What Happens After Disclosing Stigmatized Experiences on Identified Social Media: Individual, Dyadic, and Social/Network Outcomes

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ABSTRACT

Disclosing stigmatized experiences or identity facets on *identified social media* (e.g., Facebook) can be risky, inhibited, yet beneficial for the discloser. I investigate such disclosures' outcomes when they do happen on identified social media as perceived by the individuals who perform them. I draw on interviews with women who have experienced pregnancy loss and are social media users in the U.S. I document outcomes at the social/network, individual, and dyad levels. I highlight the powerful role of connecting with others with a similar experience *within* networks of known ties, how disclosures lead to relationship changes, how disclosers take on new social roles as mentors and support sources, and how helpful connections following disclosures originate from various kinds of ties via diverse communication channels. I emphasize reciprocal disclosures as an outcome contributing to further outcomes (e.g., destigmatizing pregnancy loss). I provide design implications related to facilitating being a support source and mentor, helpful reciprocal disclosures, and finding similar others *within* networks of known ties.

CCS CONCEPTS

• **Human-centered computing → Social media**; **Empirical studies in collaborative and social computing**.

KEYWORDS

Self-disclosure, stigma, social support, social media, pregnancy loss, miscarriage, reproductive health, mental health, network-level reciprocal disclosure, reciprocal disclosure

1 INTRODUCTION

When people experience distress or stigma due to life experiences (e.g., mental illness, abuse, job loss) or identity facets (e.g., sexuality, gender), they often feel the need to share these experiences, identities, or associated challenges with others [76]. Social media platforms provide a novel context for people to engage in such expressions in ways that are not possible otherwise. People may use platforms like Reddit, Tumblr, or Instagram that can support some degree of perceived anonymity and network separation (that is, from one's physical world network and identity), or dedicated topic-based spaces (e.g., subreddits) to talk about a variety of stigmatized topics such as experiencing abuse [8], mental illness [10, 28], parenthood challenges [3], or gender transition [43] to name a few; The combination of the above features make disclosures on these spaces less risky than disclosing on *identified social media*, as they facilitate safe support exchange [7, 14, 34, 79], reciprocal disclosures [7], connecting with similar others [2, 7], and performing identity work when facing stigmatized life transitions [43].

Identified social media are platforms where one is typically connected to others they know in the physical world (e.g., family, friends, colleagues), and use their physical world identities [5, 46]. While disclosing to and exchanging support with anonymous similar others who do not belong to one's network of known ties tends to be helpful, it often is not enough for many [5]. In fact, some share about stigmatized experiences on identified social media (e.g., Facebook) *after*

they do so on platforms like Reddit [5]. Additionally, relationships developed in anonymous online spaces tend to be short-lived [23] and less personal [88]; therefore, if one is looking for longer term support or relationship as a result of their disclosure, they may find it harder to achieve that in anonymous spaces. People use identified social media to disclose stigmatized experiences such as negative emotions and grief [16], a relationship breakup [44], or loss of a pregnancy [5] in a one-to-many manner. Individuals balance their needs such as the need for support with needs for privacy and impression management in deciding to engage in such disclosures [9, 48]. Sometimes such disclosures occur due to reasons that go beyond the individual's needs; for example, people may engage in disclosures because they want to raise awareness and educate others [5, 21], because they want to avoid certain audience reactions [5, 55], or because they see others disclose and feel less stigma attached to their own eventual disclosure [5]. Decisions leading to such disclosures are multi-faceted and challenging in person and on identified social media [5, 9, 33, 80]. Disclosures are in part important due to their outcomes. When they do happen, they can lead to benefits (e.g., social support [4, 10]), or unwanted outcomes (e.g., rejection and further stigmatization [15]).

In fact, immediately relevant to self-disclosures in stigmatized contexts when they do happen after complicated decision-making processes, are their outcomes. Outcomes (stemming from responses to disclosures or not) encompass what happens once disclosures are made [22]. In the context of stigmatized identities, research identifies individual, dyadic, and social/contextual outcomes for in-person dyadic disclosures [22]. Human-Computer Interaction (HCI) and Social Computing research on self-disclosure outcomes for the discloser in sensitive settings has largely focused on social support and wellbeing (sometimes mediated through social support) [19, 45, 73]. But what else happens when people make such disclosures on identified social media to large diverse audiences to whom they are not anonymous? What outcomes do disclosers perceive as a result of their disclosures and reactions from their networks, and how do they make sense of these outcomes? I address these questions in this paper. By understanding the outcomes associated with stigmatized disclosures occurring on identified social media as made and perceived by the individuals who perform them, I contribute to our knowledge about how social computing systems can be designed to facilitate desired disclosure outcomes and hinder unwanted outcomes for the disclosers.

To examine the disclosure outcome phenomena, I focus on pregnancy loss disclosures on identified social media as a central context of inquiry. The cultural focus on happy endings compounds experiences of those whose pregnancies do not end happily [57]. Pregnancy loss provides a uniquely important context to investigate the perceived outcomes of stigmatized self disclosures on social media because 1) it is a common [78] yet stigmatized reproductive health complication associated with negative wellbeing effects (e.g., depression) [81], 2) it often receives unsupportive reactions from others if disclosed in in-person settings [25, 47], and 3) survivors often feel isolated and alone yet need to talk about their experiences and associated feelings [36]. I draw on interviews with women in the U.S. who have experienced pregnancy loss within the past two years, used social media to talk about their experiences with pregnancy loss, and were over 18 years of age with a lens for the outcomes they perceived as a result of their relevant social media disclosures.

I organize findings by adopting a disclosure model rooted in the Communication literature suggesting in-person disclosures have outcomes on the individual, dyad, and social/contextual levels [22]. I find that participants perceived their social media disclosures about pregnancy loss to have outcomes on the individual, dyad, and what I refer to as the social/network levels. Participants perceived some of these outcomes to come about due to disclosures themselves, and others due to responses to disclosures. I outline reciprocal disclosures' importance and unique outcomes; these include destigmatizing pregnancy loss, increased awareness about the stigma associated with pregnancy loss, increased awareness about the prevalence of pregnancy loss within one's network leading to less loneliness, connecting with similar others in one's network, reframing one's own experience, relationship change, and sometimes feeling unacknowledged.

