Responding to Sensitive Disclosures on Social Media: A Decision-Making Framework

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When people disclose information on social media that is sensitive or potentially stigmatized (e.g., mental illness, pregnancy loss), how do others decide to respond? We use interviews and vignettes to provide a response decision-making framework (RDM) that explains factors informing whether and how individuals respond to sensitive disclosures from their social media connections. The RDM framework includes factors related to the self, poster, and disclosure context (i.e., relational, temporal, social). Our findings include how people's decisions are complicated by balancing their own needs (e.g., privacy, wellbeing) as well as the posters' (e.g., support) when seeing what they consider sensitive posts on social media. We identify empirically grounded insights and information that social media designs could surface to support both potential disclosers and responders. We argue that social media sites should provide privacy controls for both disclosers and responders, and facilitate the visibility of network-level support.

CCS Concepts: • Human-centered computing — Social media; Social networking sites; Empirical studies in collaborative and social computing; Human computer interaction (HCI);

Additional Key Words and Phrases: Self-disclosure, social support, support provision, response, social media, decision making, reproductive health, pregnancy loss, miscarriage, stigma

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1 INTRODUCTION

It is common to feel unsure how to respond when a friend shares bad news or a painful experience. What do you say when learning about a friend's serious illness or the death of a loved one? What about when the sharing happens on social media? What if an acquaintance posts that they were struggling with depression? People often need to share painful emotions and experiences and receive support from others [71]. Social network sites (SNSs) are a place where individuals maintain relationships that can be a source of social support [26, 32]. In this article, we explore response behaviors and decisions when people encounter sensitive information through posts on

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SNSs. Because it is a common, painful, and often stigmatized experience, we use pregnancy loss as a central example [53, 69, 75].

When people make difficult decisions to share sensitive information about themselves, they do so in anticipation of a response (an immediate reaction) and an outcome (a change in situation or relationship) [34, 54]. Research has established the importance of the receiving audience in disclosure outcomes [18]. When disclosures include socially stigmatized or sensitive content, reactions and responses are especially crucial; negative and unsupportive responses lead to stress, negative wellbeing, perceptions of reduced social integration, lower self-esteem, and fewer future disclosures [35, 85]. On the other hand, receiving support on SNSs has been linked to wellbeing, life satisfaction, and future network activity [48, 87]. Once disclosures are broadcast to an online social network, what happens next? Responses to sensitive disclosures are important to understand if we aim to design social computing systems that encourage supportive interactions.

In this article, we investigate why and how people respond when they encounter sensitive disclosures online, such as the loss of a pregnancy. Pregnancy loss is simultaneously a common experience among women of childbearing age and perceived as stigmatized and uncommon [53, 69, 75]. When disclosed, people frequently report receiving unsupportive responses and reactions [60]. Therefore, pregnancy loss is an ideal context for studying disclosure of and response to sensitive disclosures. We draw primarily on an interview study with 11 participants who had come across sensitive disclosures on SNSs, including but not limited to pregnancy loss.

The interviews included both an open, semi-structured phase and a phase in which we used vignettes as instruments to evoke responses to disclosure scenarios systematically. In this article, we detail the factors that guided decisions to engage or not engage with disclosures that participants perceived to be sensitive. While we did not focus on any particular platform for this study, participants referred to Facebook as the platform they primarily used to connect with others in their daily lives, which is consistent with prior work [37].

In this work, we contribute a response decision-making (RDM) framework that explains factors that inform whether and how people respond to sensitive disclosures on SNSs. The RDM framework includes three major types of factors:

- self-related (i.e., personal and professional expertise, attitudes toward the topic and sharing about it, impression management, privacy, and personal wellbeing),
- poster-related (i.e., disclosure content, frequency of posting, perceptions of poster's intentions and expectations, aggregate network-level support), and
- context-related (i.e., relational, temporal, and wider social) factors.

Within this framework, we also identify the socio-technical features of social media sites that influence these decisions through informing some of the above decision factors. These features include multiple engagement modes, support for variable degrees of anonymity and identifiability, visibility of interactions with posts, topical specificity of the online space, and the one-to-many nature of broadcast disclosures.

2 RELATED WORK

We discuss the body of scholarship that motivates this work: responses to sensitive self-disclosures, and responses to pregnancy loss disclosures in particular.

2.1 Responses to Sensitive Self-disclosures

There is a rich research literature about online forums and support groups where people seek and provide support in socially stigmatized contexts (e.g., mental illness, abuse, cancer). The advantages of online supportive exchanges among strangers have been well documented (e.g., [7,

82]). Often these spaces provide opportunities for anonymity that facilitates disinhibition [81] and provide a safer space to engage in seeking support and disclosing sensitive information (e.g., [4, 72]). Online forums and support groups often are specifically dedicated to a topic, bring together strangers who want to discuss that topic, and provide opportunities for anonymity. In this article, we focus on disclosure and responses on identified SNSs like Facebook, where people are typically connected to others with whom they have an existing relationship [37] and are not anonymous; characteristics linked to "positivity bias" (i.e., favoring sharing about positive events and emotions over negative ones) [68] and "context collapse" (i.e., the flattening of members of various social networks and life contexts into one big group) [56]—less likely to occur in anonymous online forums.

Several studies have found that "negative" self-disclosures are less willingly received than "positive" ones both in non-computer-mediated [19, 40, 59, 97] and in computer-mediated contexts [13]. For example, in a 1993 paper, Pennebaker and Harber observed that following the 1989 Loma Prieta earthquake in California, people became fatigued by hearing about others' earthquakerelated thoughts and feelings and some even wore t-shirts that read the following: "Thank you for not sharing your earthquake experience." Pennebaker and Harber called this phenomenon "social constraint" [64]. When experiencing stigma or distressing life events, people may find themselves confronted with similar "social constraints." In fact, Bonnano and Kaltman suggested that people who are grieving and constantly expressing pain might drive away those who might potentially provide social support. They further explained that this may be due to norms for temporal frames where one's audience believes that "you should be over it by now" [15]. Another study found that those who visibly struggle suffer more isolation and rejection than those who act as if they are coping well with crises [94]. Some features of this phenomena extend to the online experience too: through an experiment with students, a recent study found that on Facebook people are less willing to comment on "negative" status updates compared to "positive" ones, but that they are more likely to engage in private conversations to respond to "negative" disclosures [96]. Other research suggests that weak ties are not as willing as strong ties to respond to requests for support on Facebook [79]. In computer-mediated and non-computer-mediated contexts, individuals under major stress need supportive interaction, yet have difficulty finding support [76].

Research on response behaviors suggests that a sense of intimacy and relational closeness with a discloser affects how people respond to a disclosure. Schoeman's subjective intimacy framework suggests that people assess the intimacy level of a piece of information based on who else it is shared with, and how "special" it is [73]. Self-disclosure has been found to increase liking for the discloser, as long as the disclosure is perceived to be appropriate [21]. For example, highly intimate disclosures too early in the development of a relationship may not enhance liking [1] and may be thought of as inappropriate by strangers [23]. Similar phenomena have been observed in computer-mediated settings. An experimental study found that intimate public disclosures may increase perceptions of closeness from the viewers' perspective; however, social attraction may be reduced when the disclosure was thought as inappropriate [51]. An experimental study found that Facebook users deem positive daily status updates to be more appropriate than negative, and negative updates are perceived to be more appropriate to share privately [11]. Another experimental study found that "negative" posts with perceived high intimacy levels lead to less social attractiveness of the discloser [63]. Moreover, a survey study found that "negative" disclosures have a higher impact on acquaintances' than on friends' perceptions of the discloser compared to "positive" ones [66]. Lastly, an experiment with university students suggested that the extent to which one believes information has exclusively been shared with them, leads to perceptions of more intimacy and contributes to assessments of how much the discloser "likes" them [12], finding support for the concept of "disclosure personalism" [42] on SNSs.

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Researchers have also studied the content and frequency of online responses to disclosures. For example, Facebook status updates including positive emotions receive more likes than those with more negative emotions, and posts with positive emotions receive fewer comments while posts with negative emotions receive more comments [17, 84]. Responses to Facebook posts with negative emotions have been found to contain supportive and emotional language [17]. Responses to mental-health related disclosures on Instagram have been found to be supportive; specifically, posts including personal narratives receive more supportive comments and posts seeking support attract more comments compared to those that do not [5]. Tweets that include intense expressions of loneliness have been found to receive fewer public Twitter replies than those that do not include such intense expressions [46]. A study of bulletin boards about involuntary permanent childlessness found evidence for supportive interactions in the safety of anonymity provided by the forum [55]. However, little work has been done to understand why people respond or do not respond when they come across such disclosures on social media and how they make decisions.

