**Disclosing the Obvious: Psychosocial Implications of (Not) Explaining Facial Differences**

**Abstract**

Although the disclosure of invisible stigmatized identities has been frequently researched, little work has examined disclosure of facial differences (FD), in which stigma is often highly visible. People with FD are frequently expected by others to disclose or explain their condition. Qualitative work indicates that people with FD have a range of disclosure approaches from *agentic disclosure* (feeling obliged to disclose), *autonomous nondisclosure* (choosing not to disclose or to disclose only to certain people), and *autonomous disclosure* (choosing to openly disclose). The purpose of the present study was to validate these disclosure approaches in a large international sample, examine their frequency of use, and test their relationship to psychosocial outcomes using validated measures. English-speaking participants (*n* = 288) with 33 different types of FD completed an online survey of disclosure approaches, and psychosocial outcomes (i.e. anxiety, depression, self-esteem, stigma, job satisfaction, and relationship self-concept). Participants disclosed to 59% of the people they knew. Selective and indiscriminate disclosure were the most frequently used and recommended approaches. As predicted, autonomous disclosure was associated with more positive psychosocial outcomes than agentic (non)disclosure and autonomous nondisclosure. Findings from this study can support disclosure autonomy, and thus positive psychosocial outcomes, among people with FD.

*Keywords:* facial difference, facial disfigurement, disclosure, stigma, visible difference

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**1. Introduction**

Although disclosure of concealable stigmatized identities (e.g. mental health conditions) has been frequently researched, little work has examined disclosure of facial differences or disfigurement (FD), an often unconcealable stigmatized identity. Those with concealable stigma may attempt to “pass” as not having a stigmatized identity (Goffman, 1963). Those with more apparent stigma — as is the case with many FDs, like burns or facial paralysis — often do not have that option. Instead, people with FD are subject to unwanted attention, stares, or questions about the medical nature or responsibility for the FD (Bogart et al., 2012). Perceivers can become distracted or confused by a FD. For example, some FDs, like those involving facial paralysis or structural differences, may alter facial expressions; people who are not accustomed to or educated about these expressions may misunderstand them. People with FD, too, experience preoccupation and uncertainty due to others’ reactions to them, often wondering if they should disclose or explain their FD to remove the “elephant in the room” (Bogart et al., 2022). Recent qualitative research shows that people with FD have a range of disclosure approaches from feeling forced to disclose, choosing not to disclose, and disclosing openly (Bogart et al., 2022). The purpose of the present study is to validate these disclosure approaches in a large international sample, examine their frequency of use, and test how these approaches relate to meaningful psychosocial outcomes using validated quantitative measures.

*1.1. Facial d* *ifference*

FD can be defined as a face that considerably deviates from what a person who perceives it would expect, due to a disorder, condition, mark, or injury (Rasset et al., 2022). FD can be congenital (such as cleft lip/palate, port wine stain, and craniofacial syndromes), or acquired (caused by facial trauma, burns, cancer, or viral or autoimmune disorders like Parry-Romberg syndrome). Some FDs are common and may be more understood by the public, like clefts or burns, while others are rare and lack public awareness, such as Apert syndrome. Some FDs, like birthmarks and mild to moderate burns, might be *concealed* with makeup or accessories (e.g., hair, wigs, makeup, masks, etc.). Other FDs are *unconcealable*, such as Treacher-Collins syndrome or significant burns.

*1.2. Stigma in FD*

The primary challenges that people with FD experience—and the expectation to disclose—are rooted in the social environment (i.e. stigma; Rasset et al., 2022). Rasset and colleagues (2022) proposed a comprehensive framework of four types of FD stigma based on Pryor & Reeder's (2011) HIV stigma model. 1) *Public stigma* occurs at an interpersonal level and describes others’ cognitive, affective, and behavioral responses to people with FD. People with FD or other visible differences experience public stigma when they are avoided, bullied, and/or targets of others' stares, questions, comments, and lay attempts to diagnose their difference (Calder-Dawe et al., 2020; Yaron et al., 2018). People with FD may feel obligated to disclose to preempt or answer questions, or to educate and reduce stigma (Bogart et al., 2022). 2) *Self-stigma* is at the intrapersonal level and occurs when people with FD anticipate and internalize society’s negative beliefs about FD, leading to low self-esteem, anxiety, and depression (Rasset et al., 2022). Feelings of shame may lead people with FD to avoid interacting with the public or to try to conceal their FD to obviate disclosure (Bogart et al., 2022). 3) *Stigma-by-association*, also called courtesy stigma by Goffman (1963), describes the impact of stigma on the family, friends, and others associated with the person with FD. Family members, especially parents, may also be stigmatized because of judgments of heritability or responsibility for a FD (i.e. failure to protect the child from accident or disease; Rasset et al., 2022). Family and friends may also be questioned about the FD, leading them to decide whether to disclose or not disclose “for” the person with FD, or encourage the person with the FD to (not) disclose (Bogart et al., 2022). 4) *Structural stigma* is the construction, perpetuation, and legitimization of FD stigma at the institutional, policy, or societal level. Structural stigma means that disclosure may be needed when applying for jobs and requesting accommodations. The four types of stigma are interrelated, with public stigma at the core (Rasset et al., 2022).

*1.3. Disclosing*  *stigma*

Many studies have focused on disclosing invisible, non-apparent, or concealable stigma, including physical or mental health conditions (Corrigan et al., 2013; Grice et al., 2018; Sheridan et al., 2016). Corrigan and colleagues describe a hierarchy of disclosure strategies for concealable stigmas (i.e. mental illness). First, *avoidance* involves telling no one and avoiding situations in which the stigma might be revealed. Second, those who engage in *secrecy* go out into the world, but keep their stigma secret. Third, *selective* disclosure involves disclosing to certain people who seem like they would understand but keeping the stigma a secret from others. Fourth, someone who uses *indiscriminate* disclosure does not keep the stigma a secret and is willing to tell anyone. Finally, *broadcasting* entails “coming out proud” and actively educating others about their stigma.