I show how certain disclosure reasons indicated in prior work (e.g., disclosing motivated by others' disclosures, also known as Network-Level Reciprocal Disclosures [5]), are also disclosure outcomes. I find that when people disclose their experiences with pregnancy loss to networks of known ties on identified social media, incredibly powerful and helpful interactions and subsequent outcomes can originate from a variety of ties with various perceived strength levels (as perceived by the discloser), and through a diverse set of communication channels with different privacy levels. Finally, I share design implications based on these findings including designing for helpful reciprocal disclosures, finding similar others within networks of known ties, and facilitating support exchange and mentorship. I argue that designers and technologists should explore future designs that account for *both* separations from *and* connections within one's network of known ties.

2 PRIOR WORK

2.1 In-Person Sensitive Self-Disclosure Outcomes

Studies related to in-person settings show that disclosures can have a variety of outcomes on the individual [63, 90],

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behavioral [72], wellbeing [86], relationship [56], and social/contextual [27] levels. Traditional Communication literature provides high-level models describing self-disclosure processes (e.g., [22, 41]). Greene et al. categorize outcomes as related to the discloser, disclosure target, and their relationship [41], without a stigma focus. Most closely related to this present paper, is Chaudoir and Fisher's framework proposed to examine in-person stigmatized disclosure outcomes, due to their focus on dyadic in-person disclosures of "*concealable stigmatized identities*." They propose outcomes on three levels: Individual (e.g., psychological, behavioral, health), dyadic (e.g., liking, intimacy, trust), and social/contextual (e.g., cultural stigma, norms for disclosure) [22]. Perceived disclosure outcomes also impact one's future disclosures [42], which I frame as an outcome related to the individual via impacting their behavior.

A common theme among disclosure models is emphasizing response roles in determining outcomes [41, 42]. Self-disclosure in sensitive settings is in part complicated because it can lead to benefits such as receiving support [10, 22], or to negative outcomes such as rejection and further stigmatization [12, 15, 63, 85]. Receiving negative or unsupportive responses to sharing stigmatized information is in fact common [50], including in the pregnancy loss context [36]. Such responses can have negative effects, including reducing disclosers' wellbeing [84]. But not all disclosure outcomes are related to received responses; for example, wellbeing can improve both as a result of catharsis or receiving support [22]. In summary, research suggests positive and negative wellbeing outcomes associated with self-disclosure [71].

Self-disclosure is also crucial in developing and maintaining interpersonal relationships [32]. Research has linked self-disclosure to interpersonal relationship attributes such as intimacy, liking, and trust between the discloser and receiver, depending on the relationship and situational contexts. For example, intimate disclosures in early phases of a relationship may not enhance liking (the discloser) [1] and may be seen as inappropriate by strangers [24]. Yet, other research suggests expressing negative emotions is associated with positive relationship outcomes such as gaining support, increased liking, building larger networks, and increased intimacy in already close relationships [39]. Importantly, reciprocity is one of the most frequently observed disclosure outcomes, as in, when people are disclosed to, they reciprocate with their own disclosures in response [1, 29, 32, 51]. Reciprocal disclosures can increase trust and liking [32]. Disclosures can also lead to advocacy and social impact, for example through "political disclosures" to make stigmatized identities more visible and reduce misconceptions [21].

In summary, this literature suggests that in-person disclosures can impact the discloser, their relationship with the recipient, and the social context within which the disclosure

occurs. These outcomes can be related to wellbeing, intimacy and liking, receiving reciprocal disclosures, gaining social support, and visibility.

2.2 Computer-Mediated Sensitive Self-Disclosure Outcomes

Studies related to self-disclosure and online platforms have focused on two broad spaces: 1) platforms that support some degree of anonymity through disaggregation from one's social network of known ties and/or using pseudonyms, and 2) identified social media. While anonymous participation in stigmatized contexts is helpful, it often is not enough [5]. Although people may resort to more private means of seeking support [17] or employ anonymity [8, 74] in stigmatized contexts, sometimes they do engage in such disclosures on identified social media [5, 44, 80]. This paper focuses on the outcomes of disclosures occurring on identified social media.

Generic disclosures on identified social media can lead to increased tie strength [18], access to social capital and social support [35, 40, 54], increased feelings of connectedness in the case of "positive" disclosures [69], and improved subjective wellbeing [13, 59]. Broadly, these studies show that some of the outcomes observed in in-person settings described in Section 2.1. also apply to social media. It is worth noting that these studies have often either not distinguished between different types of disclosure content (e.g., depending on factors such as stigma or valence) or suggest differences between "positive" and "negatively"-valanced content [69]. These observations further confirm that attention to topic and its sensitivity is key in understanding disclosure outcomes.

Studies related to sensitive disclosures on identified social media have examined shared content [8, 10, 70], motivations, reasons, and ways of sharing [5, 43, 66, 80, 87], and outcomes related to finding support and wellbeing [10, 45]. Some of this work differentiates between responses from weak and strong ties as a result of disclosing one's distress. Most relevant is Burke and Kraut's who found positive links between talking with strong ties (e.g., spouse, family) on Facebook and improvements in stress and social support after losing a job (a distressing event) [17]. The same study found that weak ties (e.g., acquaintances) do not provide these benefits [17]. On wellbeing and support, research suggest that self-disclosure only affects wellbeing through responses that increase a feeling of connection [37, 60]; others suggest no mediating effects of response measures on wellbeing [30]. Yet others suggest not receiving responses or unsupportive responses have negative wellbeing effects [83]. Other work has linked disclosures of transgender identity on Facebook to increased stress, though support from one's network mitigates some of this stress [45], and supportive response to such disclosures is linked to increased wellbeing [43]. This research thread suggests disclosure on identified social media is associated

with both positive and negative wellbeing effects, sometimes mediated through received responses, similar to in-person settings.

Disclosure reciprocity has also received attention. Researchers have observed reciprocity in internet chatrooms [31, 77], online forums [11], and support forums such as Reddit [8] to name a few. In computer-mediated settings, people may over-interpret disclosure intimacy and reciprocate with more intimate disclosures [49]. Higher anonymity degrees afforded through temporary technical identities [58] facilitate reciprocal disclosures through comments on abuse-related subreddits [8]. Relatedly, Andalibi and Forte introduce the concept of *Network-Level Reciprocal Disclosure (NLRD)* [5]. Through NLRD, people disclose content on their own social media profiles to their own networks (rather than commenting on and responding to someone else's post); they do so because they see others' posts and perceive less stigma associated with disclosing, and not because they intend to *respond* to any other individual disclosure [5]. They frame NLRD as a disclosure motivation, rather than a perceived outcome of one's initial disclosure.