2.2 Responses to Disclosures of Pregnancy Loss

In non-computer-mediated contexts, there is abundant evidence suggesting that after a pregnancy loss, responses from women's primary social ties (i.e., friends, family) are perceived to diminish the experience and as such are not perceived to be supportive [60]. People who respond often try to reframe the experience as a positive event (e.g., "It's better to have a loss than to have an unhealthy child"), or try to replace the lost pregnancy with a new one (e.g., "You will have another child in future anytime you want"); such responses do not help with grieving the loss [53, 69, 75]. Society and one's network rarely encourage women to express their emotions, to talk about loss, and to assume the role of a bereaved individual [78]. When people are disclosed to, many believe that if the pregnancy was planned, the loss was traumatic, but if it was not, it was not traumatic or distressing [69]. The disparity in valuative meaning (i.e., the gravity associated with the event that is related to one's experiences and are typically shared among people with similar experiences) between those who have experienced pregnancy loss and people around them partially explains the unsupportive reactions [69].

The literature on stigma suggests that sometimes people avoid certain others due to social norms (e.g., feelings such as anger or blame), and sometimes due to disease avoidance and fears of contamination and disgust [49]. In fact, the latter may promote "avoidance of people who appear to be healthy, but who have become linked to disease-related knowledge by a label" [61]. Some suggest that "confusing terminology" (i.e., spontaneous abortion vs. abortion by choice) and a "norm of silence" (i.e., not disclosing pregnancy until after the first trimester) contribute to the difference in responses to pregnancy loss compared to other types of loss [14, 69]. The body of work discussed here provides us with important knowledge about perceptions of sensitive disclosures, but we do not know much about how people experience the online sensitive disclosures of others and the factors that guide their decisions about whether and how to respond. This is an important gap to fill not only because of its theoretical contributions, but also if we want to design social technologies that foster supportive interactions.

3 METHODS

We use a phenomenological interview approach including both a semi-structured protocol and structured vignette prompts to understand people's perceptions of online disclosures and disclosers and to surface the decision-making factors that precede different response types.

 $\overline{P2}$ P1 P3 P4 P5 P6 P7 P8 P9 P10 P11 27 23 34 23 50 28 42 24 23 40 38 Age Gender m W m m W m W W W w

Table 1. Participant Demographics

3.1 Recruitment

We sent out a brief screening survey on Facebook and Twitter (starting from the authors' networks) to find eligible interview participants. The call was widely shared by people outside of the authors' networks. The survey included information about the study and participation criteria: being at least 18 years old, using social media, and living in the U.S. The survey asked which online platforms respondents used, and whether they have come across posts about negative feelings or stressful situations. If they answered yes, we asked them to briefly describe the posts and platform. We also asked about age, gender, where they lived, and contact information. We received a total of 82 responses. We wanted to collect data not only related to pregnancy loss responses but also responses to other sensitive posts, and to have a diverse sample with respect to age, gender, and social media use.

Specifically, we used screening survey responses to identify a sample of interview participants who varied in age, gender, and the type of sensitive disclosures they had encountered in order to obtain a rich dataset. Once we had divided potential interviewees into categories representing different ages, genders, and types of disclosures encountered, we began recruiting from each group to ensure inclusion from each. We emailed some potential interview participants, noted who responded, conducted interviews, and emailed more potential participants based on the data we had already gathered. We continuously reviewed data for coverage of novel experiences and stopped recruiting interview participants when we reached saturation, i.e., when we began to hear the same data with no new additions. This is a common method for non-probabilistic sampling that can be found throughout the HCI and methods literature and provides no grounds for establishing a "correct" sample size. Through this iterative data collection and analysis process, we emailed 20 survey respondents with study information and a link to an online consent form. Eleven individuals completed the consent process and participated in the study. We did not invite survey respondents who reported no exposure to sensitive posts or who lived outside the United States (as proxy for broad cultural similarity). One non-binary person responded to the survey; however, they did not respond to the interview request once invited.

3.2 Participants

We interviewed a total of 11 participants (7 women, 4 men). The average age was 32 (range: 23–50). Participants had seen a variety of sensitive posts online including posts about mental illnesses, sexual abuse, pregnancy loss, loss of loved ones and pets, chronic or serious illnesses, eating disorders, drug abuse, finances, experiences with sexism/racism/LGBTQ discrimination, police brutality, and abortion. Seven of the eleven participants specifically reported having come across posts about pregnancy loss on Facebook; when that was the case, we asked them to reflect on coming across disclosures of pregnancy loss in addition to other experiences. Participants used a variety of social media; however, they primarily reported using Facebook with a wide range of ties (e.g., family, colleagues, acquaintances, friends). All participants lived in the U.S. Two participants were not able to complete the vignette portion of the interviews. We continuously reviewed data for coverage of novel experiences and stopped recruiting interview participants when we reached saturation. Participants were offered a \$25 Amazon gift card as a token of appreciation. Table 1 includes more details about participants.

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3.3 Data Collection

3.3.1 Vignettes.

Vignettes as research instruments. Vignettes are "short stories about hypothetical characters in specified circumstances, to whose situations the interviewee is invited to respond." [29] Vignettelike methods are common in HCI research (e.g., [16, 20, 41, 83]), where scenarios and imagined interface designs have figured prominently for years; however, we adopted the vignette method from the social sciences where extensive guidelines exist for collecting data for theory development rather than interface design. We used vignettes to collect systematic data on how and why people engage or do not engage with various kinds of pregnancy loss disclosures on SNSs. We chose to design vignettes about pregnancy loss because it is a rich context for understanding responses to sensitive self-disclosures on social media due to the stigma associated with it and the complications that accompany responses to it as we discussed in our review of the literature. Vignettes help us explore social norms by uncovering participants' attitudes and beliefs about a situation, without requiring participants to have been in the situation and allow for systematic comparisons of group interpretations of a situation [27]: "The use of vignettes is considered to be an appropriate method for the study of normative material where the direct and abstracted approach of eliciting responses to specific issues is not possible." [65] As reviewed in [70], researchers have used vignettes in studying sensitive topic areas, such as suicide, sexual standards, rape, relationship violence, and deviance.

Vignette design. We followed best practices in designing vignettes (e.g., [10, 27, 29, 70]) and based them on self-disclosure and support seeking literature. Specifically, the Sensitive Interactions Systems Theory describes direct and indirect support seeking [9]. Direct support seeking entails stating a problem and asking for help, whereas indirect support seeking involves hinting at a problem. Direct methods are more likely to lead to helpful support [9]. We ensured that our data represented response decisions for both direct and indirect disclosures by designing vignettes for each.

Self-disclosure content can also vary based on depth, breadth, and duration [1, 24, 62]. Traditional communication research defines depth as "the degree to which information shared through disclosure is deemed to be highly private or intimate" [22] or "the degree to which it disclosed personal information, thoughts, and feelings." [8] Breadth refers to the amount and number of shared topics [22]; for example, a vignette that discusses topics such as health condition long before pregnancy, struggles with infertility, details of the pregnancy loss experience itself, emotional experience of loss, physical complications of loss, future plans for pregnancy, and impact of loss on one's life has more breadth compared to one that talks about the loss and being thankful for having another baby. Finally, duration refers to the amount of time the individual spends on making a disclosure [22]. In the context of text-based social media posts, we can substitute length for duration. Barak et al. [8] identified three ratings for disclosure degree: high, little, and no disclosure. No disclosure is not relevant to our study. Otherwise, we adopt these categories from Barak et al.'s study in the design of vignettes. "Low disclosure" include posts that include less depth, breadth, and duration compared to "high disclosures." This definition of disclosure degree has also been used recently to determine that the length of a post is a significant predictor of the degree of disclosures in generic Facebook posts [91]. We designed high and low disclosure vignettes to collect data about response decisions for each, and to explore whether and why these disclosure message dimensions inform response decisions.

To validate vignettes, we gave definitions of high/low disclosure and direct/indirect support seeking to five researchers (not collaborators on this project) and asked them to independently code the vignettes. Codes indicated 100% agreement that the scenarios are representative of the

Direct Indirect Vignette 1 Vignette 3 High Vignette 2 Vignette 4

Fig. 1. Vignette designs.

associated categories. After the first interview we made minor edits to details of V1, to ensure we collected potentially relevant data to the type of detail provided in V1 (leading to V1a and V1b as two variations of V1). The reason for this adjustment was that in the first interview, the participant noted that the specific *kind* of detail in the post (about the poster's husband) would make the audience take sides and angry at the husband; so we wanted to see if tweaking this detail to something more generic would still be noticed by participants (and we found that it was). This was appropriate because our data collection and analysis was an iterative process, not an experiment, during which our data collection and sampling was informed by analyzing prior interviews. Vignettes are available in supplemental materials. Figure 1 shows the overall vignette design. *Note*: these designed vignettes include content about pregnancy loss.

