

Women are less comfortable expressing opinions online than men and report heightened fears for safety: Surveying gender differences in experiences of online harms

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Abstract

Online harms, such as hate speech, trolling and self-harm promotion, continue to be widespread. While some work suggests women are disproportionately affected, other studies find mixed evidence for gender differences in experiences with content of this kind. Using a nationally representative survey of UK adults (N=1992), we examine exposure to a variety of harms, fears surrounding being targeted, the psychological impact of online experiences, the use of safety tools to protect against harm, and comfort with various forms of online participation across men and women. We find that while men and women see harmful content online to a roughly similar extent, women are more at risk than men of being targeted by harms including online misogyny, cyberstalking and cyberflashing. Women are significantly more fearful of being targeted by harms overall, and report greater negative psychological impact as a result of particular experiences. Perhaps in an attempt to mitigate risk, women report higher use of a range of safety tools and less comfort with several forms of online participation, with just 23% of women comfortable expressing political views online compared to 40% of men. We also find direct associations between fears surrounding harms and comfort with online behaviours. For example, fear of being trolled significantly decreases comfort expressing opinions, and fear of being targeted by misogyny significantly decreases comfort sharing photos. Our results are important because with much public discourse happening online, we must ensure all members of society feel safe and able to participate in online spaces.

Keywords: Online harm, Internet safety, Social media, Online misogyny, Gender-based harm, Safety work, Women's safety, Public attitudes, Survey research

1. Background

1.1. The problem of online harms

While social media has the potential to bring benefits to its users, such as fostering social connection, helping maintain long distance friendships, facilitating education and empowering people with a platform for their voice, it is also without doubt that social media and the online world more broadly have the potential to expose people to many forms of harm. Harms people may be exposed to online include hate speech, abuse, bullying, misinformation, stalking, image based sexual abuse and self-harm promotion, amongst many others. Common online harms can be categorised as 'content' harms (potential online harms that arise from viewing certain posts, pictures, videos, or other content, such as misinformation or eating disorder content), and 'contact' harms (potential online harms that originate from direct behaviours towards the target from other users, such as bullying and stalking) (OfCom, 2021). Recent work has found that 66% of adults in Britain have seen content which they consider to be harmful online, while for younger adults aged 18-34, this is 86% (Enock et al., 2023). In this work, we aim to deepen our understanding of people's key experiences, concerns and behaviours surrounding online harms and online safety with a particular focus on when and how women

are disproportionately affected. **In particular, we examine the impact of gender, exposure to harm and fears surrounding such exposure on people's online behaviours in a large, up-to-date nationally representative sample of adults living in the UK.**

1.2. Gender differences in experiences of online harms

Some work suggests that women and girls are disproportionately affected by experiences of online harms. For example, online survey research carried out by the UK Victims' Commissioner office found that for 12 out of 21 categories of online abuse, women were more likely to have been victims than men, with women considerably more likely to experience abuses such as intimate image abuse, cyberstalking and cyberflashing (Storry and Poppleton, 2022). Additionally, work has found that 90% of those who have been the victim of non-consensual digital distribution of intimate images (also known as revenge porn) are women (United Nations, 2018). A large-scale review which mapped the state of online violence against women and girls in Europe reported that 9 million girls have experienced some type of online violence by the time they are 15 years old, and across the world, women are 27 times more likely to experience online harassment, leading the authors of

the report to describe the internet as a place of gendered violence (European Women's Lobby, 2017). Work also suggests that online violence against women often comprises 'silencing strategies' such as rape and death threats, attempting to prevent women from partaking in online discussion (Lumsden and Morgan, 2017). Growing concerns over the problem in recent years has led to the development of the UK Government's strategy to tackle violence against women and girls in 2021 (Home Office, 2021), and the recently passed Online Safety Act now requires Ofcom to develop guidance for tech companies to reduce harm to women and girls (End Violence Against Women, 2023).

However, there is conflicting evidence regarding gender differences in absolute exposure to online harms, with some recent work finding no differences in overall exposure (Enock et al., 2023; OfCom, 2023), and some reports even finding that men experience harms such as 'sextortion' (online blackmail where criminals threaten to release sexual/indecent images unless money is paid) and physical threats to a greater extent than women (BBC, 2023; Pew Research Center, 2021). One possibility is that much work examining online violence against women in the current literature does not include men in the sample, making it difficult to directly compare gender differences in nuanced experiences of online harms and perhaps emphasising the experiences of women (e.g., Amnesty International, 2017; European Women's Lobby, 2017). Another possibility is that the kinds of harms affecting women online are qualitatively different to those affecting men, with women possibly more at risk of 'contact' harms such as sexual harassment and cyberflashing (Levrant Miceli et al., 2001; Gillett, 2023; European Women's Lobby, 2017), meaning differences may go undetected when asking about exposure to harms as a whole (e.g., Enock et al., 2023). Further, it may be important to consider differences in responses depending on whether people simply say they have seen a harm, compared to whether they have been directly targeted by one. **One aim of the present work is to deepen our understanding of the extent to which both men and women are exposed to and targeted by a range of online harms.**

1.3. Psychological impacts of online experiences

As well as considering people's exposure to online harms and the ways in which individuals may be differentially targeted based on gender, it is also important to consider the psychological impact that exposure to (and even awareness of) various online harms may have. Research has found that exposure to certain harms, such as hate and abuse, can cause severe harm to the psychological wellbeing of targets (Siegel, 2020). This is also true for 'harm-advocating content' such as eating disorder content, self-harm encouragement and sites portraying deaths of others positively, exposure to which was associated with lower subjective wellbeing amongst young Americans and Finns aged 15-30 in a large cross-sectional study of both populations (Keipi et al., 2017). Further, a recent systematic review found that victims of cyberstalking and harassment commonly reported experiencing depression, fear, anger, suicidal ideation, shame, paranoia and isolation, amongst other negative emotions (Stevens et al., 2021).

If women are targeted by certain online harms to a greater extent than men, it may be that women are disproportionately suffering the negative psychological impact of such exposure. Research by Amnesty found that of the 20% of women who had experienced abuse or harassment through social media, 55% suffered stress, anxiety or panic attacks and 61% had trouble sleeping (Amnesty International, 2017). Additionally, only 3% of women who had experienced abuse or harassment say they were untroubled by these experiences (compared to 17% of men), while 49% of women (compared to 35% of men) stated that their experiences of online abuse made them feel ashamed (Storry and Poppleton, 2022). Recent work from OfCom showed that women were less likely than men to say that being online has a positive effect on their mental health (40% of women compared to 45% of men) (OfCom, 2022). Taken together, there is work to suggest that women may suffer more psychologically as a result of particular online experiences. However, no work to our knowledge directly compares the psychological experiences of men and women in response to online experiences more generally, which is important for knowing where support should most be directed. **Another key aim of the present work is to understand whether women are more likely to be negatively affected than men as a direct result of online experiences (for example, through experiencing increased feelings of sadness or anger).**

1.4. Fears surrounding online experiences

Closely tied to negative psychological experience is heightened fear. Recent survey work shows that people's concerns surrounding the prevalence of online harms is generally high (Bright et al., 2024). Based on the fear of crime literature, there is reason to suppose women's fear of harm overall may be higher than men's. Offline, women consistently report higher levels of fear of being targeted by crime compared with men, especially when considering crime relating to personal harm (Snedker, 2012). Stanko (1995) has argued that women's anxieties around danger are largely caused by a fear of men, reflecting women's positions in a gendered world. It is easy to understand why such fears in women may be high. Recent work found that more than one in five young men aged 16 to 29 had a positive view of Andrew Tate, an influencer and self-proclaimed misogynist who has posted content advocating for the hitting and choking of women (Booth, 2024; Kings College London, 2024). It is important to understand feelings of fear and safety online as these are likely to impact people's comfort with participating in the online space and indeed spill over to the offline world too. **While some work suggests that women's fears around personal safety are heightened compared to men's, no work to date has systematically examined gender differences in fears of specific types of online harm, which is a key aim of the present study.**

It is also important to consider where fears online are likely to come from, particularly if there are gender differences in such fears. It is likely, for example, that the media, as a primary source of information for most people, plays an important role in terms of influencing people's fear of crime (Cashmore, 2014), particularly owing to the vast coverage of crime-related

stories in newspapers and television broadcasts. Little is known about the extent to which perceptions of online harms targeted at friends and public figures, or information from other sources, affects the development of fears surrounding online safety. **As a sub-aim, we find out where fears of online harms typically originate from, an important first step in understanding the function of cultural transmission in discussions about online safety.**

