Disclosure of Neurodivergence in Software Workplaces: a Mixed Methods Study of Forum and Survey Perspectives

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Deciding whether to disclose neurodivergence at work is hard; disclosing can lead to positive outcomes, but also to stigma or job insecurity. These outcomes are hard to predict and not well understood. Accordingly, neurodivergent workers turn to online communities, which may not inform well-calibrated disclosure decisions. We conducted a mixed-methods study on disclosure of neurodivergence in software workplaces. We focus on software workplaces because neurodivergence is prevalent there, and they present unique interactions for disclosure. We compare community perceptions on `r/ADHD_Programmers` with a worldwide survey of 493 software engineers. Synthesizing these perspectives, we constructed a model of disclosure in our context, uncovering the cost-benefit analyses of disclosure, disclosure outcomes, and the influence of mental health. We found that workplace disclosure is often motivated by social support and outcomes are predominantly positive. We conclude with a call for future interventions, including technologies, to optimize disclosure decisions.

CCS Concepts: • **Social and professional topics → People with disabilities**; **Computing organizations**; • **Human-centered computing → Empirical studies in HCI**; *Social media*.

Additional Key Words and Phrases: Neurodiversity, Disclosure, Workplaces, Mixed methods, Empirical study that tells us about people

1 INTRODUCTION

Neurodiversity describes natural cognitive variations among humans [90]. Neurodivergent people, i.e., people with minority neurotypes (including ADHD or autism), make up 15–20% of the population [113]. Unfortunately, environmental factors can disable neurodivergent (ND) people, leading to lower mental health [89], stigma [69], and discrimination [14] in the workplace.

Neurodivergence can be understood as largely *invisible* [44]. This gives ND employees autonomy to choose who knows their status, if they are not "outed" by others. ND employees disclose for many reasons, including accommodations, empathy, and understanding [98]. This can lead to tangible improvements in mental health or workplace efficiency [75, 99]. Unfortunately, disclosure can also lead to retaliation, including stigma or discrimination, such as getting fired or

being outed. This may be costly both to the discloser, and to the organization as a whole [31, 32]. Non-disclosure may also have consequences: ND employees have the burden of *passing* for neurotypical (the majority cognitive profile) if they deem it unsafe to disclose [29] and thus may overcompensate at work [79].

Neurodivergence is overrepresented in STEM [113], making the software workplace a useful environment for studying disclosure. While only 5–7% of the population has ADHD [127], 10.6% of participants from the 2022 StackOverflow developer survey reported having "a concentration and/or memory disorder (e.g., ADHD, etc.)" [112]. Additionally, software workplaces have high rates of stress [128], and neurodivergent people are more likely to have mental health concerns [6, 27]. Stressful software contexts (such as open source [96], Agile development [82], or technical interviews [11]), may disproportionately necessitate disclosure by ND software engineers.

Disclosure decisions can be challenging because **there are no guarantees** for how disclosure will unfold. Furthermore, there exists a gap in the literature explaining the decisions and outcomes of workplace disclosure of neurodivergence, and **information on how to make these decisions is sparse.** Few studies report on positive outcomes of workplace disclosure, aside from accommodations (as highlighted in a recent systematic review [75]). Like many individuals with stigmatized, concealable identities [38, 39], ND developers may seek online community support to navigate disclosure. One such community is r/ADHD_Programmers, the largest public online community of neurodivergent programmers with over 79,000 users. While such online communities can provide valuable advice for critical decisions, their guidance can be grounded in anecdotal evidence and not align with individual situations [23, 47]. To facilitate disclosure of neurodivergence in software workplaces, it is critical to understand risk factors, qualitative aspects of preferred disclosure interactions, and the rate of negative outcomes. This understanding could inform technological interventions in online communities or workplaces to facilitate positive disclosure outcomes.

To address these gaps, we ask five research questions:

RQ1: What factors inform neurodivergent developers' cost-benefit analyses for disclosure decisions?

RQ2: What positive and negative outcomes result from neurodivergence disclosure in software workplaces?

RQ3: How common are specific motivations for, and outcomes of, disclosure?

RQ4: How does mental health influence disclosure decisions and outcomes?

RQ5: How can prior disclosure frameworks be adapted to our context?

We developed our RQs through an initial period of prolonged engagement with the forum and gaps of preexisting frameworks in our context. RQ4 was developed from the pervasive influence of mental health on disclosure we noticed early on in our analysis, and RQ3 was separated to avoid taking a positivist perspective on qualitative findings.

To answer these questions, we conducted a two-phase, mixed methods study. First, we qualitatively analyzed 94 posts about disclosure, mental health, and ADHD perceptions in software workplaces from the subreddit r/ADHD_Programmers. Second, we conducted and quantitatively analyzed survey responses from 493 neurodiverse professional programmers (299 ND) to **validate, generalize, and contrast** the experiences of developers on the subreddit.

Leveraging our experiences as HCI and software engineering researchers with ADHD, we augment a seminal model of disclosure outcomes from Joachim and Acorn [66] for our context, influenced by models of disclosure decisions (e.g., [58, 99]). Our findings indicate positive and neutral disclosure outcomes are more common than negative ones. In addition, accommodations may be less motivating for disclosure than transparency, understanding, or a desire to positively change workplace communities.

We believe our findings help clarify factors influencing disclosure decisions and outcomes in software workplaces. As software engineers are heavy users and creators of technology, we think software workplaces may be well-supported by technological interventions. We conclude by discussing how technological interventions on online platforms or in

workplaces could support ND disclosure decisions. Specifically, we discuss approaches such as automatic sentiment analysis to detect the negativity bias we observe on the form or non-verbal communicators of disability attributes, which could lower extra labor resulting from ND disclosure.

2 BACKGROUND

2.1 Term Definitions

We define terms as used in this work.

Disclosure: A situation in which information about an individual's disability status (e.g., that they are autistic, etc.) is *freely given* by the individual.

Discloser: The person who discloses their status.

Recipient: The person (e.g., coworker, manager, peer) receiving the disclosure.

Accommodation: Support requiring approval from someone higher up in the organization, a broader definition than a legal one.

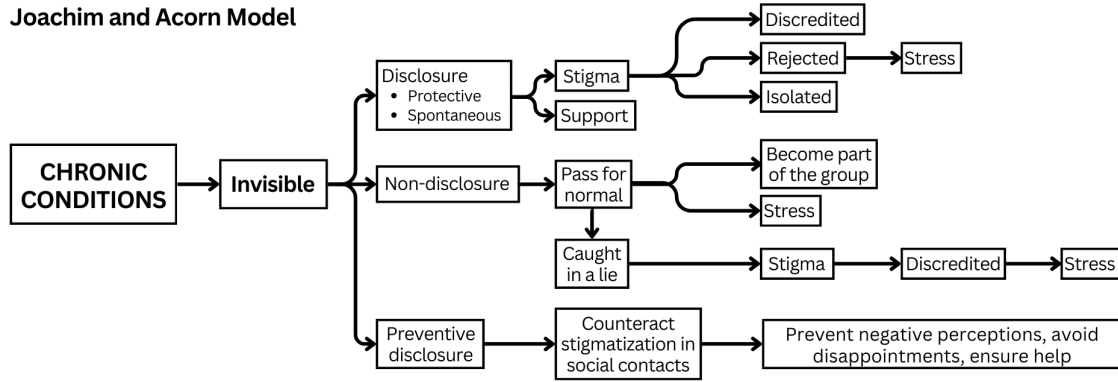### 2.2 Framework of Invisible Disabilities and Stigma by Joachim and Acorn

Fig. 1. **Joachim and Acorn's model for invisible chronic conditions.** The original categorizes *informing* as a type of *non-disclosure* because they link disclosure with risk. However, we group *informing* with *spontaneous* disclosure because both are unplanned.

We base our model on Joachim and Acorn's (JA) framework for disclosure of invisible conditions and resulting stigma [66]. The JA framework was developed though meta-analyses of qualitative studies on insider experiences of chronic conditions [120] and outsider perspectives (e.g., from providers, social workers, etc.).

The JA framework categorizes disclosure types by intention and temporality. *Protective* disclosure is planned, often to control who knows one's status or to gain support. *Preventative* disclosure occurs when individuals fear they may be caught or outed, and aim to proactively manage stigma. *Spontaneous* disclosure is unplanned, usually just after a diagnosis. Similarly, *informing* also unplanned, but done casually in a situation where the discloser is unconcerned about risk. The model also includes *non-disclosure*.

Disclosure decisions have varied outcomes. Non-disclosure results in attempting to *pass* as non-disabled to others. This leads to *stress*, *becoming part of the group*, or *getting caught*, which can lead to stigma and *discreditation* — others

lose respect for, or belief in, the individual. Disclosure may lead to *support* or stigma, which in turn may lead to discreditation, *rejection* and subsequent stress, or isolation from the majority group.

We used this framework for a few reasons. It was created from a large, broad range of studies, building on literature canonical to research on disclosure and stigma (e.g., Goffman 1963 [43]). It also synthesizes "insider" and "outsider" perspectives; the perspectives of both the discloser and their peers are essential to understand how disclosure interactions influence the workplace. We also chose this model because we focus on the individual's well-being and lived experience. Other models center workplace productivity, accommodations, or legality [74, 105, 126], often leaving out social reasons for disclosure, the need to sometimes advise against disclosure, or the discloser's well-being.

At the time of their publication, Joachim and Acorn noted limited research on disclosure motivations and outcomes. Current work rarely synthesizes disclosure decisions and outcomes into one model. One of our contributions is to extend the JA framework to address this gap (see Section 5.5).

2.3 Cost-Benefit Analyses of Disclosure of Invisible Disabilities at Work

Workplace disclosure may be critical for job retention or health [75, 99], often prompting repeated consideration due to impression management concerns [70]. Workers weigh individual factors (e.g., self-advocacy skills), work factors (e.g., the existence of organizational support), and societal factors (e.g., legal protections) to determine if disclosure benefits are worth the cost [58, 74].

Most literature on ND workplace disclosure is on autism, with less on ADHD and other kinds of neurodivergence [45, 81, 130]. Identified disclosure motivations include seeking work or social support (e.g., accommodations), increased social connection, emphasizing neurodivergence strengths, gauging job fit, improving mental health, and advocating for ND workers [84, 98, 99, 106]. Accommodations are widely discussed as a primary reason for workplace disclosure of invisible conditions [71, 75]. Primary reasons against disclosure include potential stigma or discrimination, personal privacy, or perceived lack of benefits [40, 84, 88, 98, 99, 106]. Individual factors influencing disclosure decisions include past disclosure experiences, psychological safety, well-being, self-efficacy, diagnosis age, and recipient understanding of neurodivergence [75, 81, 88, 98, 99, 106]. Workplace influencing factors include disclosure timing with respect to the span of employment (e.g., during the interview or after hiring), job demands, company culture and policies, and recipient hierarchy (e.g., boss vs. coworker) [68, 81, 88, 98, 99]. Societal factors such as legal protection can also influence disclosure decisions [98].

ND workers also often seek advice from trusted individuals and online communities when making disclosure decisions [99]. The anonymity of online communities permits unhindered discussion of sensitive or socially-stigmatized concepts [92], commonly resulting in personal empowerment needed for handling distressing situations [7]. Our research aims to understand how these communities influence disclosure decisions.

2.4 Outcomes of Disclosure or Non-Disclosure of Invisible Disabilities at Work

Disclosure outcomes are not objectively positive or negative: they may seem positive from the perspective of a recipient or researcher, but may be subjectively *negative* from the perspective of a discloser. For example, one study found that preventative disclosure of ADHD reduced socially rejecting attitudes in neurotypical participants, but also increased the likelihood that a hypothetical discloser would "benefit from treatment" [65]. Since pity is considered by many disabled people to be an insidious form of stigmatization [108], the overall outcome might not be subjectively positive. In this work, we mainly consider the perspective of the discloser for assessing successful disclosure outcomes.

Positive disclosure outcomes include workplace accommodations (identified in a software-specific context by Newman *et al.* [87]), social support, hiring success, legal protection, workplace neurodivergence training, support for other neurodivergent workers, and improved mental health or well-being [98, 99, 106]. Some ND workers report that accommodations are most successful when created alongside a manager or individualized per discloser [102].