This literature identifies sensitive social media disclosure outcomes as related to receiving social support and reciprocal disclosures (*in response* to initial disclosures, not through NLRD — a distinct mechanism), social capital, and wellbeing. Prior social media research does not provide a deep understating of reciprocations' outcomes in stigmatized contexts, and their meaning for the individuals who receive them. If and when reciprocations occur, how do original disclosers perceive them? Do disclosers perceive reciprocations as an outcome of *their* disclosures? Support and wellbeing have been a main focus in prior work. I ask what other disclosure outcomes are present for individuals who engage in stigmatized disclosures on identified social media? What happens after people make complicated decisions and share about their stigmatized experiences on social media with their networks of known ties? Focusing on pregnancy loss as an example of a distressing life experience associated with stigma, guilt, shame, and negative wellbeing effects [67, 68], I address these questions in this paper.

3 STUDY DESIGN

This paper draws on data collected as part of a larger project for which I conducted 27 semi-structured interviews to understand the experiences of women who have experienced pregnancy loss and their use or non-use of social media. In this paper, I focus on the outcomes participants perceived as a result of using identified social media in relation to their experience with pregnancy loss. As detailed below, the analysis presented in this paper draws on a subset (*N*=12) of these 27 interviews.
Screening survey and recruitment. I began recruiting via

sharing a brief screening survey on Facebook and Twitter to my network as well as local flyers. The screening survey allowed me to find interview participants and led to a strategic sample in terms of experiences and demographics such as age, used social media, and disclosure or non-disclosure behaviors. The survey consisted of information about the study and minimal inclusion criteria to participate in interviews: having experienced a pregnancy loss during the past two years, being at least 18 years old, using social media, and living in the U.S. I did not include the loss's gestational stage as a criterion as it is not linked to the grief experience [67]. The survey was open to transgender and non-binary people, but none participated. Questions were about social media use and any disclosures of loss on them, demographics, and contact information. The survey was open 11/2016-1/2017 leading to 90 responses. Among survey respondents, 36 had not disclosed the loss on any platform, 51 had disclosed on one or more, and three could not recall. Among the 51 who had disclosed on one or more platforms, 41 briefly shared how they did so, out of which 22 had shared about their experience on individual Facebook timelines.

I made several passes through the survey data prior to and during the interview data collection period to select potential interview participants with the aim of covering a wide range of experiences with loss, disclosure, social media use, and age in aggregate. I recruited through an iterative process to ensure participation of a wide age range and inclusion of individuals who had and had not disclosed on social media. I contacted survey respondents selected for interviews with study details and an online consent form. I stopped recruiting participants well after I reached saturation and uncovered no new themes. I offered a $25 Amazon gift card to interview participants as a token of appreciation.
Interview participants and data collection. This paper draws on data collected as part of a larger project. Participants included 27 women with the average age of 33.6 (range: 27-42). One participant was in a relationship with a woman, and 26 were in relationships with men. Everyone except one participants reported using Facebook at the time of the interview to connect with others they know in the physical world; as such Facebook is the identified social media in this study. Eight participants reported no online disclosures about their loss; 19 reported direct online disclosures (e.g., Facebook timelines, Facebook groups, Reddit). Of these, 12 had disclosed on their individual Facebook timelines (focus in this article), one commented on a friend's post and perceived it as disclosure, and 14 disclosed in support groups. Nine individuals disclosed in at least two platforms. Participants' losses were in various pregnancy stages.

I conducted semi-structured interviews which allowed participants to explain their experiences and have control in the conversation, and me to systematically cover important

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topics. I conducted interviews via participants' preferred method of video or voice call. On average, the interviews were 92.7 minutes long (SD = 12.5, range: 62-115). Only audio was recorded and transcribed for analysis. I began by sharing the study's goals and what it entailed, and asked permission to record the conversation. I asked what the participant's life was like when they found out they were pregnant, and what followed next. Follow-up prompts included loss disclosure or non-disclosure on social media and beyond, reasons for these behaviors, received responses, and perceived outcomes of disclosures or non-disclosures. I asked for specific examples when possible. In this article, I only report on themes related to perceived outcomes of disclosures on identified social media, which happened to be Facebook for participants.

Analysis. I followed an interpretivist approach to analysis, through which in order to understand a phenomenon (i.e., disclosure outcomes) I aimed to understand participants' lived experiences, how they reconstructed experiences, and the meanings they associated to experiences [89]. I used the constant comparative approach [26], central to grounded theory to analyze these data. I conducted iterative open coding looking for patterns in the data, allowing for categories, their properties, and relationships to emerge. Open coding facilitated flexibility and creativity in the analysis process [26]. In the process of allocating codes to larger categories, I found that they nicely fit within a framework posed by Chaudoir and Fisher [22] in the Communication literature reviewed earlier in this paper. I did not *set out* to use Chaudoir and Fisher [22]'s framework to organize these data. I open coded, developed themes, compared themes with this framework, and adopted it due to its themes' fit with mine. As such, I organized findings by adopting their framework and extended it to the social media context.

Ethical considerations. I chose semi-structured interviews in part to allow participant to have control over the conversation due to the topic's sensitivity. I adopted guidelines posed by Kasket [52] for conducting interviews with bereaved individuals that highlights signs of stress that I could notice and react to. I will make this work's summary publicly available to contribute back to participants I worked with as well as the public more broadly. This study was IRB-approved.

Limitations and opportunities. This study's sample was not representative of U.S. women or those who experience pregnancy loss or stigma. I sought a diverse participant group, yet this work's goal is not generalizability as with other work with similar methodological orientations. Future work could evaluate these findings with other populations, with representative samples, or in other cultures. These data speak to NLRD and pregnancy loss stigma. Future work can evaluate NLRD as a disclosure outcome in other stigmatized contexts. Future work can also examine correlational links between certain disclosure motivations, responses, and

perceived outcomes. Participants did not regret social media disclosures even when they reported negative outcomes. Also, participants did not report developing negative attitudes towards future social media disclosures, even when responses were unsupportive. Future work should remain sensitive to issues related to regret, further potential unsupportive responses on social media, and impacts on future disclosures. I did observe both regret and attitude shift as a result of *in-person* disclosures, the discussion of which is outside the scope of this paper's intended contribution.

