowledge both the female and male autistic phenotypes and in further research analysing experiences of other gender identities. Finally, the theme of experiences of support appeared when talking of personal experiences including existing effective support, ineffective intentional support and necessary support, leading to clear indications of practical implications. Experiences of observing others to learn neurotypical behaviours was found as a clear safety mechanism, supporting prior research and social learning theory behavioural explanations (e.g., Tierney et al., 2016). Despite supporting individuals through an access to norms, it could vicariously reinforce neurodiverse individuals to act

neurotypically, instead of the necessity for society to monitor and accommodate neurodiversity, and further research to explore how.

The qualitative theme of "Experiences of Support" provides critical direction for how to apply the quantitative findings from Study 1 in clinical and educational practice. Participants' descriptions of developing personal strategies such as "note pages on my phone of things to say for social situations" and learning through "watching people" demonstrate that the elevated Compensation scores in females reflect active, effortful coping mechanisms rather than innate social abilities. This integration suggests that interventions should not aim to reduce compensation skills per se (as they serve protective functions), but rather to reduce the necessity for constant deployment of these strategies through environmental modifications and increased societal acceptance of neurodiversity. Furthermore, the finding that autistic individuals reported "not feeling obligated to mask" when with other neurodiverse individuals suggests a potential intervention target. Creating more neurodiverse-affirming spaces may reduce the psychological burden captured in the quantitative measures, even if individuals maintain the capability to camouflage when needed. This synthesis of quantitative evidence of elevated camouflaging in females with qualitative insights about when and why camouflaging occurs provides actionable guidance that neither dataset alone could offer.

Limitations and Future Research

To continue researching and aiding further support for the autistic community the limitations of the research should be acknowledged. Firstly, recognising ASD as a spectrum disorder, and research responses only reflect a subsector of this spectrum (those who can contentedly attend interviews and are comfortable using predominantly verbal communication), therefore, further research should develop adapted ways to assess camouflaging across the broader autistic spectrum. Importantly, however, the present study positively included a large age range to account for a broader array of experiences, for example, both late and early diagnosed autistic adults, that prior studies have excluded or only included (Cook et al., 2021). Additionally, due to the limited sample size of nonbinary and transgender participants, differences of camouflaging behaviours compared to male and female participants were not calculated, and therefore exploring the intersectionality of multiple marginalised identities was not investigated. This limits support to all individuals' experiences, especially when LGBTQ+ ASD individuals may have more complex experiences due to familiarities of hiding their identity, for example, due to closeting (Hillier et al., 2020). Therefore, further research is essential to explore differences across many gender identities. Study 2 interviews enquired about the participants' diagnosis history, but any reported experiences of diagnosis are naturally retrospective, therefore, any link of diagnosis and camouflaging is necessary for future research to investigate longitudinally and to incorporate clinical contexts in the empirical design. The CAT-Q scale includes statements using the word 'deliberately' that suggests a conscious intention behind camouflaging. However, as some

camouflaging is documented to be unconscious, aligning with observations within the Study 2 thematic analysis 'Level of Consciousness' theme and the work of Cage and Troxell-Whitman (2020), some participants' responses to the CAT-Q questionnaire may have lacked accuracy as the statement's phrasing, regardless of the format of the Likert scale, may not mirror their experiences. This discordance between the CAT-Q's wording and the qualitative findings regarding unconscious camouflaging represents a key strength of the mixed-methods approach. The qualitative component revealed limitations in the quantitative measure that would not have been apparent from psychometric validation alone. Future research should consider developing measurement approaches that can capture both deliberate and automatic camouflaging, potentially through behavioural observation or implicit measures to complement self-report questionnaires. Additionally, the integration of methods revealed that while the CAT-Q subscales (Compensation, Masking, Assimilation) have statistical utility, participants described camouflaging as a more holistic, interconnected process ("most of my life is a form of camouflaging") that may not be adequately captured by separating these constructs. This suggests future mixed-methods research should explore whether alternative measurement models, informed by qualitative descriptions of lived experience, might better represent the camouflaging phenomenon.