Until recently, the few studies on disclosure of visible differences have focused on a job interview context (Hebl & Kleck, 2002; Hebl & Skorinko, 2005; Lyons et al., 2018; Madera & Hebl, 2012), or exclusively upon concealable visible differences (Sharratt et al., 2020). To our knowledge, only two studies have focused on the lived disclosure experiences of people with visible difference, rather than their perceivers (Bogart et al., 2022; Sharratt et al., 2020). (Sharratt et al., 2020) interviewed adults with concealable visible differences. Themes included *Agentic state disclosures* — named after Milgram’s (1974) term describing individuals acting as agents of another — referred to situations in which participants felt compelled by the demands of others or their context to disclose. In contrast, *autonomous disclosures* — named after Milgram’s term for greater self-determination — occurred when participants felt more control over their disclosure experiences.

In the first study focused on disclosure experiences of people with FD, Bogart et al., (2022) interviewed adults with a variety of FDs. Echoing the findings of Sharratt and colleagues (2020), thematic analysis identified a division between feeling compelled to disclose or not disclose (termed *agentic (non)disclosure)* or feeling there was a choice in disclosing or not disclosing (termed *autonomous (non)disclosure)*.

Within agentic (non)disclosure, there were three subthemes (Bogart et al., 2022). *Forced disclosure* meant feeling forced by others or by the situation to disclose or answer questions about the FD. *Forced nondisclosure* occurred when others urged the person with the FD not to disclose or to conceal their FD . *Unauthorized disclosure* happened when other people disclosed the interviewee’s FD against their wishes.

There were six subthemes within autonomous (non)disclosure (Bogart et al., 2022), several of which echoed Corrigan’s (2013) hierarchy. *Avoidance* meant staying away from social situations where the FD could be noticed . *Concealment* involved efforts to hide or minimize the noticeability of the FD. *False nondisclosure* involved giving a fabricated explanation for the cause of the FD in response to inappropriate questioning. *Selective disclosure* meant choosing to disclose to certain people but not to others. *Indiscriminate disclosure* meant being open to telling anyone about a FD, answering questions, and others disclosing the FD. *Broadcasting*was a choice to be “out” about the FD and seek to educate others about FDs. Rather than choosing one set approach, participants disclosed in different ways across the lifespan and situations (Bogart et al., 2022). Therefore, individual participants could endorse seemingly opposite strategies (e.g. both selective and indiscriminate) when referring to different developmental periods.

Agentic (non)disclosure and autonomous (non)disclosure were frequently connected with stigma and misunderstanding (Bogart et al., 2022). There were a number of costs and benefits of these approaches. The nondisclosure strategies of social avoidance, concealment, and false disclosure were attempts to prevent stigmatization; yet, as emphasized by Corrigan et al. (2013), they perpetuated self-stigma and hindered social support. Any form of disclosure carries the risk of negative consequences, such as making the individual a target for public stigma like bullying, discrimination, invalidation, or unauthorized disclosure.

On the other hand, the open disclosure approaches indiscriminate and broadcasting were associated with connection and decreased misunderstanding (Bogart et al., 2022). Many participants who used these approaches saw disclosing as an investment that could result in greater interpersonal closeness, trust, and intimacy (as described by Rusbult, 1980). Building on the advantages of indiscriminate disclosure, broadcasting was empowering and driven by a desire to spread awareness and lessen stigma for the FD community as a whole (Corrigan et al., 2013).

*1.4.*  *The c* *urrent s* *tudy*

The scant literature suggests that people with FD employ a range of disclosure approaches, from agentic (non)disclosure, autonomous nondisclosure, and autonomous disclosure. Qualitative work suggests that agentic (non)disclosure was experienced as harmful and it, along with autonomous nondisclosure, were connected with self and public stigma (Bogart et al., 2022) which has been associated with anxiety, depression, low self-esteem, and dissatisfaction with work and relationships (Rasset et al., 2022). Conversely, autonomous disclosure was connected to low self and public stigma and sometimes empowerment (Bogart et al., 2022).

Disclosure approaches and outcomes may also vary according to characteristics of the FD. More noticeable, unconcealable, or rare FDs likely attract more public attention and questioning. Due to their increased visibility, people with highly visible FDs may feel less ambiguity about whether others will notice their conditions and may take control of disclosure more readily. Additionally, those with rare FDs may attract more attention, confusion, and questioning than common FDs like cleft lip and palate, which is more recognized and understood by the public (Bogart et al., 2012). Thus, people with rare FDs may be more motivated to reduce misunderstanding by disclosing. Although differences in noticeability, rarity, and concealability have not yet been examined *within* FD samples, we suspect that this logic is likely to extend such that individuals with these characteristics are more likely to disclosure autonomously.

The purpose of this study is to extend and validate the findings of Bogart et al., (2022) to describe disclosure approaches in a large sample of people with diverse FDs, and to test their association with meaningful life outcomes including job satisfaction, relationship satisfaction, anxiety, depression, self-esteem and stigma. We had the following hypotheses:

H1: People who engaged in autonomous disclosure to their employer will have higher job satisfaction than those who experienced autonomous nondisclosure or agentic (non)disclosure

H2: People who engaged in autonomous disclosure to their romantic partner will have higher relationship satisfaction than those who experienced autonomous nondisclosure or agentic (non)disclosure.

H3: Having FDs that are more noticeable, rare, or unconcealable will be associated with more autonomous disclosure and less agentic (non)disclosure.

H4: People with autonomous disclosure approaches will have more positive outcomes (main outcome variables anxiety, depression, public stigma, self-esteem) than those with agentic (non)disclosure or autonomous nondisclosure.

H4.1: These relationships will be moderated by rarity, noticeability, and concealability.

**2. Method**

*2.1. Participants*

Participants were recruited through international FD organizations including About Face, American Cleft Palate-Craniofacial Association, Changing Faces, Cleft Lip and Palate Association, Face Equality International, Facial Palsy UK, Moebius Syndrome Foundation, MyFace, Smile Train, our respective labs’ participant pools, and snowball sampling via social media, e-mail, and newsletters. Inclusion criteria were having a FD, being 18 years or older, and ability to communicate in English. Participants were entered into a raffle to receive one of 10 $15/£10 gift cards.

*2.2.*  *Procedure and m* *easures*

The study was approved by the first and third authors’ university ethics boards and participants gave informed consent. Participants completed an approximately 20 minute online survey on the secure survey administration platform Qualtrics.

*2.2.1. Disclosure q* *uestions*

These items were developed for the current study in an effort to elaborate on the disclosure findings of Bogart et al. (2022) in a larger sample. These questions appeared first in the survey. Please see appendix for all survey questions related to disclosure.

