

Reddit After Roe: A Computational Analysis of Abortion Narratives and Barriers in the Wake of Dobbs

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Abstract

The 2022 U.S. Supreme Court decision in *Dobbs v. Jackson Women’s Health Organization* reshaped the reproductive rights landscape, introducing new uncertainty and barriers to abortion access. We present a large-scale computational analysis of abortion discourse on Reddit, examining how barriers to access are articulated across information-seeking and information-sharing behaviors, different stages of abortion (before, during, after), and three phases of the Dobbs decision in 2022. Drawing on more than 17,000 posts from four abortion-related subreddits, we employed a multi-step pipeline to classify posts by information type, abortion stage, barrier category, and expressed emotions. Using a codebook of eight barrier types, including legal, financial, emotional, and social obstacles, we analyzed their associations with emotions and information behaviors. Topic modeling of model-generated barrier rationales further revealed how discourse evolved in response to shifting legal and cultural contexts. Our findings show that emotional and psychological barriers consistently dominate abortion narratives online, with emotions such as nervousness, confusion, fear, and sadness prevalent across discourse. By linking information behaviors, barriers, emotions, and temporal dynamics, this study provides a multi-dimensional account of how abortion is navigated in online communities.

Code and Dataset — <https://github.com/social-nlp-lab/Dobbs-Abortion-Narratives>

Introduction

The U.S. Supreme Court’s decision in *Dobbs v. Jackson Women’s Health Organization* (2022) marked a pivotal moment in the national landscape of reproductive rights (Chang et al. 2023). In its aftermath, individuals increasingly turned to social media to express opinions, share personal experiences, and seek guidance amid rapidly changing legal conditions. As traditional pathways to reproductive healthcare become restricted and challenging to access, online communities provide an accessible venue for those seeking care to navigate uncertainty, locate resources, and articulate the personal and political stakes of abortion (Dolgin et al. 2025; Wilson-Lowe et al. 2024). These platforms simultaneously reflect public attitudes and function as infrastructures for

information exchange, making them critical sites for large-scale computational analysis of abortion discourse (Neely, Eldredge, and Sanders 2021; Chen, Wang et al. 2021).

Abortion access has long been shaped by multiple intersecting barriers, ranging from restrictive legislation to financial, logistical, and social constraints (Jerman et al. 2017; Pleasants et al. 2024c). Decades of research demonstrate that cost, distance to clinics, inadequate provider availability, and stigma consistently limit access to abortion care, often disproportionately affecting marginalized populations (Gerber Fried 1997; Doran and Nancarrow 2015). These barriers not only delay or prevent care but also exacerbate emotional and psychological burdens for those seeking services (Pleasants et al. 2024a). The Dobbs decision has further intensified these constraints, increasing uncertainty and complexity in navigating reproductive healthcare. We examine how these barriers are expressed and discussed in Reddit communities, where users actively seek and share information in response to shifting legal and social landscapes.

While prior research has documented various types of abortion barriers, existing studies largely rely on small-scale qualitative analyses and often examine barriers in isolation, without systematically linking them to emotional expression or information behavior (Pleasants et al. 2024c; Jerman et al. 2017; Higgins et al. 2021; Lee et al. 2023). We address this gap through a large-scale computational analysis of Reddit discussions that jointly models abortion-related barriers, emotional expression, and information behaviors. This integrated perspective provides a more comprehensive understanding of how structural constraints and lived experiences are intertwined in online abortion discourse. We answer the following research questions:

- RQ1: How do information behaviors shape abortion discourse on Reddit across different phases of the Dobbs decision and stages of abortion?
- RQ2: What barriers to abortion are discussed in Reddit narratives, and how do these barriers intersect with information behaviors and phases of the Dobbs decision?
- RQ3: What emotional expressions are present in abortion-related discourse, and how do they vary across information behaviors and barrier categories?

To address these questions, we collected data from four Reddit communities (N = 17,534) that primarily focus on

abortion-related discussions. We analyze how users seek and share information while articulating barriers across abortion stages (before, during, and after) and phases of the Dobbs decision. By linking information behaviors with barrier types, emotional expressions, and thematic patterns, our framework captures how abortion is experienced, constrained, and communicated in online spaces. Our findings show that information-seeking behavior substantially outnumbers information-sharing, highlighting Reddit's primary role as a space for seeking guidance and support. *Emotional & Psychological* barriers are the most prevalent across narratives, while *Informational & System Navigation* and *Medical & Physical* are most closely associated with information-seeking contexts and during-abortion experiences. Further statistical analyses showed that barrier and emotion distributions vary most strongly by information behavior and abortion stage, and remain comparatively stable across Dobbs phases. The emotion analysis showed that *nervousness*, *confusion*, and *fear* tend to dominate narratives of abortion, indicating the emotionally loaded nature of abortion discourse.

This work advances research on abortion discourse by providing a computational analysis of information-seeking and information-sharing behaviors, while linking barriers, emotions, and information types. By situating these dynamics across the three phases of the Dobbs decision, it offers new insights into how individuals navigate abortion in the digital public sphere.

Related Work

Abortion Discourse on Social Media Platforms. Social media platforms have become central to abortion discourse, particularly in the wake of the recent Dobbs decision that overturned *Roe v. Wade* (Dolgins et al. 2025; Wilson-Lowe et al. 2024). Reddit, with its community-based structure and potential to post longer messages, fosters both debate and support (De Choudhury and De 2014; Zhang et al. 2017). Valdez et al. (2024) compared *r/abortion* and *r/abortiondebate*, showing that the former emphasized support while the latter emphasized legal and moral arguments. Stanier and Shin (2024) added nuance by showing how frames of bodily autonomy, legality, and morality diverged across subreddits. In other platforms, Aleksandric et al. (2024) used stance detection on Facebook to analyze posts across states, finding that abortion attitudes online often mirrored state-level political and health indicators. On Twitter/X, studies revealed how polarization, framing, and engagement intersect. Philippe et al. (2024) showed that polarity and subjectivity shape engagement patterns, while Dai and Higgs (2024) identified influential actors and hashtag networks around *Roe's* reversal. Mane et al. (2022) observed geographic divides in sentiment, with pro-life content concentrated regionally. Large-scale datasets provided further context; Chang et al. (2023) compiled 74 million tweets on *Roe*, and Rao et al. (2025) demonstrated how court decisions triggered spikes in antagonistic frames. Earlier work also showed how gender and stance shape abortion discourse (Durmus and Cardie 2018). Fredenburg (2023) showed how euphemisms such as “camping” function as coded language for discussing abortion in restrictive contexts, reflecting how

online communities adapt to stigma and surveillance. Hanschmidt et al. (2016) highlighted stigma as a central social frame, with abortion often narrated through shame, secrecy, and moral judgment. Complementing this, work grounded in Moral Foundations Theory highlighted how ideological divides over abortion map onto broader cultural values such as purity, harm, and fairness (Sharma et al. 2017; Rezapour, Shah, and Diesner 2019; Rezapour, Dinh, and Diesner 2021).

Using temporal analyses, Venkata et al. (2024) found that abortion discourse on Reddit and YouTube transitioned from ethical frames immediately post-Dobbs, toward legal and political frames during peak debates, and eventually back to ethical narratives in later stages. Cowan, Hout, and Perrett (2024) showed that abortion attitudes in the U.S. remain dynamic, with shifting public consensus that aligns with discourse changes observed online. Jacques et al. (2021) further demonstrated how decision-making and framing on social media reflect both personal experience and broader cultural debates. Other studies highlight privacy and trust concerns, documenting fears around surveillance, digital security, and institutional legitimacy (Guo et al. 2024; Song et al. 2024)

Information Seeking, Sharing, and Support in Online Communities.

Abortion discourse on social media transcends debate or polarization; it also reflects the various ways individuals turn to online communities for information and mutual support (Rezapour et al. 2023). John and Martin (2024) identified informational and emotional needs expressed in *r/abortion* posts following Dobbs, showing that users often sought clarity about medical procedures, legal or logistical arrangements, while also voicing fear, stigma, and uncertainty. Pleasants et al. (2024a) demonstrated that Reddit posts often combine emotional disclosure with concrete informational requests. Reddit is also where people share their personal lived experiences (Bouzoubaa et al. 2024). Pleasants et al. (2024b) showed how users provided guidance on managing waiting times and overcoming logistical hurdles. Dolgins et al. (2025) highlighted community-driven innovations such as self-management strategies, privacy-oriented practices, and funding solutions that circulated in online exchanges. Other studies examined discourse around self-managed abortion (Weidert et al. 2025), insurance restrictions and healthcare costs (Higgins et al. 2021), and the role of social media platforms as infrastructures for individuals navigating reproductive health (Moseson et al. 2022)

Barriers to Abortion Access. Pleasants et al. (2024c) documented how users described state bans, gestational limits, and stigma as primary barriers, often linking these to emotional distress and delayed access to care. Doran and Nancarrow (2015) reviewed first-trimester abortion obstacles, identifying distance, cost, and stigma as consistent challenges. Culwell and Hurwitz (2013) outlined barriers to abortion, emphasizing the intersection of law, policy, and provider-level issues. Other work highlighted the persistence and adaptation of barriers across contexts. Jacques et al. (2023) analyzed Reddit during COVID-19, showing how pandemic disruptions compounded existing challenges. Lee et al. (2023) focused on provider-side barriers, including in-

adequate training and institutional opposition, while Bernstein et al. (2023) found that abortion restrictions influenced physicians' and trainees' practice location choices.