It is also possible that future researchers may consider implementing adaptations to empirical designs in this area given the interesting methodological challenge wherein the very phenomenon being studied (camouflaging) may influence the data collection process itself. Furthermore, during the interviews, despite giving clear examples of the types of camouflaging and the concept of delayed diagnosis, participants found these concepts difficult to operationalise, often asking for clarification and requiring further explanation. Consequently, future researchers should be aware that not all individuals may not be responding from similar camouflaging definitions or experiences, and caution is necessary when extrapolating any research findings.

Implications

Regardless of any methodological and theoretical implications the findings highlight distinctive opportunities to support the autistic community, firstly through the concept of the interview allowing marginalised communities to share their experiences and voice which have often been denied. The quantitative evidence that females score significantly higher in Compensation combined with qualitative accounts of exhaustion and mental health impacts indicates that screening protocols and clinical assessments should specifically enquire about compensatory strategies in females presenting for autism evaluation. Clinicians should not interpret apparently adequate social functioning as evidence against autism diagnosis but rather should investigate whether such functioning is achieved through cognitively exhausting camouflaging behaviours, as both the elevated CAT-Q scores and participants' descriptions of being "overwhelming" and causing "continuous exhaustion" demonstrate. This

integrated finding challenges the notion that successful social performance contradicts autism diagnosis, instead suggesting it may be a marker of unrecognised autistic presentation, particularly in females.

Furthermore, it could be instructive for an array of institutions, including education and social services, to be aware of the increased pervasiveness of camouflaging behaviours, insofar as they can begin to take this into consideration when making referrals of ASD. Understanding that the Female Autistic Phenotype (FAP) differs from the Male Autistic Phenotype (MAP) despite some similarities could help identify autistic individuals who might otherwise be missed due to effective camouflaging. This is particularly important considering that ASD females were found to experience a greater prevalence of camouflaging behaviours seen to cause many negative implications, such as upon delayed diagnosis and mental health concerns. Therefore, support could be tailored to reflect these differential experiences, and, as a consequence, potentially allow more ASD individuals to thrive through this greater understanding. Critically, the effects upon mental health suggest it could be beneficial for medical and psychological practitioners to be made more aware of the significant impacts of camouflaging on wellbeing and challenges with diagnosis. Through greater awareness, practitioners may be better able to support those going through the diagnosis journey or those who might gain from forms of therapeutic assistance. Additionally, this understanding is essential for neurotypical individuals to reflect and be aware of, and this consideration potentially aiding in reducing feelings of camouflaging necessity by the neurodiverse population. As Murray (2010) argues, creating environments where diverse communication styles and sensory needs are accepted could significantly reduce the pressure on autistic individuals to present as neurotypical. Educational programs aimed at increasing understanding of neurodiversity among the general population could help create more inclusive spaces where camouflaging becomes less necessary for social survival.

Conclusion

The present research intended to explore whether there were gender differences in the prevalence of camouflaging behaviours in ASD diagnosed individuals. Study 1 identified that females scored significantly higher than males on total camouflaging scores. When the sub-scores were examined, females scored higher on all sub-scales; however, only compensation and masking reached statistical significance. Therefore, future research could explore whether total camouflaging scores more holistically representing the individual may be better suited to this population. Camouflaging experiences were qualitatively explored through Study 2 interviews considering potential impacts and provided a key voice to the ASD community. Critically, integrating quantitative and qualitative findings revealed that elevated Compensation scores reflect burdensome coping strategies, automatic camouflaging is underreported on self-report measures, and male-centred diagnostic frameworks may drive observed gender differences rather than reflecting inherent presentation differences. Due to camouflaging's partial unconscious nature, it may be more appropriate to support for any negative

impacts rather than try to change behaviours which could be highly valuable for education systems, social care sectors, and psychological practitioners to understand. Future research could aim to develop further awareness and education of both neurodiverse and neurotypical populations regarding camouflaging, with the potential to substantially reduce any possible stigma projected or experienced. Importantly, our present findings indicate the importance of considering tailored methods of care to each gender, thus better supporting each unique individual ASD experience.