*2.2.1.1. Preferred t* *erm for d* *isclosure*

This item read “We are interested in what you would like to name the process of informing or explaining to others about a facial difference. We asked interviewees to suggest a name for this process, and here are their suggestions. Please select up to two that you prefer.”

*2.2.1.2. Percentage d* *isclosed*

After participants indicated their preferred term, the survey explained that in the meantime, we are calling this process “disclosure” as a placeholder. “For the purposes of this study, “disclosure” means acknowledging, informing, explaining or discussing your facial difference with other people”. Participants were asked to indicate the percentage of people they know who they disclosed to, on a sliding scale from 0 to 100.

*2.2.1.3. Disclosure t* *ypes*

Participants were given a list of disclosure approaches identified in interviews from Bogart et al. (2022) and their definitions, shown in Table 2. They were asked to rate on a 1 (*never*) to 5 (*always*) scale how frequently each approach occurred in their adult life.

*2.2.1.4. Disclosure r* *ecommendations*

Using the same list of disclosure approaches, participants rated on a scale from 1 (*disagree completely*) to 6 (*agree completely*) how much they agreed they recommend the approach to others with FD. We opted for a 6 point scale to maximize response variation in an effort to improve both reliability and validity of the scale (Lozano, 2008), and to avoid issues with middle response options in attitudinal measures (Kalton, 1980).

*2.2.1.5. Disclosure to e* *mployer, c* *o-w* *orker, and/or e* *mployee*

Those who indicated they were currently employed or had been in the past were shown questions related to disclosure during employment, including, “Did you or someone else ever disclose your facial difference to your current or most recent employer?” and if so, “When did the first disclosure to your current or most recent employer occur?” These questions were repeated for those who indicated they had co-workers or employees, by replacing ‘employer’ for those groups.

*2.2.1.6. Disclosure to r* *omantic p* *artner*

Similar to the employer questions, those who indicated they had been in a relationship were shown questions related to disclosure to a romantic partner and its timing.

*2.2.2. Outcome v* *ariables*

*2.2.2.1. Job s* *atisfaction*

The 10-item Generic Job Satisfaction Scale (Macdonald & Maclntyre, 1997) was selected because it can be used for jobs in any field from administrative to service to manufacturing, etc. This scale is widely used and has good validity as shown by factor analysis and associations with related constructs (Macdonald & Maclntyre, 1997). In this sample, McDonald’s Omega was .89. Higher summed scores indicated greater job satisfaction and could range from 10 to 60.

*2.2.2.2.*  *Anxiety and d* *epression*

The Patient-Reported Outcomes Measurement Information System (PROMIS) four-item short forms for anxiety symptoms (current sample ω = .91) and depression symptoms (current sample ω = .91) were used (Cella et al., 2019). PROMIS measures were developed through extensive guidance from experts, patient samples, and the general public. Item selection was guided by item response theory (Cella et al., 2019). Validity is evidenced by predicted associations with overall quality of life and general health measures in general population and patient samples (Cella et al., 2019), and stigma among FD samples. Response options ranged from 1 (*never*) to 5 (*always*). Scales were summed with a possible range of 4 to 20, and higher numbers indicated greater anxiety and depression.

*2.2.2.3.*  *Public stigma*

The 21-item Perceived Stigma Questionnaire (Lawrence et al., 2006) measures the self-reported frequency with which a person experiences public stigma. This scale was developed for use among people with visible differences. It shows good convergent and discriminant validity with related constructs such as depression and social support (Lawrence et al., 2006). Response options ranged on a 5-point scale from *never* to *always*. In this sample, McDonald’s Omega was .94. Items were summed with a possible range of 21 to 105, with higher numbers indicating greater stigma.

*2.2.2.4. Self-esteem*

Messer and Harter's (2012) Self-Perception Profile is a multidimensional measure of self-concept with 12 subscales measuring dimensions of the self. The 6-item Global Self-Worth subscale was used to measure self-esteem, including liking oneself and the way one is leading life (Messer & Harter, 2012). The Self-Perception Profile has good validity as demonstrated by factor analysis, content and criterion validity (Wichstrøm, 1995). The Norwegian-style scoring of the scale was used, which is considered more straightforward, valid, and reliable than the original scale (Wichstrøm, 1995). In this sample, McDonald’s Omega was .87 .Higher mean scores indicate a more favorable self-judgment and had a possible range of 1 to 4.

*2.2.2.5. Relationship s* *elf-p* *erception*

The 4-item intimate relationships subscale from the aforementioned Self-Perception Profile was used to measure ability to develop intimacy and feeling able to communicate with a relationship partner (Messer & Harter, 2012). Psychometrics about the Self-Perception Profile were described in the previous paragraph. McDonald’s Omega in this sample was .70. Higher mean scores indicate a more favorable self-judgment and had a possible range of 1 to 4.

*2.2.3. FD and d* *emographic*  *information*

Participants self-reported their FD or condition, how noticeable they believed it was to others (rated on a sliding scale from 0, not at all noticeable, to 10, very noticeable), how difficult they believed it is to conceal (rated on a sliding scale from 0, very easy, to 10, impossible), whether it was congenital or acquired, age, education level, gender, race/ethnicity, and country. To form the rarity variable, the first and second authors then categorized self-reported FDs as rare or prevalent by referencing the National Institutes of Health Genetic and Rare Disease Information Center (National Institutes of Health, n.d.) and Orphanet database of rare disorders (Orphanet, 2017).

*2.3. Data cleaning and a* *nalysis*

N = 502 participants began the survey. Participants were not included in analyses if they completed less than 70% of items for at least one dependent variable (*n* = 152), if they did not meet inclusion criteria (e.g. did not list a facial difference, *n* = 16), or had two or more of the following data quality issues[[1]](#footnote-1): took less than 7 minutes to complete the survey, failed attention checks (there were three in total), had identical start times, had inconsistent responses to a question about age asked at the beginning and end of the survey, failed ReCAPTCHA, or responded with an exact duplicate response to an open-ended question as another participant (*n* = 46). The final sample totaled 288 participants (age *M* = 45.13, *SD* = 14.10) representing 18 countries and 33 FD types. See participant characteristics in Table 1.