1.5. Online safety work

1.5.1. Engagement with online safety tools

In considering the impact of exposure to online harms, it is important to understand how, if at all, people attempt to protect themselves from viewing and receiving such content. If women experience greater levels of concern about exposure to online harms, as some prior work suggests, then it is plausible that women engage in more ‘safety work’ in this area to mitigate their risks (Amnesty International, 2017). Most platforms offer users safety technology such as enabling users to block others, report harmful or inappropriate content, and alter privacy settings on accounts. However, little research has focused on the extent to which people typically engage with such tools, nor the key motivations and demographic drivers underlying their use. Recent survey work from Bright et al. (2024) aimed to address some of these questions, finding that overall awareness and uptake of seven commonly offered safety tools was mixed, with most social media users having heard of tools such as blocking, unfollowing and reporting, and far fewer having heard of altering or deactivating feed algorithms, or hiding engagements with posts. When aware of the tools, women were significantly more likely to use unfollow, block, and report functions than men, and were also more likely to limit who could respond to their content than men, suggesting that women may attempt to do more to protect themselves from harmful or unwanted experiences online. However, the initial work from Bright et al. (2024) asks about use of platform safety tools only amongst users of social media who had heard of the tools, rather than about the use of safety technology amongst the wider population more generally. **We aim to examine whether women are more likely than men to engage in safety work online, reflected in increased use of safety tools.**

1.5.2. Online participation and safety behaviours

Offline, fear of crime regularly leads to changes in behaviour. As fear of crime is often higher in women, the restrictive behavioural consequences can be greater for women too (Stanko, 1990; Snedker, 2012). This can impact women in a myriad of ways, for example in the extra measures they take to ensure they get home safely at night and taking more precautions when travelling alone (Office for National Statistics, 2022). Just as women have to work harder to protect their safety offline, it looks increasingly likely that this additional burden must be carried into the online world too. Work from Ofcom (2022) found that women are significantly less likely than men to feel that they are able to have a voice online and research exploring academics’ interactions with social media found that female

and ethnic minority academics’ fear of harassment online often leads to self-censorship (Olson Carter and LaPoe, 2018). Taken together, these findings show the silencing effect that online abuse can have, with such harms directly threatening freedom of expression. **To deepen our understanding of possible gender differences in comfort with online participation, we examine the extent to which men and women are comfortable engaging in behaviours such as expressing political opinions and sharing content online. Importantly, we test associations between fears about being targeted by online harms and comfort with different forms of online participation.**

1.6. Research aims

Despite the existing work discussed so far, we seek to address the gaps in the research landscape that remain surrounding when and how women are disproportionately affected by harmful content online.

Firstly, while much existing work examining online violence against women and girls includes only women and girls in the sample as the key subjects of interest, this means it can be difficult to understand the true extent to which women are affected differently to men. We survey a sample of UK adults nationally representative across age, gender and ethnicity so that we can make meaningful gender comparisons across our variables of interest. Additionally, while much of the existing research either asks about exposure to harmful content in general, or focuses on very specific harms such as abuse and harassment, we ask about exposure and fears relating to a comprehensive list of fifteen potential harms, including content-based ones like misinformation and eating disorder content, along with contact-based ones such as cyberflashing, cyberstalking and image-based sexual abuse. Importantly, we ask not only about general exposure to such harms, but also about whether people have been directly targeted by each one and to what extent. In doing so, we are able to capture a more detailed picture of the different ways in which men and women experience different types of harmful content online.

Our survey design also allows us to deepen our understanding of when and how women are affected differently by online harms to men. Much previous work in the area looks only at how feelings and behaviours change after harm exposure, and only in samples that report having been affected. In our sample, we are able to compare psychological impacts of online experiences between men and women directly, along with fears, the origins of such fears, and subsequent behavioural changes. We are also able to understand whether women engage in more work overall to protect their safety online, including censoring themselves or behaving more cautiously. **Importantly, by including a large and heterogeneous sample, we can also examine associations between gender, fears and online participation.**

2. Data and Methods

2.1. Data collection, ethics and open science

We conducted a nationally representative survey of 2,000 UK adults. Data collection took place online during June 2023, the survey was created and administered using Qualtrics¹ and participants were recruited through Prolific². The survey was approved by the Ethics Committee at The Alan Turing Institute, UK (approval number C2105-074). Informed consent was obtained at the start of the survey according to approved ethical procedures. The materials and data will be available open access on publication.

2.2. Sample

A total of 1,992 participants who completed the survey passed standard checks for data quality and were included in the final sample. The sample was designed to be nationally representative of the population of the United Kingdom across demographic variables of age, gender and ethnicity using Prolific's representative sample tool. Respondents were between 18 and 90 years old, with a mean age of 45.8 (SD = 15.5). A total of 1010 participants identified as female (50.7%), 965 as male (48.4%), with 9 as non-binary, 5 selecting 'prefer not to say', and 3 self-describing. The majority of respondents identified as White (86.9%), while 7.2% as Asian or Asian British, 3.0% as Black, African, Caribbean, or Black British, and 1.6% as mixed, multiple or other ethnicities (0.7% participants selected 'any other ethnic group', while 0.6% chose 'prefer not to say'). Although participants indicated more specific ethnic identities, we have combined them into broader categories to simplify reporting here. As the main aim of our survey is understanding gender differences, we exclude the 17 participants choosing gender as 'non-binary', 'prefer not to say' or 'prefer to self-describe' from these analyses because the sample size is too small to make meaningful comparisons and inferences for these sub-samples.

2.3. Survey

Demographics and background questions: For each participant, we collected standard demographic information about age, gender, ethnicity, education and political orientation. Age could be entered as any number with a minimum of 18. For gender, ethnicity and education level, participants were asked to select the option that they felt best described them from a list of standard predefined categories. For political orientation, participants were asked to select the option that they felt most described their beliefs: 'More to the left', 'Centre', 'More to the right' and 'Prefer not to say'. Participants were also asked what kind of device they were using to complete the survey, as well as how often they use the internet, whether they use/have used social media before, and how often. All demographic questions, other than age, provided participants with a 'prefer not to say'

option (this was not included for age as being 18 or over was a requirement to participate).

Exposure to online harms: We presented participants with a list of 15 online harms along with definitions for each. The harms we included were: Hate speech, Misinformation, Misogyny, Trolling, Bullying, Cyberstalking, Cyberflashing, Group attacks, Impersonation, Catfishing, Threats of non-sexual violence, Threats of sexual violence, Doxing, Image based sexual abuse, and Eating disorder content. Participants were asked to indicate whether they had heard of or seen each harm online in the past year (Never heard of/ Heard of but not seen in the last year/ Seen online in the last year).

For each harm, if participants indicated they had seen it in the past year, they were then asked a follow up about the extent to which they had directly received each harm and the extent to which they had witnessed each harm. For 'content-based' harms (hate speech, misinformation, misogyny and eating disorder content), 'directly received' meant the content was directly intended for the participant, for example naming them or being sent in a direct message, while for 'contact-based' harms (trolling, bullying, stalking, cyberflashing, group attacks, catfishing, threats of physical violence, threats of sexual violence, doxing and image-based sexual abuse), 'directly received' meant the harm happened to them. In the case of impersonation, directly received meant that someone impersonated the participant's account. 'Witnessing' always meant that they had seen the content but that it was not directly intended for them personally. Response options for both scales were: Never/ Once/ 2-4 times/ 5 or more times/ Prefer not to say.

For each harm, if participants indicated they had directly received it, they were then asked whether they knew the identity of the person/people responsible (Response options: Yes, it was someone/people I know/am familiar with (either from prior offline or online encounters)/ Yes, I was able to identify them but they were previously unknown to me / No, it was from an anonymous account(s) or with a fake name / A mixture of any of the above / Other, please specify / I cannot remember).

Fears of exposure to online harms: To measure fears about exposure to each of the same 15 harms, participants were asked to indicate the extent to which they fear witnessing such content, and the extent to which they fear directly receiving such content (both scales: Not at all / Not very much / Somewhat / Very much).

If participants indicated any level of fear about receiving any of the harms, they were asked where they thought their these fears might have come from (could choose as many as apply from: Personal past experience/ Female friend's experience/ Male friend's experience/ Non-binary friend's experience/ From the media/ Public figure's experience/ Something else/ Not sure). Participants were also asked how, if at all, fears about receiving online harms affect their online behaviours (could choose as many as apply from: Less likely to use social media platforms in general/ Less likely to share opinions online/ Less likely to share photographs of themselves online/ Less likely to share content online in general/ Does not affect behaviour online/ Something else (please specify)/ Not sure).

Comfort with online participation: Participants were asked

¹www.qualtrics.com

²https://www.prolific.com

how comfortable they are (Not at all/ Not very/ Somewhat/ Extremely) engaging with seven different online activities in both public/open settings and private/restricted settings. The behaviours we asked about were: Expressing political opinions online; Expressing other opinions online (e.g., opinions about the news, TV shows or music); Challenging content they see online and do not agree with; Sharing personal information online (such as name, date of birth, where they live and work, gender, religious beliefs, and so on); Sharing photos of themselves online; Sharing photos of friends and family online; Sharing photos of activities online (e.g., travelling, cooking or going out with friends).