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References

- Alaghband-rad, J., Hajikarim-Hamedani, A., & Motamed, M. (2023). Camouflage and masking behaviour in adult autism. *Frontiers in Psychiatry*, 14(14).
<https://doi.org/10.3389/fpsyt.2023.1108110>
- American Psychiatric Association. (2013). Autism Spectrum Disorder. In *Diagnostic and statistical manual of mental disorders* (5thed.)
- Bargiela, S., Steward, R., & Mandy, W. (2016). The experiences of late-diagnosed women with autism spectrum conditions: An investigation of the female autism phenotype. *Journal of Autism and Developmental disorders*, 46(10), 3281–3294. <https://doi.org/10.1007/s10803-016-2872-8>
- Baron-Cohen, S., Leslie, A. M., & Frith, U. (1985). Does the autistic child have a “theory of mind”? *Cognition*, 21(1), 37–46. [https://doi.org/10.1016/0010-0277\(85\)90022-8](https://doi.org/10.1016/0010-0277(85)90022-8)
- Begeer, S., Mandell, D., Wijnker-Holmes, B., Venderbosch, S., Rem, D., Stekelenburg, F., & Koot, H. M. (2013). Sex differences in the timing of identification among children and adults with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 43(5), 1151–1156. <https://doi.org/10.1007/s10803-012-1656-z>
- Belek, B. (2020). Autism as heredity, autism as heritage. *Medicine Anthropology Theory*, 7(1).
<https://doi.org/10.17157/mat.7.1.758>
- Belek, B. (2023). ‘A Smaller Mask’: Freedom and authenticity in autistic space. *Culture, Medicine, and Psychiatry* 47, 626–646 <https://doi.org/10.1007/s11013-022-09794-1>
- Bernardin, C. J., Lewis, T., Bell, D., & Kanne, S. (2021). Associations between social camouflaging and internalizing symptoms in autistic and non-autistic adolescents. *Autism: the International Journal of Research and Practice*, 25(6), 1580–1591.
<https://doi.org/10.1177/1362361321997284>
- Bernardin, C. J., Mason, E., Lewis, T., & Kanne, S. (2021). “You must become a chameleon to survive”: Adolescent experiences of camouflaging. *Journal of Autism and Developmental Disorders*, 51(12), 4422–4435. <https://doi.org/10.1007/s10803-021-04912-1>
- Björnsson, G., & Shepherd, J. (2020). Determinism and attributions of consciousness. *Philosophical Psychology*, 33(4), 549–568. <https://doi.org/10.1080/09515089.2020.1743256>

- Bleuler, E. (1911, 1950). *Dementia praecox or the group of schizophrenias*. (M. J. Zinkin, Trans.) International Universities Press, Inc.
- Bradley, L., Shaw, R., Baron-Cohen, S., & Cassidy, S. (2021). Autistic Adults' Experiences of Camouflaging and Its Perceived Impact on Mental Health. *Autism in adulthood: challenges and management*, 3(4), 320–329. <https://doi.org/10.1089/aut.2020.0071>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. Sage.
- Braun, V., Clarke, V., Hayfield, N., Davey, L., & Jenkinson, E. (2023). Doing reflexive thematic analysis. In *Supporting research in counselling and psychotherapy: Qualitative, quantitative, and mixed methods research* (pp. 19-38). Springer International Publishing.
- Cage, E., & Troxell-Whitman, Z. (2019). Understanding the reasons, contexts and costs of camouflaging for autistic adults. *Journal of Autism and Developmental Disorders*, 49(5), 1899–1911. <https://doi.org/10.1007/s10803-018-03878-x>
- Cage, E., & Troxell-Whitman, Z. (2020). Understanding the relationships between autistic identity, disclosure, and camouflaging. *Autism in Adulthood*, 2(4). <https://doi.org/10.1089/aut.2020.0016>
- Cassidy, S., Bradley, L., Shaw, R., & Baron-Cohen, S. (2018). Risk markers for suicidality in autistic adults. *Molecular autism*, 9(42). <https://doi.org/10.1186/s13229-018-0226-4>
- Chapman, L., Rose, K., Hull, L., & Mandy, W. (2022). “I want to fit in... but I don’t want to change myself fundamentally”: A qualitative exploration of the relationship between masking and mental health for autistic teenagers. *Research in Autism Spectrum Disorders*, 99. <https://doi.org/10.1016/j.rasd.2022.102069>
- Cook, A., Ogden, J., & Winstone, N. (2018). Friendship motivations, challenges and the role of masking for girls with autism in contrasting school settings. *European Journal of Special Needs Education*, 33(3), 302–315. <https://doi.org/10.1080/08856257.2017.1312797>
- Cook, J., Crane, L., Hull, L., Bourne, L., & Mandy, W. (2022). Self-reported camouflaging behaviours used by autistic adults during everyday social interactions. *Autism: the*

International Journal of Research and Practice, 26(2), 406–421.