Our study builds on prior research on abortion discourse, information exchange, and access barriers on social media, which are often examined separately. We address this gap by analyzing Reddit discussions across phases of the Dobbs decision to understand how information behaviors, barriers, and emotional expression intersect and evolve.

Method

Data Collection

We used Pushshift Reddit API (Baumgartner et al. 2020) to collect data from four abortion-related subreddits: *r/abortion*, *r/abortiondebate*, *r/prochoice*, and *r/prolife*, that discuss abortion from different perspectives. Pre-processing steps were done to remove deleted posts (tagged as ['deleted']) or posts without a text body. As our primary focus is on how abortion discourse is shaped by news related to *Roe v. Wade* and its implications, we filtered the dataset to include only posts from six months before and six months after the official overturning on June 24, 2022, resulting in 17,534 posts for analysis. To capture shifts in discourse, we further divided the 2022 timeline into three phases: Phase 1 (January 1–May 1) represents the period before Dobbs; Phase 2 (May 1–September 1) covers the months immediately surrounding the decision; and Phase 3 (September 1–December 31) reflects the period after the ruling. These phases capture how discussions of abortion barriers shifted following the Supreme Court decision.

Narrative Classification and Analysis

Information Behaviors: Seeking vs. Sharing. The distinction between information seeking and sharing has been studied in communication and information science (Pollock et al. 2003). In health contexts, information seeking involves asking for advice, clarification, or resources to navigate uncertainty, while information sharing encompasses the disclosure of personal experiences, narratives, or advice to others (Savolainen 2005). These two behaviors are mutually reinforcing in online communities, where users simultaneously contribute knowledge and rely on peer support (Goodyear, Armour, and Wood 2019). Within abortion discourse, distinguishing between these two functions helps examine how individuals mobilize online spaces both as infrastructures of information exchange and as venues of support-seeking and storytelling. This dimension is particularly salient on Reddit, whose community-based structure encourages both forms of communication (De Choudhury and De 2014).

To operationalize these dimensions, we manually annotated 400 Reddit posts. Two independent annotators labeled each post for information behavior (seeking vs. sharing), with disagreements resolved through discussion and, when necessary, adjudicated by a third annotator. Inter-annotator reliability was high (Cohen's $\kappa = 0.89$). Using a subset of this annotated data, we trained and evaluated multiple classification models, including transformer-based models

(BERT, RoBERTa, DistilBERT, DeBERTa) and state-of-the-art large language models (LLMs) (GPT-4.1, GPT-4.1-mini, GPT-5-mini, among others). The dataset was split into training, validation, and test sets, comprising 240, 60, and 100 posts, respectively. Model performance was assessed against the annotated test set using precision, recall, and F1 scores (See Appendix for the prompts).

Temporal Stages of Abortion. Prior research showed that abortion barriers vary across different stages of the procedure (Jermain et al. 2017). Narratives before an abortion often emphasize logistical challenges such as travel, scheduling, and financial constraints, whereas narratives during the procedure more frequently reflect uncertainty, fear, or concerns about complications. In contrast, post-abortion narratives tend to focus on recovery, stigma, and emotional reflection (Kimport, Foster, and Weitz 2011). To capture these stage-specific dynamics, we classified posts into five categories, *Before*, *During*, *After*, *Not Sure*, and *Irrelevant*, reflecting how experiences unfold across the abortion process. Two annotators independently labeled the same set of 400 posts using these categories. Disagreements were resolved through discussion, and inter-annotator reliability was assessed using Cohen's kappa ($\kappa = 0.85$), indicating strong agreement. We evaluated four LLMs (GPT-4.1, GPT-4.1-mini, GPT-5-mini, and GPT-5-nano) for abortion stage classification using the same human-annotated ground truth set (See Appendix for the prompts).

Barriers to Abortion Access. Barriers to abortion access are multidimensional and have been documented across public health, reproductive justice, and social science research. Prior work identified a combination of structural, logistical, interpersonal, and psychological obstacles that shape how individuals navigate abortion care (Jermain et al. 2017; Doran and Nancarrow 2015; Hanschmidt et al. 2016). These barriers not only influence the feasibility and timing of care but also structure the emotional and informative experiences surrounding abortion decisions. To situate our framework within this established body of research, we adapted the barrier typology introduced by Pleasants et al. (2024c), integrating insights from reproductive health literature to ensure theoretical coherence and interpretability. We refined this framework through open coding of a subset of posts to ensure alignment with narrative patterns in our dataset. Our final codebook of barriers includes:

- *Legal & Policy:* Restrictions arising from state laws, gestational limits, mandatory waiting periods, and criminalization fears, consistent with prior documentation of how governance systems limit access (Gerber Fried 1997; Jones and Jermain 2017).
- *Financial & Insurance:* Obstacles related to costs, insurance gaps, and travel expenses—well-established determinants of restricted access (Higgins et al. 2021).
- *Logistical & Geographical:* Issues of clinic scarcity, long travel distances, or scheduling delays, echoing the centrality of geographic access found in prior research (Doran and Nancarrow 2015; Jermain et al. 2017).

Barrier Category	κ	AC1
Legal & Policy	0.89	0.99
Financial & Insurance	0.89	0.99
Logistical & Geographical	0.69	0.98
Provider & Infrastructure	0.28	0.99
Medical & Physical	0.57	0.96
Informational & Navigation	0.30	0.84
Emotional & Psychological	0.72	0.91
Social & Interpersonal	0.81	0.98
Average Across Categories	0.64	0.96

Table 1: Inter-annotator agreement comparison (Cohen’s κ vs. Gwet’s AC1) for the eight abortion barrier categories.

- *Provider & Infrastructure*: Constraints related to clinic capacity, provider availability, or institutional limitations, aligning with research on system-level access challenges (Lee et al. 2023).
- *Medical & Physical*: Concerns about symptoms, complications, or procedural risk—barriers shown to influence decision-making and care-seeking, especially in medication or self-managed abortions (Upadhyay et al. 2015).
- *Informational & System Navigation*: Difficulties understanding legal requirements, procedures, medication instructions, reflecting fragmented health-information environments (Neely, Eldredge, and Sanders 2021).
- *Emotional & Psychological*: Experiences of fear, anxiety, shame, guilt, and uncertainty, grounded in stigma research (Hanschmidt et al. 2016; Norris et al. 2011).
- *Social & Interpersonal*: Challenges involving partner conflict, lack of support, or familial stigma, consistent with findings that interpersonal relationships shape emotional and practical aspects of abortion decisions (Kimport, Foster, and Weitz 2011).

Posts tagged as *Before*, *During*, and *After* were coded by two annotators for the presence of different barrier types, as these stages most directly reflect concrete abortion experiences where barriers were discussed. Since posts could reference multiple barriers, this task was treated as a multi-label classification, with each barrier type coded as an independent binary dimension. Inter-annotator reliability was assessed using Cohen’s kappa for each barrier category, with an average agreement of $\kappa = 0.64$, indicating substantial reliability. Category-specific values are reported in Table 1. Lower kappa scores for *Provider & Infrastructure* ($\kappa = 0.28$) and *Informational & Navigation* ($\kappa = 0.30$) are attributable to class imbalance. To account for this, we report Gwet’s AC1, which remains high for these categories (0.99 and 0.84), indicating strong agreement. Overall, the results demonstrate high annotation reliability across categories.

We evaluated eight OpenAI models and two open-source models for identifying barrier types in posts, comparing their performance against our ground truth data. Performance was assessed using precision, recall, and F1 score for each barrier category, along with the average F1 score across all barrier types for each model (See Appendix for the prompts).

Model	Precision	Recall	F1-Score
BERT	0.86	0.86	0.86
RoBERTa	0.93	0.93	0.93
DistilBERT	0.83	0.83	0.83
DeBERTa	0.88	0.87	0.87
Llama	0.78	0.75	0.76
GPT-4	0.86	0.85	0.85
GPT-4o	0.91	0.90	0.90

Table 2: Classification of Information-Seeking vs. Sharing using 400 annotated posts

Emotion Analysis. Emotional expression plays an important role in abortion narratives, shaping how individuals describe experiences and engage in public discourse (Hanschmidt et al. 2016). To capture these expressions systematically, we used GoEmotions framework (Demszky et al. 2020), which provides a taxonomy of 28 fine-grained emotions. Prior work has shown the importance of emotion detection in understanding online discourse, especially for health and political topics (De Choudhury and De 2014; Mohammad and Turney 2013). By applying this framework, we identified which emotions were most salient in abortion narratives, how they differed across information behaviors and barrier categories, and how they co-occurred in complex affective narratives. We prompted GPT-4o (using the definitions of each category) to label each post with the most salient emotions present in the text (more information on classification performance is provided in the Appendix).

Topic Modeling for Barriers

We conducted a thematic analysis of posts tagged with barriers to characterize the narratives associated with each type of obstacle. To support interpretability, we leveraged chain-of-thought prompting (Wei et al. 2022). We applied topic modeling to the posts to examine how barrier-related narratives varied across information behaviors (seeking vs. sharing) and temporal phases (Phases 1–3). For topic extraction, we employed BERTopic (Grootendorst 2022) in combination with GPT-4.1, enabling semantically rich clustering of texts and the identification of interpretable themes.