Psychological impact: Participants were asked to indicate the extent to which certain experiences online had caused them particular kinds of feelings. These six feelings were: Feeling sad or low; Feeling angry or frustrated; With physical symptoms (such as insomnia, headaches and stomach aches); Feeling as though their job/career had been negatively affected; Feeling as though relationships with a partner, friends or family had been negatively affected; Feeling (more) eager or keen to use social media to advocate for a specific cause, political ideology or to educate others on a specific topic (Response scales for all were: Not at all/ Not very much/ Somewhat/ Very much).

Engagement with safety tools: Participants were asked to indicate if they had ever used seven types of online safety features on social media platforms. These were: Disabled location sharing on a device; Disabled airdrop and/or Bluetooth on a device; Made profile/account/page private; Limited who can contact you (for example so you cannot receive messages from people you don't know); Limited who can engage with your contents (for example who can like or comment on your posts); Limited who can tag/mention you in images/posts/tweets; Limited how people can find your profile (for example controlling whether people can find your profile by linking with email or phone, through a search engine or by appearing in suggested people lists) (Yes/No for all).

2.4. Procedure

After participants gave their informed consent to take part in the survey, they responded to the demographic questions, questions about device use, time spent online, and social media use. Following this, they read brief definitions of the fifteen harms so as to familiarise themselves with what each one means. They were asked to pay close attention to the definitions and could move on after a minimum of 45 seconds. Participants then responded to the questions about harm exposure for each of the fifteen harms (awareness/exposure, followed by extent of exposure and perpetrator identity if relevant), followed by questions about fears (including fear origins and subsequent behavioural changes if relevant). Next, participants answered questions about comfort with various forms of online participation, followed by questions about psychological impact of online experiences, followed by questions about engagement with safety tools online. At the end of the questions, participants were given an opportunity to provide feedback in a free text box before continuing to the debrief and finally completing the submission and being returned to Prolific for payment.

The survey was designed to take approximately 15 minutes to complete and each participant received £2.25 for their time.

2.5. Data analysis

We present descriptive statistics for overall proportions of men and women choosing each response option for each question. We use logistic regressions and non-parametric between samples t-tests (Mann-Whitney U-Tests) to test for gender differences in each of the outcome variables (information about specific outcome variables and tests are in the relevant part of Results).

Additionally, we test for associations between fears about online harms and comfort engaging in several forms of online participation by running a series of 84 logistic regression analyses, each including fear as predictor (one for fear about each of 12 harms, see Results for harms included), and comfort engaging in the online behaviour of interest as the outcome (one for comfort with each of the seven behaviours), all controlling for gender, age, and internet use. For all statistical analyses, the accepted significance threshold was set at .05.

3. Results

3.1. Experiences of online harms

3.1.1. Awareness and exposure

We first present responses for awareness of and exposure to the 15 online harms we asked about for men and women. Here, we count exposure by a response indicating 'Seen online in the last year'. Logistic regression analyses tested differences in exposure between men and women for each of the 15 harms.

Gender differences in exposure to various harms show mixed results. Women are 22% more likely to say they have seen online misogyny ($p=.027$), 24% more likely to say they have seen bullying ($p=.017$) and 104% more likely to say they have seen eating disorder content ($p<.001$) than men. However, women are 20% less likely to say they have seen hate speech ($p=.016$), 25% less likely to say they have seen misinformation ($p=.017$), 23% less likely to say they have seen impersonation ($p=.007$), 31% less likely to say they have seen threats of physical violence ($p<.001$), and 29% less likely to say they have seen doxing ($p=.003$) than men. For many of the harms, such as trolling and cyberstalking, differences in self-reported exposure between men and women are not statistically significant.

Table 1 shows proportions of men and women indicating they have seen each type of harm in the past year, with asterisks marking significant differences.

3.1.2. Extent of exposure

Importantly, the results on exposure presented above show whether or not people have seen certain types of content but not whether they have been direct targets of online harms, nor how much. To understand the extent of people's exposure more deeply, for each of the 15 harms that participants indicated they had seen in the past year, we analysed responses to follow up questions about extent to which they had witnessed such content and the extent to which they had directly received such

Harm	Gender	%	Sig.
Hate Speech	Female	56.9%	*
	Male	62.3%	
Misinformation	Female	81.6%	*
	Male	85.6%	
Misogyny	Female	53.0%	*
	Male	48.0%	
Trolling	Female	62.3%	
	Male	63.4%	
Bullying	Female	42.9%	*
	Male	37.6%	
Cyberstalking	Female	11.1%	
	Male	11.7%	
Cyberflashing	Female	8.7%	
	Male	8.5%	
Group attacks	Female	19.6%	
	Male	22.2%	
Impersonation	Female	31.4%	**
	Male	37.2%	
Catfishing	Female	22.7%	
	Male	25.3%	
Physical threats	Female	26.8%	***
	Male	34.8%	
Sexual threats	Female	16.5%	
	Male	18.3%	
Doxing	Female	15.9%	**
	Male	21.1%	
Image-based sexual abuse	Female	8.4%	
	Male	8.5%	
Eating disorder content	Female	27.1%	***
	Male	15.4%	

Table 1: Proportions of men and women indicating they have seen each harm in the past year. In the Sig. column, * means significant at the $p < .05$ level; ** at the $p < .01$ level, and *** at the $p < .001$ level.

content (see Methods). Response options for both scales were converted into 4 point numeric scales (1 = Never; 2 = Once; 3 = 2-4 times; 4 = 5 or more times, with 'Prefer not to say' as NA) and non-parametric t-tests (Mann-Whitney U-Tests) examined gender differences in being directly targeted by each type of harm.³ If participants had previously indicated that they had not seen the harm in the past year and were therefore not asked follow-up questions about the capacity in which they had seen it, their responses for this question were re-coded from missing to 'Never'.

Women reported being the direct targets of several online harms to a significantly greater extent than men, including online misogyny ($p < .001$), cyberstalking ($p = .026$), cyberflashing ($p < .001$), eating disorder content ($p = .039$) and, marginally, image based abuse ($p = .075$). Table 4 in Supplementary Information shows proportions of men and women choosing each response option for the five harms that women report being targeted by to a greater extent than men. Men reported being the direct targets of hate speech ($p < .001$), misinformation ($p < .001$), trolling ($p < .001$) and threats of physical violence ($p = .007$) to a greater extent than women. Table 5 in Supplementary Information shows proportions of men and women choosing each response option for the four harms that men report being targeted by to a greater extent than women. There were no significant gender differences in reports of being directly targeted by the remaining six harms. Figure 1 shows the extent to which men and women report having been direct targets of each online harm. Note that while we asked individuals who had been targeted by harms whether they knew the identity(ies) of the perpetrator(s), comparing proportions of responses led to sample sizes too small to make meaningful comparisons for this question. However, we share these responses in our open dataset.

Comparing gender differences in witnessing each type of harm (an individual seeing harmful content online not directly targeted at them), men reported witnessing hate speech, misinformation, trolling, impersonation, catfishing, threats of physical violence, threats of sexual violence, doxing, and image-based abuse to a greater extent than women (all $p < .05$), while women reported witnessing eating disorder content ($p < .001$) and, marginally, misogyny ($p = .051$) and bullying ($p = .073$) to a greater extent than men.⁴ The differences here in results for witnessing and directly receiving online harms shows the importance of understanding both who is most likely to be targeted, alongside understanding overall exposure.

3.2. Psychological impact of online experiences

We asked participants the extent to which experiences online had ever caused them six particular kinds of feelings (see Methods). For each of these responses, we created a binary outcome

³An alternative analysis is to create binary responses (Never = 0 / At least once = 1) and use logistic regressions to examine the effect of gender on whether people have been targeted before or not. Taking this approach yields identical results.

⁴We explored whether possible gender differences in overall internet use explained these results but we found men and women report using the internet and social media to a similar extent overall.

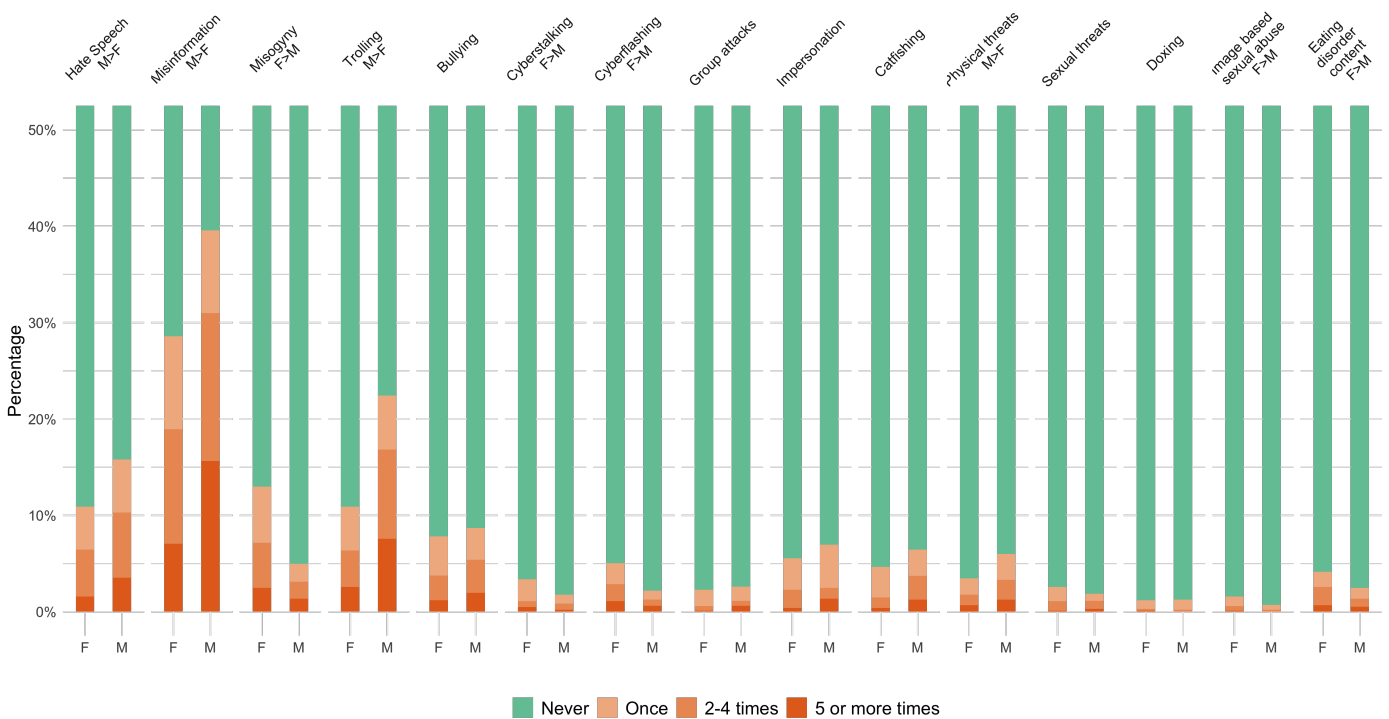


Figure 1: The extent to which people report having been direct targets of each online harm by gender. F>M indicates women are targeted significantly more than men. M<F indicates men are targeted significantly more than women. ‘Prefer not to say’ responses were uncommon and are not included.

variable to indicate whether they had experienced this psychological effect or not (Yes, 1 - Somewhat/Very much and No, 0 - Not at all/Not very much). Overall, 48% of respondents said they had been left feeling sad or low as a result of an online experience; 68% that they had felt angry or frustrated; 11% with physical symptoms (such as insomnia, headaches and stomach aches); 9% as though their career had been negatively affected; 15% as though their relationships had been negatively affected; and 22% feeling (more) eager or keen to use social media to advocate for a specific cause. Logistic regression analyses with gender as predictor and response as outcome for each of the items found that women were significantly more likely than men to have been left feeling sad or low (96% more likely), angry or frustrated (54% more likely), and with physical symptoms (47% more likely) as a result of an experience online (all $ps < .001$). There were no gender differences in responses for the remaining three questions about psychological impact (all $ps > .05$). Table 6 in Supplementary Information shows responses to each item for men and women.

3.3. Fears about exposure to online harms

3.3.1. Overall extent of fears about receiving online harms

To compare gender differences in fears about exposure to each of the 15 online harms, we created a binary outcome for fear, with ‘Somewhat’ and ‘Very much’ as 1 - Fearful, and ‘Not at all’ and ‘Not very much’ as 0 - Not fearful. Women consistently express significantly greater levels of fear than men across all 15 types of content, both for witnessing and for directly receiving each harm. Women are 117% more likely to

fear receiving hate speech than men, 39% more likely to fear receiving misinformation, 489% more likely to fear receiving misogyny, 125% more likely to fear being targeted by trolling and bullying, 120% more likely to fear being targeted by cyberstalking, 196% more likely to fear being targeted by cyberflashing, 68% more likely to fear being targeted by group attacks, 50% more likely to fear having an account impersonated, 64% more likely to fear catfishing, 112% more likely to fear receiving physically violent threats, 215% more likely to fear receiving sexually violent threats, 38% more likely to fear being targets of doxing, 133% more likely to fear being targets of image-based abuse, and 174% more likely to fear receiving eating disorder content (all $ps < .001$). Table 2 shows proportions of men and women fearing receiving each type of online harm.

3.3.2. Origins of fears about receiving online harms

When asked where they thought fears about receiving online harms might have come from, the top three choices for women were: The media (65%), Female friend’s experience (37%) and Public figure (35%). Additionally, 30% of women chose Personal experience, 8% chose Male friend’s experience, 5% Non-binary friend’s experience. The top three choices for men were: The media (60%), Personal experience (29%), and Female friend’s experience (27%). Additionally, 26% of men chose Public figure, 14% chose Male friend’s experience, and 3% Non-binary friend’s experience. Therefore, both men and women chose the media and female friends’ experiences as the

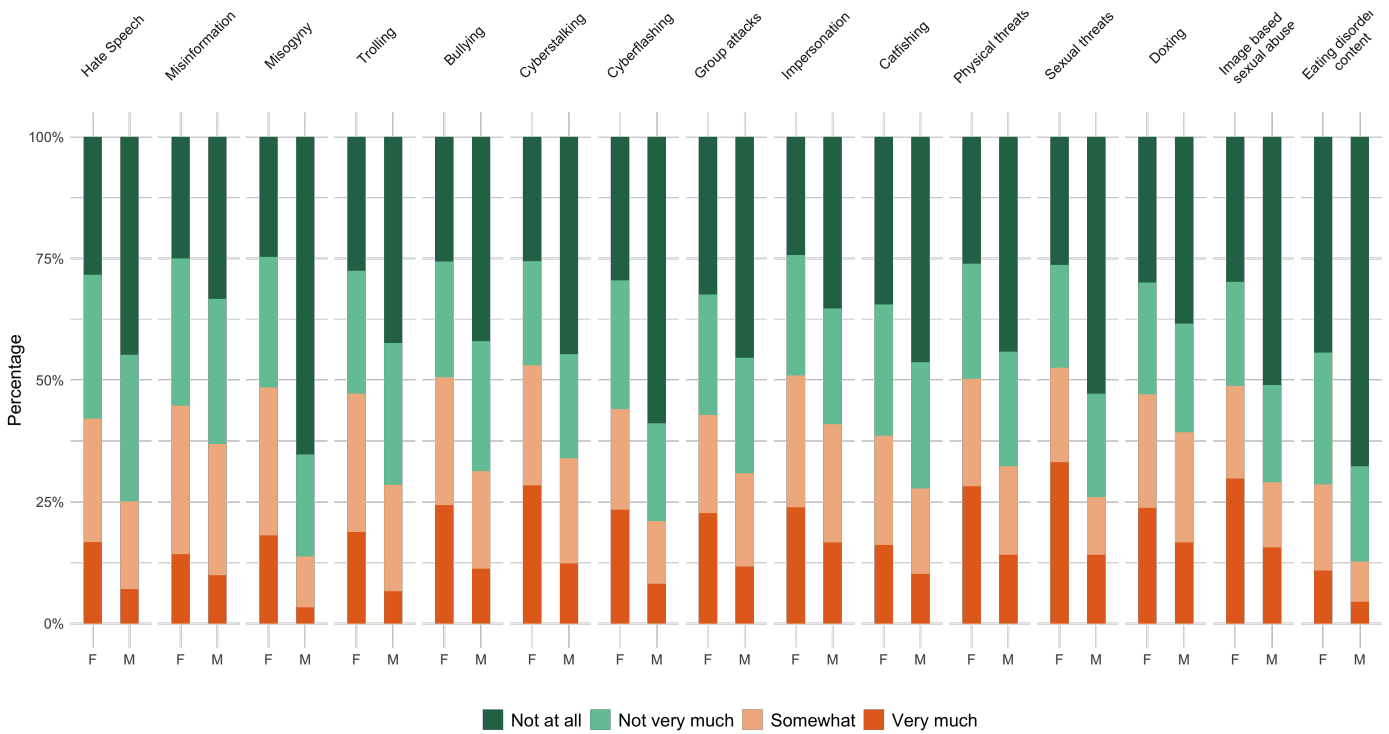


Figure 2: Self-reported fear of receiving harmful content online by gender. All gender differences are statistically significant at the .05 level.

most common sources of fears of online harms.⁵

3.3.3. Behavioural effects of fears about receiving online harms

When asked how, if at all, fears about receiving online harms affect online behaviours, the top three choices for women were: Less likely to share opinions (59%), Less likely to share photos (54%) and Less likely to share content in general (46%). Just 9% said fears had no effect on online behaviours. The top three choices for men were: Less likely to share opinions (41%), Less likely to share photos (40%) and Less likely to share content in general (36%). 13% said fears had no effect on online behaviours.

While both men and women most typically indicated they were less likely to share opinions, photos and general content as a result of fearing being targeted by online harms, these behavioural effects were significantly more pronounced for women. Logistic regression analyses showed that women were 104% more likely to say they shared opinions less, 78% more likely to say they shared photos less, and 51% more likely to say they shared content less in general than men (all ps <.001). There was no difference between men and women in whether they were less likely to use social media overall, p=.107). Additionally, women were 30% less likely than men to say their fears do not affect their behaviour online (p=.015).

⁵We do not analyse free text responses here but these are available in our open dataset.

3.4. Safety tools

We used logistic regression analyses to compare the use of each of the seven safety tools (Yes=1, No=0) between men and women. Women consistently express significantly higher use of all safety tools included. Women were 29% more likely to have disabled location sharing than men (p=.034); 26% more likely to have disabled airdrop/bluetooth than men (p=.019); 94% more likely to have made an account private (p<.001); 55% more likely to have limited who can contact them (p<.001); 50% more likely to have limited who can engage with their content (p<.001); 60% more likely to have limited who can tag them in posts (p<.001); and 34% more likely to have limited how people can find them online (p=.002). See table 3 for proportions of women and men using each of the seven safety tools.

3.5. Comfort with online behaviours

To test for gender differences in comfort with seven common online behaviours (listed in Methods), we created a binary outcome for comfort with each behaviour, with ‘Somewhat’ and ‘Extremely’ as 1, Comfortable, and ‘Not at all’ and ‘Not very’ as 0, Not comfortable.

Just 23% of women are comfortable expressing political opinions online compared to almost 40% of men, 50% of women are comfortable expressing other opinions online compared to 64% of men, 22% of women are comfortable challenging content they disagree with online compared to 40% of men, and 7.5% of women are comfortable sharing personal information online compared to 11% of men. These results mean that women are 51% less comfortable than men expressing political opinions online, 44% less comfortable than men expressing

Harm	Response	Male	Female
Hate speech	Low fear	74.9%	57.9%
	High fear	25.1%	42.1%
Misinformation	Low fear	63.1%	55.2%
	High fear	36.9%	44.8%
Misogyny	Low fear	86.2%	51.5%
	High fear	13.8%	48.5%
Trolling	Low fear	71.5%	52.8%
	High fear	28.5%	47.2%
Bullying	Low fear	68.7%	49.4%
	High fear	31.3%	50.6%
Cyberstalking	Low fear	66.0%	46.9%
	High fear	34.0%	53.1%
Cyberflashing	Low fear	79.0%	55.9%
	High fear	21.0%	44.1%
Group attacks	Low fear	69.1%	57.1%
	High fear	30.9%	42.9%
Impersonation	Low fear	59.1%	49.0%
	High fear	40.9%	51.0%
Catfishing	Low fear	72.2%	61.4%
	High fear	27.8%	38.6%
Physical threats	Low fear	67.7%	49.7%
	High fear	32.3%	50.3%
Sexual threats	Low fear	74.0%	47.4%
	High fear	26.0%	52.6%
Doxing	Low fear	60.7%	52.9%
	High fear	39.3%	47.1%
Image based sexual abuse	Low fear	71.0%	51.2%
	High fear	29.0%	48.8%
Eating disorder content	Low fear	87.3%	71.4%
	High fear	12.7%	28.6%

Table 2: Level of fear reported by men and women about directly receiving each online harm. Women are significantly more fearful than men about receiving all fifteen types of harm.

Safety tool	Gender	Response	%
Disabled location sharing	Female	Yes	84.5%
		No	15.5%
	Male	Yes	80.8%
		No	19.2%
Disabled airdrop and/or Bluetooth	Female	Yes	72.8%
		No	27.2%
	Male	Yes	67.9%
		No	32.1%
Made profile/account/page private	Female	Yes	88.9%
		No	11.1%
	Male	Yes	80.5%
		No	19.5%
Limited who can contact you	Female	Yes	84.2%
		No	15.8%
	Male	Yes	77.6%
		No	22.4%
Limited who can engage with your content	Female	Yes	76.7%
		No	23.3%
	Male	Yes	68.7%
		No	31.3%
Limited who can tag/mention you in posts	Female	Yes	70.3%
		No	29.7%
	Male	Yes	59.7%
		No	40.3%
Limited how people can find your profile	Female	Yes	70.5%
		No	29.5%
	Male	Yes	64.1%
		No	35.9%

Table 3: Proportions of men and women that reported using each of the seven safety tools. Women were significantly more likely to report using every tool.

other opinions online, and 57% less comfortable than men challenging content they disagree with online (all $p < .001$). Women are also 34% less comfortable sharing personal information online ($p = .008$). There were no gender differences in comfort levels for sharing photos of self (23% of women and men are comfortable), of friends and family (19% of women and 18% of men are comfortable), and of activities (32% of women and 33% of men are comfortable) (all $p > .05$). Figure 3 shows self-reported comfort with the seven online behaviours.

3.6. Associations between fear of harm and comfort with online behaviours

To test for relationships between fears about online harms and comfort engaging in several forms of online participation, we ran a series of 84 logistic regression analyses, each including fear as predictor (one for fear about each of 12 harms), and comfort engaging in the online behaviour of interest as the outcome (one for comfort with each of the seven behaviours), all controlling for gender, age, and overall internet use. Instead of including a regression model for all fifteen harms, we excluded fear of receiving misinformation, catfishing, and eating disorder content, where there is less theoretical basis to suppose an association with comfort with the seven behaviours of interest.⁶ In each model, we used a binary predictor for fear of each harm and a binary outcome for comfort with each behaviour, as described in the relevant sections above.

Results from our regression analyses are shown in Figure 4, with significant associations between fears and behaviours shown as individual points (non-significant associations not included). Each behaviour (shown in coloured points, with circles for the cluster of behaviours involving sharing opinions, and triangles for the cluster of behaviours involving sharing photos and personal information) is regressed onto each fear (y-axis), with the x-axis displaying the percentage decrease in comfort with each behaviour as a result of fear.

On average, being fearful of receiving online harms is associated with being 25% less comfortable with sharing opinions, photos or other information online. Furthermore, fear of different harms impacts on comfort participating with different online behaviours. For example, fear of being targeted by trolling is associated with reduced comfort with sharing political opinions, other opinions, and challenging content. Fear of being targeted by misogyny, cyberstalking and doxing is associated with reduced comfort with sharing photos. Full results for each regression model can be found in 7 in Supplementary Information.

4. Discussion

Using a large, nationally representative survey of UK adults, we examined gender differences in exposure to harmful content

online, along with the impact of online experiences. We examined the extent to which people had been exposed to fifteen different types of online harms, fears surrounding such exposure, the psychological impact of online experiences, the use of safety tools online, and comfort with several forms of online participation.

When asked about whether they had seen different forms of harmful online content over the last year, men and women reported similar levels of exposure overall, consistent with work asking broadly about how much people have seen content which they consider to be harmful online (Enock et al., 2023). However, by asking about fifteen specific harms and the capacity in which people have seen them, we were able to detect more nuance in experiences. Here, women report being directly targeted by certain forms of 'contact-based' harms like cyberflashing, cyberstalking and image based abuse to a greater extent than men, consistent with related prior work (Storry and Poppleton, 2022; United Nations, 2018; Amnesty International, 2017). However, men report being directly targeted by threats of physical violence, hate speech and trolling to a greater extent than women. These results are more novel and further work should examine why men may be more at risk of certain harms. Our findings show that our approach in including men and women in our sample and asking about exposure to a range of online harms is beneficial in gaining a more nuanced picture of gender differences in exposure to online harms.

As well as being targeted by harms such as cyberflashing and image based abuse to a greater extent than men, we found that women report having experienced greater negative psychological impact than men as a result of certain experiences online, including feeling sad and low, angry and frustrated, and with physical symptoms such as insomnia or headaches. Our results extend prior work showing that women may be more negatively affected by online harms than men (Storry and Poppleton, 2022) by demonstrating increased negative affect in a representative sample of women, not only those who have been direct targets of abuse or harassment. Our results are important in contributing to our understanding of the ways in which women are disproportionately affected by online experiences and in how support should best be directed. If women are more likely to feel sad, frustrated or physically unwell after online experiences, it is crucial that we do more to protect their online wellbeing.

Consistent with our finding that women report more negative psychological impact as a result of online experiences than men, we found that women expressed greater fear of being targeted by all fifteen harms that we asked about compared to men. These results show that women carry an additional psychological burden relating to safety concerns online. While no work to our knowledge had examined gender differences in fears about experiencing different forms of online harm, our findings accord with work in the offline crime literature showing that women typically fear for their personal safety more than men do (Snedker, 2012). We show these additional fears extend to the online world. Both men and women indicated that fear of exposure to online harms most typically originate from the media and from female friends' experiences, suggesting that along with the role of the media in perpetuating safety concerns (con-

⁶The remaining 12 harms we included are mostly considered 'contact' harms where there is risk of being directly targeted by harmful behaviours. Hate speech and misogyny may be considered 'content' harms in general, but still pose risk as contact harms if respondents' social identities are targeted.

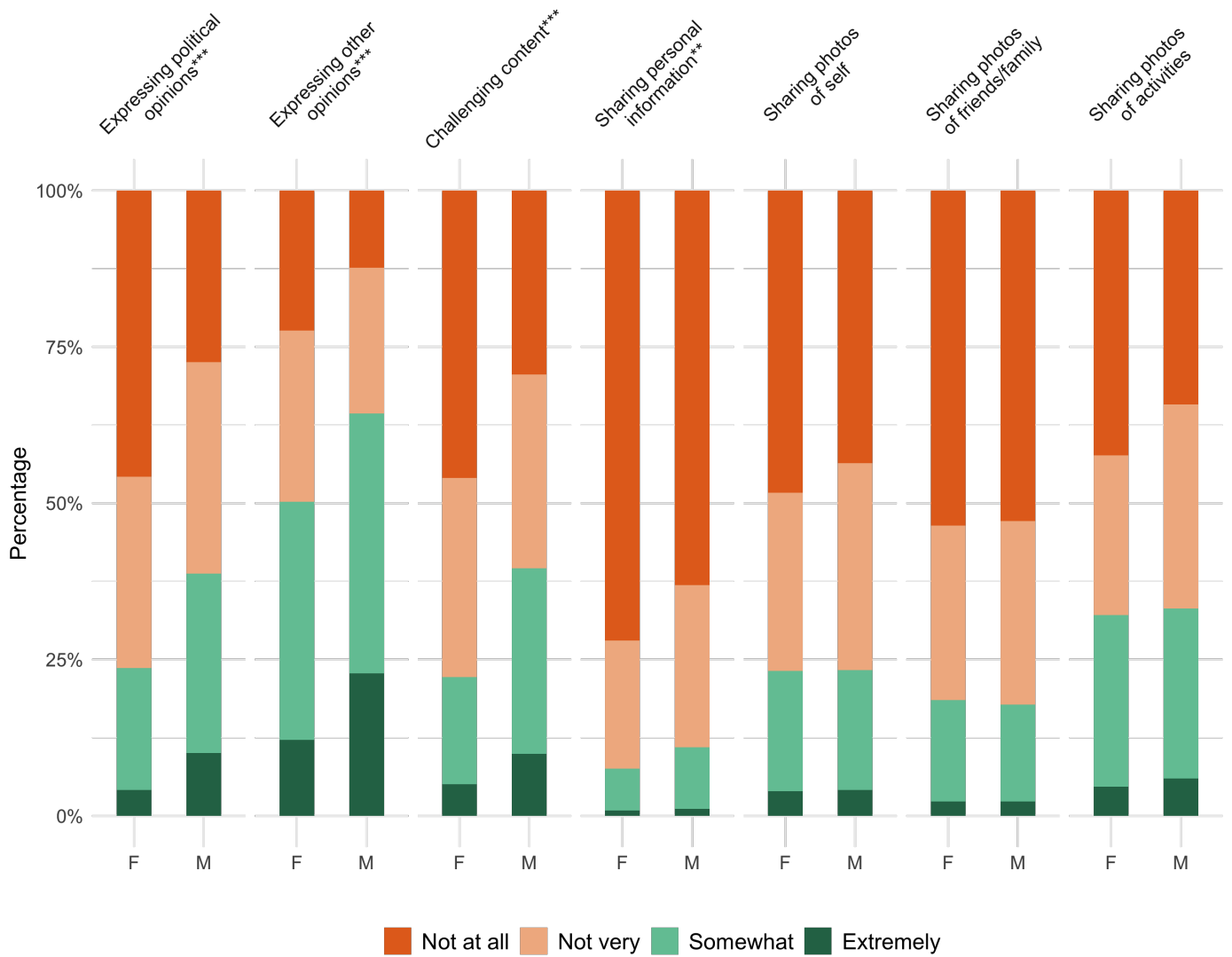


Figure 3: Comfort with seven online behaviours by gender differences. *** indicates a significant difference at $p < .001$; ** indicates a significant difference at $p < .01$.

sistent with Cashmore, 2014), the known negative experiences of other women are also highly salient.

It is interesting to consider the interplay between fear and exposure. While women consistently express greater fear about being targeted by harms, they are not always at greater risk of such exposure. It is important to question whether women’s fears are greater because the types of harm they are at greater risk of being targeted by are particularly threatening (e.g., image based abuse), or whether increased fears lead women to do more to protect themselves online in the form of safety work, thereby protecting them somewhat from increased exposure in the future. As we analyse only self-report data, we also cannot rule out the fact that women may be more comfortable expressing fear than men are.

In line with our conjecture that women may do more safety work to protect themselves from harmful online experiences than men, we found that women report using all seven safety tools that we asked about to a greater extent than men. This

result extends recent findings from Bright et al. (2024), showing that across a range of safety tools and comparing men and women in a nationally representative sample (not just social media users who have already heard of the tool), women are engaging in more safety work to protect themselves online. This additional safety work may be driven by fear, by prior exposure to harm, or both.

As well as engaging with safety tools to a great extent than men, women also report being less comfortable than men with participating in several online behaviours including expressing political opinions online, expressing opinions more generally, and challenging content that they disagree with. While some prior work shows that women conduct themselves differently online after experiencing abuse (Amnesty International, 2017), our findings are novel in directly comparing men and women’s general comfort with online participation. Our results suggest that women may be self-censoring online, particularly in terms of expressing opinions and challenging other content. These re-

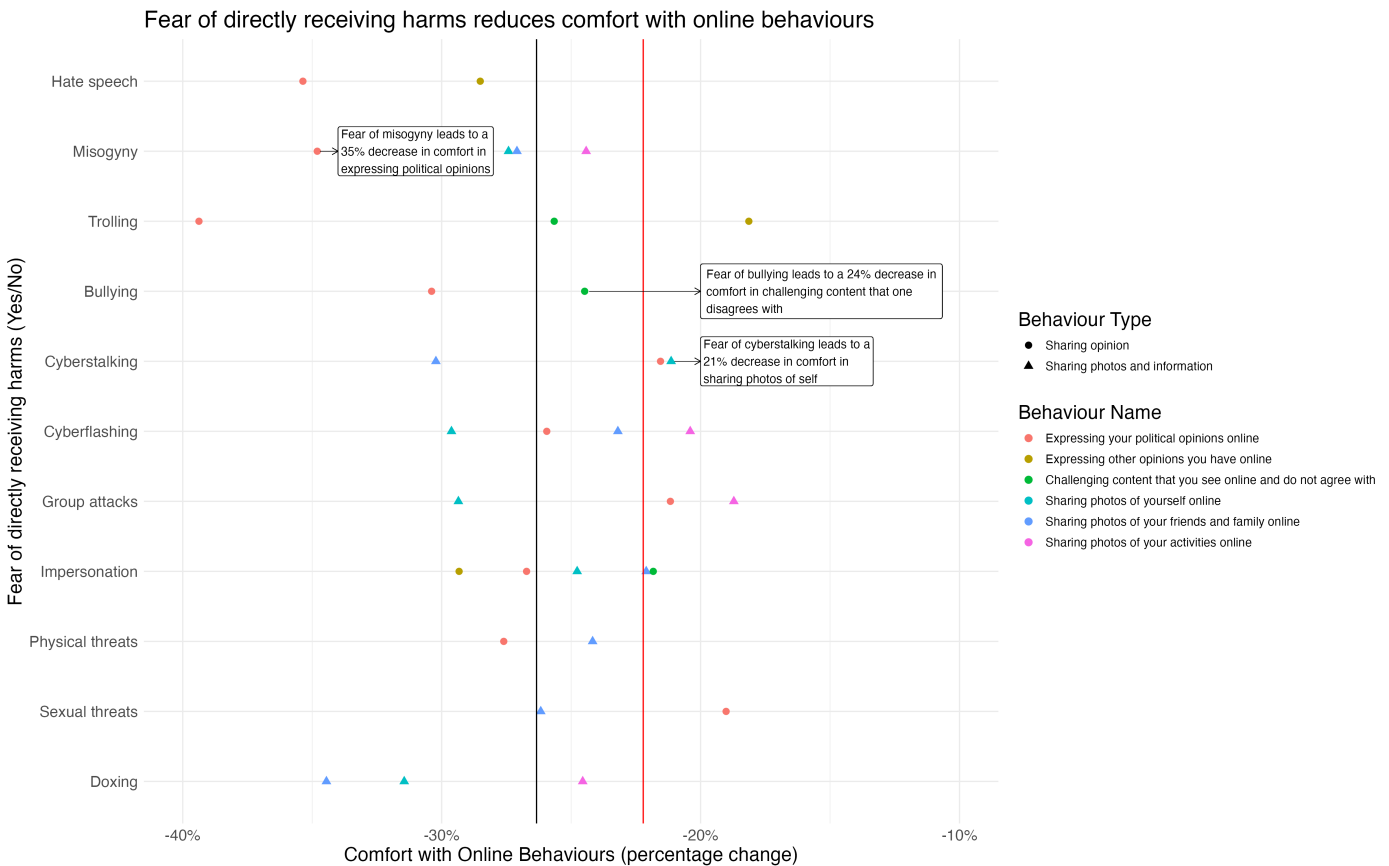


Figure 4: Fear of directly receiving harms reduces comfort with online behaviours. Here, significant associations between fears and comfort with behaviours are shown in different coloured (and shaped) points for each online behaviour. The black line highlights the average percentage change in comfort with online participation associated with fear of harm, and the red line highlights the average percentage change in comfort with online participation associated with gender. Note sharing personal information is not included as none of these models were significant.

sults are concerning, because with much public discourse happening online, gender inequality in public spaces is likely to be perpetuated if women feel too fearful to participate.

It is plausible that greater fear surrounding exposure to online harms plays a causal role in women’s self-censorship online. Indeed, we found that women were more likely than men to say that they are less likely to share opinions, photos and general content as a direct result of fearing being targeted by online harms. These patterns accord with offline behaviours whereby fear of crime leads to moderation of one’s actions, such as avoiding walking in quiet places after dark, or taking extra precautions when travelling alone (Office for National Statistics, 2022). We directly tested associations between fears about being targeted by twelve online harms and comfort with the seven online behaviours included in the survey. Overall, being more fearful was associated with being less comfortable with several forms of online participation, and different fears influenced comfort with different online behaviours when gender, age and internet use was controlled for. For example, fear of directly receiving online misogyny significantly predicted less comfort expressing political opinions online, while fear of cyberstalking significantly predicted less comfort sharing photos of the self and of friends and family online. It may be that greater exposure to particular forms of harm increase fear of being targeted

by harms more generally in women, leading to additional safety work in the form of using safety tools and reducing online participation, perhaps mitigating risk of further exposure. Alternatively, it may be that greater fears amongst women arise by factors other than direct exposure, leading to increased safety work, and again mitigating further risk. Our work shows that the interplay between gender, exposure to harm, fears and online behaviours is complex and future work would benefit from examining these links in greater detail.

While our work offers important novel insights into the differential impacts of online harms experienced by men and women, it is important to acknowledge limitations in the study and outstanding research questions that were not possible to answer with this data. Firstly, in attempting to understand gender differences in experiences of online harms using a nationally representative sample, we compare responses given by people identifying as men or women, excluding individuals who identify as non-binary or another gender. The reason for taking this approach is because in a nationally representative sample of 2000 people, numbers of individuals identifying as a different gender are too small (in this sample, 17 individuals identified as either non-binary, preferred to self-describe or preferred not to say) to make meaningful statistically generalisable comparisons for this group. Future work could look more specifi-

cally at the experiences of individuals identifying in other ways by oversampling this group and actively engaging this sample. Additionally, our sample comprised only of adults, and future work would benefit from tackling similar research questions with children and teenagers, who are also at risk of gendered online harms (Plan International, 2020; Livingstone, 2014).

In our analyses, we generalise across men and women as a whole, but there are likely to be intersections with gender and other social features such as age and race. Future work should consider these intersections in greater detail, for example in examining differing experiences of older vs. younger women and men, or exploring gender differences based on ethnicity, for example extending findings from OfCom (2022) which suggested Black women were least likely to think that being online has a positive effect on mental health than those from other ethnic backgrounds.

Overall, we provide up-to-date evidence within a nationally representative sample of UK adults about how and when women are disproportionately affected by online harms. Our findings demonstrate the myriad of harms that men and women are exposed to online, providing valuable information about who is most at risk and when, important for knowing where psychological support should most be directed and in what ways interventions against online harms may be most effective. Our work highlights the need for greater efforts from platforms to protect women users, welcoming efforts from the Online Safety Act in requiring Ofcom to develop guidance for tech companies to reduce harm to women and girls (End Violence Against Women, 2023). To ensure an egalitarian society, we must make sure that all members of society feel safe and able to participate in online spaces.

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5. Supplementary Information

5.1. Supplementary tables

5.1.1. Significant gender differences in directly receiving on-line harms

5.1.2. Gender differences in psychological impacts of online experiences

5.1.3. Associations between fear of each online harm and comfort with each online activity

Harm	Gender	Response	%
Misogyny	Female	Never	87.0%
		Once	5.9%
		2-4 times	4.7%
		5+ times	2.5%
	Male	Never	95.0%
		Once	1.9%
		2-4 times	1.8%
		5+ times	1.3%
Cyberstalking	Female	Never	96.6%
		Once	2.3%
		2-4 times	0.6%
		5+ times	0.5%
	Male	Never	98.2%
		Once	0.9%
		2-4 times	0.6%
		5+ times	0.2%
Cyberflashing	Female	Never	95.0%
		Once	2.2%
		2-4 times	1.8%
		5+ times	1.1%
	Male	Never	97.8%
		Once	0.9%
		2-4 times	0.6%
		5+ times	0.6%
Eating disorder content	Female	Never	95.8%
		Once	1.6%
		2-4 times	1.9%
		5+ times	0.7%
	Male	Never	97.5%
		Once	1.1%
		2-4 times	0.8%
		5+ times	0.5%
Image-based abuse	Female	Never	98.4%
		Once	1.0%
		2-4 times	0.5%
		5+ times	0.1%
	Male	Never	99.3%
		Once	0.5%
		2-4 times	0.2%
		5+ times	0.0%

Table 4: The extent to which men and women say they have been directly targeted by each of the five online harms that women report being targeted by to a significantly greater extent than men. Percentages are representative of the population. 'Prefer not to say' responses were uncommon and are not included.

Harm	Gender	Response	%
Hate speech	Female	Never	89.1%
		Once	4.5%
		2-4 times	4.9%
		5+ times	1.6%
	Male	Never	84.2%
		Once	5.5%
		2-4 times	6.8%
		5+ times	3.5%
Misinformation	Female	Never	71.4%
		Once	9.6%
		2-4 times	11.9%
		5+ times	7.0%
	Male	Never	60.4%
		Once	8.6%
		2-4 times	15.3%
		5+ times	15.7%
Trolling	Female	Never	89.1%
		Once	4.6%
		2-4 times	3.8%
		5+ times	2.6%
	Male	Never	77.6%
		Once	5.6%
		2-4 times	9.2%
		5+ times	7.6%
Threats of physical violence	Female	Never	96.5%
		Once	1.7%
		2-4 times	1.1%
		5+ times	0.7%
	Male	Never	94.0%
		Once	2.7%
		2-4 times	2.1%
		5+ times	1.2%

Table 5: The extent to which men and women say they have been directly targeted by each of the four online harms that men report being targeted by to a significantly greater extent than women. Percentages are representative of the population. ‘Prefer not to say’ responses were uncommon and are not included.

Feeling	Gender	Response	%
Sad or low	Female	Not at all	15.8%
		Not very much	28.1%
		Somewhat	45.8%
		Very much	10.2%
	Male	Not at all	24.3%
		Not very much	36.3%
		Somewhat	32.7%
		Very much	6.7%
Angry or frustrated	Female	Not at all	9.6%
		Not very much	17.7%
		Somewhat	47.8%
		Very much	24.9%
	Male	Not at all	13.8%
		Not very much	22.8%
		Somewhat	45.7%
		Very much	17.6%
Physically affected	Female	Not at all	62.2%
		Not very much	24.8%
		Somewhat	10.6%
		Very much	2.4%
	Male	Not at all	71.8%
		Not very much	19.0%
		Somewhat	8.2%
		Very much	1.0%
Job affected	Female	Not at all	70.3%
		Not very much	19.7%
		Somewhat	8.2%
		Very much	1.8%
	Male	Not at all	72.0%
		Not very much	20.0%
		Somewhat	6.1%
		Very much	1.9%
Relationships affected	Female	Not at all	61.0%
		Not very much	23.5%
		Somewhat	12.8%
		Very much	2.8%
	Male	Not at all	62.2%
		Not very much	23.5%
		Somewhat	11.4%
		Very much	2.8%
Motivated to act	Female	Not at all	47.6%
		Not very much	28.8%
		Somewhat	20.4%
		Very much	3.2%
	Male	Not at all	49.3%
		Not very much	30.3%
		Somewhat	17.2%
		Very much	3.2%

Table 6: The extent to which people say they have experienced each kind of psychological impact as a result of online experiences split by gender.

Table 7: Coefficients for each regression model examining associations between fear of each online harm and comfort with each online activity, controlling for age, gender and internet use frequency. We show estimates, exponentiated coefficients and p-values before and after and after influential values are identified and removed. Note that influential values are identified using Cook's distance, with a threshold of $4/N$. When $p=0.000$, this means $p<.001$.

Fear (IV)	Behaviour (DV)	Estimate	Exp. coefficient	p	N inf. values	Estimate, inf. values removed	Exp. coefficient, inf. values removed	p, inf. values removed
Hate speech	Expressing political opinions	-0.44	0.65	0.000	39	-0.64	0.53	0.000
	Expressing other opinions	-0.34	0.72	0.001	40	-0.35	0.70	0.000
	Sharing personal information	0.00	1.00	0.982	169	-18.35	0.00	0.995
	Sharing photos of self	-0.13	0.88	0.295	89	-0.26	0.77	0.055
	Sharing photos of friends and family	-0.09	0.91	0.486	139	-0.10	0.91	0.556
Misogyny	Sharing photos of activities	-0.13	0.88	0.224	50	-0.21	0.81	0.065
	Challenging content	-0.18	0.83	0.096	45	-0.28	0.75	0.014
	Expressing political opinions	-0.43	0.65	0.000	40	-0.67	0.51	0.000
	Expressing other opinions	-0.18	0.84	0.093	39	-0.19	0.83	0.074
	Sharing personal information	0.07	1.08	0.692	159	-17.06	0.00	0.992
Trolling	Sharing photos of self	-0.32	0.73	0.015	102	-0.68	0.51	0.000
	Sharing photos of friends and family	-0.32	0.73	0.027	150	-0.82	0.44	0.000
	Sharing photos of activities	-0.28	0.76	0.016	56	-0.43	0.65	0.001
	Challenging content	-0.20	0.82	0.099	46	-0.31	0.74	0.016
	Expressing political opinions	-0.50	0.61	0.000	31	-0.64	0.53	0.000
Bullying	Expressing other opinions	-0.20	0.82	0.038	40	-0.23	0.80	0.020
	Sharing personal information	0.20	1.22	0.230	173	-17.91	0.00	0.994
	Sharing photos of self	-0.16	0.85	0.162	97	-0.23	0.80	0.095
	Sharing photos of friends and family	-0.06	0.94	0.614	136	-0.05	0.95	0.760
	Sharing photos of activities	-0.08	0.92	0.418	46	-0.13	0.88	0.232
Cyberstalking	Challenging content	-0.30	0.74	0.006	44	-0.37	0.69	0.001
	Expressing political opinions	-0.36	0.70	0.001	32	-0.48	0.62	0.000
	Expressing other opinions	-0.12	0.89	0.221	39	-0.14	0.87	0.148
	Sharing personal information	0.04	1.04	0.818	177	-18.54	0.00	0.996
	Sharing photos of self	-0.11	0.90	0.338	89	-0.23	0.79	0.077
Cyberstalking	Sharing photos of friends and family	-0.14	0.87	0.268	135	-0.12	0.89	0.438
	Sharing photos of activities	-0.01	0.99	0.930	44	-0.06	0.94	0.572
	Challenging content	-0.28	0.76	0.008	43	-0.36	0.70	0.001
	Expressing political opinions	-0.24	0.79	0.020	25	-0.31	0.74	0.004
	Expressing other opinions	-0.01	0.99	0.938	40	-0.04	0.97	0.724
Cyberstalking	Sharing personal information	-0.19	0.83	0.258	176	-18.93	0.00	0.996
	Sharing photos of self	-0.24	0.79	0.041	95	-0.43	0.65	0.001

Table 7 continued from previous page

Fear (IV)	Behaviour (DV)	Estimate	Exp. coefficient	p	N inf. values	Estimate, inf. values removed	Exp. coefficient, inf. values removed	p, inf. values removed
Cyberflashing	Sharing photos of friends and family	-0.36	0.70	0.004	136	-0.34	0.71	0.034
	Sharing photos of activities	-0.12	0.89	0.238	46	-0.17	0.85	0.115
	Challenging content	-0.16	0.85	0.123	39	-0.22	0.81	0.045
	Expressing political opinions	-0.30	0.74	0.008	30	-0.43	0.65	0.000
Group attacks	Expressing other opinions	-0.12	0.89	0.261	38	-0.13	0.88	0.228
	Sharing personal information	0.06	1.07	0.713	167	-18.37	0.00	0.995
	Sharing photos of self	-0.35	0.70	0.005	97	-0.59	0.56	0.000
	Sharing photos of friends and family	-0.26	0.77	0.048	141	-0.30	0.74	0.079
Impersonation	Sharing photos of activities	-0.23	0.80	0.038	49	-0.33	0.72	0.005
	Challenging content	-0.07	0.93	0.512	40	-0.14	0.87	0.241
	Expressing political opinions	-0.24	0.79	0.024	30	-0.34	0.71	0.002
	Expressing other opinions	-0.09	0.92	0.379	39	-0.10	0.91	0.327
Physical threats	Sharing personal information	-0.01	0.99	0.947	177	-18.67	0.00	0.997
	Sharing photos of self	-0.35	0.71	0.003	99	-0.58	0.56	0.000
	Sharing photos of friends and family	-0.22	0.80	0.085	138	-0.26	0.77	0.108
	Sharing photos of activities	-0.21	0.81	0.047	48	-0.27	0.76	0.013
Sexual threats	Challenging content	-0.13	0.88	0.208	42	-0.20	0.82	0.066
	Expressing political opinions	-0.31	0.73	0.002	21	-0.34	0.71	0.001
	Expressing other opinions	-0.35	0.71	0.000	39	-0.35	0.70	0.000
	Sharing personal information	-0.28	0.75	0.078	178	-18.68	0.00	0.996
Doxing	Sharing photos of self	-0.29	0.75	0.012	96	-0.44	0.64	0.001
	Sharing photos of friends and family	-0.25	0.78	0.040	135	-0.29	0.75	0.059
	Sharing photos of activities	-0.08	0.93	0.432	45	-0.08	0.92	0.435
	Challenging content	-0.25	0.78	0.015	39	-0.28	0.76	0.007
	Expressing political opinions	-0.32	0.72	0.002	27	-0.39	0.67	0.000
	Expressing other opinions	-0.14	0.87	0.142	38	-0.15	0.86	0.126
	Sharing personal information	-0.04	0.96	0.788	175	-17.91	0.00	0.994
	Sharing photos of self	-0.20	0.82	0.089	99	-0.36	0.70	0.007
	Sharing photos of friends and family	-0.28	0.76	0.028	136	-0.25	0.78	0.125
	Sharing photos of activities	-0.09	0.92	0.385	43	-0.09	0.92	0.404
	Challenging content	-0.12	0.88	0.237	39	-0.17	0.85	0.125
	Expressing political opinions	-0.21	0.81	0.050	26	-0.29	0.75	0.010
	Expressing other opinions	-0.11	0.90	0.282	38	-0.12	0.89	0.234
	Sharing personal information	-0.17	0.84	0.318	168	-18.41	0.00	0.994
	Sharing photos of self	-0.20	0.82	0.089	97	-0.40	0.67	0.004
	Sharing photos of friends and family	-0.30	0.74	0.019	144	-0.49	0.61	0.004
	Sharing photos of activities	-0.03	0.97	0.778	44	-0.05	0.95	0.654
	Challenging content	-0.17	0.85	0.126	41	-0.21	0.81	0.061
	Expressing political opinions	-0.17	0.84	0.093	25	-0.24	0.79	0.023

Table 7 continued from previous page

Fear (IV)	Behaviour (DV)	Estimate	Exp. coefficient	p	N inf. values	Estimate, inf. values removed	Exp. coefficient, inf. values removed	p, inf. values removed
	Expressing other opinions	-0.03	0.97	0.785	39	-0.04	0.96	0.706
	Sharing personal information	-0.18	0.83	0.260	182	0.00	1.00	1.000
	Sharing photos of self	-0.38	0.69	0.001	99	-0.71	0.49	0.000
	Sharing photos of friends and family	-0.42	0.66	0.001	137	-0.62	0.54	0.000
	Sharing photos of activities	-0.28	0.75	0.006	50	-0.37	0.69	0.001
	Challenging content	-0.09	0.92	0.403	37	-0.13	0.88	0.224
Image-based sexual abuse	Expressing political opinions	-0.16	0.86	0.138	22	-0.20	0.82	0.066
	Expressing other opinions	-0.04	0.96	0.695	39	-0.04	0.96	0.666
	Sharing personal information	0.10	1.10	0.549	177	-18.54	0.00	0.996
	Sharing photos of self	-0.10	0.91	0.402	94	-0.25	0.78	0.063
	Sharing photos of friends and family	-0.05	0.95	0.692	136	-0.11	0.90	0.491
	Sharing photos of activities	0.01	1.01	0.909	42	0.03	1.03	0.818
	Challenging content	-0.09	0.92	0.405	40	-0.11	0.90	0.331