Interviews. The first author conducted all the interviews via participants' preferred 3.3.2 method of video or voice call. The interviews were semi-structured and lasted for 80 minutes (SD = 23.4, range: 40-105) on average. Only audio was recorded, and subsequently transcribed for analysis. The interviews started with background questions about general social media use. They then explored participants' encounters with sensitive posts on social media (including examples of coming across sensitive disclosures participants had mentioned in screening surveys), how and where they had come across them, what they were about, who they were from, how this exposure had made participants feel, and whether, why, and how they had or had not engaged with these posts in the past. We asked the seven participants who had mentioned seeing posts about pregnancy loss before to reflect on that experience and probed as described above to understand their process for making a decision about responding. For any specific instance participants mentioned, we probed to uncover factors that contributed to their response. We then asked about participants' own disclosure behaviors. This phase of the interviews covered a wide range of experiences beyond pregnancy loss disclosures. Next, participants were provided with links to vignettes about pregnancy loss, described in detail in the previous section. They read the vignettes one by one and in the same order starting from V1. We asked them to imagine that the vignettes were posts they encountered on the social media platform they used most. We asked them to describe how and why they would respond to each one and how they believed others would respond. By this point in the interview, we knew about their typical social media use, so we framed the question accordingly. Sometimes participants went back and forth between vignettes to compare them. If it did not come up organically, we further probed by asking how they would feel if this post was from different 31:8 N. Andalibi and A. Forte

people (e.g., friend, coworker, family member) and why. This phase of the interviews provided us with data about RDM when coming across pregnancy loss disclosures specifically, and the role of the factors we intentionally incorporated in our vignette designs.

The interviewer adopted guidelines posed by Kasket [44] for conducting interviews who may show signs of distress. These guidelines provide signs of different stress levels that interviewers can respond to and be sensitive to. The study was approved by our institution's IRB.

- 3.3.3 Analysis Method. We used the constant comparative method to identify reoccurring concepts in interview transcripts. The first author applied line-by-line coding to the data "through which categories, their properties, and relationships emerge automatically taking us beyond description and putting us into a conceptual mode of analysis" [80, 66]. This involved iteratively looking for consistencies and differences in the data. We treated the data from both phases of the interviews as a whole. Throughout analysis iterations, the authors met to discuss and refine the emerging themes.
- 3.3.4 Limitations. The potential differences between reported behavior and actual behavior have always been a challenge for social science research, and vignettes are not exceptions. However, studies suggest that people behave similarly in "real life" as they respond to vignettes, particularly in sensitive settings (e.g., [65, 67, 69]). We used vignettes as research instruments to uncover beliefs and attitudes about sensitive disclosures. Our vignettes were not representative of all sensitive disclosures or even all pregnancy loss disclosures. However, combining vignettes as prompts and recruiting participants who had reported coming across sensitive topics in the past allowed us to learn new things about response behaviors in sensitive settings on SNSs. Future work could use experimental methods and vignettes to test our findings and find correlational results; however, our goal here was to provide a framework that makes it possible to do future work that is grounded in phenomenological knowledge of the world. Finally, our sample was 64% women and all participants lived in the United States. Future work could address response behaviors in and across different cultures. Although our goal was not to generalize across cultures, we acknowledge the limitations of our sample.

4 FINDINGS

We organize our findings around three types of decision factors (Figure 2) that influenced whether and how participants responded to sensitive disclosures on social media: Self-related, poster/discloser-related, and context-related. In the next sections, we describe each of the factors and provide example of decision making that relies on each. *NOTE:* This section includes content about people's reflections on seeing content from those in distress on social media.

4.1 Self-related Factors

Factors related to self that impacted response decisions included: personal or professional expertise, attitudes toward the topic and sharing about it, impression management, privacy, and personal wellbeing.

4.1.1 Personal Experience and Professional Expertise.

Personal experience. Participants reflected on whether they had similar experiences when deciding whether to respond. Some respondents felt that it was important to have a close proximal experience, i.e., an experience that was very similar to the discloser. For example, P2 noted that "When it comes to things that are sensitive material posts, I try to really only comment on things that I have personal life experience I can bring to bear on it. With something like pregnancy difficulty, I've never been pregnant. I don't feel like I'm coming from a place of expertise or that I have

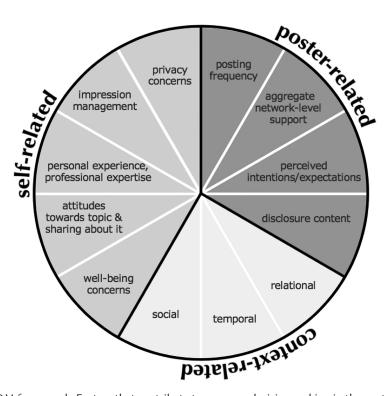


Fig. 2. The RDM framework: Factors that contribute to response decision making in the context of sensitive disclosures on social media.

a lot to offer other than generalized sympathy. With things like that, I do feel like that dissuades me from making any sort of comment or interaction. I feel pretty strongly, a personal belief if I am not an expert on something, and I don't have personal experience on it, I'm not an anecdotal expert, it's really unhelpful for me to clutter someone's mental and emotional space by commenting. Especially when this person asked specifically, they asked a question, and they're looking for advice, and I don't feel like I have advice for them." Not having had a proximal experience led to not engaging with a post, generic condolences, or a lightweight reaction such as a "sad face."

People found it hard to relate to, empathize with, or have what they deemed to be a meaningful interaction with the poster in the absence of a similar experience; however, past experiences playing a supportive role also led to the personal experience people deemed necessary for a meaningful response. P8 felt more confident supporting a colleague after a pregnancy loss due to past experiences helping a friend: "I've never had children. I've never tried for children so it's not something that I knew much about, but having been there for one friend, I felt I could at least be there for another." In spite of not having had a personal experience with pregnancy herself, she felt that she understood enough to know what support would be helpful.

Less proximal experiences also evoked and informed responses particularly when participants were able to relate to specific dimensions of the disclosed experience. For example, P8 suggested how people could empathize if they had not had a pregnancy loss experience specifically, but could relate to other aspects of the experience: "Even if somebody has not experienced a D&C¹ or if someone hasn't experienced a termination of a pregnancy before carrying it to term, you can

 $^{^{1}\}mathrm{D\&C}$ (Dilation and Curettage) is a gynecological procedure.

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relate to spending time in the hospital with a family member or relate to their grief of losing a family member or not being ready to try for a child for whatever reason." Similarly, others connected with the grief expressed in some of the vignettes, without having experienced a pregnancy loss. As P9 said: "Everybody can relate to that in some way in their lives. Doesn't have to be just like pregnancy. People like to rally around people that are feeling down." Even others responded empathetically to vignettes based on their experience with healthy pregnancies. As P3 reflected on V2: "If it was someone I was closer with, it'd be really hard not to respond. I think through the whole pregnancy with my wife I was never relaxed for a moment. I'd probably spend hours and hours thinking about it before I said a word because I'd be really conscious about how sensitive every little thing is when you're in that state of grief and anxiety. It just amplifies everything." P3 was able to feel for the poster, based on his experience with having a child and not having dealt with pregnancy complications in their pregnancy. In summary, when participants came across sensitive disclosures, they connected with the post either by virtue of a having had a similar personal experience, or connecting to specific aspects of the experience. Familiarity on a personal level provided grounds for empathy, which is an important feature of online support groups [95]. Here, we see that when personal experience was not present, people were less likely to respond to sensitive disclosures.

Professional expertise. Professional expertise refers to education and training that gives people confidence that their responses will be useful in the absence of personal experience. For example, P5 was in school for East Asian Medicine and knew about postpartum depression because of her profession. She said: "Medically, I've had to treat people who are depressed and who are in grief states and I know what helps. From a medical perspective, from a physical, emotional standpoint. So I would engage with that more on that level and less on the level of wanting to be a parent or the pregnancy. Because I feel like I can't speak to that part of it." When in distress, people may need various kinds of support (i.e., emotional informational, esteem, instrumental, network) from others in their network [25]. While some may have personal experience and may be better suited to provide emotional, esteem, or network support, others may be better equipped to provide informational support and advice because of their professional expertise.

Not having this professional expertise on the other hand, sometimes inhibited responses and engagement. For instance, P3 reflected back on a Facebook friend's posts about suicidal thoughts: "I think a lot of it had to do with almost a violent tone that she was taking where I don't think I had the skills, I was like this person needs professional care and therapy that I'm not capable of. We're definitely not close enough to where I'd be the one who would make that call like push for that, but I think I know my limitations about the things I'm willing to engage in." The relational context within which these disclosures happened in tandem with the tone of the disclosures and the participant not having the required professional expertise led to non-engagement with the social media post about suicide. Similarly, P9 reflected on V4: "I feel like this is one of those that's like it's got so much detail and so much specificity that it's like this person needs to be talking to a professional counselor not just like a random group of friends and acquaintances... like this person needs somebody that's professionally trained to deal with somebody that's in such an emotional state." In summary, when participants felt they were not able to connect to a post on a personal level, having relevant professional expertise was a secondary factor that contributed to engagement and response decisions.