Results

Data Characteristics

Figure 1 shows the temporal distribution of posts across the study period. An increase in posting activity is observed at the onset of Phase 2 (May 2022), with volumes peaking in late June and early July, immediately following the Supreme Court’s Dobbs decision on June 24. Although activity declined somewhat during Phase 3, posting levels remained higher than those in Phase 1, indicating a sustained elevation in discourse after the ruling.

RQ1: Classification of Information Behaviors

Table 2 shows the performance of different models on the test set for information seeking vs. sharing. Fine-tuned transformer-based models performed best overall,

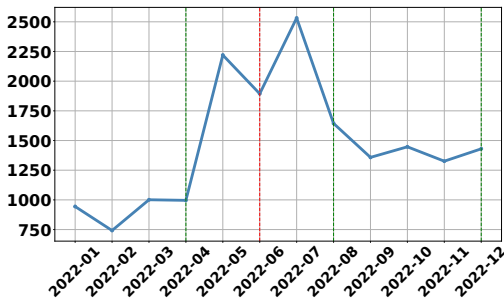


Figure 1: Number of abortion-related posts in 2022

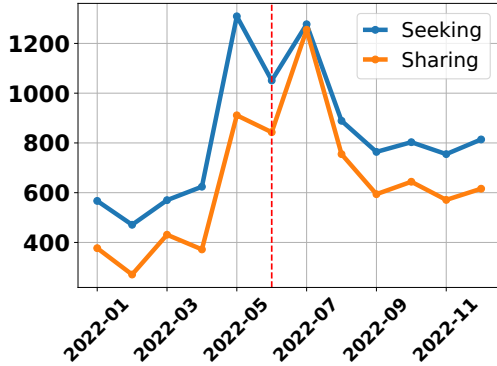


Figure 2: RoBERTa results for information types across the whole dataset

with RoBERTa achieving the highest F1 score (0.93), outperforming LLM-based models. Given its strong performance, we used RoBERTa to label information types across the full dataset. Applying this model, 9,894 posts (56.4%) were labeled as information-seeking and 7,640 (43.6%) as information-sharing. Figure 2 shows temporal trends in posts classified as information-seeking vs. sharing in our dataset. Across the entire timeline, information-seeking outnumbered information-sharing, reflecting Reddit’s role as a space for seeking guidance. Both categories increased sharply around the leak and subsequent announcement of the Dobbs decision (May–July 2022). Although activity declined somewhat afterward, levels of both information-seeking and sharing remained higher than in early 2022, suggesting a sustained shift in discourse following the ruling.

Temporal Stages of Abortion

GPT-4.1 achieved the highest performance for classifying abortion stages (F1 = 0.90) compared to other models (Table 6 in the Appendix). We therefore used this model to label abortion stages in our dataset. Table 3a reports the distribution of posts across abortion stages in both the annotated sample and the full dataset. The majority of posts were classified as *Irrelevant*, reflecting discussions focused on ideological or political debates (e.g., pro-choice vs. pro-life arguments or fetal personhood) rather than personal abortion experiences. Posts tagged as *After* are the most prevalent, exceeding those classified as *Before* or *During*. Since our research centers on narratives with lived experiences and

the barriers they reveal, we restricted subsequent analyses to posts labeled as *Before*, *During*, and *After*.

Table 3b presents the distribution of information behaviors across Dobbs phases and abortion stages for posts labeled as *Before*, *During*, and *After*. Across all phases, information-seeking consistently outnumbered information sharing, with noticeable increases following the Dobbs decision. Information-seeking posts increased from 1,415 in Phase 1 to 1,945 in Phase 2, peaking at 1,998 in Phase 3, reflecting heightened demand for guidance amid changing legal and logistical conditions. Information sharing followed a similar pattern, rising from 824 posts in Phase 1 to just over 1,080 posts in Phases 2 and 3, suggesting a steady reliance on Reddit for sharing experiences throughout the year. When comparing across abortion stages, information-seeking was most prevalent *Before* seeking abortion (2,508 posts), highlighting the role of social media as a key resource for gathering advice and preparing for procedures. In contrast, information sharing was most common *After* seeking abortion (1,640 posts), highlighting how users turn to Reddit to reflect on and process their experiences.

RQ2: Barriers to Abortion Access

Classification performance for barrier types varied across categories (see Table 4): Barriers related to *Legal & Policy* and *Logistical & Geographical* factors achieved higher performance, whereas categories such as *Provider & Infrastructure* and *Medical & Physical* were more challenging to identify, likely reflecting their greater contextual and experiential complexity. Among all models evaluated, GPT-4o achieved the highest average F1 score (0.75). Open-source models, including LLaMA and Mixtral, performed substantially worse and did not achieve comparable results. Based on overall performance, we selected the three highest-performing models, GPT-4o (F1 = 0.75), GPT-5.1 (F1 = 0.74), and GPT-4.1-mini (F1 = 0.72), to label the remaining dataset. For each post and barrier type, we assigned the final label based on majority agreement across these three models, allowing posts to be associated with one or multiple barrier categories (We did not include GPT-4 due to cost considerations).

Figure 3 shows temporal changes in the distribution of barrier types in our dataset. Mentions of *Emotional & Psychological* barriers consistently dominated the discourse, followed by *Medical & Physical* and *Social & Interpersonal* challenges. By contrast, barriers related to *Provider & Infrastructure* or *Financial* constraints were less frequent, as these challenges affect a narrower subset of abortion seekers. We also observed a steady increase in the proportion of posts referencing *Legal & Policy* barriers over time, likely reflecting heightened attention to the legal ramifications of the Dobbs decision. Table 5 (in the Appendix) highlights the most frequent pairs of barriers that co-occur in each post.

Figure 4 presents the normalized distribution of posts across the eight barrier types within (a) information types, (b) stages of abortion, and (c) phases of the Dobbs decision. As shown in Figure 4a, posts tagged as sharing information discussed experiences related to *Emotional & Psychological* and *Social & Interpersonal* barriers, whereas information-seeking posts more frequently raised *Informa-*

Stage	Annotated Posts	Entire Dataset
Irrelevant	227	8986
After	84	3,718
Before	62	3,502
During	20	1,144
Not Sure	7	184

(a) Number of posts with different abortion stages in manually annotated posts and the entire dataset.

		Seeking	Sharing
Phases	P 1	1,415	824
	P 2	1,945	1,096
	P 3	1,998	1,086
Stages	Before	2,508	994
	During	772	372
	After	2,078	1,640

(b) Information labels across stage and phase.

Table 3: Comparison of abortion-related stages and information-seeking/sharing across phases.

tional and *Medical* barriers. Other barrier types were distributed relatively evenly across the two information behaviors. Figure 4b shows that most barrier types were mentioned more frequently *Before* abortion. By contrast, *Medical* and *Informational* barriers were most prominent *During* abortion, while *Emotional & Psychological* barriers remain most prevalent across all three stages. Figure 4c indicates no substantial differences in barrier prevalence across the three phases of the Dobbs timeline.

RQ3: Emotion Analysis

Our analysis showed *nervousness*, *confusion*, *fear*, *sadness*, and *curiosity* as the most salient emotions in our dataset (Figure 7 in the Appendix), all closely tied to the uncertainty and sensitivity surrounding abortion discourse. Less frequent but still prominent emotions such as *relief*, *grief*, and *caring* complemented these dominant categories, reflecting the complex emotional landscape of abortion-related narratives. Additionally, we found emotions such as *nervousness* and *confusion*, *grief* and *sadness*, and *curiosity* and *confusion* tend to co-occur within the same posts, highlighting the layered and multifaceted affective expressions in this discourse (Figure 9 in the Appendix). Analyzing emotions across information types showed that posts classified as information-seeking were more likely to convey *nervousness*, *confusion*, *curiosity*, and *fear*, reflecting users' uncertainty and need for guidance (Figure 8 in the Appendix). By contrast, information-sharing posts more frequently expressed *sadness*, *relief*, and *grief*, highlighting the role of sharing as a means of processing experiences and articulating personal outcomes.

Clear distinctions emerged for expressed emotions across stages of abortion (Figure 5a): *desire* and *fear* appeared more frequently *Before* abortion, *nervousness* peaked *During* abortion, while *grief*, *remorse*, and *relief* were most prevalent *After* abortion. Across three phases of the Dobbs decision (Figure 5b), emotions did not shift very strongly. Across barrier types, *sadness* and *grief* most frequently co-occurred with *Social & Interpersonal* barriers, *curiosity* was most commonly associated with *Informational & System Navigation* barriers, and *disappointment* was most prevalent in relation to *Provider & Infrastructure* barriers (Figure 6).

Statistical Analysis Across Groups

To assess whether the prevalence of barrier types and emotional expressions differed across three stages of abortion,

three phases of Dobbs, and two information behaviors, we conducted a series of chi-square (χ^2) tests. For each barrier category, we compared its distribution across the stages, Dobbs phases, and information behaviors to determine whether observed differences exceeded what would be expected by chance. We applied the same procedure when comparing emotion prevalence across these dimensions. Significance thresholds were set at $\alpha = 0.05$, and p-values are reported where relevant.

Barriers Significance Tests Across Three Dimensions.