Data analyses were carried out using IBM SPSS Statistics 25 software. Pairwise deletion was used at the construct level as recommended by (Newman, 2014), and *n*’s for individual scales are reported in Table 5. For item-level missingness, we used each participant’s mean across available items to calculate their score on each scale (Newman, 2014). Descriptive statistics and a bivariate Pearson correlation matrix were calculated for all variables. For hypothesis testing, in order to reduce multiple comparisons, the ten disclosure approaches were combined into three *disclosure categories* based on the themes in Bogart et al. (2022) and bivariate interrelationships between these ten approaches (see Table 5). Specifically, as can be seen in Table 3, *agentic* included approaches related to feeling compelled to or having no choice over disclosure—forced disclosure, forced nondisclosure, and unauthorized disclosure; *autonomous nondisclosure* included approaches where the individual made the deliberate choice to not disclose— avoidance, concealment, false disclosure, nondisclosure, and selective disclosure; *autonomous disclosure* involved approaches where the individual made the deliberate choice to disclose—indiscriminate and broadcasting.

To test H ypothesis 1, that people reporting autonomous disclosure, autonomous nondisclosure, and agentic (non)disclosure to their employer would have increasingly lower job satisfaction, respectively, a one-way ANOVA with the disclosure category used for employer as the independent variable and job satisfaction as the dependent variable was conducted. Fisher’s Least Significant Difference post-hoc tests were used to examine group differences.

We planned to test a parallel hypothesis (H2) using the same methods for relationship satisfaction, however, the vast majority of participants disclosed to their relationship partners, so there was not enough variability to test this hypothesis. Instead, we conducted an exploratory analysis of overall disclosure category and romantic self-concept. Our rationale was that only participants who had reported being in a relationship were shown questions about disclosure to a partner. However, the general strategies used by our broader sample might relate to whether casual romantic encounters or relationships are formed at all. We conducted a regression with general disclosure categories as the predictor and relationship self-concept as the outcome. Because this analysis was not planned a priori, we applied a Bonferroni correction based on the 10 analyses described in this section, resulting in αcrit = .005.

Hypothesis 3 was tested with Pearson’s correlations between noticeability, rarity, concealability, and disclosure categories. Cohen's (1992) guidelines can be used to interpret Pearson’s coefficient effect size such that *r* = 10 is a small effect, .30 is a medium effect, and .50 is a large effect.

Hypothesis 4 was examined with Pearson’s correlations between disclosure categories and outcome variables (anxiety, depression, self-esteem, and public stigma). Further, to test the robustness of these relationships, we regressed each broad disclosure type on these outcome variables, including covariates. Covariates were selected by including any demographic variable that significantly correlated with any outcome variable. This included: onset (congenital or acquired), age, noticeability, concealability, education, and rarity.

To determine whether the effect of different disclosure categories (agentic, autonomous nondisclosure, autonomous disclosure) on our main outcome variables (described above) depended on rarity, noticeability, and concealability (H4.1), a moderation analysis was conducted using hierarchical multiple regression. Power analysis revealed we would be able to detect medium effects (*f*=.15) with a sample size of 114 at 80% power. As this was the analysis requiring the most participants, our sample size was sufficient for all planned analyses.

Interaction terms were created for each disclosure category crossed with rarity, noticeability, and concealability. For each outcome variable, all predictor variables (including controls) were included in the first step of the model followed by all interaction terms in the second step. Including all interaction terms in single, additive models was chosen to allow for interpretation of each interaction’s unique conditional effect on our outcome variables. Changes in *R2* were used to determine whether the addition of interaction terms significantly improved our original models. Continuous variables were mean centered for interpretability.

**3. Results**

*3.1. Disclosure d* *escriptive*  *findings*

When asked which term they preferred to describe “disclosure,” 43% of participants preferred “explaining,” 30% preferred “sharing,” 28% preferred “informing,” 22% preferred “acknowledging,” 14% preferred “disclosing,” and 14% preferred “telling.”

The average percentage of people disclosed to was 59%. Descriptives (n, M, and SD) for frequency of disclosure approaches and degree to which approaches were recommended are shown in Table 3 and 4 respectively, whereas modal responses are described here for ease of interpretation. Modal responses when asked about the frequency of (non)disclosure approaches indicated that indiscriminate and selective disclosure occurred “often,” concealment, avoidance, forced disclosure, occurred “sometimes”, broadcasting occurred “rarely”, and the modal occurrence of forced nondisclosure, unauthorized disclosure, false disclosure, was “never.”

Modal responses when asked whether they would recommend a disclosure approach to others with FD indicated participants “agreed a lot” that they would recommend indiscriminate and selective disclosure, “agreed a little” that they would recommend broadcasting, concealment, and nondisclosure, “disagreed a lot” that they would recommend avoidance, and “disagreed completely” that they would recommend forced disclosure, forced nondisclosure, unauthorized disclosure, or false disclosure.

When asked about disclosure to an employer, of the 98% of participants who were currently employed or had been employed in the past, 59% engaged in autonomous disclosure, 34% reported autonomous nondisclosure, 5% experienced forced disclosure, 2% experienced someone else disclosing for them and they were ok with it, and 1% engaged in false disclosure. If disclosure occurred, 5% experienced disclosure before they applied, 6% when they applied, 2% when they were invited to interview, 21% during the interview, 19% when beginning the position, 41% after having been in the position for a while, and 7% disclosed recently or toward the end of their time working at the job.

Regarding disclosure to co-workers, 67% engaged in autonomous disclosure, 19% reported autonomous nondisclosure, 9% experienced forced disclosure, 3% experienced someone else disclosing for them and they were ok with it, 2% experienced unauthorized disclosure, and <1% used false disclosure. If disclosure to co-workers occurred, 2% engaged in disclosure when they applied, 2% when they were invited to interview, 6% during the interview, 33% when beginning at the job, 52% after having been in the position for a while, and 6% experienced disclosure recently or toward the end of working at the job.

When asked about disclosure to an employee, 63% engaged in autonomous disclosure, 28% chose autonomous nondisclosure, 4% experienced forced disclosure, 3% experienced someone else disclosing for them and they were ok with it, and 3% experienced unauthorized disclosure. If disclosure to an employee occurred, 1% experienced disclosure when they applied, 1% when they were asked to interview, 4% during the interview, 39% when beginning the job, 51% after having been in the position for a while, and 3% recently/toward the end of their time at the job.