<https://doi.org/10.1177/13623613211026754>

Cook, J., Hull, L., Crane, L., & Mandy, W. (2021). Camouflaging in autism: A systematic review.

Clinical psychology review, 89(102080). <https://doi.org/10.1016/j.cpr.2021.102080>

Coultas, J. C., & van Leeuwen, E. J. (2015). Conformity: Definitions, types, and evolutionary grounding. *Evolutionary perspectives on social psychology*, pp. 189-202. Springer.

https://doi.org/10.1007/978-3-319-12697-5_15

Cremonese, I. M., Carpita, B., Nardi, B., Casagrande, D., Stagnari, R., Amatori, G., & Dell’Osso, L.

(2023). Measuring social camouflaging in individuals with high functioning autism: A literature review. *Brain Sciences*, 13(3), 469. <https://doi.org/10.3390/brainsci13030469>

de Giambattista, C., Ventura, P., Trerotoli, P., Margari, F., & Margari, L. (2021). Sex differences in autism spectrum disorder: Focus on high functioning children and adolescents. *Frontiers in Psychiatry*, 12, 539835. <https://doi.org/10.3389/fpsyt.2021.539835>

Dean, M., Harwood, R., & Kasari, C. (2017). The art of camouflage: Gender differences in the social behaviors of girls and boys with autism spectrum disorder. *Autism*, 21(6), 678-689.

<https://doi.org/10.1177/1362361316671845>

Dworzynski K., Ronald A., Bolton P., & Happé F. (2012). How different are girls and boys above and below the diagnostic threshold for autism spectrum disorders? *Journal of the American Academy of Child and Adolescent Psychiatry*, 51(8), 788–

797. <https://doi.org/10.1016/j.jaac.2012.05.018>

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149-1160

<https://doi.org/10.3758/BRM.41.4.1149>

Field, A. (2017). *Discovering Statistics Using IBM SPSS Statistics* (North American Ed.). Sage Publications.

Gesi, C., Migliarese, G., Torriero, S., Capellazzi, M., Omboni, A. C., Cerveri, G., & Mencacci, C. (2021). Gender differences in misdiagnosis and delayed diagnosis among adults with Autism Spectrum Disorder with no language or intellectual disability. *Brain Sciences*, 11(7), 912.