Our results indicate that barriers vary more strongly with information behavior and abortion stage than with the phase of the Dobbs decision. By information type, the strongest differences emerged for *Emotional & Psychological* ($\chi^2=635.6$, $p = 3e^{-140}$), *Informational & System Navigation* ($\chi^2=525.1$, $p = 3e^{-116}$), and *Social & Interpersonal* ($\chi^2=442.5$, $p = 3e^{-98}$). For abortion stages, *Medical & Physical* barriers ($\chi^2=694.8$, $p = e^{-151}$) and *Logistical & Geographical* barriers ($\chi^2=390.5$, $p = e^{-85}$) were found more significant. By contrast, phase effects were marginal; only *Legal & Policy* ($p = e^{-11}$), *Provider & Infrastructure* ($p = e^{-4}$), and *Social & Interpersonal* ($p = 9e^{-4}$) vary across phases; implying Dobbs may have slightly changed people's worries (especially legal uncertainty), but the dominant drivers of barriers were independent of the political time window. Table 7 in the Appendix shows the complete results of the tests.

Emotions Significance Tests Across Three Dimensions.

Results showed that emotional expression was strongly shaped by information behavior, moderately shaped by abortion stage, and largely stable across Dobbs phases. Across information type, all prevalent emotions exhibited large and highly significant differences, with particularly strong effects for *nervousness* ($\chi^2= 1136.68$, $p = 3.5e^{-249}$), *relief* ($\chi^2= 1075.6$, $p = 6.7e^{-236}$), *confusion* ($\chi^2= 958$, $p = 2.4e^{-210}$), and *curiosity* ($\chi^2= 873.89$, $p = 4.7e^{-192}$), suggesting that seeking or sharing information corresponded to a major shift in emotional tone. Across abortion stages, emotions also differed significantly, particularly for *fear* ($\chi^2= 540.8$, $p = 3.6e^{-118}$), *relief* ($\chi^2= 502.2$, $p = 8.9e^{-110}$), *nervousness* ($\chi^2= 452.4$, $p = 5.7e^{-99}$), and *grief* ($\chi^2= 413.5$, $p = 1.6e^{-90}$), reinforcing that emotional expression tracked experiential progression through the abortion journey. By contrast, emotions showed minimal phase sensitivity, with no meaningful Dobbs phase effects for most emotions, and even the few statistically significant patterns, e.g.,

Model	LP	FI	LG	PI	MP	IS	EP	SI	Average F1
GPT 4	0.88	0.61	0.81	0.67	0.56	0.62	0.85	0.84	0.73
GPT 4.1	0.79	0.72	0.79	0.38	0.58	0.57	0.75	0.73	0.66
GPT 4.1-mini	0.81	0.69	0.81	0.55	0.57	0.64	0.8	0.86	0.72
GPT 4.1-nano	0.76	0.76	0.77	0.36	0.57	0.43	0.85	0.84	0.67
GPT 4o	0.92	0.8	0.82	0.67	0.58	0.7	0.8	0.72	0.75
GPT 4o-mini	0.79	0.59	0.77	0.44	0.55	0.72	0.8	0.82	0.68
GPT 5.1	0.81	0.78	0.83	0.6	0.65	0.7	0.78	0.77	0.74
GPT 5.2	0.8	0.6	0.68	0.29	0.56	0.56	0.74	0.74	0.62
Llama-4-Maverick	0.85	0.54	0.7	0.5	0.59	0.59	0.76	0.76	0.66
Mixtral-8x7B	0.6	0.12	0.47	0.57	0.19	0.43	0.54	0.72	0.45
Ensemble (Top 3 Models excluding GPT 4)	0.85	0.75	0.84	0.67	0.59	0.74	0.8	0.8	0.75

Table 4: Performance of different LLMs on 8 Barrier Types. LP: Legal & Policy, FI: Financial & Insurance, LG: Logistical & Geographical, PI: Provider & Infrastructure, MP: Medical & Physical, IS: Informational & System Navigation, EP: Emotional & Psychological, SI: Social & Interpersonal.

curiosity ($\chi^2=7.3, p=2.6e^{-2}$) and relief ($\chi^2=6.2, p=4.6e^{-2}$) remained extremely small in magnitude. Overall, these results support a consistent interpretation that Dobbs may have shifted the intensity and urgency of discussion, but the emotional landscape was driven primarily by informational behavior and abortion stage, not by broad temporal phases around the Court decision. Table 8 in the Appendix shows the full results.

Topic Modeling for Barriers

Barriers Across Phases. Table 9 in Appendix shows that across the three phases, the abortion-related barriers discussed on Reddit remained broadly consistent, but shifted in emphasis and specificity. In Phase 1, topics in posts tagged as *Legal & Policy* barriers centered on early pregnancy uncertainty, informal or underground pill access, and timing/appointment constraints. Financial barriers focused on cost anxiety, insurance/payment concerns, and legitimacy issues around ordering pills online. *Logistical* barriers highlighted clinic scheduling and coordinating abortion timing around work and daily life. Posts in *Medical* barriers emphasized Medical Abortion (MA) symptom management, testing confusion after abortion, and comparisons between Surgical Abortion (SA) and MA experiences. *Informational & System Navigation* barriers reflected difficulties navigating services and understanding medication instructions. *Emotional & Psychological* barriers foregrounded ambivalence,

fear, guilt, and difficult decision-making, while social barriers emphasized disclosure dilemmas, relationship pressure, isolation, and support needs. In Phase 2, approaching the Dobbs ruling, the discourse became more explicitly resource- and access-oriented. *Legal & Policy* barriers shifted toward pregnancy discovery, state restrictions, and navigating aid resources. *Financial* discussions increasingly reflected urgent financial help-seeking, online ordering/payment issues, and hardship shaping abortion decisions. *Logistical* barriers became more operational, focusing on travel and restrictive-state constraints as well as decision uncertainty under time pressure. *Medical* discourse centered on bleeding duration and physical distress, while informational challenges emphasized accessing medical services, misoprostol usage confusion, and customs-related delays. *Emotional & Psychological* narratives largely condensed into emotional overload during uncertainty and decision fatigue, and *Social & Interpersonal* barriers emphasized partner dynamics and privacy/secretcy concerns. By Phase 3, the post-Dobbs environment appears to further intensify execution and monitoring concerns tied to self-managed access pathways. Discourse related to *Legal* barriers emphasized legal risk anxiety, cross-region pill access, and legality/week limits. *Financial* barriers shifted toward general financial stress, access inequality, and support needs. *Logistical* discourse was dominated by shipping/tracking issues and resource seeking in restrictive settings. *Medical* discourse be-

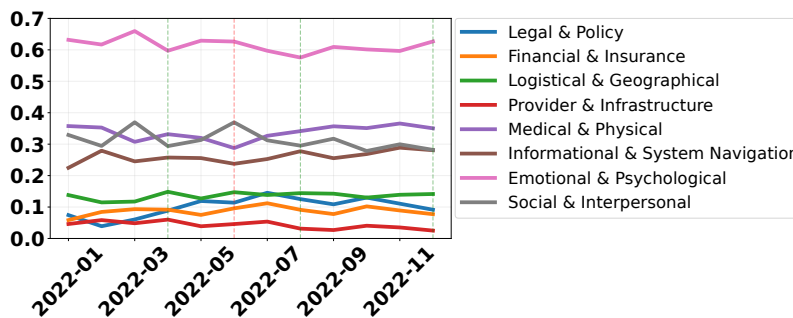
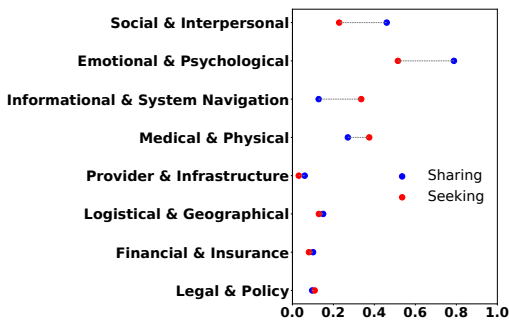
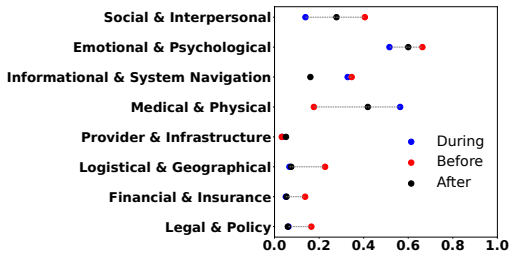


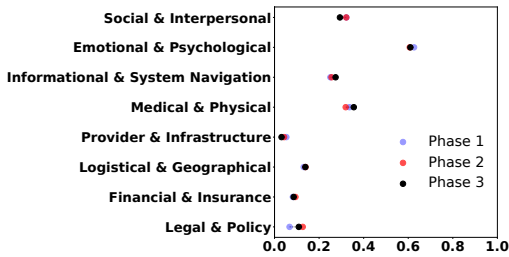
Figure 3: Temporal Changes in Different Types of Abortion Barriers



(a) Barriers in two information types



(b) Barriers in different abortion stages

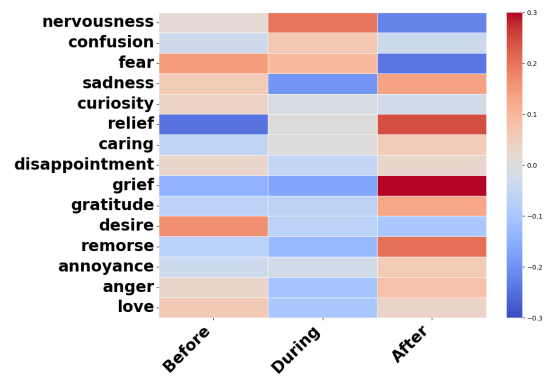


(c) Barriers in different phases of Dobbs

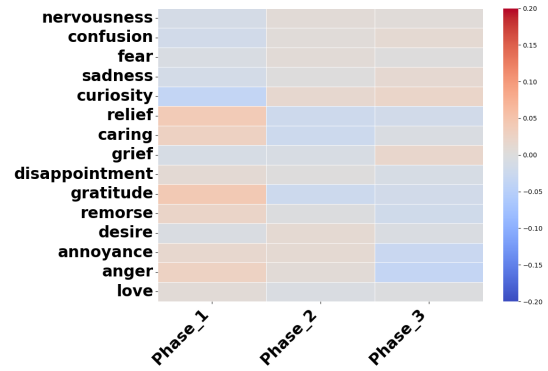
Figure 4: Barriers across (a) information types, (b) stages of abortion, and (c) phases of Dobbs

came more detailed, highlighting bleeding/clot duration, and side effects or infection concerns. Informational confusion similarly became more granular, focusing on detailed timing questions, symptom monitoring, and verification or follow-up care. Emotionally, decision conflict and distress remained prominent, while social themes emphasized support, disclosure strategies, and managing conversations under work and privacy constraints.