Sometimes to compensate for the lack of personal experience and professional expertise, participants engaged in or imagined information seeking online and offline to gain some level of expertise through other means. For instance, P8 reflected back on when her friend posted about pregnancy loss on Facebook: "Initially the first thing I did was I sort of googled 'How do you

comfort somebody after a miscarriage?' I looked it up because I didn't know. I didn't feel like I could ask because she had so much going on in her life and so much grief. She shouldn't have to educate me on how to help her so I kind of looked up how to talk to somebody who's had a miscarriage. I know this sounds so cheesy of a thing to do, but I was like...I didn't know where else to look but the internet. That's not something my mom and I ever talked about. I didn't really know much about miscarriage, only that it happened to some women." Similarly, P6 reflected on V2 and said he would ask his mom—whom he knew had personal experience—if she would be willing to speak to the poster: "I think if I actually did see this the first thing I would do is go and talk to my mom because I know that she has had a miscarriage. I would ask her if she were willing to talk this person because I know my mom if she were willing would have a lot more to offer to her than I would. Depending on what my mom said I might comment like, I might tell them that she is willing to talk to them." While these participants did not have the expertise to provide help initially, nor did they have the relevant personal experience, they solicited others' expertise and experience to provide helpful support to the poster.

4.1.2 Attitudes Toward the Topic and Sharing About it. Recipient's attitudes about the topic and whether it is appropriate to share sensitive content on social media helped them decide whether to respond to sensitive posts.

Participants made it clear that unwillingness to share their own struggles online made them uncomfortable with engaging with such posts from others. As P2 said: "I think the fact that I'm more reticent to share personal information of a sensitive nature on social media means I am also a little bit more reluctant to comment on things of a personal nature. In part, I think that's because it almost feels unfair. I'm not willing to open up on social media, so I shouldn't comment on other people opening up on social media, either in a positive or negative or any sort of way. I don't feel that I have the space to comment if I'm also not being forthcoming." In this way, P2 suggests that openness should be reciprocal, and if they could not reciprocate, they avoided interactions around sensitive disclosures altogether. The social exchange perspective suggests that when disclosures are made in dyadic relationships, an informational imbalance is created and people try to rebalance by reciprocating with information about themselves [6]. This process becomes complicated on social media when reciprocation would mean disclosing to a large group of people, instead of one.

Some participants believed sharing negative, sensitive, or personal content is not appropriate or useful, and this led to hesitation in engaging with these kinds of posts. P11 said: "For me it doesn't seem appropriate to post things like that on social media. It feels like you really need attention or you really need to feel like you have some sort of online support, and I don't think Facebook is really conducive for that type of supportive environment, sometimes it gets really annoying, I think that posting sensitive topics on social media is not really going to get people anywhere." The meanings that people associated with sharing sensitive content and perceptions of appropriateness were also factors important in RDM.

Finally, not sharing ideology about a relevant topic with the poster informed the decision to refrain from responding. For example, P9 held pro-choice views and had seen a post about pregnancy loss from someone who held pro-life views. This difference made it difficult for P9 to provide support to the poster: "She's anti-abortion, and she continually posts stuff about being anti-abortion and so I think the whole miscarriage thing and that became this intertwined interaction possibly at the time she posted it." People evaluated the poster's ideologies and values, and when the difference was somehow meaningful to them, they did not engage with sensitive posts of that topic, even if posts expressed feelings of grief and sadness.

In summary, not being comfortable posting about one's own struggles, not having a favorable view toward public intimate disclosures on social media, and not sharing the same ideologies and

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values with the poster were factors leading to non-engagement for some participants. Perceptions of similarity with the discloser in terms of values, ideologies, and social media behavior are important factors in response decisions.

4.1.3 Impression Management. When deciding if and how to respond to a sensitive disclosure online, participants considered how a public performance of support would reflect on them. Specifically, being judged as inauthentic or having an otherwise improper response caused people to remain silent or strategically engage is less visible ways.

P2 observed that "When I see other people making comforting comments or sympathetic comments on someone's post or making unsympathetic comments on someone else's post, I think of it more as them posturing and saying this is the person that I am. I'm someone who is comforting. I'm someone who is religious. I'm someone who is X, Y, or Z, rather than them actually wanting to comfort a person." This perception of performing for an audience rather than the poster who is in distress, led some people to not engage with posts in public forms. This perception is in part enabled by the potential visibility of a responder's activity to individuals other than the original poster. Prior work (e.g., [17, 39, 74]) suggests that public engagements with posts through "reactions," "likes," or comments are gestures of support provision. Here, we see a different interpretation of these interactions by potential respondents who view them as performative and not genuine, leading to the decision to not respond. P2 also commented on the lack of cues in social media to help guide responses: "It's a lot easier for me to converse with people when I can see how they're reacting in real time, and so it does feel very vulnerable, even though I'm not the one who's sharing the sensitive material to begin with, it feels vulnerable to comment on it because you're not sure how people are going to respond." This shows how social media users have impression management concerns when considering interacting with a post they deem to be sensitive.

Sometimes participants addressed impression management concerns by combining communication channels with different levels of publicity (i.e., liking, commenting, private messaging). For example, some perceived "liking" as less performative, less visible to others, and "more anonymous" to others compared to commenting. P5 noted that liking a post "feels more anonymous, because it's like ... I don't think it's very likely that somebody's gonna scroll down all the likes and look at who likes it. So it feels like a less ego-driven way of supporting somebody in a very minimal way. And then you have the option to engage more intensely if that seems appropriate." This example illustrates how the platform enabling various kinds of interactions with different levels of perceived visibility and resulting anonymity help with impression management concerns. P10 reflected on such an occasion for "more intense" communication when a friend had posted about pregnancy loss, and she initially commented on her post, but then decided to reach out privately as well: "Well I wanted to comment first and see if she would reach out and I know there were a bunch of comments all saying the, the vast majority of them saying the same thing. I was like, 'I think I should reach out to her personally because I'm also her friend'. So that was my decision to reach out to her privately...'Cause if she's willing to post that online, I mean she's kind of seeking, I feel like she should get some reassurance...affirmation from it. So showing that there's a lot of people that support her and I want to be at least one of them that supports her too. So that's why I did that. I didn't want to also be seen as like someone that's like, comments online and then leaves her alone. Especially, since I'm pretty close to her. I wanted to make sure that I was reaching out to her in a more private, like, one-on-one connection." Her decision to engage with her friend's post in several ways was informed by (1) her impression management needs related to being an individual who reached out in a more private way to a close friend in need while also ensuring that no boundaries are crossed, and (2) contributing to the poster's aggregate network-level support. Sometimes communication was motivated by how not reaching out would

come across to the poster in particular, especially when those who may not be particularly close to the poster may also be engaging in public demonstrations of support.

In summary, participants considered how their interactions in any form (i.e., comment, "reaction," private contact) would be received by the poster or by others whom they would be visible to. Concerns around anticipated negative judgments or receptions led to non-engagement for some participants. Prior work suggests that imagining oneself in negative interactions on Facebook is linked to lower feelings of belonging, self-esteem, control, and meaningful existence [43]. Here, we show that it could also lead to not engaging with others' sensitive disclosures or requests for support. By not engaging with sensitive disclosures, some participants attempted to protect their own "face" [31] due to concerns about their interactions not being received well.

4.1.4 Privacy Concerns. Because responses to posts are currently governed by the privacy settings of the poster, participants described carefully considering the privacy implications of a potential response. As P8 said: "I do check if the privacy setting on their post is public. That will sometimes affect if I comment or if I message them privately to offer support. It will affect the extent to which I am open in my comments. I have one friend where everything he posts is a public post. I don't want to call anybody an over-sharer, but he's just like - His audience is the world when it comes to Facebook. I actually don't feel comfortable posting anything super personal because I know that like a lot of people follow him on Facebook." Some participants reported they were less likely to engage with posts in order to protect their own privacy.

Other participants suggested that spaces like Reddit or online support groups would make it easier to provide advice and detailed responses, because anonymity and/or topic-specific spaces reduce the need to worry about who is watching or what the consequences would be. For instance, P4 said: "Since Reddit is a lot more anonymous, people also tend to want to give their advices to strangers. On Facebook you don't feel like you can just knowledge dump on people and have it be okay... I guess it's also the culture of Reddit, in addition to anonymity...People are going there with that in mind. Someone who feels like they have something to say can be pretty blunt, doesn't necessarily have to worry about offline socialization." This shows how the lack of overlap between one's audience on Reddit with that of their physical world (similar to Facebook) network enables more disinhibited responses and privacy regulation. Similarly, P9 said: "I'm in a moms group specifically, a private closed [Facebook] group. It's a more private group where it's not just anybody and everybody that you're friends with. If it's in there, I would be more likely to comment just because that group is set up for that kind of support system, otherwise I probably really wouldn't comment." Control over one's privacy sometimes through enacting anonymity and sometimes through having a specific audience and topic made it more likely for some to engage with sensitive posts. While prior scholarship has uncovered aspects of privacy concerns (e.g., context collapse) that make disclosures on SNSs challenging (e.g., [2, 36, 56, 88, 90]); here, we see that concerns about audience and privacy affect decisions about how, why, and when support or other response kinds are offered following disclosures. These concerns are directly informed by platform features such as degrees of anonymity and identifiability, control over audience, and visibility of responses to them, or topic-specific spaces.