4 FINDINGS

I organize findings around three high-level themes: social and network-, individual-, and dyad-level outcomes. These themes are interconnected yet highlight distinct mechanisms; for example, as I will share below, aspects of social/network-level outcomes (e.g., reciprocation) lead to individual-level outcomes in and of themselves. As a reminder, I investigated disclosure outcomes as perceived by the individuals who perform them. As such, when I refer to "*outcomes*," that is what I refer to. I found that outcomes can 1) relate to responses to disclosures (e.g., feeling supported, others' reciprocating with stories in response, several reciprocation-related outcomes), or 2) not relate to responses to disclosures (i.e., NLRD, impact opposing values, feel catharsis, feel more authentic, transition to mentor role). In addition to in-text pointers, outcomes particularly related to responses are identified with "R" in subheadings for easier readability.

4.1 Social- and Network-Level Outcomes

4.1.1 Facilitate network-level reciprocal disclosures. Participants remarked that their disclosures facilitated others' disclosures through what Andalibi and Forte call *Network-Level Reciprocal Disclosure (NLRD)* [5]. By definition, disclosures occurring through NLRD are not *in response* to any other disclosure [5], as is the case in dyadic in-person reciprocations [32] or in commenting on a social media post. Instead, they occur when one is *motivated* and *inspired* by a disclosure by someone else in their network, and as a result of reduced stigma perception [5]. For example, P2 shared how a friend of hers posted about her loss experience inspired by P2's disclosure, and as a result of reduced perceived stigma due to P2's post: "*It made me feel really good because she said that I had inspired her to share. I kept talking about taking the stigma away from the conversation because it's important that we are able to support each other and it's a big deal, and not being able to talk about it just hurts more. She'd put all of that to her post as well, so it did make me feel really good that I was actually helping someone…It made me feel good that I was able to have that conversation and help other people have that conversation.*" While disclosures in one's network can serve as a disclosure motivation [5], we see that they

also serve as disclosure outcomes as perceived by individuals who perform disclosures.

4.1.2 R: Facilitate reciprocal disclosures in response to disclosures. Facilitating reciprocal disclosures *in response* to the poster was both a common disclosure response received by, and outcome perceived by participants. While reciprocal disclosures in response to participants' disclosures were a perceived disclosure outcome in and of themselves, participants remarked that these reciprocations led to other outcomes in turn. These reciprocations occurred through a variety of communication channels including one-to-many comments, private one-on-one electronic channels (e.g., private messages, text messages, emails), or in-person. They also originated from various kinds of ties, strong and weak. In this section, I first describe reciprocal disclosures, and then discuss the social/network-related perceived outcomes of these reciprocations.

Participants noted the important role of their initial disclosures for others to share their own stories in response. As P3 said: "*There's strength in numbers. I'm sure that probably 50 of my friends have gone through a miscarriage and maybe one or two of them have publicly shared that they've gone through it and they want to be a voice and not be silence. It's hard to be that first person to stand up and say, 'This is what I've gone through.' It's easier for everyone to follow.*" To describe reciprocations, P25 said: "*I got flooded with, 'Oh, I had a miscarriage, too.' *"

Participants also described reciprocal disclosures occurring through different communication channels with various privacy levels. As P25 put it: "*There was a lot of comments, and a lot of people, they were like, 'Oh, I'm sorry. This happened to us, too,' in the comment section. Then, what I was getting was a lot of private messages and a lot of offline emails. Non-Facebook, non-social media emails, texts, and calls based on, stemming from the Facebook post.*"

Comparing different communication modes, P20 said: "*Some people didn't want other people to know that they had gone through the same thing so they sent me a private message and some people put it out there that they had.*" While some remarked that private messages allowed the reciprocator to manage their privacy better (compared to public reciprocations through a comment), some believed private messages were more personal and meaningful. For example, P12 said: "*I thought it's probably a little easier to get personal through a private message. Some of them I think even just started out with something really simple, 'Hey, I just wanted to say hello. I've been through something similar, just let me know if you ever want to talk.' Others started with discussions of relevant personal experiences…Some people had different ways of reaching out too. Then I guess some people too, prompted by the Facebook post, would send an email or a text, rather than use the*

private message in Facebook too." She further explained: "*I think most of the really meaningful stuff happened through private messaging.*"

Reciprocations originated from individuals with whom the discloser believed they had relationships of varying closeness degrees and diverse walks of life, not solely those with whom one was close to before the disclosure. For instance, P25 said: "*Honestly, they came from everywhere. My husband's friends, his coworkers, yeah, people from high school, people from my husband's high school. Everybody that was connected somehow through Facebook.*" Similarly, P12 said: "*Most of the people that responded positively that hadn't known the news were probably just friends and acquaintances that I hadn't seen in a long time …It was interesting, because it wasn't people that I would normally communicate with, or share details of my life in that kind of way.*" Social media can facilitate connections that may not actualize in meaningful ways otherwise, presenting an interesting contrast with concerns around context collapse and flattening of one's network of various realms of life into one [65] that can make disclosures difficult.

4.1.3 R: Destigmatize pregnancy loss. Participants thought reciprocations in response to their disclosures "normalized" pregnancy loss and talking about it. For example, P25 said: "*It's somebody trying to reach out to you and to share what happened to them to probably, in a way, normalize miscarriages, to let you know that you're not alone, and like I said, to share something about themselves or something to help you to feel better.*" Similarly, P10 said: "*People don't talk about it until, I think, you have an avenue where you can relate, then you go down there, and you can say, 'Okay, I can ping you, and we can be part of this group together.' Basically I was left hanging in the wind for a little bit, and so many women, I have to imagine, are left hanging in the wind about this, thinking this is so abnormal, and this is so weird, as opposed to no, this is actually really, really common.*" Reciprocations also made participants feel as though it was more appropriate to talk about pregnancy loss than they had originally thought. For example, P15 said: "*I guess it made me feel less alone and it made me feel less inappropriate for sharing the information with them because they are like, 'I know about this as well it's not just some weird unsolicited story that you are sharing with me. It's something that I've experienced too.' *" This perceived social/network-related outcome refers to reassessing one's beliefs about the appropriateness of disclosures, leading to reduced stigma perception.