<https://doi.org/10.3390/brainsci11070912>

- Hiller, R. M., Young, R. L., & Weber, N. (2016). Sex differences in pre-diagnosis concerns for children later diagnosed with autism spectrum disorder. *Autism: the International Journal of Research and Practice*, 20(1), 75–84. <https://doi.org/10.1177/1362361314568899>
- Hillier, A., Gallop, N., Mendes, E., Tellez, D., Buckingham, A., Nizami, A., & OToole, D. (2020). LGBTQ + and autism spectrum disorder: Experiences and challenges. *International Journal of Transgender Health*, 21(1), 98–110. <https://doi.org/10.1080/15532739.2019.1594484>
- Hull, L., & Mandy, W. (2019). *Camouflaging In Autism Young Reviewers*. Frontiers for Young Minds, <https://doi.org/10.3389/frym.2019.00129>
- Hull, L., Mandy, W., Lai, M. C., Baron-Cohen, S., Allison, C., Smith, P., & Petrides, K. V. (2019). Development and Validation of the Camouflaging Autistic Traits Questionnaire (CAT-Q). *Journal of Autism and Developmental Disorders*, 49(3), 819–833. <https://doi.org/10.1007/s10803-018-3792-6>
- Hull, L., Petrides, K. V., Allison, C., Smith, P., Baron-Cohen, S., Lai, M. C., & Mandy, W. (2017). "Putting on my best normal": Social camouflaging in adults with Autism Spectrum Conditions. *Journal of Autism and Developmental Disorders*, 47(8), 2519–2534. <https://doi.org/10.1007/s10803-017-3166-5>
- Hull, L., Petrides, K. V., & Mandy, W. (2020). The female autism phenotype and camouflaging: a narrative review. *Review Journal of Autism and Developmental Disorders*, 7(4), 306–317. <https://doi.org/10.1007/s40489-020-00197-9>
- Jones, J. L., Gallus, K. L., Viering, K. L., & Oseland, L. M. (2015). “Are you by chance on the spectrum?” Adolescents with autism spectrum disorder making sense of their diagnoses. *Disability & Society*, 30(10), 1490–1504. <https://doi.org/10.1080/09687599.2015.1108902>
- Lai, M.-C., Lombardo, M. V., Ruigrok, A. N., Chakrabarti, B., Auyeung, B., Szatmari, P., Happé, F., & Baron-Cohen, S. (2017). Quantifying and exploring camouflaging in men and women with autism. *Autism*, 21(6), 690-702. <https://doi.org/10.1177/1362361316671012>
- Lai, M., Hull, L., Mandy, W., Chakrabarti, B., Nordahl, C. W., Lombardo, M. V., Ameis, S. H., Szatmari, P., Baron-Cohen, S., Happé, F., & Livingston, L. A. (2020). Commentary: “Camouflaging” in autistic people – reflection on Fombonne (2020). *Journal of Child Psychology and Psychiatry*, 62(8). <https://doi.org/10.1111/jcpp.13344>

- Lever, A. G., & Geurts, H. M. (2016). Psychiatric co-occurring symptoms and disorders in young, middle-aged, and older adults with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*, 46(6), 1916–1930. <https://doi.org/10.1007/s10803-016-2722-8>
- Livingston, L. A., Shah, P., & Happé, F. (2019). Compensatory strategies below the behavioural surface in autism: a qualitative study. *The Lancet Psychiatry*, 6(9), 766–777. [https://doi.org/10.1016/S2215-0366\(19\)30224-X](https://doi.org/10.1016/S2215-0366(19)30224-X)
- Livingston, L.A., Shah, P & Milner, V. (2020). Quantifying compensatory strategies in adults with and without diagnosed autism. *Molecular Autism* 11(15) <https://doi.org/10.1186/s13229-019-0308-y>
- Loomes, R., Hull, L., & Mandy, W. P. L. (2017). What is the male-to-female ratio in Autism Spectrum Disorder? A systematic review and meta-analysis. *Journal of the American Academy of Child and Adolescent Psychiatry*, 56(6), 466–474. <https://doi.org/10.1016/j.jaac.2017.03.013>
- McQuaid, R. J., Cox, S. M. L., Ogunlana, A., & Jaworska, N. (2021). The burden of loneliness: Implications of the social determinants of health during COVID-19. *Psychiatry Research*, 296(113648). <https://doi.org/10.1016/j.psychres.2020.113648>
- Miller, D., Rees, J., & Pearson, A. (2021). "Masking is life": Experiences of masking in autistic and non-autistic Adults. *Autism in Adulthood: Challenges and Management*, 3(4), 330–338. <https://doi.org/10.1089/aut.2020.0083>
- Milner, V., Colvert, E., Mandy, W., & Happé, F. (2023). A comparison of self-report and discrepancy measures of camouflaging: Exploring sex differences in diagnosed autistic versus high autistic trait young adults. *Autism Research: Official Journal of the International Society for Autism Research*, 16(3), 580–590. <https://doi.org/10.1002/aur.2873>
- Milner, V., Mandy, W., Happé, F., & Colvert, E. (2023). Sex differences in predictors and outcomes of camouflaging: Comparing diagnosed autistic, high autistic trait and low autistic trait young adults. *Autism: the International Journal of Research and Practice*, 27(2), 402–414. <https://doi.org/10.1177/13623613221098240>
- Murray, S. (2010). Hollywood and the Fascination of Autism. In *Autism and representation* (pp. 252–263). Routledge.