4.1.5 Personal Wellbeing. Some participants felt that engaging with a post, or seeing others' responses to the post would be emotionally draining. For instance, P5 reflected on V4 and said: "With this, just by reading it, the person is asking us to do some emotional labor for them. She is unloading online so that anyone that catches it is holding some of that pain. But I think that not everybody wants that. Not everybody wants to read about really difficult things that people are going through." Participants described exposure and responses to painful or sensitive disclosures as a kind of emotional labor that the poster asks the audience to do. Sometimes this led to

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non-engagement because participants did not want to do that emotional labor. P7 explained: "I wouldn't respond. One of my biggest things is to try to reduce sadness in my life. If I respond to it, then I'm drawn into it, and I don't want to be." On another note, P2 said: "I'm not as comfortable commenting on either things I don't have experience with or that are just, it's almost too tender and raw for me, too vulnerable for me personally." The emotional labor of exposure to such posts or interactions around them was linked with triggering feelings or being drawn into discussions that one did not want. Experimental large-scale research has found support for the "emotional contagion" [38] phenomena on Facebook, meaning people pick up on emotional states without a need for direct interaction (exposure to content is enough) [47]. Here, we see that for some participants, awareness of how their own wellbeing may be affected by responding to others' sensitive posts or requests for support led to non-engagement.

4.2 Poster-Related Factors

Factors related to the poster and the ways they disclosed their experience played a role in how and whether participants responded. These included disclosure content (i.e., direct vs. indirect support seeking, disclosure message details), frequency of posting, perceptions of poster's intentions and expectations, and opportunity for what we refer to as "aggregate network-level support."

4.2.1 Disclosure Content.

Perceived directness of support seeking. Sometimes a discloser explicitly asked for help or some kind of reaction from the audience. This meant participants did not need to guess the needs of the poster or their motivations for posting. For instance, P5 reflected on V1a: "I do think that because the person is asking a pointed question, that they're gonna get responses. Because they put it into question format at the end. So then the person that is reading it knows that they're being asked for information. They're being asked advice. So that as the reader we're not just reading someone's thought, but we're also asked to engage with it very, very specifically, very directly." Also, P6 reflected on V2: "It's easier with this one because they specifically say they are looking for help and just the way they are talking about it seems a lot more involved and calm even though they are obviously upset. It's just a lot easier, I feel a lot more invited to offer them my help." Often, specifically asking for support made it more likely that people would respond or have an easier time deciding. Vagueness and indirect support seeking made it harder and less likely that participants would respond.

Participants suggested that direct support seeking prompts reciprocal disclosures from those who have had similar experiences. As P3 reflected on V2: "I would expect to see other people sharing their own horror stories of hospitals and death and whatnot. I feel like people need to talk about those things and don't often get the chance to, so when someone specifically ask for other people's experiences and how they dealt with it. I think it frees people up to really share that." Direct support seeking meant participants felt more comfortable with sharing their own relevant experiences with the poster compared to indirect support seeking. Conversely, when intentions of the poster were not easily comprehendible for the participants, they were less likely to respond. For example, P7 reflected on V4: "I don't really understand what she's trying to convey or what she's asking for, or maybe she's not even asking for help. That's the thing. I don't even know how to respond." Similarly, P9 reflected on V3: "I guess because I just I don't feel like they're necessarily needing a response, they are not necessarily reaching out for help or advice."

Participants organically noticed when a discloser sought support directly (e.g., by asking a question) or indirectly (e.g., by hinting at a need). While mismatches between the type of support directly requested with the type of support provided may occur in online platforms [3, 92], when matches occur people are more likely to continue participating and contributing in the community

[92, 93]. In face-to-face contexts, direct support seeking is more likely to lead to helpful support while indirect methods can be misunderstood or ignored [9]. Prior work suggests that mental health related disclosures on Instagram with direct support seeking receive more comments than those that do not directly seek support [5]. Here, we provide insights about *why* prior research has observed these behaviors on social media.

Disclosure level. The level and amount of information included in a disclosure message led to different perceptions of need and different response behaviors. Some thought a detailed post conveyed that the poster was in need, as described by P4 reflecting on V2: "It's long, so clearly they're putting effort into this or want to get something off their chest." Others thought that a short post signaled intense pain. As P2 put it looking at V3: "... almost like they're hurting too much to give more detail. It would almost be more painful for them to give more detail."

Some participants shared how lack of detail made it difficult to respond in helpful ways and encouraged lightweight interactions such as liking a post. For example, reflecting on V3, P2 said: "It feels like when someone is more forthcoming, you can be more forthcoming. On a post with more detail, you feel like you can respond with a little more detail. With something like this, it's very just a broad statement and a short statement. I feel like the best short statement I could give back would be to just 'like' that."

Detailed disclosures were seen to prompt responses such as suggesting professional help, probing questions, or reciprocal disclosures. Reflecting on V4, P3 said: "I feel like [this post] might even trigger some sort of kind of like not angry but more like probing questions. Because it's a lot to share, it's a lot of personal stuff to share. I wouldn't be surprised though if there were people with similar stories to share. I think it goes back to the amount they're sharing. It welcomes people to offer." Yet, detail could also be perceived as "too intimate." Especially in the absence of a close relationship, too much intimate detail led to non-response. As P1 said of V4: "Some of the things that's talked about in this post are just a little bit too personal, too intimate that I wouldn't want to make them feel uncomfortable and talk to them about it." The perceived intimacy of the content had to be proportionate to the perceived closeness of the relationship for a comfortable response act to take place.

The amount of time passed since the distressing event, as communicated through the disclosure message, also informed the resulting sense of urgency and contributed to response decisions. For example, reflecting on V3, P6 said: "This person isn't or at least they wouldn't seem at the epicenter of their problem, of their distress. Just the amount of time that's passed, I would feel like it was less urgent that they be supported so thus less compelled to I don't know comment." In this sense, when posters shared distress about an event that happened some time ago, responders did not always feel there was an urgency to help. On the other hand, where perceptions of urgency and the poster being in the heat of the moment existed, some were more likely to reach out to provide support, or example by privately connecting with the poster. For instance, reflecting on V4, P9 said: "Really the one that sticks out to me the most is the last one that makes me feel uncomfortable in the way that this person actually needs help or I'm worried that this person is in a situation where ... I wouldn't say that it implies suicide or anything like that, that I would feel weird about not, almost feel weird about not responding in that case of like, 'Does this person really need help or they're going to do something that's dangerous to themselves or somebody else?' In that case I feel like it's almost like a human responsibility to respond to somebody or to have some kind of interaction with that person. I think if it were to be a little bit more doomsday then I would possibly respond just based on that." These examples show how the perceived level of urgency and the time passed since the distressing event communicated through the social media post content informed response decisions in different ways.

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In summary, details sometimes made it easier or felt as more necessary to connect with a post but sometimes raised barriers if they made the post too intimate. Participants formed perceptions about how the poster was feeling and coping based on the level and kind of details provided in the disclosure. Prior work has identified post content dimensions that are likely to attract responses [5, 28]. Here, we provide evidence about *why* provision of details leads to more, no, or less engagement.

- 4.2.2 Frequency of Posting. The frequency with which the poster disclosed feelings and information about a distressing event affected how their audience reasoned about potential responses. Specifically, we heard repeatedly that it was exhausting to come across frequent posts. Some wondered about attention seeking and had concerns about investing emotional labor, others wondered if responding to the post would mean or change anything. These thoughts made participants reluctant to engage with a frequent poster. In this context, P8 said: "Their network might be emotionally exhausted from supporting this person." Relatedly, P10 reflected that "If this person is always disappointed and depressed... no matter what I do it doesn't feel like they're supported. I would kind of be turned off in saying something. Because no matter what I say, I don't feel like it's going to help." P11 suggested that frequent posts were a type of attention-seeking behavior: "When people start posting it repetitively, it gets annoying, honestly because it feels like they're looking for attention." Prior work in face-to-face settings suggests that constantly expressing pain might drive away those who might have otherwise provides social support to a discloser (e.g., [15]). We found that frequent social media posts led to feelings of exhaustion and powerlessness as well as negative perceptions of attention seeking, all of which affected response-related decision making.
- 4.2.3 Perceptions of Poster's Intentions and Expectations. Participants quickly assessed why the poster had shared the post and who they expected to view it and respond. These assessments informed response behaviors. Some participants described audience cues in the content; for example, comparing V1a and V1b, P6 said: "It almost feels they are asking just people who are actually in their lives, people that are close to them to answer the question (V1a). In the second one (V1b) it implies that there aren't those people, that no one is there to answer the question really. It's much more of an invitation for people who aren't so close." Other participants also reflected that the intended audience for V1b were people the poster was not close to. Reactions to these vignettes demonstrated how perceptions of intended audience helped participants to decide how to respond to disclosures.