When asked about disclosure to a romantic partner, of those who were currently or previously in a relationship (88%), 90% engaged in autonomous disclosure to their most recent or current partner, and 6% engaged in autonomous nondisclosure, 2% experienced forced disclosure, 1% experienced another person disclosing for them and they were ok with it, and 1% engaged in false disclosure. If disclosure occurred, 13% disclosed before meeting, 19% disclosed when they first met face-to-face, 39% disclosed at beginning of relationship, 26% disclosed in middle of relationship, and 2% disclosed recently or near the end of the relationship.

*3.2. Bivariate c* *orrelations*

Percent disclosure was correlated with less autonomous nondisclosure, greater autonomous disclosure, and older age (see Table 5). Correlations between disclosure categories and demographic variables revealed that older age was associated with less agentic (non)disclosure and less autonomous nondisclosure. Congenital onset was associated with more agentic (non)disclosure.

*3.3. Hypothesis 1: Employment d* *isclosure and s* *atisfaction*

A one-way ANOVA revealed a main effect of disclosure categories on job satisfaction, *F*(2, 229) = 5.28, *p* = .006, η2 = .04. Pairwise comparisons indicated that participants who experienced agentic (non)disclosure to their employer had lower job satisfaction (*M* = 29.58, *SD* = 11.62) than those who used autonomous nondisclosure (*M* = 37.40, *SD* = 9.46, *p* = .007), or autonomous disclosure (*M* = 38.61, *SD* = 8.96, *p* = .001), but satisfaction among those with autonomous nondisclosure and autonomous disclosure did not differ (*p* = .35). Our hypothesis was partially supported.

*3.4. Hypothesis 2: Disclosure to r* *omantic p* *artner and s* *atisfaction*

A regression of relationship self-concept on disclosure categories indicated that agentic (non)disclosure had a negative impact on relationship self-concept (β = -.21, *b* = -.20, *SE* = .06, *p* = .00 2 , which was significant with a Bonferroni correction) , while autonomous nondisclosure (β = -.09, *b* = -.09, *SE* = .07, *p* = .20 ) and autonomous disclosure (β = .12, *b* = .09, *SE* = .05, *p* = .07 ) did not (R2 = .09). Thus, our prediction was partially supported.

*3.5. Hypothesis 3: Association of*  *noticeability, r* *arity, and c* *oncealability with d* *isclosure*

Pearson’s correlations between noticeability, rarity, and concealability and disclosure categories indicated that, in partial support of our hypothesis, rarity was associated with less autonomous nondisclosure. No other predicted correlations were significant. (See Table 5.)

*3.6. Hypothesis 4: Effect of d* *isclosure c* *ategories on m* *ain o* *utcomes*

As hypothesized, bivariate correlations found that autonomous nondisclosure and agentic (non)disclosure were associated with higher anxiety, depression, and public stigma, and lower self-esteem. Autonomous disclosure was associated with lower anxiety, depression, and self-esteem, but was not associated with public stigma. (See Table 5.)

Regressions controlling for covariates (i.e. onset, age, noticeability, concealability, education, and rarity) showed a similar pattern, supporting our hypothesis. Agentic (non)disclosure predicted anxiety, depression, and public stigma. Autonomous nondisclosure predicted greater anxiety, depression, and public stigma, and lower self-esteem. Autonomous disclosure predicted higher self-esteem. (See Table 6.)

*3.7. Hypothesis 4.1: Moderation by rarity, noticeability, and concealability*

We predicted that noticeability, rarity, and concealability would moderate the above relationships. Each model contained controls, broad disclosure categories, and rarity, noticeability, and concealability in the first step. Interaction terms were then added in the second step of each model.

Rarity, noticeability, and concealability did not moderate the relationships between broad disclosure approaches and stigma, anxiety, or depression (See Table 6). However, the addition of these terms did significantly improve our model for self-esteem, explaining an additional 4% of the variation. Specifically, there was a significant interaction between rarity and autonomous nondisclosure on self-esteem, *b* = -.27, 95% CI [-.52, -.02], *t* = -2.12, *p* =.04, and concealability and autonomous nondisclosure on self-esteem, *b* = -.07, 95% CI [-.13, -.01], *t* = -2.22, *p* =.03.

We used simple slopes analysis in PROCESS macro (Hayes, 2013) to understand the nature of these interactions. Analysis revealed there was a significant negative relationship between autonomous nondisclosure and self-esteem for those with rare conditions, *b* = -.29, 95% CI [-.43, -.14], *t* = -3.96, *p* < .001, but this relationship was not significant for common conditions, *b* = -.02, 95% CI [-.24, .21], *t* = -.13, *p* = .90.

For our continuous moderator (concealability) we probed interactions at -1 *SD* below the mean, the mean, and +1 *SD* above the mean. Analysis revealed there was a significant negative relationship between autonomous nondisclosure and concealability at mean levels of difficulty concealing, *b* = -.22, 95% CI [-.35, -.09], *t* = -3.36, *p* < .001, and at high levels, *b* = -.32, 95% CI [-.48, -.15], *t* = -3.82, *p* < .001. There was no significant relationship at low levels of difficulty concealing, *b* = -.11, 95% CI [-.28, .06], *t* = -1.22, *p* =.23.

**4. Discussion**

The purpose of this study was to validate and extend previous research on disclosure experiences of people with FD. This large, international study provided a snapshot of the frequency of disclosure approaches and their timing. On average, participants disclosed to a little over half of the people they knew. All disclosure types found by Bogart and colleagues (2022) were represented in the present study. Selective and indiscriminate disclosure were the most frequently used *and* most frequently recommended approaches. More than half of participants engaged in autonomous disclosure on the job, including to their employers, co-workers, and employees, and most did so once they had been working there for a while. It was also common for people to disclose to their employer during the interview. The overwhelming majority engaged in autonomous disclosure to their current or most recent romantic partner, and most did so before or at the beginning of the relationship.

The majority of our hypotheses received support. The first hypothesis concerned the role of disclosure types in job satisfaction. As predicted, people who experienced agentic (non)disclosure to their employer were less satisfied with their job than those who engaged in autonomous (non)disclosure. Experiencing agentic (non)disclosure in the workplace may reflect a lack of autonomy in the job, a well-known predictor of poor job satisfaction (Chung-Yan, 2010). Similarly, the second hypothesis focused on the role of disclosure types in relationship self-concept. People who experienced agentic (non)disclosure to their partner had lower relationship self-concept than those who engaged in autonomous (non)disclosure. For example, when a partner forces disclosure when the person with FD is not ready, it may break trust in the relationship.