- Petrolini, V., Jorba, M., & Vicente, A. (2023). What does it take to be rigid? Reflections on the notion of rigidity in autism. *Frontiers in Psychiatry*, 14,(1072362).
<https://doi.org/10.3389/fpsyt.2023.1072362>
- Radulski, E. M. (2022). Conceptualising autistic masking, camouflaging, and neurotypical privilege: Towards a minority group model of neurodiversity. *Human Development*, 66, 113-127. DOI: 10.1159/000524122
- Scheerer, N. E., Aime, H., Boucher, T., & Iarocci, G. (2020). The association between self-reported camouflaging of autistic traits and social competence in nonautistic young adults. *Autism in Adulthood*, 2(4). <https://doi.org/10.1089/aut.2019.0062>
- Sedgewick, F., Hull, L., & Ellis, H. (2021). *Autism and masking: How and why people do it, and the impact it can have*. Jessica Kingsley Publishers.
- Shtayermman, O. (2009). An exploratory study of the stigma associated with a diagnosis of Asperger's syndrome: the mental health impact on the adolescents and young adults diagnosed with a disability with a social nature. *Journal of Human Behaviour in the Social Environment* 19(3): 298–313. <https://doi.org/10.1080/10911350902790720>
- Spain, D., Zıvrallı Yarar, E., & Happé, F. (2020). Social anxiety in adults with autism: a qualitative study. *International Journal of Qualitative Studies on Health and Well-Being*, 15(1), 1803669. <https://doi.org/10.1080/17482631.2020.1803669>
- Sun, X., Allison, C., Auyeung, B., Baron-Cohen, S., & Brayne, C. (2014). Parental concerns, socioeconomic status, and the risk of autism spectrum conditions in a population-based study. *Research in Developmental Disabilities*, 35(12), 3678–3688.
<https://doi.org/10.1016/j.ridd.2014.07.037>
- Tierney, S., Burns, J., & Kilbey, E. (2016). Looking behind the mask: Social coping strategies of girls on the autistic spectrum. *Research in Autism Spectrum Disorders*, 23, 73–83.
<https://doi.org/10.1016/j.rasd.2015.11.013>
- Trundle, G., Jones, K. A., Ropar, D., & Egan, V. (2023). Prevalence of victimisation in autistic individuals: A systematic review and meta-analysis. *Trauma, Violence, & Abuse*, 24(4), 2282-2296. <https://doi.org/10.1177/15248380221093689>
- Tubío-Fungueiriño, M., Cruz, S., Sampaio, A., Carracedo, A., & Fernández-Prieto, M. (2021). Social camouflaging in females with Autism Spectrum Disorder: A systematic review. *Journal of*

Autism and Developmental Disorders, 51(7), 2190–2199. <https://doi.org/10.1007/s10803-020-04695-x>