Negative disclosure outcomes include workplace stigma (e.g., problematic stereotypes [98], interpreting all actions through the disability lens [106]), workplace discrimination (e.g., bullying, withheld support, hiring barriers [98, 99]), negative interactions (e.g., misunderstandings), and adverse effects on mental health or well-being [98]. For example, previous work has found hiring discrimination toward autistic applicants who disclose when applying, even when job productivity is unlikely to be affected [2].

As workplace disclosure of ADHD and ND disclosure in software engineering are both relatively understudied, we believe we address a gap critical to broadening understanding.

2.5   Mental Health and Disclosure Among Neurodivergent Workers

Disclosure decision processes often involve fear [98, 106], and non-disclosure can negatively influence mental health. *Masking*, or concealing neurodivergent traits, is common and sometimes required in the workplace [93]. However, masking can be stressful for ND workers [71, 93]; increased masking correlates with stress, anxiety, depression, and suicidality [20, 21, 24]. Persistent masking can lower self-worth perceptions, self-efficacy, belonging, identity cohesion, and overall well-being [16, 20, 21, 83].

Masking can impede ND workers from seeking mental health support, leading to delayed diagnosis and treatment [24]. Non-disclosing ND workers often cope with mental health challenges such as stress, depression, anxiety, suicidal ideation, and exhaustion [55, 56, 93, 97, 106]. In a systematic review, 54.8% of ND participants reported general anxiety and 53.1% reported depression [27], much higher than the rates of depression (17.8%) and anxiety (19.1%) in the general US population [3, 37].

Some workers choose to disclose to improve mental health [98]. Disclosure can improve mental health, particularly when supervisors accommodate and provide external acceptance [20, 91]. Disclosure can also boost self-esteem and coping strategy efficacy, which may increase well-being and life quality [71]. However, stigma and workspace bullying after disclosure can negatively affect ND workers' mental health.

Researchers have considered technological solutions to facilitate workplace disclosure decisions for chronic invisible conditions such as mental health or neurodivergence [18, 114, 121]. For instance, Stratton *et al.* used co-design to develop an online decision aid tool for disclosing mental health conditions at the workplace [115]. In a randomized control trial, they found that a similar tool led to faster disclosure decisions and decreased decisional conflict [114]. Similarly, Tomas *et. al* designed a web-based tool to facilitate workplace autism disclosure decisions [121], also finding decreased decisional conflict in a pilot study [122].

Overall, the specific relationship between mental health and disclosure decisions and outcomes in software workplaces remains understudied, especially how software-related stress motivates or hinders ND developers' disclosure decisions.

2.6   The Affordances of Online Communities and Discussion of Invisible Disabilities

Many people seek out online communities for connection and support regardless of geographical location. Mainstream social media platforms, such as Reddit, Facebook, and Instagram allow users to create and participate in groups centered around discussing invisible disabilities [28, 38, 59]. Marginalized communities gravitate toward identity-based groups to avoid isolation, stigma, and the burden of educating others about their identity. For example, blind and low vision

software developers can avoid seeking help from sighted colleagues to prevent having to prove that their skills are unrelated to their impairment [1, 67]. People with invisible disabilities also decide to use social media platforms based on platform-specific norms and enforcement, privacy, negativity biases, and impression management [104].

Reddit-Specific Affordances. Reddit has numerous subforums ("subreddits") where people organize and freely discuss identities or interests. Users are pseudonymous, admitting privacy. Reddit's "post and comment" format encourages in-depth and interactive discussions. Many invisibly disabled people use Reddit to discuss disability issues because of its pseudonymity, high interactivity, and capacity to meet informational and emotional needs [104]. Large subreddits of neurodivergent people, such as r/ADHD (2 million users) and r/autism (415,000 users), organize in part due to these affordances. Reddit communities often form around interests or careers, making it well-suited for our investigation.

One challenge of Reddit use is inconsistent moderation; community guidelines are defined per subreddit and enforced by volunteer moderators [78]. On r/ADHD_Programmers, moderation is currently minimal (only one human moderator and no explicit community guidelines). Such inconsistent moderation can negatively impact marginalized members' comfort and sense of belonging [67]. Other Reddit aspects, such as negativity biases, privacy concerns, and low governance, can also pose risks for disabled communities [104]. In Section 6, we discuss design considerations based on our findings for how the platform could be augmented to mitigate these issues.

3 RESEARCH METHODOLOGY

To investigate disclosure cost-benefit analyses, subjective outcomes, and mental health factors among ND developers, we conducted a two-phase mixed methods study. First, we performed a qualitative analysis of 99 posts and their comments from the forum r/ADHD_Programmers to anonymously gather nuanced perspectives without researcher railroading. Second, we conducted a large-scale survey to generalize, validate, and contrast our forum findings. We used the same dataset and methods as Newman *et al.* [87]; however, they studied challenges, accommodations, strategies, and strengths of ADHD developers, whereas we studied neurodivergent developers' experiences with disclosure, perceptions of neurodivergence, and mental health. Supplemental materials, including our codebook, analysis scripts, and survey instrument, are in our replication package. [1]

3.1 Phase 1: Qualitative Analysis of Archival Data from r/ADHD_Programmers

Data Collection. To gain a nuanced understanding of ADHD developers' experiences with disclosure, we analyzed posts and comments from r/ADHD_Programmers, a subreddit with over 79,000 members as of July 2025 (in the top 2% of Reddit forums). To the best of our knowledge, this is the largest public online community for neurodivergent programmers.

Using the Pushift API in late 2022, we scraped 2,037 posts using keywords relevant to software workplaces (e.g., "start-up"), mental health (e.g., "depression"), and disclosure outcomes (e.g., "stigma"). This approach is commonly used to gather datasets for qualitative research [10]. We narrowed this set to 881 software job-related posts via manual annotation and categorized them with four non-mutually-exclusive labels: challenges, strategies, disclosure, and accommodations. We did *open coding* [116] with 15 rich (i.e., long or in multiple categories) posts to build our first codebook. These initial 15 threads were included in our final dataset. Categories were not evenly represented, so we balanced them by randomly drawing 21 more posts from each category (as recommended in [60]), resulting in 99 posts for our final dataset (~160,000 words, max 66, avg. 16 comments per post).

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[1]Our replication package can be accessed at https://github.com/kaianew/NDDisclosure_ASSETS2025.

Analysis. Following Deterding and Waters's iterative qualitative analysis approach [30], we used a three-pass method: first segmenting text into relevant quotes via *semantic unitization* [22], then applying index-level codes, then applying lower-level analytical codes.

Each thread (a post and its comments) was coded independently by at least two authors. Authors met weekly to merge interpretations via *negotiated agreement* [22]. When our codebook *reached saturation* [36], coding continued individually. We ensured consistency of the index-level codes via a high *inter-rater reliability* (Krippendorff's $\alpha = 0.75$ [51]) before refining the lower-level codes. We did not measure IRR for lower-level codes, as recommended by HCI experts when codes are part of the process rather than the product [80].

Our codebook ultimately had 10 index-level codes (e.g., MENTALHEALTH, DISCLOSURE) and 171 lower-level analytical codes (e.g., MENTALHEALTH_OVERWHELM, FACTORSAGAINSTDISCLOSURE_REASONS_EXTRALABOR). Qualitative coding was done using ATLAS.ti. 1,569 quotes and 94 posts were relevant to the main topics of this work.

Ethics and Reddit Data Usage. Using Reddit data, especially from marginalized communities, poses ethical considerations. Although posts are public, users may have a mistaken sense of content reach, and posts may be sensitive or contain identifiable information. We followed best practices for ethical usage of Reddit data [35] by obscuring quotes with semantics-preserving, syntactic changes, anonymizing information for both authors and readers (e.g., usernames, post URLs, direct quotes), obtaining IRB-approval, and triangulating between research phases to mitigate for community misrepresentation.[2] We considered the principles of *beneficence* and *respect for persons* in the Belmont report [109], and believe that our work's potential to benefit neurodivergent workers outweighs the cost to Reddit users.

3.2 Phase 2: Quantitative Analysis of a Large-Scale Survey of Neurodiverse Professional Programmers

Survey Design. We constructed a 20-minute survey to generalize and validate findings from the forum. Questions were demographic or derived from our qualitative results, formatted as five-item Likert scales. We designed the survey for developers of all neurotypes. Although we asked participants about mental health conditions, the absence of a mental health *disorder* does not indicate positive mental health [129]. We thus included a validated positive mental health assessment ("PMH-scale" [77]). HCI and neurodiversity experts reviewed the survey for quality and sensitivity.

Survey Recruitment. We recruited via public GitHub user emails, a common sampling method for large surveys of software engineers [33, 54, 73]. We used the GitHub REST API[3] to collect public emails from the top 25 contributors from the top 100 repositories using 30 of the most popular languages on GitHub. This resulted in 17,202 emails, sent these out in weekly batches of ~5,000 to allow time for us to respond to replies. Our broad recruitment allowed us to reach neurodivergent developers, though they are a minority of developers overall. We also recruited via posters in three US metro areas, word of mouth, and an email list of programmers interested in our research. Data was collected from May 16 to June 18, 2024.

Analysis. 502 people completed our survey, out of 821 who started (61% completion rate). After self-consistency filters and removing responses with hate speech, we had 493 valid responses. We organized our statistical analysis around four groups: ADHD, autism and ADHD ("AuDHD" [15]), autism, other neurodivergent (Other ND), and neurotypical (NT). For Other ND, we excluded conditions not always deemed neurodivergent (e.g., tinnitus, depression).

To analyze neurotype differences, we used the χ^2 test of independence when appropriate. We theorized that positive mental health would be influenced by additional factors. As a result, we used *linear regression* models to determine if changing a predictor variable significantly affected a response variable [63], as recommended when Likert-scale items

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[2]We reached out to the subreddit moderator on June 6th, 2024, but did not receive a reply.
[3]https://docs.github.com/en/rest?apiVersion=2022-11-28

are meant to be aggregated into a number [50, 77]. We chose predictors using our qualitative results and prior research. All statistics were in an R notebook [95], using `lme4` [8].

We used a significance threshold of $\alpha = 0.05$, with Benjamini-Hochberg (BH) correction for multiple comparisons within research questions or models with the same response variable [12]. All results survived correction unless otherwise noted.

3.3 Positionality

Two authors identify as ADHD. Our professional experiences span HCI, software engineering, and social work. Our understandings of our own neurodivergence and our software engineering community integration position us well for this work, informing our vested interest in the topic.

We follow the *social model of disability*, which states that disabilities (i.e., barriers to participation or inaccessible activities) result from social or environmental factors [107]. Some ADHD developers on the forum viewed their neurodivergence as innately debilitating, expressing significant self-frustration. Due to this self-stigmatization potential, we provide evidence that these perceptions may be skewed when appropriate (e.g., in Section 5.1).

Table 1. Demographics of our survey population.

Gender	Count	Percent		
Man	410	83.3%		
Woman	46	9.3%		
Nonbinary	29	5.9%		
Other	7	1.4%		
Neurotype	**Count**	**Percent**		
ADHD	140	28%		
AuDHD	99	20%		
Autistic	44	9%		
★ Other ND	16	3%		
NT	194	39%		
Company size		**Count**	**Percent**	
Large (More than 250 people)		213	43%	
Midsize (50-250 people)		91	18%	
Small (10-50 people)		109	22%	
Very small (Less than 10 people)		79	16%	
		Min	**Max**	**Median**
Age (in Years)		18	74	32
Full Years of Professional Experience		0	48	9

★ 13/16 Other ND participants were unsure of their neurodivergent status. Two had dyslexia and one had dyspraxia.

4 SURVEY POPULATION

Table 1 shows our survey demographics. Participants had to be 18 or older and currently or previously employed for software development. 60% of respondents had the job title of "Software Developer" or "Software Engineer." Participants represented 58 countries across seven regions: North America ($n = 202$), Europe & Central Asia ($n = 201$), East Asia & Pacific ($n = 48$), Latin America ($n = 22$), South Asia ($n = 12$), Middle East & North Africa ($n = 6$), and Sub-Saharan Africa ($n = 1$).