We predicted that noticeability, rarity, and less concealability would be associated with more autonomous disclosure and less autonomous nondisclosure and agentic (non)disclosure. In partial support of the hypothesis, rarity was associated with less autonomous nondisclosure, but other predicted relationships were not supported. Due to the public’s lack of awareness about rare FDs, people with these conditions may face more pressure—in the form of stares, questioning, and misunderstanding—to disclose than those with common FDs. It is noteworthy that of these three variables, rarity is the only one that was not self-report. It is well-known that self-reports of noticeability are shaped by an individual’s subjective experiences, and relate more strongly to psychosocial factors than objective measures (Moss, 2005; Ong et al., 2007). Therefore, these self-reported variables may have been confounded with more noise than the rarity variable, perhaps weakening the ability to find a relationship if it existed.

The hypothesis that autonomous disclosure would be associated with more positive outcomes (i.e., lower anxiety, depression, public stigma, and higher self-esteem) than agentic (non)disclosure and autonomous nondisclosure was supported. In most cases, rarity, concealability, or noticeability did not moderate these relationships. However, as predicted, rarity and concealability moderated the negative association between autonomous nondisclosure and self-esteem. Autonomous nondisclosure was associated with lower self-esteem, but only for those with rare conditions or for those with conditions that were moderately or very difficult to conceal. Other people are especially likely to see and wonder about the nature of an unconcealable and rare (i.e. poorly understood) FD. Choosing not to discuss an FD of this nature may lead to particularly negative reactions from the public, in turn harming the self-esteem of the person with the FD. Alternatively, deciding to avoid discussing the FD could signal discomfort with one’s FD, which may be reflected in their self-esteem.

Taken together, findings indicate that autonomous disclosure is associated with positive intra- and interpersonal, professional, and romantic outcomes, and is recommended by people with FD. Agentic (non)disclosure and autonomous nondisclosure are reliably associated with negative outcomes. Further, agentic (non)disclosure is not recommended by participants. Disclosing a hidden identity is associated with positive mental health outcomes (Cipollina et al., 2022; Pachankis et al., 2020), and this study suggests choosing to explain a FD is associated with these benefits as well. Autonomous disclosure may protect against self-stigma by reducing anxiety about whether others will notice, become preoccupied, or ask about the FD, instead allowing the person with FD to take control and be open about their identity (Sharratt et al., 2020). Research on concealable and unconcealable disability finds that identifying with a disability is associated with higher self-esteem and lower anxiety and depression (Bogart, 2015; Bogart et al., 2018; Corrigan et al., 2013). Autonomous disclosure was associated with lower perceived public stigma, which has also been the case for participants with invisible stigmatized identities (Cipollina et al., 2022). Disclosing in a frank and open manner may subvert taboos that FD is shameful to discuss. The survey also provided insight into demographic differences in disclosure. Congenital onset was associated with more agentic (non)disclosure. Having a FD in early childhood may have meant that authority figures (i.e. parents and teachers) asserted control over the person’s disclosure, a pattern that may extend into adulthood. Relatedly, older age was associated with greater percent disclosure and less agentic (non)disclosure and autonomous nondisclosure. People may become more open about disclosure with maturity. A study with older people with clefts reported (amongst other things) that interviewees had been more reluctant to discuss their cleft in the past and a view that changing societal attitudes towards “ looking different” had, in some ways, made it easier for them (Hamlet & Harcourt, 2015).

The process of explaining a FD has no universally recognized term. In line with Chaudoir and Fisher’s (2010) description of disclosure, “what individuals verbally reveal about themselves to others,” we tentatively used this term. In the context of visible disabilities or FD, the word "acknowledging" has been used by Hebl and Kleck (2002) and Saal and colleagues (2014) . We aimed to center the voices of those with lived experience in naming this phenomenon by asking their preference, and nearly half preferred the term “explaining.” Therefore, we recommend using this term, and in an academic context, alternating between it and “disclosure” and “acknowledging” to connect with existing scholarly literatures about the latter two.

*4.1 Strengths and l* *imitations*

This study is notable for validating disclosure types drawn from qualitative research centering people with FD. We leveraged well-validated, widely-used measures in a large, international sample of people with many types of FDs. Although 18 countries were represented in the data, the majority of participants were from the United States and the United Kingdom, and survey was only offered in English, limiting generalizability. This was a cross-sectional study, so temporality and causality cannot be determined. In particular, participants were asked to report the frequency of different disclosure approaches during their adult life, yet disclosure approaches may change over time. Future work should examine changes in disclosure and subsequent outcomes across the lifespan in a more fine-grained way. Finally, as noted in the data analysis section, we were not able to run our originally planned analysis for relationship satisfaction, and substituted a relationship self-concept scale instead. As that analysis was unplanned, it should be considered tentative.

*4.2*  *Implications*

Our findings present a paradox: by definition, agentic disclosure is outside of the control of people with FD, yet our results suggest it should be avoided. Essentially, this means that people with FD, in following these recommendations, are “forced” to engage in autonomous disclosure in order to preempt agentic (non)disclosure. Ideally, change is needed at the interpersonal level: people must stop compelling (non)disclosure. Instead of placing the onus of navigating stigma on individuals with FD, destigmatization must occur at a societal level, especially for those with rare or non-concealable FDs. Organizations like Face Equality International and Changing Faces are working to reduce structural stigma via policy efforts and public stigma through campaigns to improve representation of people with FD in the media. With increased representation and awareness, FD will no longer be taboo or novel, reducing the demand for disclosure, and making it easier for people with FD if they do disclose.

Until social change occurs, people with FD should be equipped with skills to navigate disclosure and stigma. There are likely many factors that influence whether people with FD experience disclosure scenarios as agentic or autonomous, and what influences their (non)disclosure style, including rarity, concealability, motivation , identity, previous experiences, x attributions about the potential disclosee, and self-efficacy. Approach motivations for disclosure—that is, disclosing to attain a positive outcome (e.g. social support)—are associated with better mental health outcomes than avoidance motivations—that is, disclosing to avoid a negative outcome (e.g. bullying; Cipollina et al., 2022). Thus, people with FD could consider the positives they may gain from disclosing, including understanding, connection, and empowerment (Bogart et al., 2022). Frequently, the motivations of disclosee s are unknown or ambiguous—people with FD can be encouraged to frame them this way, rather than assuming negative intent. People who strongly identify with the negative aspects of their stigmatized identity, or whose stigmatized identity is less central to their self-concept may be less likely to choose to disclose, compared to those who are strongly positively identified with their identity (Corrigan et al., 2013). Clinicians could support people with FD in developing positive FD identity and reframing these factors when appropriate.