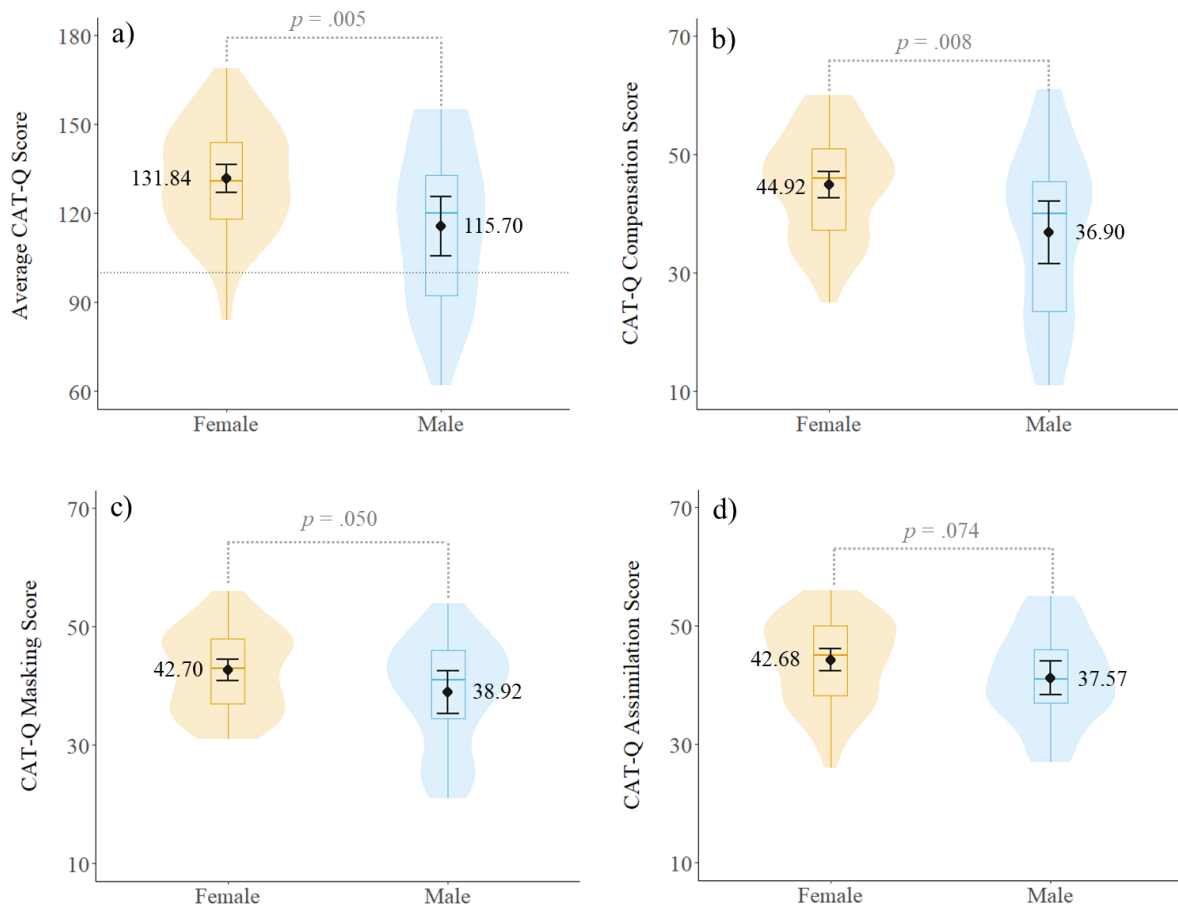
Werling, D. M., & Geschwind, D. H. (2013). Sex differences in autism spectrum disorders. *Current Opinion in Neurology*, 26(2), 146–153. <https://doi.org/10.1097/WCO.0b013e32835ee548>

Wood-Downie, H., Wong, B., Kovshoff, H., Mandy, W., Hull, L., & Hadwin, J. A. (2021). Sex/gender differences in camouflaging in children and adolescents with autism. *Journal of Autism and Developmental Disorders*, 51(4), 1353-1364. <https://doi.org/10.1007/s10803-020-04615-z>

Wood, C., & Freeth, M. (2016) Students' stereotypes of autism. *Journal of Educational Issues*, 2(2), 131-140. <https://doi.org/10.5296/jei.v2i2.9975>

Figure 1

Average CAT-Q scores: a) Camouflaging Total Score, b) Compensation Subscale, c) Masking Subscale and d) Assimilation Subscale split by group (error bars = 95% CI). Violin plots with overlaid boxplots indicate the median, interquartile range and data distribution.



Note. The dotted line at 100 indicates threshold for the camouflaging of autistic traits

Table 1

The Codes of Each Theme and Subtheme

Theme	Subtheme	Codes
Camouflaging Motivations and Consequences	Influence upon Diagnosis	Self-led
		Delayed
		Questioning
	Negative Consequences	Exhaustion
		Overwhelming
		Consequences have further effects
		Stress around food (M)
People Pleasing	Mental health	
	Positive Motivations	Coping mechanisms Positive consequences
Level of Consciousness	Deliberate Behaviours	Acting for neurotypical others Cognitively demanding
	Unconscious Disguising	Lack of consciouss awareness Habit
Affected Identity	Gendered Influences	Male centred Gender difference
	External Pressures	Education
		Media
		Societal assumptions
	Manipulated Identity	Blending (Assimilation)
		Hiding (Masking)
		Behavioural change
		Personality
	Fakeness (F)	
Experiences of Support	Personal Support	Support due to diagnosis
		Safe people
		Strategies and techniques developed
	Societal Support	Neurodiverse individuals together
		Awareness and acceptance