Barriers Across Info Types. Across barrier types, distinct differences emerged between information types as shown in Table 10 in the Appendix. *Legal* barriers illustrate this contrast, where people more distinctly seek guidance on legality, restrictions, timing, and access to abortion pills, highlighting confusion about laws and procedures. Similarly, *Financial* barriers showed that information-seeking was more specifically tailored, while sharing themes were more generic. The divergence was most pronounced in *Medical & Physical* barriers. Seeking conversations were expansive, covering a wide range of anxieties from side effects, and cramping to infection concerns and prolonged bleeding—indicating a demand for reassurance and medical clarity. Shared dis-



(a) Emotions in Different Abortion Stages



(b) Emotions in Different Dobbs Phases

Figure 5: Emotions statistically stronger in: (a) Stages of abortion, (b) Phases of Dobbs

ussions, on the other hand, contained broader narratives of emotional experiences, effectiveness concerns, and physical symptoms, often framed in personal reflection rather than detailed inquiries. *Informational* barrier narratives followed this pattern as well, with seekers focusing on uncertainty around instructions, services, and medication use, while sharers focused on generic medication experiences. *Emotional & Psychological* barriers also highlighted that seekers emphasized isolation, regret, fear, and uncertainty, whereas sharers more often disclosed lingering emotional impacts such as coping with depression, shame, or guilt. Finally, in social domains, seekers voiced concerns about a lack of support and partner influence, while sharing reflected lived struggles with stigma and inadequate partner support.

Discussion

Our study demonstrates how Reddit functions as a reproductive health infrastructure in the wake of the Dobbs decision, where individuals not only debate abortion as a public issue, but also navigate barriers of abortion as a lived and time-sensitive experience through information exchange and emotional expression. By operationalizing abortion discourse through three intersecting dimensions: *information behaviors*, *stages of abortion*, and *phases of Dobbs decision*, we provide a multi-dimensional account of how barriers to abortion care and its underlying emotions shape the narratives of abortion at scale. Our framework extends prior

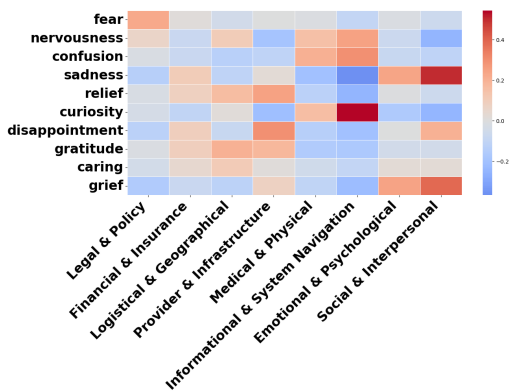


Figure 6: Emotions expressed with different barrier types

work showing that abortion-related online spaces combine informational needs and socio-emotional support (John and Martin 2024; Pleasants et al. 2024c; Valdez et al. 2024), by showing that these needs are not mentioned in isolation, but rather are interconnected and multi-faceted. Our work contributes (1) a large-scale computational analysis of abortion-related barriers and emotions following a major policy shock, (2) a methodological framework that jointly models information behavior, experiential stage, and political context, and (3) a conceptual insight that information behavior and abortion stage structure discourse more strongly than policy timing alone.

Reddit as a Dual Infrastructure. A key implication of our framework is that information seeking and information sharing function as distinct social infrastructures rather than mere stylistic variation. Rooted in information behavior scholarship (Poltrock et al. 2003; Savolainen 2005) and online health community research (De Choudhury and De 2014), this distinction clarifies what the platform does for abortion-related needs. Seeking posts play a significant role in actionable decision-making, especially through system navigation and *Medical & Physical* concerns, suggesting Reddit’s functionality as an informal coordination layer when formal health systems are difficult to access. This mirrors findings from harm-reduction and care-seeking research showing how people construct alternative pathways of support under conditions of institutional constraint (Gillespie 2018). Sharing posts, by contrast, primarily reflect *Emotional* and *Social* constraints, aligning with the platform’s role as a space for disclosure, coping, and peer validation, consistent with prior evidence that abortion forums provide both logistical advice and socio-emotional support (Wilson-Lowe et al. 2024; Pleasants et al. 2024a). Our statistical tests indicate that these behavioral differences are substantive: barrier prevalence and emotional expression vary most strongly across information behaviors. This contributes a computational complement to qualitative accounts of abortion support networks by demonstrating systematic differences between navigating structural uncertainty and processing emotional challenges. The prominence of information seeking *Before* abortion highlights the need for clearer, accessible, and safety-oriented guidance in online spaces,

particularly around system navigation and medical uncertainty (Pleasants et al. 2024a; John and Martin 2024). At the same time, the prevalence of information sharing *After* abortion underscores the importance of preserving supportive environments for disclosure, emotional processing, and peer validation (Kimport, Foster, and Weitz 2011). Platforms hosting abortion-related discussions may benefit from design interventions such as resource pinning, clearer pathways to verified medical information, and moderation strategies that balance harm reduction with privacy and anonymity in legally sensitive cases (Gillespie 2020).

Barriers and Emotions as Compounded Constraints. Across categories, the prominence and co-occurrence of *Emotional & Psychological* and *Social & Interpersonal* barriers underscore that abortion access is widely experienced and narrated as a compounded burden rather than a single challenge. While structural factors such as cost, travel, provider availability, and legal restrictions are well-established barriers to abortion access (Culwell and Hurwitz 2013; Doran and Nancarrow 2015; Higgins et al. 2021), our results indicate that Reddit narratives are dominated by affective and relational constraints, showing that abortion is often impacted by social circumstances and psychological distress (Norris et al. 2011; Hanschmidt et al. 2016). The co-occurrence patterns suggest that emotional burdens frequently appear alongside other barrier types, especially social barriers. This aligns with reproductive health research emphasizing that abortion-related distress and hardship are shaped by interacting constraints rather than isolated factors (Upadhyay et al. 2012; Finer and Zolna 2016).

Our analysis of emotions expressed in the abortion discourse highlights the prevalence of emotions that correspond to uncertainty (*confusion*, *nervousness*, *curiosity*) and vulnerability (*fear*, *sadness*), mirroring prior evidence that people seek abortion information to manage procedural and legal ambiguity (John and Martin 2024). The stage-based differences further support abortion as a temporal experience with shifting psychological demands (Jerman et al. 2017; Kimport, Foster, and Weitz 2011) where emotions track progression through the abortion journey, suggesting that Reddit serves as a continued coping space. Critically, the tight links between informational barriers and *curiosity*, and between social barriers and *sadness* and *grief*, illustrate how institutional complexity and relational challenges intersect with emotionally charged experiences.

Dobbs as an Amplifier of Discourse. The discourse volume increased around the Dobbs ruling and remains elevated afterward, consistent with prior work showing that major political events trigger spikes in online engagement and reframing (Chang et al. 2023; Venkata et al. 2024). However, when we examine the discourse using normalized distributions and chi-square tests, most barrier and emotion categories show marginal differences across phases, suggesting that the relative structure of reported barriers is broadly stable over time. Where phase-level differences do appear, they are concentrated in a small subset of barrier types, e.g., *Legal & Policy*, *Provider & Infrastructure*, and *Social & Interpersonal*, and these effects are modest in magnitude compared to the much stronger differences observed across informa-

tion behaviors and abortion stages. These findings suggest that the Dobbs decision coincided with increased Reddit engagement but only limited shifts in the structure of abortion narratives, with dominant patterns in barriers and emotions shaped more strongly by information behavior and abortion stage than by policy timing alone. At the same time, the limited phase-level differences suggest that while discussion volume increased following the policy change, the underlying types of barriers people face remained largely unchanged. This could indicate that core challenges persist regardless of shifts in the legal landscape. Further analysis is needed to interpret phase effects as well as the long-term impacts of these policy changes on personal barriers faced by abortion seekers. Our results reinforce the finding that barriers and emotions are shaped more by the experiential stage and information behavior than by policy timing alone.