The poster's identity and relationship with the participant helped the participant decide whether they were part of the intended audience. This was important because if participants did not feel like part of the intended audience, they refrained from responding. P4 described two main criteria for assessing whether they were among the intended audience when reflecting on V1 if he saw it on his Facebook feed as follows: (1) If the poster would say the same thing in person, and (2) if they were close and/or in recent contact with each other: "It doesn't really feel like my place, even though they're posting this to a space that I can see it, it doesn't feel like it's directed at me in any way, if I don't really interact with them much... If I can't imagine the person posting would say it to me in person, I think that plays a pretty major role in whether or not I feel comfortable commenting on it." He further explained how this goes beyond the vignette example: "...more generally, if I post something to Facebook, I have a group of people, whether or not I realize it, I have a group of people that I am thinking about, reading this. The people I interact with or the people are on my mind, people I assume with like and respond to this, or whatever. If I haven't been interacting with this person, I assume I'm not one of those people."

Some participants also assessed the poster's needs, not just when they first made a disclosure, but long after. For instance, P8 had checked in with her friend who had posted about pregnancy

loss periodically, because she believed her friend needed her to not forget her loss. She said: "...I try to check in with her every six months at least even though we live far apart.... I think what she really wanted most and she conveyed really well was for people not to forget that she had two daughters before...It's still hard. Miscarriage is not her fault. Biology sucks. But just like have her friends not forget that she had two daughters before and to acknowledge those deaths, to acknowledge her and her husband in grief. I would really - I would kind of want to be able to put on my calendar to remind myself 'Hey, I should check in with so and so' without necessarily making that public data. Right? I think it's really easy to forget about people on Facebook sometimes because it moves so fast." Assessing the need to not be forgotten after time had passed, led to some participants' periodic check-ins with closer ties after their initial disclosure of the distressing experience, although sometimes remembering to do so was challenging.

Finally, the perception of a carefully curated online network (by the poster) was linked with feeling like they were part of the intended audience. P3 reflected on his own experiences: "If Facebook was curated more carefully by everyone... I'd feel like this person is definitely someone who values what I have, like my ideas or my input so they're sharing with me as well, not just sharing it to the masses. If you have friends who have 70 or 80 friends on Facebook, and I know because I'm one of them that they are speaking to me, but it would depend on who is posting that. It falls under that category of who is the person posting this because if it's somebody with 3,000 Facebook friends or someone with 70 or 80. It's a little different situation maybe." The perception that messages were broadcast to a large crowd reduced the feeling of being part of an intended (and valued) audience. This perception was in part formed by Facebook enabling one-to-many disclosures to sometimes very large audiences.

In summary, sometimes the disclosure message helped participants assess who the intended audience of the poster was, other times relational closeness or perceptions of the poster's network played an important role. Prior work suggests that people have an imagined audience when they post on SNSs, and this imagined audience fluctuates [52]. Here, we find that when people come across a sensitive disclosure, they assess if they were within the poster's imagined audience as a RDM factor.

4.2.4 Aggregate Network-Level Support. Some participants suggested that when posts attract public responses, that means that the poster has some "overall" support, and this will help the poster feel better. The perception that public interactions with a post, even if lightweight, communicate that the poster is supported, led them to engage with posts to be a part of this overall aggregate support. Of course, this aggregate support would only materialize if others also publicly engaged with the post prior to or following the participant. We call this "aggregate network-level support." P4 reflected on how he would feel if his sensitive disclosure did not attract public interactions: "If I were to post some issue I was having, on Facebook, it would be because I wanted some sort of swell of support from a bunch of people I know or barely know. If no one sees it and it gets like two likes and a comment, that doesn't feel particularly good, it feels like you don't have support." P6 further explained how a comment to an acquaintance would be valuable only accompanied by others' responses: "For me not knowing them very well it probably would be more like a quantity thing, like if they saw just how many people cared it would impact them in that way. Otherwise I don't think my comment would have much individual importance." P2 said: "I feel like if they go away and come back to Facebook, and then it had 50 likes, they'll feel that support of people having read it and acknowledged them." Although some participants described generic comments or light-weight interactions as unhelpful, they can be intended to signal the existence of a supportive community.

Getting responses has been shown to be important to posters, even if the quality is not high since it shows that someone cares for the author of the post [32]. Here, we see that participants

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sometimes engaged with sensitive disclosures publicly, not because they thought the individual response was meaningful on its own, but because they wanted to contribute visibly to *aggregate network-level support*. The visibility of interactions with a post in aggregate (e.g., number of interactions) contributed to this factor's role in response decisions. In other words, if seeing aggregate support were not possible on a social media platform, then contributing to it would not be factor in deciding to respond either.

4.3 Factors Related to the Disclosure Context: Relational, Temporal, and Social

We found that relational, temporal, and social features of the context in which sensitive information was disclosed or support seeking occurred, affected response decisions.

4.3.1 Relational Context. Most participants described being likely to engage more with a disclosure if they had a close relationship with the poster. P5 explained: "The more I know someone, the more likely I am to engage with them, in general. I think there's a hierarchy of engagement where something feels like a very minimal support that you can offer and it's quick and low commitment and then there's an escalation of commitment and time and emotional labor." Similarly, P2 described a spectrum of responses dependent on relational closeness: "I think there's a certain spot on the spectrum from I-don't-know-you-at-all to I-know-you-really-well where it's like yeah, I'll like it, and a little further along, I'm like yeah, I'll comment, and then a little further, like yeah, I'll make a phone call." Participants used metaphors such as a "spectrum" or "hierarchy" to refer to the different ways they were able to engage with a sensitive disclosure based on the relational context in which the disclosure had occurred.

Close relationships frequently resulted in multiple responses in both more public and private channels and sometimes only private channels like phone calls or direct messages. For example, P1 explained that when a good friend "posted about her miscarriage two years ago, I posted on Facebook. But I also picked up the phone and actually called her. I was close enough to her that I felt comfortable calling her. I wouldn't just do that to all of my friends." Others chose to privately message the poster in addition to publicly engaging with it in order to allow the poster to respond on their own time. P8 said: "Depending on the relationship, I would reach out privately if we were close. I would not if we were not. I would want them to have the opportunity to process that offering without the pressure of a response." Another reason for private messaging with close connections was desiring a private space for conversation. On this note, P4 said: "It's just the idea that it doesn't feel like I want some other person entering this conversation with us, it feels like I want this to be a space for the two of us." Others noted that if they learned that a close friend had suffered a pregnancy loss through a social media post, they might feel excluded or hurt that the news was not delivered more personally, but would still respond.

Participants described being more willing to respond to posters with whom they wanted to strengthen or maintain a relationship. P11 explained a non-response: "There wasn't anything that I could say that I felt like I needed to say it in order to increase the value between our relationships." P4 suggested that trying to maintain or reestablish a connection would lead to a response, particularly following other interactions: "There are people who have fallen out of my life, just since we live in different places, and have other friends. Every once in a while, I'll comment on a photo of theirs, they'll comment on a photo of mine, whatever. That is trying to maintain or reestablish a connection. If soon after that they also post something like this, then it seems like it's more appropriate [to respond]." When participants felt engaging with a post would not change their relationship with the poster or did not desire to strengthen a relationship, they decided to not engage with the post, when they wanted to strengthen a connection, they responded.

Prior work suggests that relational closeness and recency of communication both influence expectations of feedback from Facebook connections [34], although closeness is not linked to

Facebook communication behavior, but interaction reciprocity is [89]. Here, we find that closeness, relationship maintenance, and interaction reciprocity all inform decisions to respond to sensitive disclosures on SNSs.

- 4.3.2 Temporal Context. Some participants mentioned that the amount of time they have or the time of day during which they see a disclosure plays a role, although not the most important role, in response decisions. P9 said: "I think it probably comes down to like where I'm at in my day, and if I'm really spending time on social media or not." Similarly, P1 said: "Closeness is probably the first priority, but I would also say that the amount of time I have for a proper response plays a small role." Many explained how often they mindlessly browse social media in a rush when they see sensitive content. Because of the seriousness these kinds of posts required in response, many would not respond to them or would engage in light ways, if the time was not right and they could not pay attention to the post at that moment.
- 4.3.3 Social Context. Responses from others affected participants' decisions about how and whether to respond. Participants commonly used others' comments to assess what needs the poster had, and what type of support they were getting. As P2 said: "I did purposefully go through and read the comments... I wanted to make sure that she had some support because whether or not I know her very well, this is super difficult, and I feel very sad for her. To kind of comfort myself almost, I wanted to make sure there were people reaching out to her."