4.1.4 Influence opposing values about relevant topics. Participants remarked that their disclosures impacted some members of their social networks' opinions and attitudes. For example, P13 shared how her aunt had an opinion change about reproductive rights as a result of P13's social media posts: "*I was just saying to my husband the other day, 'You*

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know, I don't know why I keep posting things that I feel like my conservative family is going to read and they're going to have some change of heart. Why do I keep doing this? Like it's been years and nothing has changed.' But then actually, I had a post just the other day about planned parenthood and that same aunt, she said, 'Well, you know how I feel about abortion but I softened my stance on planned parenthood and I understand that they do a lot of good things.' I don't know how much credit I can take for that but she is certainly one of the people who has read and engaged with my posts related to my pregnancy losses and reproductive rights. I suppose sometimes there's a conversation happening there.* Participants noted that disclosures facilitated constructive conversations and reflections leading to attitude changes on relevant topics (e.g., reproductive rights) in their networks.

4.2 Individual-Level Outcomes

4.2.1 R: Feel supported. Participants largely reported receiving various kinds of support on and beyond social media due to their social media disclosures. These included acknowledgments, emotional support, reciprocations, sympathies, or more tangible forms of support from sending food to lighting a candle to remember participants' loss. For instance, P9 shared: "*I did have everything varying from just sorry to hear about your loss, we love you, to a couple of people that said that they had experienced a loss too and will light a candle for both my loss and theirs on this special night or whatever.*"

Social media disclosures also led to tangible, in-person, and more in-depth supportive interactions. For instance, P12 said: "*There's a cousin of my husband ...I never knew that about her, and I think it really surprised me how people did want to talk about it. Maybe not publicly, through the comments, but wanted to share their stories privately. She in particular offered a lot of support, whether I just needed to talk to somebody, or really I think she offered anything that we needed. A lot of people make that offer in time of need, but don't necessarily maybe mean it when you actually then follow through. I ended up mostly through text messaging, but she really was helpful. I think out of all the people who contacted me, probably the most. Some people brought meals over. A lot of people said, 'What can we do?' At that point there really wasn't anything we needed, but I think a lot of people show their support and love through baking and cooking food.*" Such instrumental and continuous support was uniquely helpful for participants.

Participants found caring reactions from non-traditionally close ties to be uniquely meaningful. P13 said: "*The other thing that means a lot is when it's a friend but not somebody that I'm really close to who expresses some sort of love or sympathy or caring because I think I expect it from people I'm close to. When it's someone whom ...maybe even an acquaintance, but somebody I respect but don't have a very close relationship with or at least not right now and I see that they've read it and*

they comment in a way that is very loving and shows me that they're thinking about me and their feeling emotional about the situation, that means a lot to me because I feel like it's not something that they had to...* In a similar context, P18 said: "*It would be hard to know what to say and to put it out there for everybody else to read in case you weren't saying the right thing. It feels like it would be hard for me to do that and that some people took the time to do that felt meaningful.*" Participants noted that interacting with their posts was likely not easy for many, especially from weaker ties. So, when they received support from them, it meant a lot to them.

4.2.2 R: Increased awareness about the prevalence of pregnancy loss leading to less loneliness within one's network of known ties. Reciprocations made participants acutely aware of how common pregnancy loss is. As P15 said: "*I think the only thing that I found surprising about people's responses was the number of people who said, 'It happened to me too or it happened to my wife too or it happened to my cousin too.' There is such a huge proportion of the people that I shared this with had a very close personal experiences with the same event.*" This heightened awareness was present even if participants were aware of relevant statistics as factual information, as P9 mentioned: "*I don't even know how I know about it, but I've always known from even a young age that miscarriages are fairly common, but I didn't realize how common until it happened to me. It's one in four pregnancies end in miscarriage and that's a huge number. I guess you always think that happens to people, but you don't realize how common it is until it happens to you... when I made that post and a bunch of people commented to me, whether privately or on my actual Facebook post, then again it's like wow, all of these people experienced a miscarriage too. I think that's sad in a way because nobody ever talks about it, nobody openly talks about it.*" Such reciprocations made participants feel less alone. As P1 said: "*You just always think it doesn't really happen that often, but it really does. And I think social media has made that easier to find out that it really does because before, if I didn't have Facebook, I wouldn't have known how many women in my life have already been through these steps. Friends from high school who have gone through it. I wouldn't know that I'm not so alone in it. And other women wouldn't know that they're not so alone in it.*" Disclosures on identified social media led to reciprocations that led to an increased awareness of the prevalence of pregnancy loss *within* one's network, through which participants felt less alone. This increased awareness — an individual-level outcome — about one's network of known ties in and of itself was crucial in making disclosers feel better.

4.2.3 R: Connect with similar others in one's network of known ties. Disclosures and subsequent reciprocations' outcomes went beyond increased awareness and less loneliness as a

result. It also led to *connecting* with others, which was a helpful process for many. For example, P11 said: "*…Anyway, they come out of the woodwork. Turns out that a high percentage of people you know have had miscarriages, and will share that with you when you share that you've had one. Yeah, that was helpful.*" Connecting with individuals that one knew and respected who have been through a loss and survived was extremely meaningful and helpful for many. On this note, P1 said: "*And when other women, who I admired and respected said to me, 'I have been there, I have done that, this has happened to me,' it made me realize that, that was not true, and it made me say these women have survived this, and I can survive this, and I don't, I'm not the only one who understands what it's like to, to love somebody you have never met. And, so, when you're not alone in something that makes you feel so alone, it helps. It's like me, drowning in the ocean, and somebody holding your hand and saying, 'I've got you, we'll float together,' and for a while, that's all you do, is you float together, and so every little light that says, 'I've been there,' is one that keeps you from going into that darkness of, 'I won't survive this.'*" These responses made participants feel understood and validated and helped them imagine that they can bounce back from this trauma *because others that they know and respect did.*

Reciprocal disclosures from members of one's network of known ties on identified social media was more meaningful than those from anonymous strangers (e.g., on forums). As P22 said: "*The outreach that I received on Facebook was definitely more meaningful. I think because the face to face relationship was there, even if it's somebody I was not always in contact with anymore. It was people who were not necessarily going through it at the moment because at BabyCenter, most of the ladies there are currently struggling with that or dealing with it in some way, whereas on Facebook it was friends who I knew this happened years ago and have since had kids or have had other things happen in their lives. I think it was just more meaningful in that sense. It's real faces that I know and realize.*"

Not only responses from other women one knew personally were particularly meaningful, but also responses from others who shared other identity facets like profession helped. For example, P21 said: "*I think that it was nice to know that or I feel like sometimes I felt like I should know more than I did or understand more than what I did about that whole process. It was nice to know that other women are in medicine despite their backgrounds or equivalently not sure about what's going on or can't explain why these things happen.*" Disclosures led to reciprocations from a wide array of people with whom the discloser had various kinds of relationships. While prior work establishes the important role of anonymous interactions in sensitive settings [8, 34, 61], here we see that connecting with others one somehow knows

and/or shares one or more identity facet (e.g., profession) is also helpful and can occur as a result of disclosures to networks of known ties.

4.2.4 R: Increased awareness about the stigma associated with pregnancy loss for others in one's network of known ties. While through reciprocations participants learned that pregnancy loss is common and they were able to connect with similar others in their networks of known ties, reciprocations also made participants aware of how much silence and stigma *others* who experience pregnancy loss associate with it. As P2 said: "*To be honest, it was a little overwhelming because there was so many people who could relate that I didn't know. That just reinforced that people don't talk about it and it's this taboo conversation.*" Similarly, P20 said: "*I found out that a lot of people that I knew actually had gone through the same thing that I had and I didn't know that, I guess it's a taboo thing to talk about if you've been through one.*" This perceived outcome — an individual-level outcome — pertains to increased *personal* awareness of norms that informed others' disclosure behaviors in one's network.

4.2.5 R: Feel unacknowledged and unheard. Reciprocal disclosures did not always leave a positively perceived outcome. This was often the case when participants perceived reciprocations to not acknowledge potential differences between the two experiences, or solely engage in sharing one's own experience. For instance, P25 referenced a reciprocal disclosure by her husband's cousin who had shared her experience with an earlier loss: "*I felt a little resentment for being compared to a first trimester loss, which is entirely unfair from a logistical standpoint. People share their experiences so that they can forge an understanding or what have you, and I was thinking, yeah, but you weren't 16 weeks and your water didn't break and you didn't go through it...*" Others also noted the importance of simply acknowledging an initial disclosure. While disclosures led to reciprocations which then led to positive outcomes such as less loneliness or less stigma perception, they could also sometimes contribute to feeling unacknowledged, unheard, or unsupported.

4.2.6 Transition into supporter and mentor role in one's network. Many participants transitioned into a new social role within their networks and sometimes extended networks after sharing about their loss on social media. This role entailed assuming a mentorship role through becoming a source of support relying on personal experience with pregnancy loss and their openness about it. For example, P1 said: "*Those posts work as not just a, 'Hey, this is how I'm feeling. And this is what we're going through and this is an update on me,' but it's also a learning experience and kind of an awareness … And I've had people who've had miscarriages since then who have sought me out first and said, 'I think I'm having a miscarriage*

and how do I deal with this?' Because they know I've been through it and they know I'm open about my experience. And they'll call me and they'll say, 'I need help. I don't know how to do this. I need you to come talk to me,' or, 'I need you to call me,' or, 'Can I come over?' Those type of things if they're local friends. And if they're not then they'll, 'Can I video chat you or something?' And so that's kinda how it's become for me is people know that I'm open about my story." By disclosing, participants *became* individuals to whom others in their networks knew they can reach out to.

This role did not always stay within one's immediate connections. For instance, P13 shared how her friends wanted to put her in touch with a friend of theirs who was going through a pregnancy loss: "*In fact, because of a lot of the things I had written, I've had friends come to me and say, 'Hey, I had a good friend who had a miscarriage and she's going through all this stuff and can I have her get in touch with you if she needs to?'*"

By helping others through and followed by social media disclosures, some also found healing for themselves. As P13 said: "*Over time, it was helpful that I was able to use my experience to help other people. That did help me in terms of finding some healing and feeling better about it.*" These examples illustrate how disclosures impacted one's identity within and in relation to their network, with a potential to create change within one's network more broadly. While being a source of support and mentorship is a disclosure motivator for some [5], here we see that it is also a perceived disclosure outcome helpful to the discloser *and* others.

4.2.7 R: Impact one's attitude towards future disclosures. Disclosures also impacted one's attitudes towards their future disclosures. For example, P27 had experienced multiple losses and gradually became more open to sharing her story with others. Specifically, she did not share about her first experience, but shared about the second inspired by a friend's post, received support and reciprocations, and gradually became more open to sharing her story with others. In this context, she shared how she wished she had shared earlier, because once she did she did not feel as alone as she did before, because others opened up about their losses in response and that was helpful to her. She said: "*I guess I just want after going through all this [multiple losses], I don't want any woman to feel the way I felt. I don't want women to feel ashamed or embarrassed. I just wish I had come to that conclusion sooner to be more open. It really helped me with my grieving process and moving onwards.*" Her attitude about disclosure shifted to be more open due to her realizing its potential for healing for herself and others. Others shared similar sentiments highlighting the role of responses. For example, P2 said: "*Because especially at first it was very lonely, and it was very hard to feel sad and not be able to talk about why or feel like I couldn't talk*

about why, so I definitely would have wanted to share sooner and be able to, especially if I'd known the response I was going to get with people sharing their own experiences, because that definitely makes it feel a little bit better." Receiving supportive and reciprocal responses was a disclosure outcome, leading to changes in one's own disclosure attitudes.

4.2.8 Feel more authentic. Having disclosed the loss allowed participants to feel more authentic in their social interactions, especially when they had in-person interactions with others they were connected to online. For instance, P25 described how she was able to respond to her friend asking "*how are you?*" in a way that felt true to her, and avoided generic conditioned responses like "*I'm fine*" when she really was not: "*I remember somebody, at one point, it was a couple of weeks after and I hadn't seen her. I saw her, and she was like, 'How are you?' You answer as you're conditioned to. You're like, 'Oh, I'm fine.' Then, she was like, 'I haven't seen you since you lost the baby.' I was like, 'Oh my god, you're right. I don't need to just ...' But it was such a conditioned response, you know? I was like you're right. I am fortunate because everybody does know, that I could walk up to you and be like, 'You know what? Today I'm kind of moody,' or, 'I'm a little sad,' or, 'I'm still pretty angry. Do you want to get a cup of coffee?' It didn't have to be this big ruse... everybody knew.*" Having disclosed the pregnancy loss on identified social media facilitated her being able to engage in in-person social interactions in a way that better mirrored how she was feeling. This is important as feeling authentic can positively impact wellbeing [73].

4.2.9 Feel catharsis. Disclosures also made participants feel relief due to their cathartic nature. For instance, P27 said: "*I kept it secret because I was ashamed and I was embarrassed. I felt like less of a woman. After going through so many miscarriages, I feel like the more I've opened up to people, the more it's just been a huge weight off my chest.*" Catharsis is a commonly reported outcome of disclosure [62], and can improve wellbeing due to inhibition alleviation [22, 71].

4.2.10 R: Reframe one's own experience. Reciprocal disclosures sometimes made participants feel better about their own experiences through comparing their experience with others' whom they believed had it harder. For example, P25 compared her experience with someone else's: "*... wasn't I lucky that I could just start from scratch and I didn't have to ... I mean, her two experiences were just awful. One of them was on the Ferry Name Anonymized. Horrible. Wasn't I lucky that I didn't need to deal with any of that and didn't need to worry about getting your cervix scraped to make sure that everything was out? I mean, everything went out the day after my water broke. That was the end of it. So that was nice.*" Prior work suggests support group benefits occur through "upward and inspiring" or "downward" and "it could be worse"

comparisons [82]. Reciprocations happening as a result of social media disclosures have a similar outcome through downward comparisons as we see here. As I discussed earlier, connecting with similar others within one's network of known ties is also helpful in developing hope that one can survive and bounce back just like how people that they know did, leading to upward and inspiring comparisons.

4.3 Dyad-Level Outcomes

Participants remarked that they believed their social media disclosures or responses to them impacted their interpersonal relationships in important ways.

Some felt their existing relationships grew more intimate and close. Participants felt closer to others who shared their stories with them, often regardless of the perceived level of initial relationship closeness. For example, P5 reflected on her relationship with former acquaintances who had engaged in reciprocal disclosures *in response* to her: "*They were all really more acquaintances. I think there's kind of an intimacy when we start sharing about that stuff.*" This is an instance where weak ties such as acquaintances became closer and more intimate as a result of reciprocal disclosures stemming from one's social media post.

P12 shared how she developed a more intimate relationship with a family member (her husband's cousin) and an old high school friend: "*Yeah, it definitely changed the relationship with my husband's cousin. As someone who previously I had been friendly with, I can't say I knew much about her, or vice versa, but since the loss I think suddenly I identify with very strongly with her, and I feel like she was very emotionally supportive. I think I'll always feel very close to her in that regard, even though to this day we don't see each other much beyond the family functions we saw each other at before . . . Even this friend in high school that I haven't seen in a long time. I haven't seen him in person since the Facebook post either, but I thought if I did see him in person we'd have a much different conversation today, than we would have two years ago before my loss.*" Disclosures allowed people to relate to their ties of various previous strength in meaningful ways.

Developing closer bonds was not tied to being in frequent contact with the relationship partner before disclosures and subsequent interactions. P13 reflected on her relationship with a friend that she had not kept in touch with for a while: "*Even though we don't always keep in close touch, I feel like the fact that we both shared these stories on Facebook a lot and we often do it in relation to reproductive rights is something that has really bonded us for life in a way. Often when I post these things, she will comment very much out of love and support and I'll do the same for her.*" Some even reconnected in meaningful ways after years; for instance, P24 said: "*We've really reconnected after that 12year gap.*"

Some noted that others were more comfortable to be intimate with them and considered this a transition point in their relationships, citing a "before" and "after." For example, P1 said: "*Yeah, my life has kinda changed since I started posting about it? And I think for the better. People feel like they can be more open about things with me.*"

Reciprocation and bonding over similar experiences were not the only processes through which participants developed closer relationships as a result of their social media disclosures. When others critiqued one's feelings or sharing thereof pregnancy loss on identified social media *and* participants were able to have a candid conversation with them, they perceived that their relationships strengthened. For example, P1 reflected on discussions she engaged in when some of her social media connections expressed concerns about her sharing about loss-related struggles online: "*I was just saying I think that those relationships actually strengthened because they were willing to say to me, 'I don't understand.' And I was willing to take the time to say, 'Can you see it from this angle?' And they were open enough to say, 'I can.' And so our relationships got stronger. So I think that was a benefit to them being willing to kinda put themselves out there and say what they were thinking even if it wasn't socially acceptable, and me being willing to say, 'I'm not gonna take this at face value. I'm gonna look at the motivation behind it and take it as an opportunity to teach you.'* " She further elaborated: "*So it's kinda like you start to realize your hierarchy of your circle of who's worth the effort to talk to about it and to clarify your intentions and your emotions. And who's just one of those people you are like, 'Hopefully this sinks in enough so that somebody closer in your circle doesn't have to deal with this too.'* " These kinds of discussions either strengthened a relationship because they facilitated understanding, or allowed participants to reevaluate those relationships and what they meant to them.

Participants also reported negative interpersonal relationship outcomes. Specifically, when promises of support online were not materialized in in-person settings, participants reevaluated their relationships. For example, P2 said: "*It becomes one factor in a relationship because I definitely had friends who were very supportive on Facebook, but then didn't materialize in real life. Would talk and say all the right things in comments, and then I would get together with them and the topic never came up. That was difficult for me because it really put this very clear line between who were my real friends and who were acquaintances that I liked a lot. That was very difficult for me. I'm very introverted, so if I consider you a friend, it's because I feel like there's some sort of emotional connection, and then all of a sudden there were people who were like, 'No.'* " In summary, identified social media disclosures led to more intimate and strong relationships with ties of various perceived pre-disclosure strength, facilitated

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interpersonal understanding and candid conversations, or helped participants reflect on and reevaluate their interpersonal relationship circles and hierarchies when social media performances of support were not realized in-person.

5 DISCUSSION AND CONCLUDING REMARKS

In this paper, I contribute an important and in-depth understanding of the outcomes people perceive when they engage in disclosures of stigmatized personal experiences on identified social media to networks of known ties. I organized these perceived outcomes by partially adopting a disclosure model proposed by Chaudoir and Fisher [22] that focuses on disclosure outcomes of "concealable stigmatized identities" in in-person dyadic settings. I found that participants perceived outcomes at the individual, dyadic, and social/network level, and extended Chaudoir and Fisher's model to the identified social media context. While support, reciprocity, and connecting with similar others are also helpful and possible in platforms affording anonymity (e.g., Reddit, support forums) [7, 34, 79], interpersonal relationship outcomes, several reciprocity-related (e.g., reduced stigma), and other outcomes related to one's known ties are unique to identified contexts as highlighted in the data presented in this paper. In this section, I discuss this study's findings' implications and offer design insights as well as avenues for future design and research.

5.1 Meaningful Connections Within Networks of Known Ties *and* Separation from Them

I argue that connectivity within *and* separation from networks of known ties is important in designing social media to foster helpful expressions of self and social support exchange. Individuals who go through life transitions (e.g., gender transition) associated with stigma, separate their identities, networks, and audiences across different sites such as Tubmlr and Facebook [43]. A site like Tumblr enables separation from traditional tie-based social connections that Facebook enables. Haimson [43] argues that this separation is vital to individuals going through life transitions. Andalibi and Forte also show how sometimes people disclose stigmatized life events such as pregnancy loss to their Facebook networks, *after* they do so on anonymous spaces like Reddit [5], echoing the importance of multiple and separate social media platforms and networks. My findings complicate these insights from prior work by showing how becoming aware that similar others even exist *within* one's network of known ties, identifying them, and connecting with them is *also* very powerful for individuals experiencing stigma and distress. I suggest that social media site designs should leverage the power of connectivity including among similar others within one's networks of known ties, *and* the need for privacy, separation, and anonymity. How might we re-imagine social

technologies that allow one to connect with similar others of choice within their network of known ties while protecting privacy and separation needs? This is a challenging design space, and an important area for future research and design exploration.

5.2 Benefits Stem from Diverse Ties via Diverse Communication Channels

I show that when people disclose their experiences with pregnancy loss to networks of known ties, constructive and helpful interactions and subsequent outcomes can originate from diverse ties with various perceived pre-disclosure strength levels, and through a variety of channels with different privacy levels. Research on generic Facebook use without a focus on sensitive settings, suggests that people receive benefits from online communication, when it comes from individuals they care about and when communication is tailored to them [19]. For example, receiving targeted communication from strong ties is linked to increased wellbeing [19], and tie strength [18]. I add to this conversation that outcomes on interpersonal relationships go both ways (i.e., strengthen, weaken) as a result of disclosing one's stigmatized experience (e.g., pregnancy loss) on identified social media.

Additionally, these outcomes were not particularly tied to the type of relationship one had with responders prior to disclosure; for example, acquaintances grew closer and strong ties grew apart or at least did not become closer. I show that in socially stigmatized contexts, people draw benefits from identified social media disclosures and followed interactions with others with whom they perceive similarity due to the loss experience, and sometimes due to the loss and other identity facets (e.g., profession) regardless of the initial level of perceived closeness and tie strength. The identified aspect of these connections and them being within one's network of known ties is crucial, and as I show provides benefits that go beyond other helpful interactions that one may have in anonymous spaces and support forums. It is important to note that relationships in anonymous contexts are typically not as personal and continuous [23, 88]. Participants in this work remarked that their relationships with traditionally weak ties such as acquaintances grew significantly stronger as a result of their disclosure leading to the acquaintance reciprocating and interacting with them; and sometimes these ties grew stronger after many years. Or participants remarked that they felt their disclosures led to less perceived stigma both for themselves and others in their networks who reciprocated as a result of their initial disclosure; less perceived stigma is associated with improved wellbeing and has huge societal implications [64]. These are uniquely important outcomes in identified social media where people connect with others they somehow know, as stigma is a significant barrier in those settings compared to

anonymous spaces where one connects with others they do not have in-person connections with.

Social media news feed algorithms should take into account that even though sharing sensitive information is challenging, a lot of times when people do share them, they look for and need helpful interactions, and such interactions can originate from various kinds of ties through different channels. Social media news feed algorithms are largely opaque [20]. Regardless, these findings suggest that showing content to one's — what a platform would assume are "closer" ties or with whom one interacts with more frequently — as Facebook recently announced [38], may not necessarily be the best approach to designing news feed algorithms if we want to promote connections that are meaningful to people, particularly in times of personal distress.

5.3 Facilitate Helpful Reciprocations

Reciprocal disclosures both of the network-level and through comments or private means of communication were helpful for the most part. These flexible modes (i.e., individual post, comment, private message) and connecting with known others were key in rendering benefits unique to identified platforms. Reciprocations in response to disclosures led to destigmatizing pregnancy loss and talking about it, increased awareness about the stigma and taboo others associate with pregnancy loss, increased awareness about the prevalence of pregnancy loss within one's network and less loneliness as a result, connecting with similar others in one's network, reframing one's own experience, relationship changes, and feeling unacknowledged. These findings provide an important design space for future work. How might social computing systems be designed to facilitate reciprocal disclosures with positive outcomes and without the negative outcomes? Social media platforms can explore news feed designs that ensure posts on certain topics are visible to others who have posted about those topics in the past (within the scope of the intended audience of the poster) to increase the likelihood of reciprocations. Additionally, research shows that prior contributions and responses influence future responses in online communities [53] and social media [6]. As such, increasing the visibility of public reciprocal disclosures (e.g., through comments) might also facilitate others' reciprocal disclosures, and thus lead to associated positive outcomes.

When disclosers do not feel acknowledged in receiving reciprocations, they do not perceive them as helpful. To help with this unwanted aspect of reciprocal disclosures, social computing platforms can experiment with prompts that would detect when one is typing a reciprocation and recommend that they acknowledge the poster's experience in addition to sharing their own story; such a prompt would mimic what a moderator might do in a support group. Of course, the wording and uses of such a prompt should be

explored with participants on the receiver and responder side. By designing for increased safe reciprocal disclosures we can facilitate the positive outcomes of reciprocal disclosures outlined in this paper.

5.4 Facilitate Being a Support Source and Mentor and Social Support Exchange

I found that one appreciated outcome of disclosures on identified social media was becoming a source of support for others in one's networks, and being the person that others would go to when they needed someone to talk to about their loss. Participants welcomed this outcome and thought of it as a turning point in their self-conception, relationships, and social lives. This outcome can also help those looking for support to find it. Andalibi and Forte [5] show how some share about their difficult experiences just to be a source of support for invisible similar others in their network. Social media platforms can experiment with building in mechanisms through which those who have experienced pregnancy loss or other difficult experiences, *and* who want to be a source of support for others can signal this willingness. For example, they can set how and by whom they would be open to being contacted in a future time about a certain topic. Then, for example, when a person in their network wants to find someone who has experienced a loss in the past, they can find those who want to be contacted and who want to be a source of support. Such designs if sensitive to involved parties' privacy needs, could enable the supporters or mentors to heal through helping others as the helper therapy principle suggests [75], *and* facilitate finding support and connecting with similar others within networks of known ties over time which people find helpful and meaningful.

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