Limitations

Our work has several limitations: First, our classification of Reddit posts into abortion stages, barriers, and emotions relies in part on large language models. Although we validated model outputs against human-annotated data and conducted reliability checks, misclassification and model bias remain possible and may affect the precision of some results. Second, Reddit is not representative of all abortion discourse. The data analyzed here reflects English-speaking, publicly articulated user-selected experiences shaped by the norms and affordances of the platform. As a result, our findings characterize patterns in online abortion discourse rather than the prevalence or distribution of experiences in the broader population, and should be understood as complementary to clinical, survey-based, and qualitative research. Third, our dataset covers a one-year window surrounding the Dobbs decision. While this period captures immediate and short-term responses, the longer-term social, legal, and emotional consequences of such policy changes may continue to evolve beyond the time frame studied here. Finally, statistical analysis relied primarily on chi-square tests, which capture pairwise associations but do not account for higher-order interactions across variables; modeling such interactions was beyond the scope of this study. Additionally, the interpretation of results emphasizes statistical significance, and the absence of effect size measures limits the ability to assess the magnitude of observed relationships.

Conclusion

Our analysis of more than 17K abortion-related Reddit posts shows that while information seeking often reflects on informational barriers and associated feelings like curiosity, confusion, and fear, information sharing highly emphasizes emotional and social barriers, and feelings of sadness, relief, and disappointment. Our barrier framework demonstrates how legal, financial, logistical, and medical obstacles are deeply entangled with emotional and social burdens such as stigma, secrecy, and lack of support. While *nervousness* is the most prevalent emotion overall, *Social* conflicts are highly linked to *sadness*, and *Informational* barriers are tied to *curiosity*. The findings of topic modeling indicate the

multi-layered, complex nature of abortion across two information types and three phases of Dobbs. However, emotions and barriers are evenly distributed between these phases.

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Paper Checklist

1. For most authors...
 - (a) Would answering this research question advance science without violating social contracts, such as violating privacy norms, perpetuating unfair profiling, exacerbating the socio-economic divide, or implying disrespect to societies or cultures? **Yes, our contributions are laid out in Introduction section**
 - (b) Do your main claims in the abstract and introduction accurately reflect the paper's contributions and scope? **Yes- Added in the Discussion section**
 - (c) Do you clarify how the proposed methodological approach is appropriate for the claims made? **Yes- Added in the Discussion section**
 - (d) Do you clarify what are possible artifacts in the data used, given population-specific distributions? **NA**
 - (e) Did you describe the limitations of your work? **Yes- in the Limitation section**
 - (f) Did you discuss any potential negative societal impacts of your work? **NA- no potential negative impact**
 - (g) Did you discuss any potential misuse of your work? **NA- no potential misuse**
 - (h) Did you describe steps taken to prevent or mitigate potential negative outcomes of the research, such as data and model documentation, data anonymization, responsible release, access control, and the reproducibility of findings? **Yes- data is anonymized, and will be shared later**
 - (i) Have you read the ethics review guidelines and ensured that your paper conforms to them? **Yes**
2. Additionally, if your study involves hypotheses testing...
 - (a) Did you clearly state the assumptions underlying all theoretical results? **NA**
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 - (c) Did you discuss competing hypotheses or theories that might challenge or complement your theoretical results? **NA**
 - (d) Have you considered alternative mechanisms or explanations that might account for the same outcomes observed in your study? **NA**
 - (e) Did you address potential biases or limitations in your theoretical framework? **NA**
 - (f) Have you related your theoretical results to the existing literature in social science? **NA**
 - (g) Did you discuss the implications of your theoretical results for policy, practice, or further research in the social science domain? **NA**
3. Additionally, if you are including theoretical proofs...
 - (a) Did you state the full set of assumptions of all theoretical results? **NA**
 - (b) Did you include complete proofs of all theoretical results? **NA**
4. Additionally, if you ran machine learning experiments...
 - (a) Did you include the code, data, and instructions needed to reproduce the main experimental results (either in the supplemental material or as a URL)? **No, they will be added to the final version**
 - (b) Did you specify all the training details (e.g., data splits, hyperparameters, how they were chosen)? **Yes- in the Method section**
 - (c) Did you report error bars (e.g., with respect to the random seed after running experiments multiple times)? **NA**
 - (d) Did you include the total amount of compute and the type of resources used (e.g., type of GPUs, internal cluster, or cloud provider)? **NA- we did not use GPUs or cloud**
 - (e) Do you justify how the proposed evaluation is sufficient and appropriate to the claims made? **Yes- in the Discussion section**
 - (f) Do you discuss what is “the cost“ of misclassification and fault (in)tolerance? **Yes- we mentioned misclassification impacts our results in the Limitation section**
5. Additionally, if you are using existing assets (e.g., code, data, models) or curating/releasing new assets, **without compromising anonymity...**
 - (a) If your work uses existing assets, did you cite the creators? **Yes- in the Method Section**
 - (b) Did you mention the license of the assets? **Yes- we cited the tools**
 - (c) Did you include any new assets in the supplemental material or as a URL? **No**
 - (d) Did you discuss whether and how consent was obtained from people whose data you're using/curating? **NA- our data is anonymized**
 - (e) Did you discuss whether the data you are using/curating contains personally identifiable information or offensive content? **NA- our data is anonymized**
 - (f) If you are curating or releasing new datasets, did you discuss how you intend to make your datasets FAIR (see Wilkinson et al. (2016))? **No- the data will be shared later with proper documentation**
 - (g) If you are curating or releasing new datasets, did you create a Datasheet for the Dataset (see Gebru et al. (2021))? **No- we have reported some high-level characteristics of the dataset**
6. Additionally, if you used crowdsourcing or conducted research with human subjects, **without compromising anonymity...**
 - (a) Did you include the full text of instructions given to participants and screenshots? **NA**
 - (b) Did you describe any potential participant risks, with mentions of Institutional Review Board (IRB) approvals? **NA**
 - (c) Did you include the estimated hourly wage paid to participants and the total amount spent on participant compensation? **NA**
 - (d) Did you discuss how data is stored, shared, and de-identified? **NA**

Appendix

Co-occurring Barriers

Table 5 shows the most frequent pairs of barrier types that co-occur in the same posts. As we see, emotional & Psychological frequently comes alongside other barrier types, with its co-occurrence with Social & Interpersonal barrier in 25 percent of all posts. This confirms that barriers to reproductive care not only has structural, societal aspects, but it also affectively impacts individuals at the same time. We also notice that medical and informational barriers, and social and financial challenges come together in a number of posts, suggesting the multi-faceted nature of experiencing barriers to abortion.

Pair	Normalized No.
EP & SI	0.25
EP & MP	0.11
EP & IS	0.07
EP & LG	0.07
EP & FI	0.06
MP & IS	0.05
EP & LP	0.04
SI & FI	0.04
SI & LG	0.03
LP & LG	0.03

Table 5: Normalized frequency of barrier types that co-occur in posts. LP: Legal & Policy, FI: Financial & Insurance, LG: Logistical & Geographical, PI: Provider & Infrastructure, MP: Medical & Physical, IS: Informational & System Navigation, EP: Emotional & Psychological, SI: Social & Interpersonal

Validation of Emotion Analysis

To validate the credibility of Go Emotions in our dataset domain, we applied our Emotion Classification Prompt on a random sample of 500 texts from the training dataset in Go Emotions paper (Demszky et al. 2020) and compared LLM prediction using GPT-4o (same model applied to our abortion dataset) with ground-truth labels in this data that included 28 emotions. Our result showed that the LLM zero-shot classification achieved 0.62 accuracy, suggesting the overall adaptability and applicability of this framework for our study.

Most Frequent Emotions

Figure 7 shows the most frequent emotions expressed in the data predicted by GPT-4.1-mini based on Go Emotions framework. *Fear*, *Sadness*, *Confusion* and *Nervousness* are most prominent expressed emotions in our abortion dataset. Figure 8 shows emotions in information sharing vs. sharing posts.

Co-occurring Emotions

Figure 9 shows the heatmap of how frequently different pairs of emotions co-occur in a same posts. As we can see,

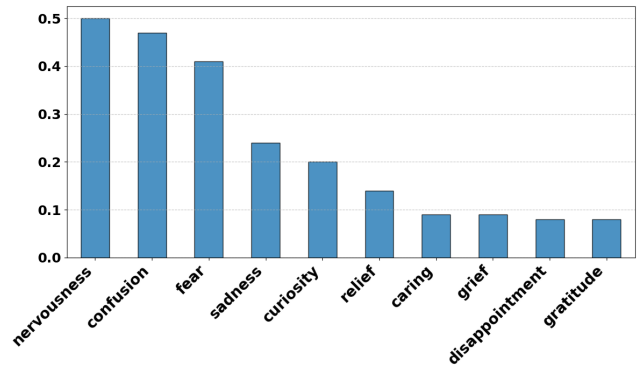


Figure 7: Most frequent emotions

Model	F1 Score
GPT-4.1	0.91
GPT-4.1-mini	0.87
GPT-5-mini	0.87
GPT-5-nano	0.81

Table 6: F1 scores for abortion stage classification across four LLMs evaluated on the same held-out labeled test set. Higher values indicate better agreement with human-annotated stage labels.