In some cases, the existing comments chilled responses. For example, seeing comments that deviated from their beliefs (e.g., religious views), as P7 said: "People were talking about, 'I'll pray, I'll pray, I'll pray for you.' But since I don't pray, I don't write that." In other words, sometimes others' comments acted as cues for what would be expected or appreciated, and to decide *how* to respond. When participants felt they were not able to provide that perceived expected type of response or support (e.g., "praying" in the case of this example), they decided to not engage with the post. If the poster seemed to get support from closer friends, participants were also less likely to engage with the post. P6 said: "Suppose I didn't know them very well I would probably look at the other comments to see if other people that they do know well are offering them this help and if there was a lot of that, I probably wouldn't leave something." Participants used others' comments to assess whether they could offer something meaningful in the context of other social interactions. Reflecting on V4, P3 brought up the case of defending the poster against potential negative responses as a meaningful form of support: "I wouldn't respond unless I saw they were being attacked for this post, then I would like to think I'd be the kind of person that would defend them."

In summary, others' comments worked as heuristic cues [58] about others' opinions and the poster's support network and helped in deciding whether and how to respond. An experimental study with students posting about roommate conflict on student.com found an association between the supportiveness of others' comments and the quality of readers' supportive messages [50]. Here, we find that others' comments helped participants evaluate the poster's needs as well as whether they were being met and informed decisions to respond. The visibility of others' comments or interactions that came before one considered responding to a sensitive disclosure was an important feature to enable the assessments that some participants made to make their decisions.

5 DISCUSSION AND IMPLICATIONS

The RDM framework that we contribute explains factors that guide decisions about responding to sensitive disclosures on social media. The RDM framework includes the following:

self-related factors (i.e., personal experience and professional expertise, attitudes toward
the topic and sharing about it, impression management, privacy, and personal wellbeing),

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• poster-related factors (i.e., disclosure content, frequency of posting, perceptions of poster's intentions and expectations, aggregate network-level support), and

• context-related factors (i.e., relational, temporal, and social).

We have provided a foundation for investigating potential correlational links or interaction effects between the variety of uncovered response decision factors and other potentially relevant concepts (e.g., social capital, tie strength) in the future. We also uncover socio-technical features of social media sites that influence these decision factors (i.e., multiple engagement modes, anonymity and identifiability degrees, visibility level of interactions with posts, topical specificity of the online space, and the one-to-many nature of broadcast disclosures). In addition to conceptual contributions such as uncovering the perceived impact of social media broadcast sensitive disclosures on interpersonal relationships, this work also led to design implications and directions for research through design that we discuss in the remainder of this section.

5.1 Disclosure Personalism on Social Media

We found that when people see a close connection share sensitive content on social media without a corresponding prior private disclosure, they wonder if they are indeed as close and trusted as they believed they were. We also found that in trying to assess the poster's intended audience, some believed that they are not in the poster's intended audience if (1) they are not close, (2) they are not in frequent online contact, or (3) the poster has a large and un-curated network. The subjective intimacy framework in non-computer-mediated contexts suggests that people assess the intimacy level of a piece of information based on who else it is shared with, and how "special" it is [73]. An experimental study [12] with student social media users lends support for the concept of "disclosure personalism" [42] phenomenon on social media, suggesting that when people believe that they have been exclusively trusted with information, they perceive more intimacy and feel "liked" by the discloser. Our findings extend this work by illustrating *how* and *why* the "disclosure personalism" phenomenon plays a role in decisions to *respond* to sensitive disclosures on social media platforms.

To clarify this point, it is important to think of responses in the context of disclosures that precipitated them. Social media users make complicated decisions to share sensitive or stigmatizing information (e.g., abuse, mental illness, pregnancy loss experience) about themselves. Sensitive disclosures on social media are guided by a variety of decision factors including the following: (1) self-related factors (e.g., eliciting social support, healing, remembrance, and controlling identity narratives), (2) audience-related factors (e.g., preventing unwanted interactions from one's audience members if they were to not disclose), (3) platform and affordance-related factors (e.g., one-to-many sharing, asynchronous communication), (4) societal factors (e.g., activating one's connections to take political action, reduce social stigma), (5) temporal factors (e.g., the amount of time passed since the event), and (6) network-level factors (e.g., being a source of support for others now or in the future) [2]. For example, on Facebook, one-to-many disclosures allow people to avoid a large number of painful and emotionally challenging one-on-one conversations with others, allow them to elicit social support from a large number of their connections, or activate them for political action to change societal narratives and reduce social stigma around the topic of disclosure (e.g., pregnancy loss) [2]. Additionally, asynchronous communication allows people to take care of their own needs in times of deep distress rather than others' who may see their posts, because synchronous sharing of deeply troubling experiences is incredibly painful for many [2]. Here, we illustrate how while such social media disclosures serve disclosers in a variety of ways, they also have the potential to alter perceptions of interpersonal relationships from the receivers' perspective, whereby they may reevaluate or reflect on what kinds of relationships they have, and

this is one way that disclosure personalism is enacted on social media. It is not just the response behaviors (e.g., providing support or not and reasons for doing so) that we uncover, but rather their context, meanings, and mechanisms for those who perform them.

5.2 Offer Insights to Potential Responders on Providing Helpful Support

We found that sometimes people are unsure how to react, what to say, what the poster's expectations are, or what the wider societal norms are; sometimes they actively observed others' interactions with the post to make these assessments; this uncertainty sometimes led to not engaging with a disclosure or engaging in lightweight ways (e.g., liking, hearting, or other one-click "reactions"). When participants did not have expertise and were not sure what would be helpful, they sought out expertise from other sources. For example, some reported having Googled how to offer support to someone who has experienced a pregnancy loss, or imagined they would ask individuals who had the required personal experience to offer support to the poster instead. Script Theory elaborates how humans observe cultural phenomena and form unconscious behavioral models for certain situations [86]. In the case of pregnancy loss, however, few scripts exist in the American society [77], making it harder to decide how to respond. Future system designs could explore providing suggestions to those in one's audience, without making potential responses feel not genuine. For example, if one comes across a disclosure of pregnancy loss or mental illness, articles or resources could pop up to offer ways to help or respond to a person in that situation. Additionally, because sometimes people decided to engage with a poster in both more public and private ways, future designs could make these options more readily available or recommend sending a private message after one leaves a comment or interacts with a post publicly. It would be interesting to investigate if such prompts would have any impact on response decisions and outcomes (e.g., helpfulness perception) for various kinds of ties.

5.3 Offer Resources to Potential Disclosers to Find the Type of Response They Want to Elicit

We found that in indirect support seeking (i.e., hinting at a problem, without specifically asking for help), people have a hard time assessing what the poster needs, or if they need anything at all, leading to less or no engagement (particularly if there was not a close relationship.) People engage in indirect support seeking often when asking for support directly is too big of a "face" threat [9, 31]. In comparison, we found that on the potential responder's side, when posts included direct support seeking (e.g., asking a question) it was easier to make a decision to respond or not, often leading to engagement if possible. This is important, because both indirect and direct forms of seeking support do occur on social media, and here we examined how potential responders perceive them. In fact, potential disclosers do try to anticipate what the audience's response would be like if the disclosure were made [33]. It is possible that if people in distress who are considering posting on social media about their experiences are able to make a reasonable guess about the responses they would or would not receive, they would be able to make more informed decisions and formulate their disclosures in ways that benefit them the most depending on their own particular needs. Future design explorations might include machine learning approaches to detect if an individual is posting an indirect support seeking post and system responses that provide the poster with resources or even guidance on finding the kinds of support or responses they want to elicit.

5.4 Offer Insights About Interactions and Tie Strength between Potential Responders and a Discloser

We found that participants who are closer to the poster may be more likely to engage with a sensitive post privately or in multiple ways. People also assess their relationship closeness as well

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as other cues such as the frequency or recency of communication to assess if they were among the poster's intended audience. We also found that perceptions of similarity with the discloser in terms of values, ideologies, and social media behavior are factors in response decisions. Homophily measures the feelings of similarity toward another person [57], and can be measured on social media. On Facebook people expect feedback on content they deem to be more important and more personal, particularly from closer friends [34], and tie strength can be predicted between Facebook friends [30]. We also found that the relationship between the poster and participants was an important factor in support provision. Future work could explore what would happen if potential responders are able to see a visualization of the recency or frequency of interactions between them and the discloser, dimensions of the tie strength based on the social network data of the two parties (i.e., discloser, potential responder), or the degree and ways in which they are similar to the discloser, to help with assessments they make when coming across sensitive disclosures. While people do tend to make these assessments to make response decisions themselves, there currently exist no tools that inform these assessments. One strength of research through design is that we can show designs to people and gauge their reactions and learn more about them, their preferences, and needs.

5.5 Provide Privacy and Impression Management Control for Responder and Poster, and Facilitate the Visibility of Network-level Support

We found that potential responders have significant privacy and impression management concerns that could lead to non-engagement or private forms of interaction. For example, some participants thought public comments are performative and not genuine, because they are not visible only to the poster. Further challenges related to participants' impression management concerns around the reaction from the poster or others in their network if they did engage with a post.