Building disclosure self-efficacy (and thus feelings of control) is a pragmatic approach to the disclosure paradox. Clinicians, FD organizations, and caregivers should support FD disclosure autonomy by educating about disclosure approaches. They can provide examples of disclosure approaches from Bogart et al. (2022) and information from the current study about common disclosure approaches, frequency, timing and recommendations. People with FDs can build their disclosure self-efficacy (and thus their feelings of control) by practicing explaining the FD via these approaches (Blakeney et al., 2005; Michael et al., 2015).

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**Table 1**

*Participant Characteristics*



**Table 2**

*(Non)Disclosure Types*

|  |  |  |
| --- | --- | --- |
| Disclosure category | Disclosure approach | Description |
| Agentic (Non)disclosure | Forced Disclosure | I felt forced by others or by the situation to disclose. I felt forced to answer questions about my facial difference. |
| Forced Nondisclosure | Other people urged me **not** to disclose or to hide or minimize my facial difference. |
| Unauthorized disclosure | Other people disclosed my facial difference against my wishes. |
| Autonomous nondisclosure | Avoidance | I avoided social situations where my facial difference could be noticed. |
| Concealment | I attempted to conceal, hide, or reduce the noticeability of my facial difference. |
| False Disclosure | I gave a false explanation about the cause or reason for my facial difference. |
| Nondisclosure | I chose **not** to disclose to others or answer questions about my facial difference. |
| Selective Disclosure | I chose to disclose to certain people but not to others. |
| Autonomous disclosure | Indiscriminate Disclosure | I was open to telling anyone about my facial difference. I was ok with answering anyone’s questions about my facial difference. I was ok with others disclosing for me. |
| Broadcasting | I tried to educate others by disclosing and sharing information about my facial difference. I was involved in facial difference awareness efforts, or I gave presentations about my facial difference. |

*Note.* Participants were asked to indicate how often each approach has happened in their adult life.

**Table 3**

*Frequency of occurrence of disclosure approaches*

**

*Note***.** This question read “Please indicate how often each approach has happened in your adult life” and response options ranged from 1 (*never*) to 5 (*always*).

**Table 4**

*Degree to which participants recommended disclosure approaches*



*Note***.** This question read “how much do you agree/disagree that you would recommend this approach to others with facial differences?” and response options ranged from 1 (*disagree completely*) to 6 (*agree completely*).

**Table 5**

*Bivariate Correlations*

 *Note.* Rarity was coded as 0 =common, 1 = rare. Onset was coded as 0 = acquired, 1 = congenital. Gender was coded as 0 = female, 1 = male. Race/ethnicity was coded as 0 = person of color, 1 = white.

*\* p <* .05

*\*\* p <* .01

**Table 6**

Multiple Regression and Moderation Analysis for Primary Outcomes

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Stigma | | Anxiety | | Depression | | Self-esteem | |
| Model 1 | B | b(SE) | B | b(SE) | B | b(SE) | B | b(SE) |
| Age | -.09 | -.08(.05) | -.16 | -.04(.02)\* | -.12 | -.03(.03) | .21 | .01(.003)\*\* |
| Education | -.08 | -1.00(.60) | -.12 | -.46(.21)\* | -.09 | -.34(.22) | .19 | .13(.04)\*\* |
| Onset | .18 | 4.80(1.30)\*\* | -.01 | -.08(.45) | .02 | .16(.49) | .01 | .01(.08) |
| Rarity | -.07 | -2.15(1.53) | -.04 | ..33(.55) | -.02 | -.19(.58) | -.05 | -.08(.10) |
| Noticeability | .22 | 1.34(.35)\*\* | -.01 | -.02(.13) | .04 | .07(.13) | -.01 | -.001(.02) |
| Concealability | .08 | .48(.32) | .10 | .17(.11) | -.04 | .06(.12) | -.06 | -.02(.02) |
| Autonomous Disclosure | .04 | .58(.69) | -.06 | -.25(.24) | -.06 | -.22(.26) | .16 | .11(.04)\* |
| Autonomous Nondisclosure | .24 | 4.25(1.02)\*\* | .24 | 1.29(.36)\*\* | .20 | 1.07(38)\*\* | -.20 | -.19(.06)\*\* |
| Agentic Disclosure | .38 | 6.73(.90)\*\* | .24 | 1.26(.32)\*\* | .20 | 1.03(.40)\*\* | -.12 | -.11(.06) |
| Model 2 |  |  |  |  |  |  |  |  |
| Autonomous Disclosure X Rarity | .12 | 1.06(1.64) | -.16 | -.43(.58) | -.01 | -.03(.62) | .05 | -02(.10) |
| Autonomous Disclosure X Noticeable | .27 | .38(.39) | .29 | .12(.14) | .15 | .06(.15) | .11 | .01(.02) |
| Autonomous Disclosure X Concealability | -.14 | -.17(.35) | -.23 | -.08(.13) | -.55 | -.20(.143) | .30 | .02(.02) |
| ΔR2 |  | .003 |  | .004 |  | .01 |  | .007 |
| Model 3 |  |  |  |  |  |  |  |  |
| Autonomous Nondisclosure X Rarity | -.19 | -1.19(2.03) | .28 | .90(.71) | .14 | .45(.76) | -.47 | -.27(.13)\* |
| Autonomous Nondisclosure X Noticeability | -.23 | -.37(.47) | -.47 | -.23(.16) | -.31 | -.15(.18) | .56 | .05(.03) |
| Autonomous Nondisclosure X Concealability | .19 | .30(.48) | .29 | .14(.17) | .54 | .26(.18) | -.79 | -.07(.03)\* |
| ΔR2 |  | .004 |  | .01 |  | .01 |  | .04\*\* |
| Model 4 |  |  |  |  |  |  |  |  |
| Agentic X Rarity | .27 | 3.43(1.85) | .37 | 1.37(.65)\* | .21 | .79(.70) | -.33 | -.22(.11) |
| Agentic X Noticeability | .03 | ..06(.57) | .22 | .11(.20) | .18 | .09(.22) | .08 | 007(.03) |
| Agentic X Concealability | .12 | .20(.57) | -.74 | -.37(.27) | -.52 | -.26(.29) | .26 | .02(.05) |
| ΔR2 |  | .009 |  | .02 |  | .007 |  | .01 |

*Note*. Onset was coded 0 = acquired conditions and 1 = congenital. Rarity was coded as 0 =common, 1 = rare. Each model included 2 steps—Step 1 was always identical to Model 1. For simplicity, only Step 2 of Models 2-4 are shown in this table. \*p<.05,\*\*p<.01

**Appendix**

**Survey Questions about Disclosure**

Our goal is to understand the experiences of people with facial differences in explaining or not explaining to others about their facial difference. Last year, we interviewed adults with many different types of facial difference. Now, we are sharing this survey with hundreds of people with facial differences like you to learn how these initial findings fit your own experiences and how they should be modified.

We are interested in what you would like to name the process of informing or explaining to others about a facial difference. We asked interviewees to suggest a name for this process, and here are their suggestions. Please select up to two that you prefer.

* "acknowledging"
* "coming out"
* "disclosing"
* "divulging"
* "explaining"
* "face-splaining"
* "informing"
* "investing"
* "opening up"
* "sharing"
* "tearing down walls"
* "telling"
* other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In the meantime, we are calling this process “*disclosure*” as a placeholder. For the purposes of this study, “disclosure” means acknowledging, informing, explaining or discussing your facial difference with other people.

The percentage of people I know who I have disclosed to is...

|  |  |
| --- | --- |
|  | Percent |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

|  |  |
| --- | --- |
|  |  |

Below is a list of disclosure approaches our interviewees described. Think about your experiences disclosing or not disclosing your facial difference to others, including family, friends, romantic partners, employers, co-workers, employees, or even people you may not know well. Please indicate how often each approach has happened in your adult life.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Never (1) | Rarely (2) | Sometimes (3) | Often (4) | Always (5) |
| Forced disclosure: I felt forced by others or by the situation to disclose. I felt forced to answer questions about my facial difference. |  |  |  |  |  |
| Forced nondisclosure: Other people urged me **not** to disclose or to hide or minimize my facial difference. |  |  |  |  |  |
| Unauthorized disclosure: Other people disclosed my facial difference against my wishes. |  |  |  |  |  |
| Avoidance: I avoided social situations where my facial difference could be noticed. |  |  |  |  |  |
| Concealment: I attempted to conceal, hide, or reduce the noticeability of my facial difference. |  |  |  |  |  |
| False disclosure: I gave a false explanation about the cause or reason for my facial difference. |  |  |  |  |  |
| Nondisclosure: I chose **not** to disclose to others or answer questions about my facial difference. |  |  |  |  |  |
| Selective disclosure: I chose to disclose to certain people but not to others. |  |  |  |  |  |
| Indiscriminate disclosure: I was open to telling anyone about my facial difference. I was ok with answering anyone’s questions about my facial difference. I was ok with others disclosing for me. |  |  |  |  |  |
| Broadcasting: I tried to educate others by disclosing and sharing information about my facial difference. I was involved in facial difference awareness efforts, or I gave presentations about my facial difference. |  |  |  |  |  |
| Other |  |  |  |  |  |

How much do you agree/disagree that you would recommend this approach to others with facial differences?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Disagree completely (1) | Disagree a lot (2) | Disagree a little (3) | Agree a little (4) | Agree a lot (5) | Agree completely (6) |
| Forced disclosure: Feeling forced by others or by the situation to disclose. Feeling forced to answer questions about your facial difference. |  |  |  |  |  |  |
| Forced nondisclosure: Other people urging you **not** to disclose or to hide or minimize your facial difference. |  |  |  |  |  |  |
| Unauthorized disclosure: Other people disclosing your facial difference against your wishes. |  |  |  |  |  |  |
| Avoidance: Avoiding social situations where your facial difference could be noticed. |  |  |  |  |  |  |
| Concealment: Attempting to conceal, hide, or reduce the noticeability of your facial difference. |  |  |  |  |  |  |
| False disclosure: Giving a false explanation about the cause or reason for your facial difference. |  |  |  |  |  |  |
| Nondisclosure: I chose **not** to disclose to others or answer questions about my facial difference. |  |  |  |  |  |  |
| Selective disclosure: Choosing to disclose to certain people but not to others. |  |  |  |  |  |  |
| Indiscriminate disclosure: Being open to telling anyone about your facial difference. Being ok with answering anyone’s questions about your facial difference. Being ok with others disclosing for you. |  |  |  |  |  |  |
| Broadcasting: Actively trying to educate others by disclosing and sharing information about your facial difference. Being involved in facial difference awareness efforts, or giving presentations about your facial difference. |  |  |  |  |  |  |
| Other |  |  |  |  |  |  |

Are you currently employed or have you ever been employed in the past?

* Yes, I am currently employed, or I have been employed in the past
* No, I have never been employed

Did you or someone else ever disclose your facial difference to your current or most recent employer?

* I chose to disclose
* I chose **not** to disclose
* I chose to give a false explanation for my facial difference
* I felt forced by others or by the situation to disclose
* I felt forced by others or by the situation **not** to disclose
* Another person disclosed for me and I was ok with it
* Another person disclosed for me and I was **not** ok with it

When did the first disclosure to your current or most recent employer occur?

* before I applied for the job
* when I applied for the job
* when I was asked to interview
* during the interview
* when I began working at the job
* in the middle of my time working at the job
* recently/toward the end of my time working at the job
* not applicable

Did you or someone else ever disclose your facial difference to your current or most recent romantic partner?

* I chose to disclose
* I chose **not** to disclose
* I chose to give a false explanation for my facial difference
* I felt forced by others or by the situation to disclose
* I felt forced by others or by the situation **not** to disclose
* Another person disclosed for me and I was ok with it
* Another person disclosed for me and I was **not** ok with it

When did the first disclosure to your current or most recent relationship partner occur?

* before meeting
* when we first met face-to-face (includes in-person, on Zoom, video chat, etc)
* at the beginning of the relationship
* in the middle of the relationship
* recently/near the end of the relationship
* not applicable

1. Online research presents increasing concerns about inattentive responses, missing data, bots, and spammers, especially when a financial incentive is offered (Simone, 2019; Storozuk et al., 2020). We employed a number of recommended strategies to maintain data quality (Simone, 2019; Storozuk et al., 2020). [↑](#footnote-ref-1)