‘Fear’ appears frequently with ‘Nervousness’, ‘Confusion’ and ‘Sadness’, showing the strong association of various negative feelings in the context of abortion. Similarly, ‘Nervousness’ appears a lot with ‘Curiosity’ and ‘Confusion’, further confirming that restrictions and uncertainty in reproductive care affect vulnerable individuals seeking credible sources of information. It is insightful to see that ‘Relief’, an emotion mostly expressed after the abortion is co-occurring occasionally with other positive emotions such as ‘caring’ and ‘Gratitude’, hinting at a positive sentiment after the care is received.

LLM Prompts

We designed multiple zero-shot prompts to use LLMs for different classification tasks. For detecting the stage of abortion, we used (Prompt: Abortion Stage Classification). For identifying multiple emotions in text, we designed (Prompt: Abortion Stage Classification). Finally, in order to task the model with detecting appropriate barrier types in text based on our framework, we used (Prompt: Abortion Barrier Classification) below.

Group	Barrier	Statistic	p-value	Cramér's V	Significant
Information Type	Legal & Policy	0.82	$3.66e^{-1}$	0.010	No
Information Type	Financial & Insurance	14.33	$1.53e^{-4}$	0.041	Yes
Information Type	Logistical & Geographical	10.62	$1.12e^{-3}$	0.036	Yes
Information Type	Provider & Infrastructure	64.65	$8.95e^{-16}$	0.088	Yes
Information Type	Medical & Physical	92.81	$5.75e^{-22}$	0.105	Yes
Information Type	Informational & System Navigation	525.06	$3.35e^{-116}$	0.251	Yes
Information Type	Emotional & Psychological	635.58	$3.06e^{-140}$	0.276	Yes
Information Type	Social & Interpersonal	442.49	$3.11e^{-98}$	0.230	Yes
Abortion Stage	Legal & Policy	244.80	$6.94e^{-54}$	0.171	Yes
Abortion Stage	Financial & Insurance	168.83	$2.19e^{-37}$	0.142	Yes
Abortion Stage	Logistical & Geographical	390.52	$1.58e^{-85}$	0.216	Yes
Abortion Stage	Provider & Infrastructure	16.48	$2.63e^{-4}$	0.044	Yes
Abortion Stage	Medical & Physical	694.77	$1.36e^{-151}$	0.288	Yes
Abortion Stage	Informational & System Navigation	300.13	$6.71e^{-66}$	0.189	Yes
Abortion Stage	Emotional & Psychological	62.90	$2.20e^{-14}$	0.087	Yes
Abortion Stage	Social & Interpersonal	282.92	$3.68e^{-62}$	0.184	Yes
Phase	Legal & Policy	49.75	$1.57e^{-11}$	0.077	Yes
Phase	Financial & Insurance	4.05	$1.32e^{-1}$	0.022	No
Phase	Logistical & Geographical	0.40	$8.17e^{-1}$	0.007	No
Phase	Provider & Infrastructure	18.35	$1.04e^{-4}$	0.047	Yes
Phase	Medical & Physical	5.40	$6.70e^{-2}$	0.025	No
Phase	Informational & System Navigation	7.74	$2.08e^{-2}$	0.030	No
Phase	Emotional & Psychological	5.69	$5.80e^{-2}$	0.026	No
Phase	Social & Interpersonal	14.01	$9.05e^{-4}$	0.041	Yes

Table 7: Chi-square test results for barrier prevalence across information type, abortion stage, and Dobbs phase.

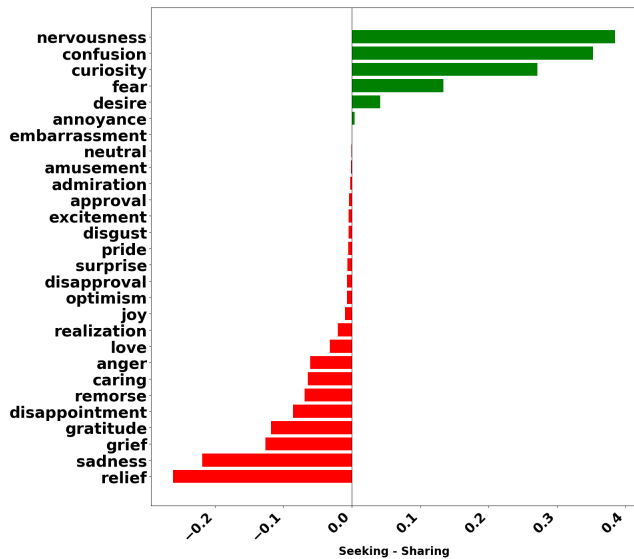


Figure 8: Emotion in Seeking vs. Sharing. Positive values indicate seeking is more frequent, negative values reflect more frequent sharing.

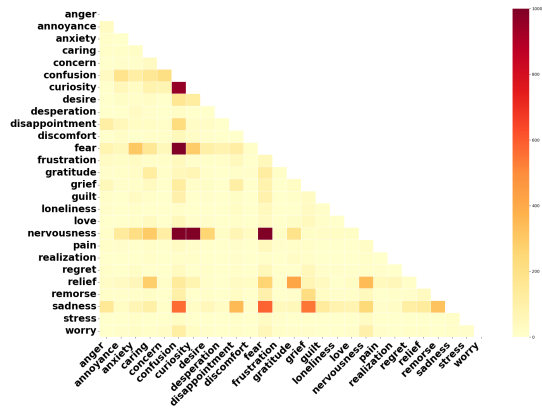


Figure 9: Most frequent pairs of emotions that co-occur

Group	Emotion	Statistic	p-value	Cramér's V	Significant
Information Type	nervousness	1136.68	$3.53e^{-249}$	0.368648	Yes
Information Type	confusion	958.01	$2.41e^{-210}$	0.338437	Yes
Information Type	fear	141.04	$1.58e^{-32}$	0.129854	Yes
Information Type	sadness	509.40	$8.57e^{-113}$	0.246787	Yes
Information Type	curiosity	873.89	$4.66e^{-192}$	0.323237	Yes
Information Type	relief	1075.57	$6.73e^{-236}$	0.358602	Yes
Information Type	caring	92.51	$6.71e^{-22}$	0.105167	Yes
Information Type	grief	360.19	$2.56e^{-80}$	0.207520	Yes
Information Type	disappointment	182.57	$1.33e^{-41}$	0.147743	Yes
Information Type	gratitude	370.93	$1.18e^{-82}$	0.210590	Yes
Abortion Stage	nervousness	452.43	$5.71e^{-99}$	0.232578	Yes
Abortion Stage	confusion	28.88	$5.34e^{-7}$	0.058765	Yes
Abortion Stage	fear	540.85	$3.60e^{-118}$	0.254291	Yes
Abortion Stage	sadness	101.72	$8.17e^{-23}$	0.110279	Yes
Abortion Stage	curiosity	8.62	$1.35e^{-2}$	0.032095	No
Abortion Stage	relief	502.19	$8.93e^{-110}$	0.245034	Yes
Abortion Stage	caring	25.91	$2.36e^{-6}$	0.055658	Yes
Abortion Stage	grief	413.49	$1.63e^{-90}$	0.222345	Yes
Abortion Stage	disappointment	5.68	$5.85e^{-2}$	0.026051	No
Abortion Stage	gratitude	76.61	$2.31e^{-17}$	0.095707	Yes
Phase	nervousness	2.58	$2.75e^{-1}$	0.017562	No
Phase	confusion	3.92	$1.41e^{-1}$	0.021645	No
Phase	fear	1.00	$6.07e^{-1}$	0.010921	No
Phase	sadness	2.16	$3.40e^{-1}$	0.016055	No
Phase	curiosity	7.27	$2.64e^{-2}$	0.029487	No
Phase	relief	6.17	$4.57e^{-2}$	0.027159	No
Phase	caring	3.57	$1.68e^{-1}$	0.020666	No
Phase	grief	2.02	$3.64e^{-1}$	0.015544	No
Phase	disappointment	0.39	$8.22e^{-1}$	0.006842	No
Phase	gratitude	6.74	$3.44e^{-2}$	0.028390	No

Table 8: Chi-square test results for the top 10 emotions across information type, abortion stage, and Dobbs phase.