While private interactions were a likely option for closer ties, they were often deemed to be inappropriate for weaker ties. Additionally, the publicness of the aggregate network-level support was perceived to be a driver for public interactions for many; in other words, participants wanted to make the poster feel that there are a large number of people who publicly care for them. Prior work suggests that witnessing high levels of support when others disclose stigmatized information helps people decide whether to disclose sensitive information themselves: As a potential discloser when people observe others disclosed sensitive information and received supportive responses on social media, they become more likely to engage in disclosure as well through network-level reciprocal disclosures—as a result of reduced perceived stigma [2]. As a potential responder, we found that seeing others' responses to a sensitive post helps with deciding whether and how to respond to a sensitive post. Therefore, we argue that public forms of interactions around sensitive disclosures are useful for both potential disclosers and others in their networks. System designs could explore ways to balance the visibility of aggregate network-level support with appropriate privacy controls, to facilitate support provision while also meeting responders' privacy and impression management concerns. For example, designs could explore privacy-enhanced ways of engaging with a post that make comments visible only to the poster or to those whom the commenter is also connected with; showing snapshots of the quantity of interactions in various forms (e.g., "reactions," comments); or allowing comments that are visible but with the identity of the commenter cloaked. Some social media platforms provide more control related to interaction visibility. For example, one way WeChat, which is a popular social media platform in China, provides designs for (in)visibility is that posts in one's "moments" (similar to status updates on Facebook) are available to one's chosen audience, but only the poster can see all the comments, and a commenter can only see another comment if they are connected independently as well. Ideally, designs would allow assessments of the poster's support network (in terms of quality and quantity) and norms, even possibly educate the public about interacting in a considerate way, while also preserving the poster and commenters' privacy.

5.6 Facilitate Responsiveness and Support Over Time

We found that especially in close relationships, participants wanted the poster to know that they were cared for and sometimes checked in with the poster after a while to see how they were doing. Sometimes they were concerned about forgetting or for their friends in distress to feel forgotten after a while. Kelly et al. introduced the concept of "responsiveness" to a communication partner, which conveys that one is thinking about the partner to communicate "effort" in the relationship [45]. Prior work suggests that remembrance, acknowledging, and honoring a difficult experience (e.g., pregnancy loss) as well as healing and gaining support are some of the motivators for disclosing it on social media [2]. Future system designs could explore reminders about a friend who had posted about a difficult experience and prompt one to check-in with them to communicate effort and care. One design challenge would be that disclosers may not appreciate being reminded of their difficult experience. Additionally, as Kelly et al. suggest, people may see communication as less valuable and genuine when they are known to stem from prompts or reminders [45]. Future designs could explore balancing the potential needs for forgetting [36], and responsiveness and remembrance in tandem without hurting the level to which communication is perceived to be meaningful and genuine.

5.7 Curate Human-Centered News Feeds

News feed algorithms could experiment with more human-centered approaches to their designs by paying attention to two factors that we found were important in response and support provision decisions: topic and time.

Topic. Our findings suggest that frequent disclosures by the same person led to feelings of annoyance and judgments about that person's intentions (i.e., attention seeking). Details were a double-edged sword and sometimes helped with connection and engagement, other times they were overwhelming and perceived as inappropriate. Potential responders also had emotional wellbeing needs of their own, and sensitive disclosures-particularly those with much detail or responses to them-felt disruptive to some potential responders' personal wellbeing needs. Additionally, although personal experience was sometimes a factor leading to engagement, other times it meant the disclosure was too triggering or "close to home" for a potential responder; therefore, they avoided the post to avoid personal distress. Social media sites could explore a human-centered approach to news feed algorithms that enable users to input preferences that allow them to identify sensitive topics that they may want to avoid or engage with in certain time periods. Currently, news feed algorithms are largely opaque and non-transparent, and provide little control to individual users with respect to the topic of content they see or do not see. This is a challenging problem because incorporating more control has the potential to also contribute to creating "filter bubbles." However, our findings suggest that in the context of wellbeing, and sensitive content, providing topic-wise control and transparency is a promising exploration and consideration.

Time. We found that when potential responders encounter a post in their daily life when they do not have the sufficient time and attention that engaging with important and personal content requires, they refrain from engaging with them and *sometimes* remember to go back to those posts at a later time. We suggest that news feed algorithms can experiment with showing people posts that require thoughtful interactions at times when they are more likely to have time (e.g., based on their past interaction histories).

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6 CONCLUSION

To design social computing systems that encourage supportive interactions, designers need to understand how people decide to respond on social media to others who are in need. In this work, we provide a framework that explains response decisions of social media users. We interviewed individuals in the U.S. who used social media and had come across what they considered to be sensitive on social media (e.g., mental illness, eating disorder, pregnancy loss, abuse). We also designed and employed vignette instruments to collect systematic data about responses to several forms of pregnancy loss disclosures.

Using pregnancy loss as a central example, we make a novel contribution to HCI and social computing by providing an RDM framework in the context of sensitive disclosures on social media. The RDM framework explains factors that contribute to decisions of whether and how individuals engage with their social media contacts' sensitive disclosures. These factors are broadly related to the self, poster, and disclosure context (i.e., relational, temporal, social), as we detail. We also uncover the socio-technical features of social media sites that inform these decision factors (i.e., multiple engagement modes, anonymity and identifiability degrees, visibility level of interactions with posts, topical specificity of the online space, and the one-to-many nature of broadcast disclosures). Our findings indicate how social media users make complex decisions when others in their networks post sensitive content; for example, they try to meet both their own as well as the poster's needs, which may sometimes be in conflict. While prior work argues that social media sites should attend to needs of those who may want to engage in sensitive disclosures and seeking support, here we uncover how they should also meet the needs of potential responders and those who may want to provide support. Designing for seeking support is not enough, and once that happens designs should facilitate support provision. We also argue that social media sites should facilitate the visibility of aggregate network-level support, particularly in socially stigmatized contexts, as while more intimate and private conversations could follow disclosures particularly from closer ties, privacy enhanced ways of making visible interactions around sensitive disclosures plays key roles in response decisions as we discussed. We outline avenues for future research and design that facilitate support seeking and provision in stigmatized contexts on social media.

APPENDIX

Below are the vignette instruments presented to participants.

V1 - Direct support seeking and low disclosure

Today was my due date. My partner says it's been months and I need to get past it. How do I make him understand?

V1a - Direct support seeking and low disclosure

Today was my due date. I keep thinking of what it could have been. How do I get through this?

V1b - Direct support seeking and low disclosure

Today was my due date. I don't feel supported. How do I make others understand that this is difficult?

V2 - Direct support seeking and high disclosure

Several years ago when we got married, I was diagnosed with a life threatening condition and lived in a coma for a few months. I survived, but it was several years before I was cleared to get pregnant. After a year of trying, we started fertility treatments and we got pregnant with twins. After several weeks we learned that one did not make it but the other one was thriving and we had an ultrasound picture with a strong heartbeat. A week before this Christmas, and a week later at our last doctor visit, we were told there was no heartbeat. We got more scans, same results.

I didn't and still don't believe. All doctors recommended D and C. I started to have an infection from carrying the babies. I agreed. I had to. I cried from the moment I got to the surgery room to the moment I was taken to the OR. Three days after the surgery, I had horrible complications and serious blood loss. I spent a few days in the hospital but I still have pain and bleed. It's now been three weeks after the D and C. I am devastated. I have lost family members in the past but I have never grieved like this. I need to heal for months before trying again. I am trying to be hopeful while still working, studying, and taking care of my marriage. If anyone has any feedback or advice as to how to get myself out of this pit, I would be so thankful. I miss these babies so much and it just feels like it will not get better, ever. Looking for help.

V3 - Indirect support seeking and low disclosure

Almost three years. Still terribly painful to have lost my baby although I have one daughter I love.

V4 - Indirect support seeking and high disclosure

I had a chemical miscarriage a few nights ago. It was terrible and the pain was unbearable. The worst thing was that I never even knew I was pregnant. So I didn't even think I was having a miscarriage and I thought it was just some painful cramps that made me want to vomit. I had cold chills and couldn't walk. I had to grab onto something to be able to breathe through the pain. I just I wanted to run away from my own body; it was THAT bad. The whole thing went for about 7 hours on and off. So I went to the doctor on Friday and he told me that it sounded like a chemical miscarriage. I had thought it was just my period, cause it started on Monday with some light spotting (not normal for me), but no pain and was like that for 4 days until Thursday night when it got that bad and painful. I'm lost. I am an emotional mess. I haven't been able to function at all. I have always wanted a baby, but I wasn't trying to. Not only I lost my baby, but also I didn't even know it existed. I feel so guilty and can't trust myself anymore. I don't know if I can feel better.

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