For self-reported neurotype, our analyses included five groups: ADHD ($n = 140$), autistic and ADHD ("AuDHD", $n = 99$), autistic ($n = 44$), neurotypical ($n = 194$), and other ($n = 16$). Recognizing the variability in diagnostic accessibility [4], we included both formally diagnosed ($n = 112$) and self-diagnosed ($n = 127$) ADHD individuals. We address implications of this decision in Section 7. The Other ND group did not impact our analysis much and there is no cohesive neurodivergent identity within it. However, we thought it would be inappropriate to exclude their experiences, so we included them as a group in our analysis.

5 RESULTS

We present results from our mixed-methods study on neurodivergence disclosure in software workplaces, comparing discussions from `r/ADHD_Programmers` with a survey of 493 developers. We use the influential JA framework introduced in Section 2.2 because we value its blend of insider and outsider perspectives. Though the JA framework has not been used before in software contexts, we find that it is well suited to our qualitative data.

We found that developers practice all JA framework disclosure types: *preventative*, *protective*, and *spontaneous*. For example, some disclosed *protectively* to gain workplace support. *"I tell them about the struggles with ADHD so they have the chance to help me with it, so I can perform as well as possible."* Others disclosed *spontaneously*, often shortly after diagnosis. *"When I was diagnosed, I came in to work and told everyone the same day.".* Developers also reported experiences of *support* and *stigma*. For example, one developer received *"flexible work hours"* post-disclosure, while another felt misunderstood: *"I tried disclosing [at work] and discovered nobody really understands what it means and you're better off not having this conversation."*

However, we found that the JA framework is incomplete for our context. We observe several additional disclosure-related interactions: decision factors, nuanced disclosure outcomes, differences between forum and survey contexts, and the omnipresent impact of mental health. We now present our findings in these five areas, ultimately synthesizing them into a broader model of disclosure decisions and outcomes.

5.1 RQ1: Cost-Benefit Analyses for Disclosure of Neurodivergence in Software Workplaces

On `r/ADHD_Programmers`, when contributors sought advice on disclosure, responses often included caveats for situational factors such as company culture or legal protection. Here is an indicative interaction:

> **Title:** *"ISO advice: How to disclose my ADHD at my new job to get proper accommodations (or should I?)"*
> **Comment #1:** *"Yeah, I just recently got diagnosed and on meds also, but I'm not informing future employers of my status. As much as we've progressed as a society there is still a stigma…"*
> **Comment #2:** *"I'm in the UK and I understand the market is very different depending on where you are but I'll give my 2 cents…the right company will appreciate you disclosing it and will do their best to make reasonable adjustments."*
> **Comment #3:** *"I would not bring it up as in 'I have adhd', instead I would say "I work better in quiet environments, is that possible?"*

While not included in the JA framework, we approach disclosure decisions using a *cost-benefit* model, inspired by prior literature [58, 99]. We discuss disclosure decision motivating factors on the forum, splitting them into outcome-driven *reasons* and environmental or individual/peer *situations* and inlining quantitative results when relevant.

Reasons and Situations for Planned Disclosure. We identified five reasons for planned disclosure on the forum: *workplace support*, *transparency and authenticity*, *reduced labor*, to *improve the world*, and to *improve mental health*.

Workplace support included accommodations or peer support for job tasks or interviews. This disclosure was often preventative in anticipation of difficulties, but was protective when commenters were not meeting work expectations as a result of low support. In the words of one commenter facing a technical interview, *"My current and previous job had take-home assignments I could do on my own and then talk through at a panel and those went really well. I'm considering asking this potential company if that would be an option…I don't know if it'd backfire to even mention my ADHD?"*

We defined *transparency and authenticity* as disclosing for the sake of openness, whether for workplace efficiency or social cohesion. This disclosure was typically *preventative.* One commenter advised ADHD developers to *"consider telling your team about your ADHD when you are hired. My team is extremely more OK with me looking bored during meetings because they know it's ADHD and not lack of interest."* Commenters also sometimes ascribed moral responsibility to disclosure, or were uncomfortable withholding information.

Reducing labor, including the effort required to pass as neurotypical, motivated disclosure. Commenters would also disclose to avoid work roles or environments perceived as less supportive. *"To be honest if they react badly to this, then that is not a place you want to work for. Whether or not you want to mention your ADHD is up to you, personally I would."* Workplace support was also desired to reduce the extra labor required to do work tasks.

Some commenters saw disclosure as important for *improving one's workplace* or the world, citing personal values or a desire to help out coworkers. *"So far I have not had any negative reactions to my ADHD. But I'm a pretty transparent person who's pushing for a more open society where everyone is welcome."*

Certain *situations* were associated with positive disclosure outcomes, including workplace factors like a *supportive company culture* or availability of *significant company resources.* Larger companies (e.g., FAANG, Microsoft, etc.) were viewed as more supportive than to smaller ones (e.g., startups). Supportive cultures included awareness of neurodivergence and mental health, diversity initiatives, or other openly ND engineers. *"My current company is big on diversity and bringing awareness to mental health issues so I feel like I would be comfortable one day disclosing this to my manager if issues in my performance arose and were brought up to me."*

Personal situations positively influencing disclosure included *understanding one's own needs*, if the *discloser was already thriving*, and strong antidiscrimination laws. *"My current combination of country (Australia) and workplace-to-be (gov) means that I can be pretty confident I won't be experiencing discrimination for this…"* A few commenters also saw ADHD as an asset for software engineering, and did not see disclosure as high-risk. *"I just feel like not hiding, in the end: it can be a superpower as well."* In our survey, AuDHD participants were significantly more likely to disclose ($\chi^2, p = 0.03$) and ADHD participants who were medically diagnosed were more likely to disclose ($\chi^2, p < .001$). These results suggest that ND developers needing more support may disclose more, reflecting our finding that disclosure self-efficacy positively influences disclosure (see Section 5.4).

Timing during the software job or project life cycle could also encourage disclosure. As coding and behavioral interview processes can be stressful for many ADHD developers, some disclosed during the interview process to either gain accommodations, or to determine if the job would be accepting of ADHD. *"I make sure to mention it early and often when speaking to recruiters; let the trash take itself out."* Some commenters mentioned timing as a factor to disclose when already given a position, to disclose earlier on in their job, for preventative disclosure, or to disclose after demonstrating good performance.

Reasons and Situations for Non-Disclosure. We identified six reasons motivating non-disclosure: *workplace stigma, workplace discrimination, internalized stigma, personal privacy, extra labor*, and *no benefit.* Potential stigma included being outed, misunderstood, not believed, othered, or viewed as inferior and incapable. *"He is a really kind manager…He just speaks highly of me and I feel it would change his perception of me if he finds out I'm struggling with my ADHD/depression*

right now." Discrimination included not getting hired or getting fired, being treated unfairly, or withheld company-afforded amenities. *"I also didn't mention [my ADHD] up front. I didn't want to hurt my job prospects…"*

We also found that *internalized stigma* could motivate non-disclosure. Some commenters viewed ADHD as something "broken" about them, justifying others' reactions and viewing themselves as a liability or a failure for not being neurotypical. *"I would not want my manager babying me irreversibly or thinking I'm less capable because of ADHD. Even if it's true."* We discuss imposter syndrome and self-stigmatization on the forum in Section 5.4.

Beyond stigma and discrimination, some commenters wanted to *avoid the extra labor* explaining ADHD or navigating disclosure. *"Anyway, just wanted to tell you that sometimes it's not the best to be the first one who teaches the management about neurodiversity or personality types. It can take half a decade for them to actually understand us."* Others valued *personal privacy* by separating work and personal life, or saw *no benefit* in disclosing.

Situations decreasing disclosure likelihood included: *poor company culture*, *low resources*, *small company size*, or locations with *insufficient legal protection.* *"I see a lot more discrimination happen at smaller companies where there is less oversight and fewer pathways to report".* In Section 6.3, we consider ways that technology could scaffold the disclosure and accommodation process for small companies with lower resources or insufficient legal understanding. Regarding *timing*, many commenters advised not disclosing during interviews, recommending waiting until an official offer. *"You are walking into a new job as a newbie fresh out of college…If you walk in and start up with the 'I have a disability. I need special bullsh*t,' odds are they WON'T say, 'Oh wow! Here is all the special crap you need.'"*

Summary: ND developers disclose for workplace support, transparency and authenticity, reduced labor, to improve the world, or to improve mental health. They may not disclose for fear of workplace stigma or discrimination, extra labor, personal privacy, or because they see no benefit in disclosure. Work and personal situations, such as company culture and legal protection, factor into these decisions.

5.2 RQ2: Outcomes of Disclosure Decisions

Understanding disclosure outcomes is needed for calibrating individuals' cost-benefit analyses, and can also help organizations understand what outcomes are positive and how to accomplish them [101]. In this section, we describe observed disclosure decision outcomes.

Positive Disclosure Outcomes. We identified four positive outcomes: workplace support, social support, reduced labor, and improved mental health. Commenters received *workplace support* through accommodations and shared work style understanding, leading to better task allocation. Some commenters had to advocate for themselves, while others collaborated with employers to address potential issues. For example, one commenter said they *"Got diagnosed right when COVID hit, told my boss immediately…This entire time my boss and I have been working together to build new habits. When we're talking about the upcoming week we list everything that needs to get done, in order of importance."* A desire for transparency and authenticity sometimes led to *social support*, manifesting as understanding, solidarity, or inclusivity. One commenter shared, *"[My manager] had this look that said, 'your reasons for missing work better be good.' When I told her…her whole BEING immediately changed! She came over and gave me a huge hug, and thanked me for telling her because now my actions made complete sense."*

Some commenters also mentioned *reduced labor* as a benefit. Before disclosing, many ADHD developers struggled with unsupportive workplace environments, compensating by overworking. Afterward, some found that accommodations or broader ADHD awareness reduced the need to explain themselves or work overtime. *"I would definitely be distracted 24/7 without accommodations and am not allowed to be interrupted in my thoughts process. All the employees are schooled in this and are more than happy to help."* Reduced labor from disclosure was particularly helpful during interviews when

assessing a potential employer's openness to neurodivergence, allowing candidates to gauge the likelihood of stigma, discrimination, or excessive work demands.

Finally, we observed mental health changes resulting from disclosure. In Section 5.4, we discuss our findings regarding mental health in depth.

Negative Disclosure Outcomes. We identified four negative disclosure outcomes: workplace stigma, workplace backlash, extra labor, and decreased mental health. *Workplace stigma* took many forms, including ignorance, being discredited, or being isolated from colleagues. *"A lot of the time I feel people at work have… either thought it was made-up and an excuse, or they acted like I was a problem and had to be handled with care."*

Workplace backlash from disclosure often accompanied stigma, with some reporting severe consequences including being fired, or losing workplace rights. *"I asked for some PTO next month to go on a 2 week trip. [My manager] declined, saying that we had some work coming up. This company has 'Unlimited PTO'… She said my situation was 'different' because I'm a 'low performer' and I have a condition. Maybe I was being too optimistic when I thought she would have more empathy."* Commenters said that discrimination could hinder long-term career growth. One commenter was even given a test which clinically screened for ADHD during a behavioral interview. Discussions around legal protection varied by country, with many noting that proving discrimination was challenging.

Even when disclosure led to some positive outcomes, disclosing could also lead to *extra labor* in companies with limited ADHD understanding or inefficient accommodation processes. Receiving accommodations often took a long time, especially when determining what constitutes "reasonable" support — a frustrating, under-defined term in some countries' disability laws [49, 71]. *"I always ask for… an accommodation for coding interview[s]. This really gunks up the works and the interactive process can last months and has exceeded a year more than once."* In Section 6.3, we consider ways that technology could help facilitate formulating individualized accommodation plans, thus reducing disclosure-related labor and mitigating a barrier to receiving accommodations.

Partial or Non-Disclosure Outcomes. Non-disclosure also led to negative outcomes. As shown in the lower right of Figure 2, individuals often chose not to disclose to *pass for "normal"* and avoid anticipated negative outcomes. However, passing without support could also be stressful. Some commenters feared getting *outed* or *caught in a lie*, and ADHD-related behaviors still led to stigma, even without disclosure: *"I get performance review critiques about me fidgeting during meetings & not making eye contact."*

To gain support or explain behavior without fully disclosing, commenters would *curate* information to share with managers or coworkers. This included sharing details perceived as less stigmatizing or more relatable than ADHD, including personal responsibilities (e.g., helping family), or general work challenges (e.g., distraction in noisy open offices). For example, one commenter advised another on explaining a gap in employment: *"An alternative to 'medical issues' might be 'personal issues.'… It's vague enough that it could be anything, the word 'personal' discourages further inquiry, and not mentioning 'medical' decreases the chance that you get profiled and rejected for ADHD or depression, both commonly misunderstood conditions."*

Finally, ND developers may be coerced into disclosure. In our survey, one participant recounted one such experience: *"I didn't want [to disclose]… The boss wasn't a sympathetic one and he pushed me for an answer. I told him about my recent diagnosis and the truth. Very hurtfully, he then reported my diagnosis to HR,… basically letting out my secret for no other reason than retaliation."*

Summary: Positive disclosure outcomes include workplace or social support, reduced labor, and improved mental health. Negative disclosure outcomes include stigma, discrimination, extra labor, and decreased mental health. Non-disclosure can also lead to positive or negative outcomes (e.g., avoiding stigma or increased stress) and ND developers may partially disclose information to gain support.

5.3 RQ3: Frequency of Disclosure Reasons and Outcomes Across Forum and Survey Analyses

In this section, we contrast disclosure reason and outcome frequencies between the forum and survey. When done with care, counts of qualitative entities can generate meaning, test researcher interpretation, and highlight patterns [48, 103]. We avoid verbal counting, over-counting, and misleading counting [103]. We found prevailing negative attitudes on the forum. We believe negativity biases may contribute to this skew (see Section 6), that the survey results generalize more than the forum results, and are guardedly optimistic about our survey results' implications.

Table 2. Rates of disclosure *at work* among all ND participants in our survey (n = 299). Participants could choose multiple "Yes" answers, or "No."

Have you disclosed to anyone at your job?	Count	Percent
No	134	45%
Yes, to a coworker	147	49%
Yes, to a boss/supervisor	119	40%
Yes, to someone else	55	18%

Disclosure Rate. Table 2 shows the disclosure rate among ND survey participants. Just over half of our participants (55%) had disclosed to someone at work, primarily (49%) to a coworker. This aligns with other research finding that workplace disclosure of neurodivergence is common (see [98], cf. [84]).

Reasons. Primary disclosure motivations on the forum were workplace support (37 code applications), transparency or authenticity (24 applications), and reduced labor (11 applications). By contrast, survey participants were motivated by transparency (70%), empathy and understanding (56%), anti-discrimination and openness values (53%), and solidarity (42%) (see Table 3). Only 18% desired accommodations or information about them. **This was a surprising result**; we expected accommodations to be the largest reason based on our qualitative analysis and prior literature (e.g., [71, 75] and we contextualize this result in Section 6.1. Participants disclosed to coworkers for social support more often than to managers, and vice versa for workplace support: 60% of those who disclosed to a coworker hoped for *solidarity*, compared to only 19% of those who disclosed to a manager.

Common non-disclosure reasons on the forum were workplace stigma (39 code applications), workplace discrimination (31 applications), and vaguely bad outcomes (27 applications). In the survey, participants also feared stigma or discrimination (34%, see Table 4). However, while less common on the forum (5 applications), *foreseeing no benefit* was the most common survey motivation for non-disclosure, cited by 81% of ND participants who did not disclose. This suggests that survey participants were less afraid of retaliation.

While not in our codebook, "Other" survey responses described unplanned *informing* disclosure, often involving casual disclosure in friendly contexts with coworkers. These responses were associated with feeling safe because neurodivergence was prevalent or non-stigmatized. For example, one participant disclosed because *"It's pretty normalized in the Rust project."* ND survey participants also *spontaneously* disclosed (e.g, saying, "why not?"). Overall, unplanned disclosure was present in the survey, and less apparent on the forum. Cost-benefit disclosure analyses are relevant in forum discussions, but may not be practically relevant for everyone.

Table 3. Reasons ND participants disclosed. Participants could choose multiple options. Percents are out of ND participants who disclosed to the specified person, ordered by total percent ($n = 259$), with accommodation rows grouped. Data cells which read '−' indicate that an option was not available for a question, due to the work hierarchy-based definition of accommodation we used.

Reason for disclosure	Boss #	Boss %	Coworker #	Coworker %	Total %
Transparency	86	74%	94	66%	70%
Empathy/understanding	68	59%	78	55%	56%
Values about antidiscrimination and openness	63	54%	75	52%	53%
Solidarity	22	19%	86	60%	42%
Accommodations	28	24%	−	−	11%
To learn information about accommodations	−	−	18	13%	7%
To learn coping strategies	12	10%	30	21%	16%
Other ★	20	17%	19	13%	15%

★ 25 (64%) of these responses were forms of unplanned disclosure (spontaneous or informing).

Table 4. Reasons ND participants did not disclose. Participants could select multiple options. Percents are out of the number of ND participants who did not disclose ($n = 134$).

Reason for non-disclosure	Number	Percent
Foresaw no benefit	105	78%
Potential for stigma or discrimination	46	34%
Potential for being outed	34	25%
Other ★	33	25%
Low company support	19	14%
Bad company culture	8	6%

★ 21 (64%) of these responses were because the participant was unsure of their ND status or did not have "proof" of it.

Outcomes. In our forum analysis, 118 code applications were negative (e.g., warnings against disclosure, negative experiences), 35 were positive or neutral, and 27 were mixed (both positive and negative). **The survey had a higher rate of positive or neutral disclosure outcomes**: 219 ND participants (85%) had positive or neutral disclosure outcomes, 31 had mixed outcomes, and nine had negative ones (see Table 5).

On the survey, the most common positive outcomes were a *positive interaction* with the recipient (63%), *adjusted expectations* to suit the discloser's needs (30%), and *collaborating* to create solutions (25%). Negative outcomes included stigma, discrimination, or negative interactions from a recipient (10%) and job insecurity or loss (5%). We observed differences in outcomes from disclosing to coworkers or managers. Positive outcomes from managers were more work-related (e.g., adjusted expectations), while disclosing to coworkers led to more social outcomes (e.g., positive conversations). Negative outcomes were more common when disclosing to managers, and these outcomes had greater potential career impacts (e.g., getting fired).

NT participants also reported low rates of negative outcomes. Out of 74 NT participants who were disclosed to by a ND coworker, 57 (77%) considered the outcome to be positive or neutral, 15 had mixed experiences, and one reported a negative outcome. While factors such as self-reporting bias [34], self-selection bias [52], and a lack of understanding of ND experiences may influence NT responses, the ND and NT alignment is encouraging. This suggests that disclosers may not need to consider the recipient's neurotype when making disclosure decisions.

Summary: Contrary to expectations, we find that on the survey, social factors like transparency, empathy, shared values, and solidarity were more common disclosure reasons than accommodations. Contrasting with the forum, **survey**

Table 5. Survey outcomes of disclosure to bosses and coworkers, grouped by broad type: positive, negative, mixed, or neutral. Participants could only select one broad type, but could select multiple specific outcomes. Positive, neutral, and mixed outcomes were more prevalent than negative ones. Participants who chose mixed could choose from both positive and negative specific outcomes. Total percents are out of 259 ND participants who disclosed to someone, while Boss and Coworker percents are out of ND participants who disclosed either to a boss ($n = 116$) or a coworker ($n = 143$).

Outcome of disclosure	Boss #	Boss %	Coworker #	Coworker %	Total #	Total %
POSITIVE	**64**	**55%**	**98**	**69%**	**162**	**63%**
Positive interaction	71	61%	104	73%	175	68%
Adjusted expectations	37	32%	40	28%	77	30%
Worked with you to create solutions	32	28%	32	22%	64	25%
Received accommodations	17	15%	–	–	17	7%
Learned about accommodations	–	–	13	9%	13	5%
Learned coping strategies	10	9%	21	15%	31	12%
NEUTRAL	**25**	**22%**	**32**	**22%**	**57**	**22%**
MIXED (both positive and negative)	**19**	**16%**	**12**	**8%**	**31**	**12%**
NEGATIVE	**8**	**7%**	**1**	**1%**	**9**	**4%**
Stigma, discrimination, or negative interaction from recipient	15	13%	10	7%	25	10%
Job insecurity or loss	14	12%	–	–	14	5%
Withheld accommodations or low support	11	9%	–	–	11	4%
Stigma or discrimination from others	2	2%	5	3%	7	3%
Outed by recipient	4	3%	1	1%	5	2%

respondents report positive or neutral outcomes more frequently than negative ones. We are optimistic that, while there are situational impacts (e.g., company culture, resources), positive or neutral disclosure outcomes are globally common and achievable.

5.4   RQ4: Mental Health of Neurodivergent Developers and Disclosure

We now describe how software workplaces affect ND developer mental health, evidencing an indirect relationship between mental health and disclosure.

The most common presentations of negative mental health on the forum were *anxiety* (149 code applications) and *self-frustration* or imposter syndrome, often based on ADHD (85 applications). Anxiety surrounding technical coding interviews, unique to software engineering [5, 11], was prevalent. The most common presentation of positive mental health was the *alleviation of anxiety* (27 applications).

To mitigate for poor well-being, commenters commonly used coping strategies rather than disclosing or asking for workplace support. Commenters tried to change *mindsets*, maintained *physical health*, kept a healthy *work-life balance*, and took stimulant *medication* to reduce self-frustration for low work performance. Many commenters *self-regulated* medication use due to side effects and concerns about appearing asocial in interviews or meetings. This mirrors prior work showing that software developers perceive stimulants to be less useful in social workplace settings (e.g., meetings) [86].

As in other research on professional programmers [84, 86], most survey participants (76%) realized they had ADHD in adulthood. ADHD diagnoses are most common in childhood [53], so there may be an underlying reason for this difference in software. Although the plurality (43%) of participants who realized they had ADHD in adulthood cited "Challenges in personal life," the second most common reason was "Challenges at a software job" (24%) (cf. [84]). These **results highlight the strain that software workplaces may place on ADHD developers.**

In prior disclosure literature, mental health is mainly described as an outcome. We found that mental health also influences disclosure decisions. Negative outcome anxiety was a prominent reason for non-disclosure across analyses (see Section 5.3). Some commenters also disclosed to aid mental health (e.g., the stress required to pass) or disclosed as well-being improved. *"From experience I know that I'm much happier in a workplace that recognizes and works with my ADHD rather than me having to mask non-stop."*

Situations affecting disclosure decisions included self-stigmatization, imposter syndrome, and prior negative disclosure experiences. For example, one recently-fired poster said, *"I'm too stupid and broken (ADHD!) to avoid [getting fired]. I didn't tell my manager about ADHD, because I don't want special bonuses (more than other programmers). I want to manage my ADHD and live like other people and not tell about it :(,"* later begging for a "cure". Commenters who learned they had ADHD later in life had reduced self-efficacy, an influencing factor of disclosure [74]. They expressed regret for not knowing earlier and being unable to cope with ADHD. *"Thank you so much for these tips. If only I knew them when I was working AND that I was suffering with ADHD which was detected ONLY this year at the age of 51, I would not have done a burn-out/bore-in and be today in invalidity for severe nervous breakdown…"*

Disclosure also caused mental health outcomes. Positive outcomes included improved job satisfaction from accommodations and reduced stress from not having to pass. Negative outcomes included stigma, lowered self-efficacy, and burnout. For example, one commenter whose ADHD was trivialized and unsupported by their manager after disclosure said, *"I always was able to deliver, but many times that came after not sleeping for days and putting myself through an emotional and physical rigor that seemed wholly unnecessary."* Non-disclosure sometimes caused overcompensation at work and anxiety about being *outed* as ADHD. A few commenters advised one another to hide work strategies, or choose discreet options, to protect from being outed. *"Maybe you can spend some time in a conference room when it's empty (but this makes you stand out. Not sure it's a good idea.)"* The uncertainty expressed in this quote, alongside a high volume of duplicate information-seeking, points to a need for opinion and resource aggregation on the forum. In Section 6.2, we discuss ways sentiment analyzers could be used to surface the forum's general opinions.

Table 6 presents significant factors influencing positive mental health (PMH) in our survey (via the "PMH-scale," see Section 3.2). 42% of participants had preexisting mental illness, including depression ($n = 108$), anxiety ($n = 65$), insomnia ($n = 62$), and OCD ($n = 41$). Autistic participants had significantly lower PMH than NT participants, while ADHD participants did not. The inclusion of mental health conditions as a predictor eliminated the significance of ADHD as a predictor. This was consistent with our finding that ADHD and AuDHD participants were more likely to have a preexisting mental health condition ($\chi^2, p < .001$), while autistic participants were not. As in our qualitative results, we found that software-specific activities may have mental health implications for ND developers: AuDHD participants were more likely to say that *standup* (a meeting/Agile practice common to software workplaces [117]) hindered their well-being, whereas NT participants were more likely to say that it helped ($\chi^2, p = .002$).

For ND participants, perceived stigma was infrequent (the median frequency was "Never"), but negatively related with PMH. We found a relationship between positive disclosure outcomes from disclosing to a manager and job satisfaction ($\chi^2, p = .004$). This provides evidence that **positive disclosure outcomes may influence job satisfaction** for ND software engineers, **which in turn may positively affect their mental health.** Conversely, if disclosers experience stigma as an outcome, **this stigma may negatively impact their mental health.**

Summary: Mental health was a concern across analyses. Anxiety was common during technical interviews, and standup correlated with lower well-being in AuDHD participants. Perceived workplace stigma decreased mental health.We demonstrate that disclosure outcomes can affect mental health: **positive outcomes related to job satisfaction and stigma related to lower mental health.** We recommend tool designers consider mental health.

Table 6. **Linear regression summary of effects of predictors on the average PMH-scale value for all participants.** The p-values (Pr) shown are BH-corrected; the rows with a star (★) are significant ($p < 0.05$) after correction. The row with a square (□) was significant, but *did not* survive correction.

Predictor	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	2.26	0.13	17.65	< .001
Group (vs. NT): ADHD	-0.14	0.08	-1.75	0.13
★ AuDHD	-0.33	0.09	-3.69	< .001
★ Autistic	-0.37	0.12	-3.22	.004
Other ND	-0.19	0.18	-1.08	0.39
Company size (vs. 250+ people): Midsize (50-250 people)	0.06	0.09	0.65	0.56
□ Small (10-50 people)	-0.17	0.08	-2.09	0.08
★ Very small (Less than 10 people)	-0.23	0.09	-2.52	0.03
Work from home status (vs. in person): Hybrid	-0.09	0.10	-0.87	0.48
Remote	-0.13	0.09	-1.36	0.27
★ **Job satisfaction**	0.23	0.028	10.06	< .001
Has accommodation	0.05	0.06	0.77	0.53
★ **Presence of mental health condition**	-0.44	0.07	-6.46	< .001

Below: a summary of results for ND participants, including stigma. A linear regression for ADHD participants alone yielded similar results, including as an insignificant predictor the age (childhood or adulthood) of realization of ADHD.

Predictor	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	2.53	0.21	12.21	< .001
Company size (vs. 250+ people): Midsize (50-250 people)	0.07	0.12	0.62	0.57
★ Small (10-50 people)	-0.24	0.10	-2.30	0.049
Very small (Less than 10 people)	-0.23	0.12	-1.90	0.11
Work from home status (vs. in person): Hybrid	-0.10	0.14	-0.72	0.53
Remote	-0.17	0.13	-1.29	0.29
★ **Job satisfaction**	0.21	0.04	5.72	< .001
Has accommodation	0.01	0.08	0.06	0.95
★ **Presence of mental health condition**	-0.47	0.09	-5.57	< .001
Has disclosed	0.12	0.09	1.35	0.27
★ **Frequency of external stigma**	-0.17	0.04	-3.91	< .001

5.5 RQ5: Synthesizing a Model of Disclosure of Neurodivergence in Software Workplaces

We synthesized our findings from our research questions, using axial coding to extend the JA disclosure framework for invisible chronic conditions [66] introduced in Section 2.2. Figure 2 presents our final model of disclosure in software workplaces. Our final model is inclusive of all components in the original JA framework (highlighted in yellow in Figure 2), indicating that the JA framework applied well to our context.

However, the framework was necessary to extend, as the reasoning behind disclosure decisions and certain downstream or software-specific outcomes were not considered. From our analysis of factors influencing disclosure in Section 5.1, we add a decision model that ND developers navigate, inspired by existing literature [58, 99]. We observed that advice from online communities can influence real life decisions, which we consider in Section 5.3. We also found that people may disclose at different times for specific accommodations (e.g., for the technical interview) or because they perceive the tech industry to be neurodivergent-friendly.

It was also necessary to expand on the outcomes of disclosure for our context. The JA framework includes *support* and *stigma* (i.e., *discreditation*, *rejection*, or *isolation*) as possible outcomes of disclosure. However, in our analysis

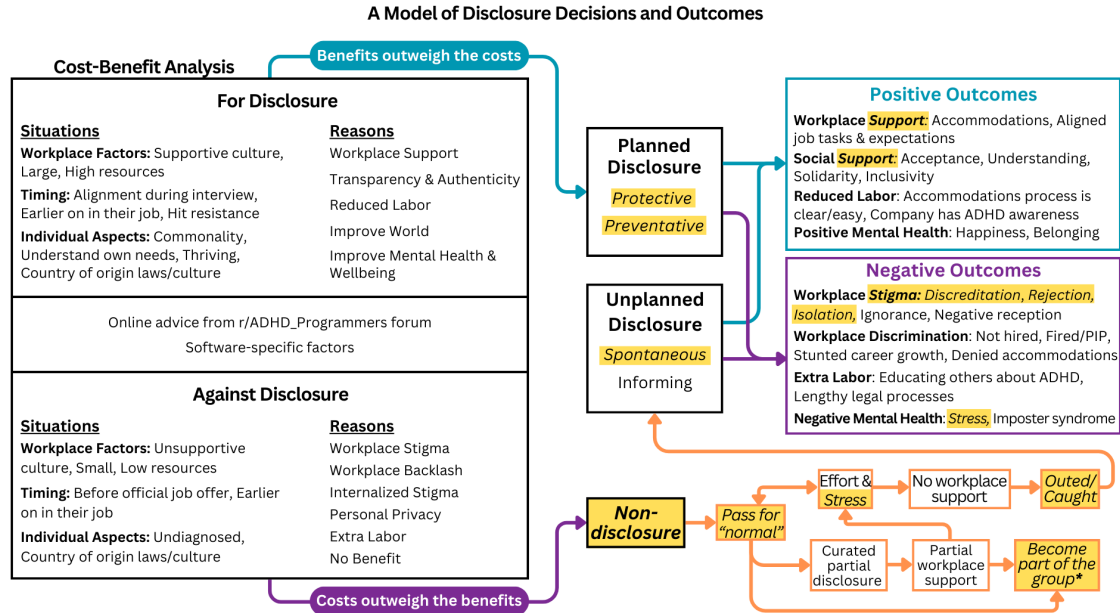A Model of Disclosure Decisions and Outcomes

Fig. 2. **Our model of cost-benefit analyses for disclosure decisions and resultant outcomes.** We adapted and extended the framework from Joachim and Acorn [66], and took inspiration from prior literature on motivations for and against disclosure (e.g., [58]) when designing the cost-benefit analysis portion. Concepts highlighted in yellow were present in the original framework. *Becoming part of the group was relatively uncommon in both analyses. However, some people did not see their passing as effortful, or did not perceive their neurodivergence as a significant difference.

of disclosure outcomes in Section 5.2, we distinguished between stigma and discrimination, and found increased or reduced labor as outcomes. We also noticed the influence of mental health, both as a factor for disclosure and as an outcome. These outcomes may have been unaddressed in the original framework because it was not developed in a hierarchical workplace context and did not consider downstream or mediating effects (e.g., the consequences of stigma). Finally, we identified states stemming from non-disclosure, including partial disclosure of related, but more socially accepted, information. Partial disclosure and support, as well as the presence of *informing* disclosure, may be present because coworkers need work style information to negotiate working relationships. Overall, our model captures nuanced considerations impacting the disclosure decisions of ND software engineers and their outcomes.

6 DISCUSSION

In this discussion, we 1) contextualize our finding on social support as a prevailing motivator for disclosure, 2) discuss a potential negativity bias on the forum and design considerations for informing disclosure decisions in neurodivergent online communities, 3) propose technologies for facilitating positive workplace disclosure outcomes and mitigating negative ones, and 4) call for future research into disclosure and technology.

6.1 Social Support as a Primary Disclosure Motivation

Surprisingly, we found that ND developers disclose more frequently for social support (e.g., transparency, empathy) than for accommodations or for coping strategies (see Table 3). This contradicts the common framing of disclosure as a method

for obtaining accommodations in prior work (see Section 2.3). Software-specific culture and the intentional centering of accommodations in prior work may have influenced this finding. Neurodivergent people are well-represented in the tech sector [112], and software workplace environments can be supportive for some neurodivergent people [84]. Together, this may make organizational accommodations less needed in our context. Additionally, in prior work, accommodations are often a primary subject and assumed disclosure benefit; other motivations are often not discussed [71, 74, 75] or quantified [99]. Some works that do quantify motivations align with our results, highlighting social motivations as well [98]. We believe that our finding is an important, underrepresented perspective, evidencing a need for support for positive social disclosure outcomes alongside accommodations.

6.2 Negativity Bias and Platform Design for Neurodivergent Disclosure Decisions

Anticipated and experienced negative outcomes were more frequent on the forum than on the survey (see Section 5.3). The skew toward negative perspectives we observed on r/ADHD_Programmers could be informed by an array of sociotechnical factors. For instance, forum commenters may give conservative advice advising against disclosure to avoid causing harm. In addition, online community discussions for invisible disabilities can be oriented around commiseration and support for those who have been through negative experiences [104]. Psychologically, people focus more on negative entities, and negative information strongly influences evaluations and decisions [9, 61, 100]. Furthermore, online, negative information is prevalent [62, 123], priming users to react negatively [28]. These factors may contribute to the prevailing negative perspectives on the forum. By contrast, our survey may be more indicative of a general sample of disclosure outcomes and perspectives.

Some forum commenters explicitly mentioned using online advice to make disclosure decisions. *"I do plan to take the good advice I have seen on the ADHD sub to not mention my ADHD directly, but to describe the symptoms in my check-in meetings with my supervisor."* Given that people go to social media for information on disability and disclosure [118] and that the information on certain social medias (especially Reddit, which affords more in-depth interactivity) can be negatively-biased [104], technological interventions in these communities could inform users and give them a broader understanding of disclosure outcomes. It is important to note that the bias on r/ADHD_Programmers resulted from a skew in presented experiences, not in negative attitudes toward other users. Communities like r/ADHD_Programmers offer necessary outlets for informational and emotional support, and it would be inappropriate to censor users' experiences. With this in mind, we ask: *how we can reduce the effect of negativity bias on disclosure decisions and self-perceptions while still preserving and supporting real user experiences?* We draw on prior work to envision online tools which could detect negativity bias when users seek disclosure advice and then provide information relevant to the decision.

Automated sentiment analysis could detect negative biases in posted disclosure advice or in overly self-critical posts (as in mental health interventions [110]). It can also help detect opinion spammers [25], when individuals with negative experiences share their opinions more often. However, sentiment analyzers can mark neutral statements as negative if they include neurodivergent labels (e.g., ADHD), reproducing bias [85]. If sentiment analyzers would be used for detection, care should be taken to fine-tune on specific community norms and expressions. Techniques for machine learning algorithmic fairness, such as the Seldonian framework [119], could help find models within a search space that are probabilistically likely to be fair.

After detection of advice-seeking or negativity bias, bots could generate or link to factual, polite, and underrepresented counter-perspectives. Bots are commonly used on Reddit to improve community and information quality [76]. It would be important to make sure bots are not inappropriate or annoying (e.g., needlessly challenging viewpoints or posting too frequently) [76]. Incorporating reinforcement learning or feedback from community opinion on bot responses could

also make the timing of bot responses more appropriate [72]. On balance, using sentiment analyzers in the detection phase and then using bots to redirect to static, factual sources could mitigate for the potential harms of biased sentiment analyzers while benefiting from scalability and context for users.

Bots could also link to FAQ pages, used widely on Reddit to archive information [41]. This could help address expressions of uncertainty and deliberation that we noticed on the forum. Ideally, these FAQ pages would represent forum opinion and provide factual evidence and legal context (an influencing factor for disclosure we identified, see Section 5.1). To achieve this, democratic deliberation and consensus processes, such as those used on Wikipedia [57], could be used to create these resources. Opinion summarization for frequently asked questions on the forum could help represent diverse perspectives [13] in any such FAQ.

6.3 Design Considerations for Tools Facilitating Disclosure in Software Workplaces

Based on our model in Figure 2, we believe technology could help facilitate positive disclosure outcomes and mitigate negative ones. We discuss design considerations for tools stemming from our framework that could reduce extra labor, facilitate social support, make possible accommodations more transparent, and prevent workplace discrimination.

On the forum, we identified extra labor from educating others on neurodivergence as a negative disclosure outcome (see Section 5.2). Invisibly disabled people may benefit from non-verbal communicators of disability attributes; for example, neurodivergent workers could use online status indicators [26] or LED lights to covertly communicate to knowledgeable coworkers (similar to the FilterFace and the Pain Level Indicating System from Ganesh *et al.* [38]). Such indicators could inform others if they are stressed or do not want to be disturbed [19]. These indicators could reduce the extra labor induced by disclosure noted in our framework.

Tools that allow self-definition of emotional states, such as the visual representations in Zolyomi *et al.* [132], could also help reduce miscommunication in neurodiverse dyads. Additionally, providing transformational games [42] or virtual reality experiences [125] to all employees, could increase perspective-taking (an antecedent of empathy) in neurotypical coworkers. These interventions would directly address the most prevalent disclosure reason we found: social support (see Section 5.3).

We found that lengthy legal processes and could result from disclosure, especially relating to individualized accommodations (see Section 5.2). To increase accommodation transparency, sources describing accommodations granted in similar circumstances (e.g, social media posts, research articles) could be summarized with LLMs and provided to companies and workers as potential options. Although LLMs run the risk of hallucinations, "reasonable" accommodations vary from context to context and need to be checked for feasibility, and negotiation for accommodations could be aided by ideas about what might be possible. There is also evidence to suggest that some neurodivergent (i.e., autistic) workers find social advice from LLMs helpful, and sometimes tonally preferable and more efficient than a human confederate [64].

Finally, workplace discrimination and stigma were the most prevalent disclosure-related fears identified in our framework (see Section 5.3). Informed by formally specified disability laws [17] and causal inference techniques [131], automatic retaliation detection could systematically protect workers and help under-resourced companies follow disability law. These tools would have the benefit of being deterministic, could discourage negative disclosure outcomes, and could reduce the labor required for self-advocacy when coping with workplace discrimination and stigma.

6.4 Future Research

We recommend research on online communities and behavioral outcomes of disclosure in software workplaces to further understand negativity bias. Additionally, we call for research into disclosure in other workplaces to determine a balance for social and work support. Finally, the tools in Sections 6.2 and 6.3 could be developed using participatory design [111].

7 LIMITATIONS AND THREATS

Researcher bias may influence our methods and results. We discuss potential limitations and mitigation efforts.
Qualitative Threats. The *credibility* of our findings might not resonate with ADHD programmers or researchers [46]. We addressed this by engaging with prior research, triangulating among authors, and comparing with survey data. Members of our research team are part of the ADHD community, deepening our contextual understanding. We also performed *prolonged engagement* [46], reading hundreds of posts on `r/ADHD_Programmers`.

We analyze only one online forum and platform (Reddit), limiting *generalizability* due to forum-specific cultural norms. However, `r/ADHD_Programmers` is the largest public online forum for neurodivergent programmers, and our goal was to provide nuanced insights rather than broad generalizations.

Qualitative coding may reflect researcher perspectives. We mitigated this by comparing against prior work and having frequent team meetings. For *dependability* [46], we documented our meetings and analysis. Ethical constraints prevent data release, but our replication package includes detailed documentation.

Quantitative Threats. Our survey, with its indicative population and global recruitment, is designed to generalize. However, self-selection bias and data quality issues may arise. Participants with stronger negative or positive experiences might disproportionately self-select. We observed demographic consistency with GitHub users [124] and employed validated measures, consistency checks, and time-based filters to mitigate this threat.

We combined diagnosed and self-diagnosed neurodivergent programmers to account for unequal access to diagnosis and to mirror the forum's intersectionality, where diagnosis may be unclear. Our statistical groupings may impact our results.

There is a lack of gender diversity in our sample, likely due to an overrepresentation of men on GitHub. For instance, estimates of the percentage of users who are women on GitHub have ranged from 2–10% [33, 73, 124]. There is evidence to suggest that gender may be relevant; for example, ADHD women are underdiagnosed in childhood and may present ADHD differently [94] and they may experience more intersectional workplace discrimination. Future research could explore gender differences in software workplace disclosure.

8 CONCLUSION

Disclosing neurodivergence at work is a complex decision, potentially leading to positive (e.g., increased understanding) or negative outcomes (e.g., job insecurity). We conducted a mixed-methods study involving qualitative analysis of 99 Reddit posts and comments and a survey of 493 neurodivergent software developers.

We found that social motivations, including transparency, shared values, and solidarity may be more prevalent than motivations for work support (e.g., accommodations). We found that neurodivergent developers consider personal characteristics (e.g., nationality) and workplace factors (e.g., company culture or resources) when making disclosure decisions. Negative outcomes included stigma and discrimination, such as job loss, while positive outcomes included workplace task alignment, and acceptance. We found 85% of participants who disclosed had positive or neutral outcomes,

suggesting cautious optimism. We provide a framework for understanding disclosure decisions and outcomes in software, and we add to community understanding of workplace disclosure. We call for further research into neurodivergent disclosure across workplaces, along with the participatory design of tools to scaffold disclosure decisions which consider mental health, anonymity, and information dissemination.

9 ACKNOWLEDGMENTS

REFERENCES

[1] Khaled Albusays, Stephanie Ludi, and Matt Huenerfauth. Interviews and observation of blind software developers at work to understand code navigation challenges. In *Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility*, ASSETS '17, page 91–100, New York, NY, USA, 2017. Association for Computing Machinery.

[2] Mason Ameri, Lisa Schur, Meera Adya, F Scott Bentley, Patrick McKay, and Douglas Kruse. The disability employment puzzle: A field experiment on employer hiring behavior. *ILR Review*, 71(2):329–364, 2018.

[3] Anxiety and Depression Association of America (ADAA). Facts and statistics - understanding anxiety, 2024. Accessed: 2024-09-11.

[4] Philip Asherson, Ron Akehurst, JJ Sandra Kooij, Michael Huss, Kathleen Beusterien, Rahul Sasané, Shadi Gholizadeh, and Paul Hodgkins. Under diagnosis of adult ADHD: cultural influences and societal burden. *Journal of Attention Disorders*, 16(5_suppl):20S–38S, 2012.

[5] Adnan Aziz, Tsung-Hsien Lee, and Amit Prakash. *Elements of Programming Interviews in Java: The Insider's Guide*. EPI, 2012.

[6] Trine L Bakken, SB Helverschou, Siv Helene Høidal, and Harald Martinsen. Mental illness with intellectual disabilities and autism spectrum disorders. *Psychiatric and behavioral disorders in intellectual and developmental disabilities*, pages 119–128, 2016.

[7] Azy Barak, Meyran Boniel-Nissim, and John Suler. Fostering empowerment in online support groups. *Computers in human behavior*, 24(5):1867–1883, 2008.

[8] Douglas Bates, Martin Maechler, Ben Bolker, and Steve Walker. Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, 67(1):1–48, 2015.

[9] Roy F Baumeister, Ellen Bratslavsky, Catrin Finkenauer, and Kathleen D Vohs. Bad is stronger than good. *Review of general psychology*, 5(4):323–370, 2001.

[10] Jason Baumgartner, Savvas Zannettou, Brian Keegan, Megan Squire, and Jeremy Blackburn. The Pushshift Reddit dataset. In Munmun De Choudhury, Rumi Chunara, Aron Culotta, and Brooke Foucault Welles, editors, *Proceedings of the Fourteenth International AAAI Conference on Web and Social Media, ICWSM 2020, Held Virtually, Original Venue: Atlanta, Georgia, USA, June 8-11, 2020*, pages 830–839. AAAI Press, 2020.

[11] Mahnaz Behroozi, Shivani Shirolkar, Titus Barik, and Chris Parnin. Does stress impact technical interview performance? In *Proceedings of the 28th ACM Joint Meeting on European Software Engineering Conference and Symposium on the Foundations of Software Engineering*, pages 481–492, 2020.

[12] Craig M Bennett, Michael B Miller, and George L Wolford. Neural correlates of interspecies perspective taking in the post-mortem atlantic salmon: An argument for multiple comparisons correction. *Neuroimage*, 47(Suppl 1):S125, 2009.

[13] Surbhi Bhatia. A comparative study of opinion summarization techniques. *IEEE Transactions on Computational Social Systems*, 8(1):110–117, 2020.

[14] Janine Booth. *Autism equality in the workplace: removing barriers and challenging discrimination*. Jessica Kingsley Publishers, 2016.

[15] Siân Boyle. The sudden rise of AuDHD: what is behind the rocketing rates of this life-changing diagnosis?, Apr 2024.

[16] Louise Bradley, Rebecca Shaw, Simon Baron-Cohen, and Sarah Cassidy. Autistic adults' experiences of camouflaging and its perceived impact on mental health. *Autism in adulthood*, 3(4):320–329, 2021.

[17] Travis D Breaux and David G Gordon. Regulatory requirements traceability and analysis using semi-formal specifications. In *Requirements Engineering: Foundation for Software Quality: 19th International Working Conference, REFSQ 2013, Essen, Germany, April 8-11, 2013. Proceedings 19*, pages 141–157. Springer, 2013.

[18] Elaine Brohan, Claire Henderson, Mike Slade, and Graham Thornicroft. Development and preliminary evaluation of a decision aid for disclosure of mental illness to employers. *Patient education and counseling*, 94(2):238–242, 2014.

[19] Adam Brown, Alison Chang, Ben Holtz, and Sarah D'Angelo. Developer productivity for humans, part 6: Measuring flow, focus, and friction for developers. *IEEE Software*, 40(6):16–21, 2023.

[20] Eilidh Cage, Jessica Di Monaco, and Victoria Newell. Experiences of autism acceptance and mental health in autistic adults. *Journal of autism and developmental disorders*, 48:473–484, 2018.

[21] Eilidh Cage and Zoe Troxell-Whitman. Understanding the reasons, contexts and costs of camouflaging for autistic adults. *Journal of autism and developmental disorders*, 49(5):1899–1911, 2019.

[22] John L Campbell, Charles Quincy, Jordan Osserman, and Ove K Pedersen. Coding in-depth semistructured interviews: Problems of unitization and intercoder reliability and agreement. *Sociological methods & research*, 42(3):294–320, 2013.

[23] Luis V Casaló, Carlos Flavián, and Miguel Guinalíu. Understanding the intention to follow the advice obtained in an online travel community. *Computers in Human Behavior*, 27(2):622–633, 2011.

[24] Sarah Cassidy, Louise Bradley, Rebecca Shaw, and Simon Baron-Cohen. Risk markers for suicidality in autistic adults. *Molecular autism*, 9:1–14, 2018.

[25] Euijin Choo, Ting Yu, and Min Chi. Detecting opinion spammer groups through community discovery and sentiment analysis. In *Data and Applications Security and Privacy XXIX: 29th Annual IFIP WG 11.3 Working Conference, DBSec 2015, Fairfax, VA, USA, July 13-15, 2015, Proceedings 29*, pages 170–187. Springer, 2015.

[26] Camille Cobb, Lucy Simko, Tadayoshi Kohno, and Alexis Hiniker. User experiences with online status indicators. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, pages 1–12, 2020.

[27] Julia Cook, Laura Hull, Laura Crane, and William Mandy. Camouflaging in autism: A systematic review. *Clinical psychology review*, 89, 2021.

[28] Munmun De Choudhury and Sushovan De. Mental health discourse on Reddit: Self-disclosure, social support, and anonymity. In *Proceedings of the international AAAI conference on web and social media*, volume 8, pages 71–80, 2014.

[29] Rich DeJordy. Just passing through: Stigma, passing, and identity decoupling in the work place. *Group & Organization Management*, 33(5):504–531, 2008.

[30] Nicole M Deterding and Mary C Waters. Flexible coding of in-depth interviews: A twenty-first-century approach. *Sociological methods & research*, 50(2):708–739, 2021.

[31] Lindsay Y Dhanani, Jeremy M Beus, and Dana L Joseph. Workplace discrimination: A meta-analytic extension, critique, and future research agenda. *Personnel Psychology*, 71(2):147–179, 2018.

[32] John J Donohue III. Prohibiting sex discrimination in the workplace: An economic perspective. *U. Chi. L. Rev.*, 56:1337, 1989.

[33] Madeline Endres, Kevin Boehnke, and Westley Weimer. Hashing it out: A survey of programmers' cannabis usage, perception, and motivation. In *Proceedings of the 44th International Conference on Software Engineering*, pages 1107–1119, 2022.

[34] Lars T Fadnes, Adam Taube, and Thorkild Tylleskär. How to identify information bias due to self-reporting in epidemiological research. *The Internet Journal of Epidemiology*, 7(2):28–38, 2009.

[35] Casey Fiesler, Michael Zimmer, Nicholas Proferes, Sarah Gilbert, and Naiyan Jones. Remember the human: A systematic review of ethical considerations in reddit research. *Proceedings of the ACM on Human-Computer Interaction*, 8(GROUP):1–33, 2024.

[36] Patricia I Fusch Ph D and Lawrence R Ness. Are we there yet? Data saturation in qualitative research. *The Qualitative Report*, 20(9):1408–1416, 2015.

[37] Gallup. U.s. depression rates reach new highs, 2023. Accessed: 2024-09-11.

[38] Kausalya Ganesh and Amanda Lazar. The work of workplace disclosure: invisible chronic conditions and opportunities for design. *Proceedings of the ACM on Human-computer Interaction*, 5(CSCW1):1–26, 2021.

[39] Radhika Garg, Yash Kapadia, and Subhasree Sengupta. Using the lenses of emotion and support to understand unemployment discourse on Reddit. *Proceedings of the ACM on Human-Computer Interaction*, 5(CSCW1):1–24, 2021.

[40] Cristina M Giannantonio, Amy E Hurley-Hanson, and Amy Jane Griffiths. Autism in the workplace: The role of disclosure in recruitment. In *Neurodiversity and Work: Employment, Identity, and Support Networks for Neurominorities*, pages 157–179. Springer, 2024.

[41] Sarah Gilbert. Towards intersectional moderation: An alternative model of moderation built on care and power. *Proc. ACM Hum.-Comput. Interact.*, 7(CSCW2), October 2023.

[42] Varun Girdhar, Chao-Yang Tseng, Shiyu Wang, Ruoxi Yang, Zibo Ye, Michael G. Christel, Scott M. Stevens, and Morgan Evans. The intent game: An interactive tool for empathy in neurotypicals. In Jan L. Plass and Xavier Ochoa, editors, *Serious Games*, pages 433–439, Cham, 2025. Springer Nature Switzerland.

[43] Erving Goffman. *Stigma: Notes on the management of spoiled identity*. Simon and schuster, 2009.

[44] Michael Edward Goodwin. Making the invisible visible: Let's discuss invisible disabilities. *HAPS Educator*, 2020.

[45] Alison Green. Keeping secrets: A case study of students' disclosure of dyslexia and dyspraxia on application for a work placement. *The Journal of Inclusive Practice in further and higher education*, 6:4–21, 2015.

[46] Egon G Guba. *Fourth generation evaluation*, volume 294. Sage, 1989.

[47] Liat Hadar and Ilan Fischer. Giving advice under uncertainty: What you do, what you should do, and what others think you do. *Journal of Economic Psychology*, 29(5):667–683, 2008.

[48] David R Hannah and Brenda A Lautsch. Counting in qualitative research: Why to conduct it, when to avoid it, and when to closet it. *Journal of management inquiry*, 20(1):14–22, 2011.

[49] Sharon L Harlan and Pamela M Robert. The social construction of disability in organizations: Why employers resist reasonable accommodation. *Work and occupations*, 25(4):397–435, 1998.

[50] Spencer E Harpe. How to analyze likert and other rating scale data. *Currents in pharmacy teaching and learning*, 7(6):836–850, 2015.

[51] Andrew F Hayes and Klaus Krippendorff. Answering the call for a standard reliability measure for coding data. *Communication methods and measures*, 1(1):77–89, 2007.

[52] James J Heckman. Selection bias and self-selection. In *Econometrics*, pages 201–224. Springer, 1990.

[53] Josephine Holland and Kapil Sayal. Relative age and ADHD symptoms, diagnosis and medication: a systematic review. *European Child & Adolescent Psychiatry*, 28(11):1417–1429, 2019.

[54] Yu Huang, Denae Ford, and Thomas Zimmermann. Leaving my fingerprints: Motivations and challenges of contributing to OSS for social good. In *2021 IEEE/ACM 43rd International Conference on Software Engineering (ICSE)*, pages 1020–1032, 2021.

[55] Laura Hull, Lily Levy, Meng-Chuan Lai, KV Petrides, Simon Baron-Cohen, Carrie Allison, Paula Smith, and Will Mandy. Is social camouflaging associated with anxiety and depression in autistic adults? *Molecular autism*, 12:1–13, 2021.

[56] Laura Hull, Konstantinos Vassilis Petrides, Carrie Allison, Paula Smith, Simon Baron-Cohen, Meng-Chuan Lai, and William Mandy. "Putting on my best normal": Social camouflaging in adults with autism spectrum conditions. *Journal of autism and developmental disorders*, 47:2519–2534, 2017.

[57] Jane Im, Amy X Zhang, Christopher J Schilling, and David Karger. Deliberation and resolution on wikipedia: A case study of requests for comments. *Proceedings of the ACM on Human-Computer Interaction*, 2(CSCW):1–24, 2018.

[58] Derek Isetti. Disclosure of a communication disorder during a job interview: A theoretical model. *Journal of Communication Disorders*, 87:106038, 2020.

[59] Nwakego Isika, Antonette Mendoza, and Rachelle Bosua. The use of social media by adults with chronic illness: analysing the support mechanisms of four social media platforms. In *Proceedings of the Australasian Conference on Information Systems*, 2016.

[60] Glenn D Israel. *Sampling the evidence of extension program impact*. Citeseer, 1992.

[61] Tiffany A Ito, Jeff T Larsen, N Kyle Smith, and John T Cacioppo. Negative information weighs more heavily on the brain: the negativity bias in evaluative categorizations. *Journal of personality and social psychology*, 75(4), 1998.

[62] Harri Jalonen. Social media–an arena for venting negative emotions. *Online Journal of Communication and Media Technologies*, 4(October 2014 – Special Issue):53–70, 2014.

[63] Gareth James, Daniela Witten, Trevor Hastie, Robert Tibshirani, and Jonathan Taylor. Linear regression. In *An introduction to statistical learning: With applications in python*, pages 69–134. Springer, 2023.

[64] JiWoong Jang, Sanika Moharana, Patrick Carrington, and Andrew Begel. "It's the only thing i can trust": Envisioning large language model use by autistic workers for communication assistance. In *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems*, pages 1–18, 2024.

[65] Kristen E Jastrowski, Kristoffer S Berlin, Amy F Sato, and W Hobart Davies. Disclosure of Attention–Deficit/Hyperactivity Disorder may minimize risk of social rejection. *Psychiatry*, 70(3):274–282, 2007.

[66] Gloria Joachim and Sonia Acorn. Stigma of visible and invisible chronic conditions. *Journal of advanced nursing*, 32(1):243–248, 2000.

[67] Jazette Johnson, Andrew Begel, Richard Ladner, and Denae Ford. Program-l: Online help seeking behaviors by blind and low vision programmers. In *2022 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)*, pages 1–6. IEEE, 2022.

[68] Tiffany D Johnson and Aparna Joshi. Disclosure on the spectrum: Understanding disclosure among employees on the autism spectrum. *Industrial and Organizational Psychology*, 7(2):278–281, 2014.

[69] Tiffany D Johnson and Aparna Joshi. Dark clouds or silver linings? A stigma threat perspective on the implications of an autism diagnosis for workplace well-being. *Journal of Applied Psychology*, 101(3):430, 2016.

[70] Kristen P Jones and Eden B King. Managing concealable stigmas at work: A review and multilevel model. *Journal of Management*, 40(5):1466–1494, 2014.

[71] Kate E Kidwell, Rebecca L Clancy, and Gwenith G Fisher. The devil you know versus the devil you don't: Disclosure versus masking in the workplace. *Industrial and Organizational Psychology*, 16(1):55–60, 2023.

[72] Zhaoxing Li, Lei Shi, Alexandra I Cristea, and Yunzhan Zhou. A survey of collaborative reinforcement learning: interactive methods and design patterns. In *Proceedings of the 2021 ACM Designing Interactive Systems Conference*, pages 1579–1590, 2021.

[73] Jenny T. Liang, Chenyang Yang, and Brad A. Myers. A large-scale survey on the usability of AI programming assistants: Successes and challenges. In *Proceedings of the IEEE/ACM 46th International Conference on Software Engineering*, ICSE '24, New York, NY, USA, 2024. Association for Computing Machinery.

[74] Sally Lindsay, Elaine Cagliostro, and Gabriella Carafa. A systematic review of workplace disclosure and accommodation requests among youth and young adults with disabilities. *Disability and rehabilitation*, 40(25):2971–2986, 2018.

[75] Sally Lindsay, Victoria Osten, Mana Rezai, and Sunny Bui. Disclosure and workplace accommodations for people with autism: A systematic review. *Disability and rehabilitation*, 43(5):597–610, 2021.

[76] Kiel Long, John Vines, Selina Sutton, Phillip Brooker, Tom Feltwell, Ben Kirman, Julie Barnett, and Shaun Lawson. "Could you define that in bot terms"? Requesting, creating and using bots on reddit. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*, pages 3488–3500, 2017.

[77] Justina Lukat, Jürgen Margraf, Rainer Lutz, William M van der Veld, and Eni S Becker. Psychometric properties of the positive mental health scale (pmh-scale). *BMC psychology*, 4:1–14, 2016.

[78] Renkai Ma, Yue You, Xinning Gui, and Yubo Kou. How do users experience moderation?: A systematic literature review. *Proceedings of the ACM on Human-Computer Interaction*, 7(CSCW2):1–30, 2023.

[79] Jane Mantzalas, Amanda L Richdale, and Cheryl Dissanayake. A conceptual model of risk and protective factors for autistic burnout. *Autism Research*, 15(6):976–987, 2022.

[80] Nora McDonald, Sarita Schoenebeck, and Andrea Forte. Reliability and inter-rater reliability in qualitative research: Norms and guidelines for CSCW and HCI practice. *Proc. ACM Hum.-Comput. Interact.*, 3(CSCW), nov 2019.

[81] Cheryl K McIntosh, Shelia A Hyde, Myrtle P Bell, and Paul E Yeatts. Thriving at work with ADHD: antecedents and outcomes of proactive disclosure. *Equality, Diversity and Inclusion: An International Journal*, 42(2):228–247, 2023.

[82] Andreas Meier, Martin Kropp, Craig Anslow, and Robert Biddle. Stress in Agile software development: practices and outcomes. In *Agile Processes in Software Engineering and Extreme Programming: 19th International Conference, XP 2018, Porto, Portugal, May 21–25, 2018, Proceedings 19*, pages 259–266. Springer International Publishing, 2018.

[83] Damian Milton and Tara Sims. How is a sense of well-being and belonging constructed in the accounts of autistic adults? *Disability & Society*, 31(4):520–534, 2016.

[84] Meredith Ringel Morris, Andrew Begel, and Ben Wiedermann. Understanding the challenges faced by neurodiverse software engineering employees: Towards a more inclusive and productive technical workforce. In *Proceedings of the 17th International ACM SIGACCESS Conference on computers & accessibility*, pages 173–184, 2015.

[85] Pranav Narayanan Venkit, Mukund Srinath, and Shomir Wilson. Automated ableism: An exploration of explicit disability biases in sentiment and toxicity analysis models. In Anaelia Ovalle, Kai-Wei Chang, Ninareh Mehrabi, Yada Pruksachatkun, Aram Galystan, Jwala Dhamala, Apurv Verma, Trista Cao, Anoop Kumar, and Rahul Gupta, editors, *Proceedings of the 3rd Workshop on Trustworthy Natural Language Processing (TrustNLP 2023)*, pages 26–34, Toronto, Canada, July 2023. Association for Computational Linguistics.

[86] Kaia Newman, Madeline Endres, Westley Weimer, and Brittany Johnson. From organizations to individuals: Psychoactive substance use by professional programmers. In *2023 IEEE/ACM 45th International Conference on Software Engineering (ICSE)*, pages 665–677. IEEE, 2023.

[87] Kaia Newman, Sarah Snay, Madeline Endres, Manasvi Parikh, and Andrew Begel. "Get me in the groove": A mixed methods study on supporting ADHD professional programmers. In *2025 IEEE/ACM 47th International Conference on Software Engineering (ICSE)*, pages 778–778. IEEE Computer Society, 2025.

[88] Dita Nimante, Egija Laganovska, and Robert Osgood. To tell or not to tell–disclosure of autism in the workplace. *International Journal of Developmental Disabilities*, 69(3):414–423, 2023.

[89] Martin Oscarsson, Martina Nelson, Alexander Rozental, Ylva Ginsberg, Per Carlbring, and Fredrik Jönsson. Stress and work-related mental illness among working adults with ADHD: a qualitative study. *BMC psychiatry*, 22(1):751, 2022.

[90] Oxford English Dictionary. neurodiversity, n., March 2024.

[91] Alissa D Parr, Samuel T Hunter, and Gina Scott Ligon. Questioning universal applicability of transformational leadership: Examining employees with autism spectrum disorder. *The Leadership Quarterly*, 24(4):608–622, 2013.

[92] Sai Teja Peddinti, Keith W Ross, and Justin Cappos. "On the internet, nobody knows you're a dog": a Twitter case study of anonymity in social networks. In *Proceedings of the second ACM conference on Online social networks*, pages 83–94, 2014.

[93] Amber Pryke-Hobbes, Jade Davies, Brett Heasman, Adam Livesey, Amy Walker, Elizabeth Pellicano, and Anna Remington. The workplace masking experiences of autistic, non-autistic neurodivergent and neurotypical adults in the UK. *Plos one*, 18(9):e0290001, 2023.

[94] Patricia O Quinn and Manisha Madhoo. A review of attention-deficit/hyperactivity disorder in women and girls: uncovering this hidden diagnosis. *Prim Care Companion CNS Disord*, 16(3):PCC–13r01596, 2014.

[95] R Core Team. *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria, 2023.

[96] Naveen Raman, Minxuan Cao, Yulia Tsvetkov, Christian Kästner, and Bogdan Vasilescu. Stress and burnout in open source: Toward finding, understanding, and mitigating unhealthy interactions. In *Proceedings of the ACM/IEEE 42nd International Conference on Software Engineering: New Ideas and Emerging Results*, pages 57–60, 2020.

[97] Dora M Raymaker, Alan R Teo, Nicole A Steckler, Brandy Lentz, Mirah Scharer, Austin Delos Santos, Steven K Kapp, Morrigan Hunter, Andee Joyce, and Christina Nicolaidis. "Having all of your internal resources exhausted beyond measure and being left with no clean-up crew": Defining autistic burnout. *Autism in adulthood*, 2(2):132–143, 2020.

[98] Anna Melissa Romualdez, Brett Heasman, Zachary Walker, Jade Davies, and Anna Remington. "People might understand me better": Diagnostic disclosure experiences of autistic individuals in the workplace. *Autism in Adulthood*, 3(2):157–167, 2021.

[99] Anna Melissa Romualdez, Zachary Walker, and Anna Remington. Autistic adults' experiences of diagnostic disclosure in the workplace: Decision-making and factors associated with outcomes. *Autism & Developmental Language Impairments*, 6:23969415211022955, 2021.

[100] Paul Rozin and Edward B Royzman. Negativity bias, negativity dominance, and contagion. *Personality and social psychology review*, 5(4):296–320, 2001.

[101] Isaac E Sabat, Alex P Lindsey, Ashley Membere, Amanda Anderson, Afra Ahmad, Eden King, and Balca Bolunmez. Invisible disabilities: Unique strategies for workplace allies. *Industrial and Organizational Psychology*, 7(2):259–265, 2014.

[102] Eric Samtleben. An autistic perspective on workplace disclosure and accommodation. *Canadian Journal of Autism Equity*, 4(1):62–75, 2024.

[103] Margarete Sandelowski. Real qualitative researchers do not count: The use of numbers in qualitative research. *Research in nursing & health*, 24(3):230–240, 2001.

[104] Shruti Sannon, Elizabeth L Murnane, Natalya N Bazarova, and Geri Gay. "I was really, really nervous posting it": Communicating about invisible chronic illnesses across social media platforms. In *Proceedings of the 2019 CHI conference on human factors in computing systems*, pages 1–13, 2019.

[105] Alecia M. Santuzzi, Pamela R. Waltz, Lisa M. Finkelstein, and Deborah E. Rupp. Invisible disabilities: Unique challenges for employees and organizations. *Industrial and Organizational Psychology*, 7(2):204–219, 2014.

[106] Jennifer Sarrett. Interviews, disclosures, and misperceptions: Autistic adults' perspectives on employment related challenges. *Disability Studies Quarterly*, 37(2), 2017.

[107] Tom Shakespeare. The social model of disability. *The disability studies reader*, 2(3):197–204, 2006.

[108] Joseph P Shapiro. *No pity: People with disabilities forging a new civil rights movement.* Crown, 1994.

[109] Jennifer M Sims. A brief review of the belmont report. *Dimensions of critical care nursing*, 29(4):173–174, 2010.

[110] Ruba Skaik and Diana Inkpen. Using social media for mental health surveillance: a review. *ACM Computing Surveys (CSUR)*, 53(6):1–31, 2020.

[111] Clay Spinuzzi. The methodology of participatory design. *Technical communication*, 52(2):163–174, 2005.

[112] Stack Overflow. Stack overflow developer survey 2022. https://survey.stackoverflow.co/2022/, 2022. Accessed: 2024-07-28.

[113] DCEG Staff. Neurodiversity, Apr 2022.

[114] Elizabeth Stratton, Isabella Choi, Ian Hickie, Claire Henderson, Samuel B Harvey, Nicholas Glozier, et al. Web-based decision aid tool for disclosure of a mental health condition in the workplace: a randomised controlled trial. *Occupational and Environmental Medicine*, 76(9):595–602, 2019.

[115] Elizabeth Stratton, Isabella Choi, Dorian Peters, Rafael A Calvo, Samuel B Harvey, Nicholas Glozier, et al. Co-designing a web-based decision aid tool for employees disclosure of mental health conditions: a participatory study design using employee and organizational preferences. *JMIR Formative Research*, 4(11):e23337, 2020.

[116] Anselm L Strauss and Juliet Corbin. Open coding. *Social research methods: A reader*, pages 303–306, 2004.

[117] Viktoria Stray, Dag IK Sjøberg, and Tore Dybå. The daily stand-up meeting: A grounded theory study. *Journal of Systems and Software*, 114:101–124, 2016.

[118] Kayla S Sweet, Jennifer K LeBlanc, Laura M Stough, and Noelle W Sweany. Community building and knowledge sharing by individuals with disabilities using social media. *Journal of computer assisted learning*, 36(1):1–11, 2020.

[119] Philip S Thomas, Bruno Castro da Silva, Andrew G Barto, Stephen Giguere, Yuriy Brun, and Emma Brunskill. Preventing undesirable behavior of intelligent machines. *Science*, 366(6468):999–1004, 2019.

[120] Sally Thorne and Barbara Paterson. Shifting images of chronic illness. *Image: The Journal of Nursing Scholarship*, 30(2):173–178, 1998.

[121] Vanessa Tomas, Shaelynn Hsu, Shauna Kingsnorth, Evdokia Anagnostou, Bonnie Kirsh, and Sally Lindsay. Development and usability testing of a web-based workplace disability disclosure decision aid tool for autistic youth and young adults: qualitative co-design study. *JMIR Formative Research*, 7(1):e44354, 2023.

[122] Vanessa Tomas, Shauna Kingsnorth, Evdokia Anagnostou, Bonnie Kirsh, and Sally Lindsay. "i wish this tool was available to me sooner": Piloting a workplace autism disclosure decision-aid tool for autistic youth and young adults. *Autism in Adulthood*, 6(3):331–344, 2024.

[123] Sho Tsugawa and Hiroyuki Ohsaki. Negative messages spread rapidly and widely on social media. In *Proceedings of the 2015 ACM on conference on online social networks*, pages 151–160, 2015.

[124] Bogdan Vasilescu, Daryl Posnett, Baishakhi Ray, Mark G. J. van den Brand, Alexander Serebrenik, Premkumar T. Devanbu, and Vladimir Filkov. Gender and tenure diversity in github teams. In Bo Begole, Jinwoo Kim, Kori Inkpen, and Woontack Woo, editors, *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems, CHI 2015, Seoul, Republic of Korea, April 18-23, 2015*, pages 3789–3798. ACM, 2015.

[125] Sara Ventura, Laura Badenes-Ribera, Rocio Herrero, Ausias Cebolla, Laura Galiana, and Rosa Baños. Virtual reality as a medium to elicit empathy: A meta-analysis. *Cyberpsychology, Behavior, and Social Networking*, 23(10):667–676, 2020.

[126] Sarah Von Schrader, Valerie Malzer, and Susanne Bruyère. Perspectives on disability disclosure: the importance of employer practices and workplace climate. *Employee Responsibilities and Rights Journal*, 26:237–255, 2014.

[127] Erik G Willcutt. The prevalence of DSM-IV Attention-Deficit/Hyperactivity Disorder: a meta-analytic review. *Neurotherapeutics*, 9(3):490–499, 2012.

[128] Novia Wong, Victoria Jackson, André Van Der Hoek, Iftekhar Ahmed, Stephen M Schueller, and Madhu Reddy. Mental wellbeing at work: Perspectives of software engineers. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*, pages 1–15, 2023.

[129] World Health Organization. Mental health, 2022.

[130] G Yeowell, J Rooney, and PC Goodwin. Exploring the disclosure decisions made by physiotherapists with a specific learning difficulty. *Physiotherapy*, 104(2):203–208, 2018.

[131] Lu Zhang and Xintao Wu. Anti-discrimination learning: a causal modeling-based framework. *International Journal of Data Science and Analytics*, 4:1–16, 2017.

[132] Annuska Zolyomi and Jaime Snyder. Designing for common ground: Visually representing conversation dynamics of neurodiverse dyads. *Proceedings of the ACM on Human-Computer Interaction*, 7(CSCW2):1–33, 2023.