Barrier Type	Phase	Topics
Legal & Policy	Phase 1	Early Pregnancy uncertainty- Informal/Underground Pill access- Appointment Constraints
	Phase 2	Pregnancy Discovery- State Restrictions- Navigating Aid resources
	Phase 3	Legal Risk Anxiety- Cross-Region Pill Access- Legality and Weeks Limits
Financial & Insurance	Phase 1	Cost Anxiety- Ordering Pills Online: Payment + Legitimacy- Financial barriers
	Phase 2	Financial Help-Online Ordering- Financial hardship decisions
	Phase 3	General Financial Stress- Access Inequality- Financial support
Logistical & Geographical	Phase 1	Clinic Scheduling- Abortion Timing + Work/Life Constraints- Shipping/Arrival Delays
	Phase 2	Travel, Resources, and State Constraints- Decision Uncertainty Under Time Pressur
	Phase 3	Shipping/Tracking- Resource Seeking for Restrictive States
Provider & Infrastructure	Phase 1	Planned Parenthood / Clinic Scheduling Bottlenecks- Confusion in provider interactions
	Phase 2	Provider Experience Narratives- provider access gaps
	Phase 3	Provider Communication as a Source of Confusion- Difficulty getting through the pipeline
Medical & Physical	Phase 1	MA Symptom Management- Testing Confusion After Abortion- SA vs. MA Experience
	Phase 2	Bleeding Duration- Physical Distress
	Phase 3	Bleeding + Clots + Duration- Pain, Cramps, and Symptoms- Side Effects and Infection Concerns
Informational & System Navigation	Phase 1	Navigating services- Medication effectiveness concerns- Post-abortion symptoms- Service access confusion- Abortion medication instructions- Medical decision anxiety
	Phase 2	Accessing medical services- Uncertainty and confusion- Misoprostol usage confusion- Service access confusion- Customs clearance delays
	Phase 3	Detailed timing question- Symptom Monitoring- Verification and Follow Up Care
Emotional & Psychological	Phase 1	Ambivalence and Moral Conflict About the Decision- Fear and Nervousness About Procedures- Anxiety and panic- Coping with guilt- Difficult personal decisions- Emotional isolation stigma
	Phase 2	Emotional Overload During Uncertainty- Decision Fatigue Under Time Pressure
	Phase 3	Decision Conflict- Emotional distress- Fear of pain
Social & Interpersonal	Phase 1	Disclosure Dilemmas: Parents, Partners, Friends- Relational Conflict- Isolation in Young/Dependent Contexts- Support Needs
	Phase 2	Partner Dynamics and Emotional Negotiation-Privacy and secrecy- validation and support
	Phase 3	Telling family/partners, managing conversations- work/privacy constraints

Table 9: Topics extracted for each Barrier in 3 Phases

Barrier Type	Info Type	Topics
Legal & Policy	Seeking	Abortion legality concerns- Abortion legal restrictions- Abortion access restrictions- Accessing abortion pills- Parental consent abortion- Abortion timing laws- Customs and legal anxiety
	Sharing	Abortion access barriers- Roe v. Wade
Financial & Insurance	Seeking	Abortion access barriers- Financial hardship abortion- Abortion cost barriers
	Sharing	Abortion access barriers
Logistical & Geographical	Seeking	Abortion access challenges- Delays accessing medication- Package customs delays- Abortion pill access- Abortion appointment delays
	Sharing	Abortion access challenges- Shipping delays concerns- Abortion pill access
Provider & Infrastructure	Seeking	Abortion care challenges- Abortion access trauma
	Sharing	Abortion access barriers- Abortion care experiences
Medical & Physical	Seeking	Medication abortion anxiety- Post-abortion bleeding- Nausea and vomiting- Medical anxiety concerns- Heavy menstrual bleeding- Abortion side effects- Severe post-abortion cramping- Nausea during procedures- Misoprostol effectiveness concerns- Infection concerns- Abortion timing concerns- Prolonged bleeding post-abortion- Health-related eligibility barriers- Misoprostol side effects- Persistent abdominal pain
	Sharing	Abortion emotional experiences- Medication effectiveness anxiety- Uterine health concerns- Abortion physical symptoms
Informational & System Navigation	Seeking	Abortion information uncertainty- Healthcare access confusion- Accessing Services - Medication instructions confusion- Pregnancy testing confusion-
	Sharing	Medication administration methods- Medication dosage confusion Abortion medication experiences
Emotional & Psychological	Seeking	Emotional challenges abortion- Surgical procedure anxiety- Overwhelming negative emotions- Isolation and Anxiety- Feeling Nervous Online- Regretful decision-making- Coping with Depression- Abortion decision conflict- Early pregnancy anxiety- Fear of complications- Anxiety and fear-
	Sharing	Emotional impact abortion- Emotional support challenges- Fear and anxiety- Guilt and anxiety Emotional aftermath of abortion- Coping with depression- Abortion anxiety experience- Emotional coping struggles- Shame and guilt- Abortion decision regret- Pregnancy anxiety
Social & Interpersonal	Seeking	Lack of partner support- Partner-influenced abortion decisions- Relationship struggles post-abortion- Abortion-related stigma- Lack of paternal support-
	Sharing	Relationship support struggles- Abortion stigma experiences- Abortion stigma emotions-

Table 10: Topics extracted for each barrier in 2 Information Types

Prompt: Emotion Classification

You are an expert emotion classification model. Your task is to read a given text and classify it into the most relevant emotions from the predefined list below.

You must follow these rules:

- Select up to 3 emotions (can be 1, 2, or 3) that best capture the emotional content of the text. If more than 3 emotions apply, pick those strongly implied.
- Always choose from the list provided.

The list of available emotions with their brief definitions:

0. admiration: Finding something worthy of respect
1. amusement: Finding something funny or being entertained
2. anger: A strong feeling of displeasure or antagonism
3. annoyance: Mild anger, irritation
4. approval: Having or expressing a favorable opinion
5. caring: Displaying kindness and concern for others
6. confusion: Lack of understanding, uncertainty
7. curiosity: A strong desire to know or learn something
8. desire: A strong feeling of wanting something or wishing for something to happen
9. disappointment: Sadness or displeasure caused by the non-fulfillment of one's hopes or expectations
10. disapproval: Having or expressing an unfavorable opinion
11. disgust: Revulsion or strong disapproval aroused by something unpleasant or offensive
12. embarrassment: Self-consciousness, shame, awkwardness
13. excitement: Feeling of great enthusiasm and eagerness
14. fear: Being afraid or worried
15. gratitude: A feeling of thankfulness and appreciation
16. grief: Intense sorrow e.g. caused by someone's death
17. joy: A feeling of pleasure and happiness
18. love: A strong positive emotion of regard and affection
19. nervousness: Apprehension, worry, anxiety
20. optimism: Hopefulness and confidence about the future or the success of something
21. pride: Pleasure or satisfaction due to one's own achievements or those of close associates
22. realization: Becoming aware of something
23. relief: Reassurance and relaxation following release from anxiety or distress
24. remorse: Regret or guilty feeling
25. sadness: Emotional pain, sorrow
26. surprise: Feeling astonished by something unexpected
27. neutral

Strictly follow this format:

[emotion1, emotion2, ...]

Prompt: Abortion Stage Classification

You are an expert at identifying and detecting whether the text is related to a narrative, experience, or a situation before or after abortion.

Read the following text and decide if it is related to a narrative, experience, or a situation before the abortion procedure is completed, or after it.

Use one of the following labels:

- **After:** If the narrative, experience, situation discussed in the text happens after the abortion is completed.
- **Before:** If the narrative, experience, situation discussed in the text happens before the abortion is completed.
- **During:** If the narrative, experience, situation discussed in the text happens right in the middle of, or during the abortion (e.g., taking the first pill but waiting for the next).
- **Not Sure:** If the stage of abortion cannot be confidently identified.
- **Irrelevant:** If the text is about ideological debates (e.g., pro-choice vs pro-life), unrelated topics, news stories, or third-person accounts of another person's abortion.

Use the following format for your response:

[Label]

Strictly follow this format. Do not include any additional text, commentary, or explanation.

Now read the following text and provide the output:

Prompt: Abortion Barrier Classification

You are an advanced annotation assistant trained to identify barriers to abortion access. Your task is to read a given text and classify it into one or more of barrier categories. Additionally, you should explain the reasoning or mention the part of the text that made you tag that barrier type(s).

Barrier Categories:

1. **Legal & Policy Barriers** → Restrictions from laws, regulations, or policies that limit abortion access. Includes: restrictive legislation, policies prohibiting abortions, prosecution or criminalization of abortion.
2. **Financial & Insurance Barriers** → Obstacles tied to the cost of abortion care and lack of financial support. Includes: high out-of-pocket costs, related expenses (travel, childcare, lost wages), lack of insurance coverage, not being able to afford the abortion process.
3. **Logistical & Geographical Barriers** → Practical obstacles that make it difficult to obtain abortion care. Includes: long travel distances, lack of transportation, geographical limitations to access to abortion, appointment delays, time-sensitive access problems.
4. **Provider & Infrastructure Barriers** → Barriers rooted in the healthcare system or provider behavior. Includes: unsupportive provider attitudes, lack of professional medical support, shortage of providers, limited clinic infrastructure.
5. **Medical & Physical Barriers** → Health-related concerns or conditions that interfere with abortion access. Includes: existing health conditions, fear of medical risks, disability or chronic illness making travel difficult, emergency health needs left unmet.
6. **Informational & System Navigation Barriers** → Barriers that stem from lack of knowledge or helpful resources e.g., lack of reproductive-related knowledge, difficulty understanding healthcare systems, unhelpful or unclear guidance from healthcare professionals
7. **Emotional & Psychological Barriers** → Internal affective challenges that hinder access. Includes: personal fear from abortion, anxiety, guilt, shame, distress about decision-making, mental health burdens like depression or trauma.
8. **Social & Interpersonal Barriers** → Barriers related to the societal, familial or community-based pressures. Includes: stigma, lack of partner/family support; need for secrecy; secrecy due to fear of judgment; relationship conflict; social isolation; cultural or religious norms against abortion.

Instructions:

- Identify barriers that are **explicitly described or strongly implied**.
- Select up to 3 categories. If none apply, use **NA**.
- Add **Other** if you detect a barrier outside the 8 types, with a brief explanation.
- Focus only on barriers to abortion in **personal narratives**, not hypothetical political/ideological debates.

Response Format:

Barriers: [Label 1, Label 2, ...]

Cues: [Cue 1, Cue 2, ...]

If no Barriers:

Barriers: [NA]

Cues: [NA]

Strictly follow this format. Do not include any additional text, commentary, or explanation.

Now read the following text and provide the output: