"Laughing so I don't cry": How TikTok users employ humor and compassion to connect around psychiatric hospitalization

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ABSTRACT

Today's youth face many mental health challenges and are increasingly represented in psychiatric hospitalizations. Scholars have sought to understand social media's role in mental health issues, but limited work has explored TikTok—the video-centric social media platform that is popular with youth—and people's connections around psychiatric hospitalization experiences. In this study, we used qualitative content analysis to examine a random sample of 140 TikTok posts related to psychiatric hospitalization. We found that members of this population frequently utilize humor to create and maintain a positive and supportive community with each other. We also describe how TikTok's design affords these interactions among community members, and conclude with a series of provocations for researchers and designers working at the intersections of social media and mental illness. We hope our study provides insights for how to further support rather than just censor youth in using creative outlets to connect with each other.

CCS CONCEPTS

• **Human-centered computing** → **Social media**; • **Applied computing** → *Health informatics*; • **Social and professional topics** → *People with disabilities.*

KEYWORDS

social media, TikTok, humor, mental health, mental illness

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1 INTRODUCTION

According to the World Health Organization in 2019, over 970 million people—1 of every 8 people—live with mental health disorders, such as depression, anxiety, eating disorders, etc. [91]. Since the COVID-19 epidemic those numbers have risen significantly, especially among youth. In particular, psychiatric hospitalizations and mental-health related emergency visits for youth under 18 in the U.S. have increased 24-31% [46, 54]. People with a variety of mental illnesses, diagnosed or not, can be recognized by healthcare and psychiatric systems as potential recipients of psychiatric hospitalization. These hospitalizations may be voluntary or involuntary, and may be a decision determined by an individual and their healthcare providers or one determined by others without the individual's consent. Psychiatric hospitalization can be a significant and often traumatic event [20], but little research has focused on its representation in social media in general or specifically on TikTok, where youth aged 10-19 are the largest user demographic, comprising 25% of TikTok's active users in the U.S. [81].

TikTok is a video-based social media platform that was launched in 2019 by ByteDance. It is a globally popular app with over 1 billion users, largely youth and people under 30 [81]. Unlike other social media platforms like Facebook, Instagram, or Twitter, a TikTok user's primary feed (the "For You Page" or FYP) does not solely or even primarily consist of posts created or shared by users they follow, but instead shows the user posts that that TikTok's algorithm predicts the user would be interested in, based on the user's prior behavior (e.g., finishing a video, liking or commenting, etc.). Instead of requiring the user to search for creators or hashtags relevant to the user's interests, although they are able to do that as well, the For You Page can lead a user into communities by continuing to show them posts they like. These communities are often referred to as [interest]-tok, e.g., "booktok" for users and creators interested in book recommendations and reviews. However, these are not explicit and clearly bounded online communities as HCI or CSCW researchers would define them, but rather are implicit and amorphous "support networks" which may or may not involve supporting harmful behaviors [72]. These networks are largely formed around particular hashtags and viewing patterns, rather than explicitly named communities that can be joined. We need to

improve our understanding of how such loose support networks like TikTok are used when people, particularly vulnerable youth, connect around serious mental health topics, such as psychiatric hospitalization. For the purposes of this paper, we will use the term "community" in its colloquial sense, as that is the word many posters and commenters used to describe these TikTok networks.

Humor has long been thought to boost people's mental health. Borcherdt [9] documents fifteen specific avenues that humor can contribute to people's mental well-being, including "unconditionally accept yourself", "develop a decent respect for human limitations", and "the ability to live with uncertainty." Humor also assumes a social function that helps people in communities gain acceptance, status, and promotes group cohesiveness [93]. Social networks employ a large amount of humorous content generated by users currently, and research shows online communities use humor to deal with health-related struggles [43, 45, 51]. Humorous content is also common on TikTok; creators often use humor to express themselves and attract followers. Because of this prevalence as a form of communication and its potential for connecting people, understanding how different online support networks or communities use humor is an important yet understudied area. We seek to explore this gap through our study of the use of humor in TikTok for people who are connecting around psychiatric hospitalization . Social media outlets such as TikTok have the potential to connect people who would otherwise be physically or socially isolated. Although many fear the potential negative effects of social media, we also need to explore its potential positive effects. We seek to understand all these effects by first studying TikTok posts and comments regarding the serious mental health topic of psychiatric hospitalization.

In this study, we ask the following research questions about the community of TikTok users who connect around psychiatric hospitalization:

- How do TikTok creators and commenters connect around psychiatric hospitalization?
- How do TikTok creators express their thoughts, feelings, and experiences through humorous rhetorical devices supported by TikTok's unique features?

2 RELATED WORK

In this section, we first discuss prior work in health-related fields on patient experiences of psychiatric hospitalization. We then briefly highlight the history of research into the intersections of health and social media, and give an overview of the current state of research on expressions of mental health and illness on social media generally, and on TikTok specifically. Finally, we provide context and an analysis of the rhetoric of humor, which we use as a framework for our analysis.

2.1 Experiences of Psychiatric Hospitalization

Psychiatric hospitalization, also referred to as psychiatric inpatient care, is acute psychiatric care in which the patient resides in a psychiatric ward or hospital to undergo treatment. Unlike other types of inpatient admittance, a patient can be admitted into psychiatric hospitalization involuntarily as well as voluntarily, and admittance can be based on referral from the patient's personal psychiatrist, therapist, or law enforcement. Hospitalization is a significant and often traumatic event for the patient [20], and many people are hospitalized multiple times over the course of their lives. While the process of deinstitutionalization has increased outpatient and community care, the psychiatric ward has remained as a common solution for acute crises—or, less generously, as a place to send away and contain people who cannot be managed through these other psychiatric services [55].

Following the ongoing movement in healthcare towards patient-centered care [48], researchers in health fields, such as psychology, psychiatry, and health services, have conducted studies of patient experiences with psychiatric hospitalization with both current [86] and former patients [85, 87], often focusing on the patients' feelings of safety in the psychiatric ward [5, 50, 92]. Other scholars have described their own experiences as psychiatric patients or survivors through autoethnography [12, 30, 36, 37].

2.2 Health and Social Media

Researchers have extensively studied online health communities (OHCs) and people sharing health experiences on social media [49, 61]. Prior research has included online communities of people with breast cancer [44, 77], HIV/AIDS [63, 64], irritable bowel syndrome [22], and ALS [58], among others, finding that OHCs empowered patients and provided social support in addition to information. Researchers recommended that clinicians discuss OHCs with patients as a form of rehabilitation.

Past research has investigated the characteristics and extent of the empowerment people can receive from OHCs. Mo et al. [64], for instance, found that "lurking" in an online support group may be just as empowering as being a more active poster in the group, which suggests that the content on its own can be beneficial, not just the act of participation. Van Uden-Kraan et al. [88] investigated disempowerment as well as empowerment in online support groups for people with breast cancer, arthritis, or fibromyalgia, and found that while some disempowering processes included being unsure about information quality and being confronted with negativity and "complainers," these happened far less frequently than empowering processes, which included amusement, finding emotional support and understanding, and helping others.

Others examined the nature of individuals sharing health experiences on social media. Liu et al. [57] studied video-based social media in this space by examining interactions between chronic illness vloggers and their viewers, finding that unlike in closed OHCs, vlogging did not promote sustained connections with viewers, and left vloggers open to harsh comments from outsiders. They recommended designs to support vlogger-viewer connections. Additionally, as early work in video-based social media in this space, they noted affordances video provided that text could not, like building rapport with viewers through nonverbal cues and capturing "in-the-moment" scenes of the vlogger's life, which is applicable to our analysis of TikTok posts.

Much of this work has highlighted the positive effects of these experiences. Yet, in the mental health arena, many researchers have identified negative effects of social media. In the following sections, we highlight the research on mental health in social media

in general as well as mental health in TikTok specifically; then we close with related ethical considerations for social media research.

2.2.1 Mental Health and Illness in Social Media. Much of the scholarship on mental illness and social media in health-related fields has focused on understanding the relationship between social media use and suicide or self-harm risk, primarily in adolescents and young adults. Multiple systematic reviews in this space have had mixed results, finding some association among certain variables but no causal relationship [60, 65, 74].

Scholars' work in HCI and CSCW on the intersections of mental health/illness and social media has included exploring content moderation subversion [19, 33, 84] and detecting mental illness with machine learning [3, 16, 17, 25, 27]. Some research has explored the design of social media systems and how they can fuel negative effects, particularly in the pro-eating-disorder (pro-ED) or self-harm online communities [16–19, 24, 70–72, 84]. Other research, more closely aligned with scholarship on online health communities, characterizes the ways people with mental illness use social media [28, 29, 32] and investigates the social support and other benefits people with mental illness can get from social media [1, 3, 7, 26]. Although Ernala et al. [28, 29] studied individuals' recovery and social reintegration on social media after experiencing psychiatric hospitalization, little research has examined psychiatric hospitalization as characterised in social media, which is the focus of our research.

2.2.2 Mental Health in TikTok. Recent research on expressions of mental health and illness on TikTok has primarily come from healthcare-related fields. Clinicians are concerned about youth on TikTok "performing sickness" and self-diagnosing [41], as well as negative representations of mental health services, specifically the U.K.'s NHS Children and Adolescent Mental Health Services (CAMHS) [14]. Scholars note a need for more professional public health content [62] or online intervention by healthcare professionals [4]. Other research has found that, like OHCs, people with mental illnesses can be empowered by sharing experiences and destigmatizing mental health discourses [38, 42].

2.2.3 Ethical Considerations in Social Media Research. Recent scholarship has begun to describe the ethical tensions inherent in studying mental illness and social media, as part of a greater conversation in HCI about studying marginalized populations online. Fiesler et al. [34] investigated the ethical and legal implications of violating a platforms' Terms of Service in the process of data collection, and proposed that ethical decision-making of data collection methods should look further than Terms of Service and include contextual factors such as research purpose and the nature of the collected data. Pater et al. [69] discussed the limitations of relying on institutional review boards for ethical decision-making, using design fiction to prompt questions and reflections for the research community to consider ethical concerns in HCI research that is deemed "not human subjects research."

In a systematic review of research studying data from Reddit, Proferes et al. [75] suggest that researchers should consider the risks to subjects when including usernames and direct quotations in published work, especially if the data could be considered sensitive. They noted that maintaining the anonymity of subjects is more difficult with smaller communities. Additionally, Ayers et al.'s [2] review of 2015-2016 PubMed articles using Twitter as a data source found that 72% quoted at least one tweet, and searching for the quoted tweet identified a participant 84% of the time. They noted that this does not violate Twitter's data sharing policy, but does violate the ethics standards set by the International Committee of Medical Journal Editors.

Chancellor et al. [15] identified areas of tension in research predicting mental health states in individuals based on their social media behavior. Feuston and Piper [31] challenged research practices that further other and sensationalize expressions of mental illness by using the "coded gaze," which assumes that experiences of mental illness can be inferred and classified, and can be categorized objectively. Instead, they argued for methodological approaches that emphasize individual, lived experience and alternative interpretations.

Similarly, Pendse et al. [73] analyzed the colonial construction of mental illness, and how the concept of "digital mental health" reinforces colonial logics and power inequities. They outline a decolonial approach to digital mental health for designers: "to center the lived experience of the potential users of their technologies, to center the power relationships that may underlie the use of their technologies, and to center the structural factors that may broadly influence wellbeing."

2.3 Rhetoric of Humor

In this section, we first focus on types of humor and their mechanisms, particularly in the audiovisual context. Then we describe how using humor can influence people's mental health. Finally, we discuss the prevalence of humorous content on the Internet and social media.

2.3.1 Typologies of Humor. Categorizing humor techniques or mechanisms is difficult since humor is incredibly complex, subjective, and dependant on an individual's cultural background and personal taste [6]. Humor typologies created by different researchers vary because of diverse research purposes and motivations. Humorous content may include more than one type of humor, and researchers argue it is the combination of multiple humor types that generates humor [6, 11, 52].

When analyzing verbal jokes, Berger [6] generated a typology of humor that includes four basic categories: language, logic, identity, and action, and identified 45 mutually-exclusive humor techniques (e.g., absurdity, exaggeration, and repetition). Drawing on Berger's typology, Buijzen and Valkenburg [11] identified 41 humor techniques used explicitly in audiovisual media (television commercials). The authors subsequently clustered humor into 7 categories: slapstick, clownish humor, surprise, misunderstanding, irony, satire, and parody. Juckel et al. [52] developed a typology of humor for sitcoms that included four categories (adopted from Berger [6]), and 22 techniques. Since the data used to generate these typologies are primarily from traditional media (e.g. verbal narratives, TV commercials, TV shows) and our research focuses on social media, those humor categories are not entirely applicable to our dataset. Nonetheless, we examined and considered each typology before determining codes for the types of humor in our study.

2.3.2 Humor and Mental Health. Humor has long been regarded as a way to improve people's mental health and well-being. Humor can lift people's mood or provide relief to daily boredom and miseries. Research shows humor has a wide range of effects on perceptions, attitudes, judgments, and emotions, which may benefit people's physical and psychological health [59]. One study found that humor as a response (e.g., laughter) can reduce existing mental problems, and that a sense of humor can moderate the perceived intensity of difficult life experiences [39]. However, other research shows that self-defeating humor is negatively correlated with mental health[79]. Increasingly individual and group psychotherapy uses humor in treating patients with serious mental illness in a clinical setting. However, empirical studies regarding the potential therapeutic use of humor are limited, especially with regard to serious mental health illnesses [40, 59].

2.3.3 Humor in Social Media. Online humor is prevalent in digital platforms focusing on capturing people's attention and time [82]. Social media is filled with humorous content in the form of text, audio, photos, memes, audiovisual media, etc. Currently, the Internet has become a major way of distributing humorous content, especially through user-generated content on social network platforms. Internet humor often features irony, incongruity, and superiority (i.e., making the audience feel superior) [90].

Humorous content is extremely popular on TikTok; when analyzing 1000 video posts on TikTok, Shutsko found that the highest number of videos (32.4%) belonged to the "Comedy & Joke" category, and noted that "having fun" is one of the most common motivations for using TikTok [83]. Similarly, a previous study shows that people post humorous content on TikTok regarding mental health issues. When analyzing TikTok posts associated with eating disorders, Herrick et al. [42] found that 24% of posts use **gallows humor**, which Dictionary.com defines as "humor that treats serious, frightening, or painful subject matter in a light or satirical way." Instead of being just seen as humorous, gallows humor is also a powerful coping mechanism [76], and is often perceived as a cry for help [23]. Herrick et al. argue that this type of humor is intended to create and maintain a group and an in-group status in an eating disorder community [42].

Building on this foundation, we strive to understand how TikTok users connecting around psychiatric hospitalization employ humor in their posts, and how humor, especially gallows humor, influence their way of connecting and sharing within the community.

3 METHODS

3.1 Data Collection

To find the popular hashtags and keywords used in TikTok's mental illness network related to psychiatric hospitalization, the first author searched for straightforward terms such as "psych ward" and looked for frequently-occurring hashtags used in those posts to identify new search terms, and continued this until no new terms were being discovered. This list included 12 hashtags that were specifically about psychiatric hospitalization, while others that frequently occurred could also be used in posts not specific to psychiatric hospitalization (e.g., other hospital inpatient experiences or other mental-health related experiences). Because certain hashtags (including "#psychward" itself) are blocked from direct searches on TikTok, we will not provide the exact hashtags we discovered, as several of them utilize in-group euphemisms to avoid censorship.

Due to the unavailability of an official TikTok API, the first author used a third-party script to collect posts containing the hashtags specific to psychiatric hospitalization, as well as those not-specific but which were most frequently co-occurring with the specific ones (e.g., "#mentalhealthmatters"). The data gathered for each post included the post's unique ID, URL, caption text, creation timestamp, author's username, number of likes, number of comments, and the name of the audio used. From this corpus of 5031 posts, the first author created a dataset of 2475 posts using these hashtags that were created between December 1, 2021 and May 30, 2022.

3.2 Ethical Considerations and Researchers' Positionality

We acknowledge that this first phase of our study is an analysis of public content on TikTok without interacting with creators and commenters. Thus, our results are a reflection of how *we* as researchers—some members of this community, some not—interpret these posts. All authors of this paper have at least one close connection to someone who has been hospitalized in a psychiatric unit, and we have discussed their experiences with them. Thus, we all had some background knowledge of the topic before embarking on this study and could relate what we have heard to what we observed on TikTok. All authors also have direct experience in receiving mental health care. One author is a LGBTQ+ youth who uses TikTok. In addition, the last author of this paper has done extensive research on the benefits of various online health communities, which likely led her to noticing the positive effects of this informal community as well. She also has prior research on peer support for mental health.

The TikTok posts we analyzed are public, and we received institutional review board (IRB) approval from our institution. Yet, as others have argued [2, 34, 69, 75], we should protect the privacy of people within the community. Thus, we chose not to disclose all the hashtags we used to identify our dataset because it risks exposing the people in this community and risks censorship from TikTok.

Unlike results from analyses of textual data that include quotes to justify themes, textual quotes would be insufficient to describe the complexities of multimedia TikTok posts. Although pointing to the TikTok posts would help to justify the link to our themes, we do not want to call attention to the posts, particularly when the post authors have not provided consent to share their posts in this way. Instead, we describe what we saw, read, and heard in the posts and how that connects to our themes.

3.3 Analysis

Each of the four coders reviewed 10 out of 40 random posts pulled from the datset of 2475 posts to develop codes. We filtered out posts which were not in English or not about psychiatric hospitalization (e.g. non-psychiatric inpatient care) or related mental illnesses and behaviors (e.g. eating disorders). We discussed these posts as a group and noted common themes found and similarities in our codes. Next, we pulled 100 random posts from the dataset of 2475

posts, which all four coders reviewed individually, and regrouped to discuss the themes together, generating and revising codes to include types of humor, "mechanisms" used on TikTok such as lip-syncing or dancing to convey meanings, and the perceived purpose or motivation behind each post. Finally, we reviewed all 140 of the posts by deductively coding for the themes we decided to focus on. We found that we reached data saturation after analyzing these 140 posts; other qualitative analyses of TikTok have used 28-150 posts [4, 14, 38, 42, 62].

4 RESULTS

In this section, we describe how TikTok creators and commenters connect around psychiatric hospitalization as well as express their thoughts, feelings, and experiences through humorous rhetorical devices supported by TikTok's unique features as a platform. First, we describe our dataset, including what the demographics are for TikTok in general and what we observed in our dataset as well as what data we filtered from the initial sample based on relevancy, access, and our humor assessments. Next, we characterize the humor in these posts, the perceived motivation of the creators of the posts, and the support we identified in the comments on the posts,

4.1 Dataset

According to [81], as of September 2021 the demographics of TikTok in the U.S. (global statistics did not capture users under 18) are as follows: 25% of users are ages 10-19, 22.4% are 20-29, 21.7% are 30-39, 20.3% are 40-49, and 11% are 50 years or older. As of August 2021, according to Statista [13], the global distribution of TikTok creators skews very young: 18-24 year olds comprise 52.83% of creators, with the next largest group being 13-17 year olds as 18.67% of creators, then 25-34 years at 15.03%, 13 and under at 8.7%, and people 35 and older making up only 4.76% of all creators. As we only observed the posts instead of interacting with the creators and commenters, our demographic knowledge of the creators and commentors in our dataset is limited. Some creators included demographic information (e.g., age, gender, nationality) in their account bios, but this was not consistent or widespread enough to make any significant conclusions. Nearly all creators appeared to be under 30 years old, with many appearing to be under 20 years old. Based on further hashtags used, such as #lgbt and #trans, and information disclosed in account bios, many creators also appeared to come from the LGBTQ+ community. Based on these hashtags and account bios we found that 23 of the 101 creators explicitly disclosed LGBTQ+ identity.

Of the 140 posts the coders reviewed, we removed 28 from the dataset: one post was a duplicate, 3 were not in English, 9 were deemed irrelevant, and 15 were unavailable (either from deletion or because the creator's account was private). Irrelevant posts contained the relevant hashtags, however the content was not connected to psychiatric hospitalization (for example, one of the irrelevant posts found was a humorous cat video). After this processing, 112 posts remained in our dataset. For each of these posts, we coded whether we believed them to be humorous, the post's type of humor, TikTok-specific mechanisms used to express that humor, the perceived motivation for posting, and the types of connections formed in the comments section. One post became unavailable midway through the coding process, so its comments were not included in analysis.

4.2 Humor

In assessing the 112 remaining posts, we determined which posts were humorous, what type of humor they used, and what TikTok mechanisms they used to express humor. Determining whether a post is humorous was challenging, partially because the brief videos in TikTok can be difficult to interpret but also because humor depends so much on contextual factors including the culture and experiences of the person viewing it. TikTok videos employ various mechanisms such as music, in-video captions, sound effect, dance, role play, etc., which add ambiguity to what the creators want to say. The coders' different life experiences, and thus different interpretations of these TikTok mechanisms, result in occasional divergence on whether some posts are humorous or not. Thus, in assessing humor, we found points of contention. The four coders agreed that 51.79% (58) of the posts were humorous, and 36.61% (41) were not, but we were divided on the remaining 11.61% (13). Of these 13 contested posts, 8 were coded as humorous by three of the coders, 1 was coded as humorous by two coders, and 4 were coded as humorous by just one coder. After discussion, we left these 13 posts as contested; without talking to the post's creator, we cannot know whether a post was meant to be humorous.

We coded the type of humor expressed in each humorous post using Buijzen and Valkenburg's [11] categorizations. Each post could be tagged with multiple types of humor. We found that the most frequent code used was *satire* (32 posts), and the next most frequent codes were *surprise* (14), *peculiar face* (12), *exaggeration* (11), and *eccentricity* (10). Separately, we assessed whether each humorous post utilized gallows humor–a meta category that portrays very serious and often dark content in a humorous way–and found that 37 of the 58 humorous posts used a form of gallows humor, as well as 2 of the 13 contested posts. See Figure 1 for results, excluding codes used on less than 4 posts.

We compiled a list of TikTok mechanisms that creators used to express humor. We noted that most posts used in-video captions (49 humorous, 11 contested), which is text overlaid onto the video itself. The other most popular mechanisms were "performing role play or sketches" (26 humorous, 3 contested), and "lip-syncing to music or another audio" (28 humorous, 5 contested). Additionally, 14 (13 humorous, 1 contested) posts used a form of cinematography to express humor; for example, utilizing multiple camera angles or humorous camera movement throughout the video. Twelve (9 humorous, 3 contested) posts also had humorous post descriptions. While the use of video filters and dancing seem to be popular across TikTok, only 3 humorous posts used filters and 5 posts (3 humorous, 2 contested) included dance. Further details of these results are shown in Figure 2.

4.3 Perceived Motivation

For all 112 posts remaining in the dataset, we coded what we perceived the creator's motivation to be for posting the video. Posts could be given one or two codes. The 13 possible codes were "sharing their experience," "making fun of (psych) ward life," "community

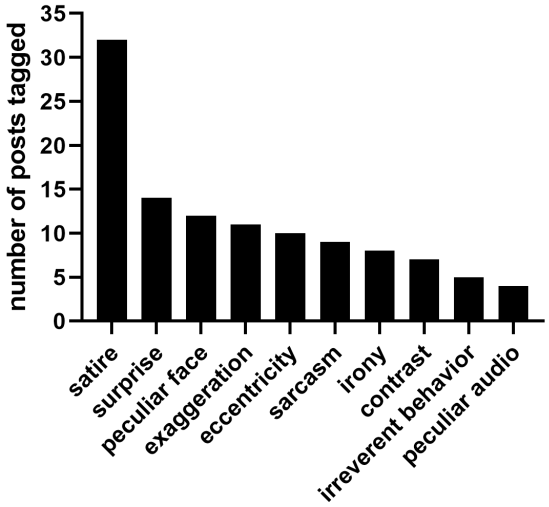

Figure 1: Distribution of the 10 most common types of humor tagged in 71 humorous and contested videos.

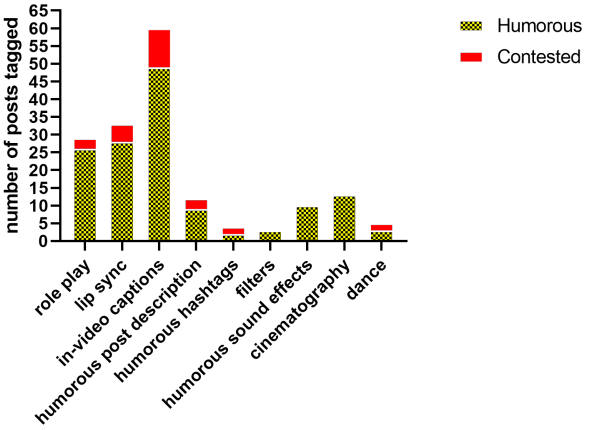

Figure 2: Distribution of the 9 most common mechanisms used in expressing humor among 71 humorous and contested videos.

building," "making fun of their own mental health," "seeking support," "expressing frustration," "making fun of a bad experience," "celebrating," "laughing so you don't cry," "self-deprecation," "giving support," "making fun of provider behavior," and "expressing self-acceptance" (see Figure 3).

"Sharing their experience" included mostly non-humorous posts describing what the creator had gone through or was going through. "Making fun of (psych) ward life" included posts describing silly events that occurred while they were hospitalized, as well as creators relaying serious or frustrating events that occurred in humorous ways. "Community building" covered TikTok posts that primarily or secondarily focused on connecting with viewers. This connection could be through discussion of a shared experience, and often included an explicit call to the viewers to engage with the post or ask questions. Posts in which creators were"making fun of their own mental health" used the creator's mental health status or diagnosis as a focus for humor, often in a self-deprecating manner. Several posts using this code involved the creator reflecting on or reenacting a previous time in which they acted irrationally due to the state of their mental health at the time. "Seeking support" posts either explicitly requested help from viewers or were about something the creator could not handle on their own, with what we perceived as an implicit request for help and support (e.g., posting that they're "in a bad place" or "really struggling right now"). TikTok posts that "expressed frustration" included creators that seemed frustrated by the state of the world or things that were going on in their life, as well as posts that described specific microaggressions they faced. Posts that "made fun of a bad experience" illustrated or reflected on a bad experience the creator had through the lens of humor. "Celebration" posts often included an announcement of a return from the psychiatric ward, a big step made towards recovery, or a celebration of friendships built. "Laughing so you don't cry" included posts using gallows humor, particularly around suicide. "Self-deprecation" covered posts in which the creator criticized themselves or talked about themselves in a negative way. "Giving support" included posts giving tips for inpatient living and encouraging others toward recovery. "Making fun of provider behavior" included posts poking fun at negative experiences creators had with healthcare providers, including nurses, counselors, therapists, etc. "Self-acceptance" covered posts showing determination towards recovery and self-love.

We coded 33 posts as sharing their experience (9 humorous, 22 non-humorous, 2 contested). 23 posts were coded as making fun of (psych) ward life (20 humorous, 3 contested). 20 were community building (7 humorous, 10 non-humorous, 3 contested). 20 were coded as making fun of their own mental health (16 humorous, 4 contested). 14 were seeking support (5 humorous, 9 non-humorous), 13 were expressing frustration (3 humorous, 8 non-humorous, 2 contested), 10 were making fun of a bad experience (9 humorous, 1 contested), 9 were celebrating (1 humorous, 7 non-humorous, 1 contested), 8 were laughing so you don't cry (all humorous), 8 were self-deprecation (4 humorous, 3 non-humorous, 1 contested), 8 were giving support (2 humorous, 4 non-humorous, 2 contested), 6 were making fun of provider behavior (all humorous), and 4 were expressing self-acceptance (3 non-humorous, 1 contested). Figure 3 shows these findings.

4.4 Connections Through Comments

Finally, we analyzed the comments sections of the 112 posts. We used one or two codes to describe their comments. The seven possible codes we utilized were "identifying with the video content," "supporting health behavior or recovery," "reacting positively to the post," "supporting the creator where they are," "showing concern for the creator," "two sides of an argument," and "expressing unhealthy behavior" (see Figure 4). In addition to the TikToks with these codes, two posts became unavailable partway through the

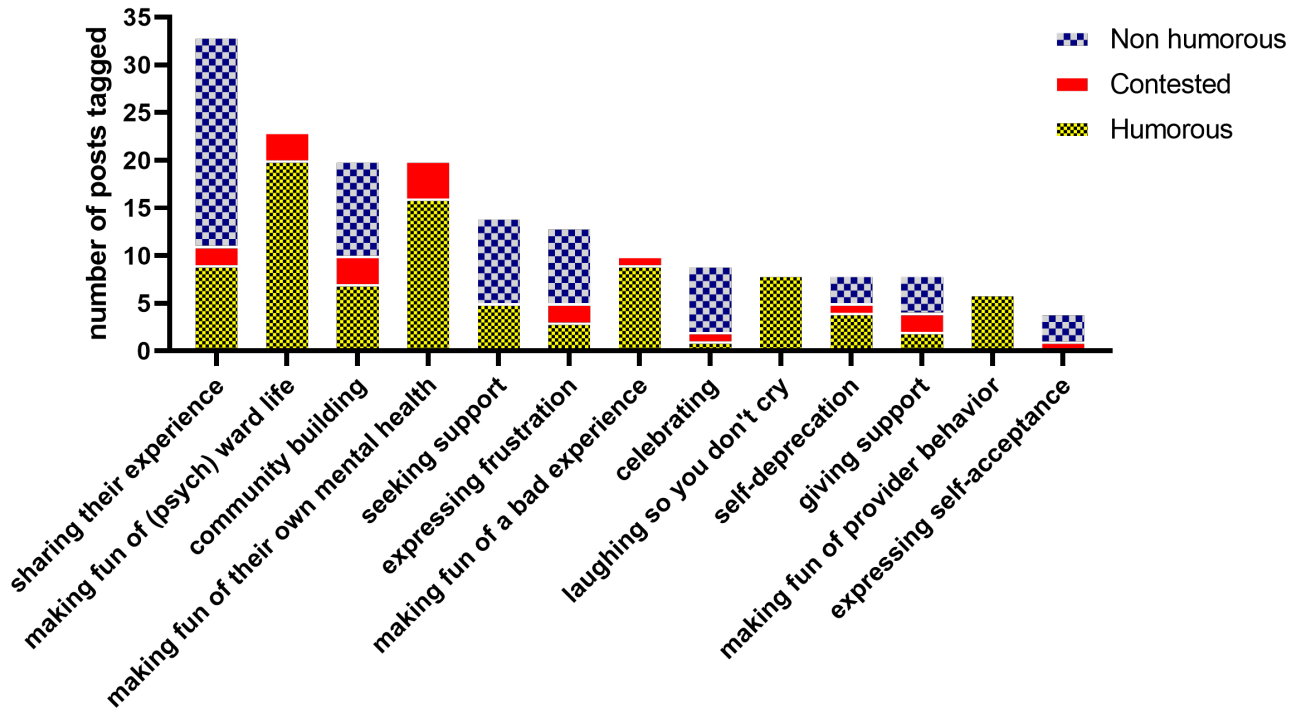

Figure 3: Distribution of creators' perceived motivations for the 112 TikTok posts.

coding process, so we were unable to analyze their comments, and seventeen posts had no comments.

In coding the posts, we found that fifty posts had comments that identified with the video content (34 humorous, 9 non-humorous, 7 contested). Examples include *The memories of dbt just hit me like*, *"you look like you haven't been getting any sleep" WONDER WHY*, *legit me im gunna be out soon but i feel like ill be back*, *because why be sad when you can laugh at yourself* 😂😂 and *Hahaha accurate*. Twenty-four posts had comments supporting healthy behavior or recovery (3 humorous, 19 non-humorous, 2 contested). Examples of these include *I'm sorry u relapsed, but remember that doesn't mean recovery isn't possible, you're a rockstar! keep up the fabulous progress* 🥰, and *I just wanted to stop by and tell you how amazing you're doing and how worth it it will all be at the end! Keep going* 🤍🥺. Twenty-one posts had comments that portraying a positive response in another way (15 humorous, 4 non-humorous, 2 contested), including *YOU WILL NOT BE OFFING YOURSELF ON MY WATCH!!!*, and *I really shouldn't laugh but*. Seventeen had comments supporting the creator where they are (8 humorous, 9 non-humorous). Examples include *truly the best vibe I'm so happy you're feeling good!! :))))*, and *I am sorry honey :(you are incredibly beautiful! inside and outside*. One humorous post had comments that showed concern for the creator (e.g., *ARE YOU OK*), and one non-humorous post had comments that contained two sides of an argument, in which commenters discussed whether an ED recovery post that included photos of the creator was triggering for others with EDs.

We carefully analyzed all these comments for any digital self-harm, as defined by Pater and Mynatt [70] as "online communication and activity that leads to, supports, or exacerbates, non-suicidal yet intentional harm or impairment of an individual's physical well-being." We did not find any comments that fit this definition on any of the videos, however we did find a few comments on 4 posts (1 humorous, 2 non-humorous, 1 contested) expressing unhealthy behavior. Examples include *I'm "enlist him in the army" crazy* 😭 *shoulda never gave me his ssn*, *I said listen to music… that's a lie I actually just cut myself* 😂 and *ed are a choice*. While these comments may express unhealthy ideas and behaviors, they are not fueling others to join in these behaviors. Figure 4 shows our findings from the comments, not including the 17 videos with no comments.

5 DISCUSSION

Numerous research papers and news articles claim that social media use is detrimental to people's mental health, particularly for youth [53, 66, 78]. However, few studies have examined the impact of TikTok, as a unique video-based and highly creative social media platform that is particularly popular with youth, on people connecting around psychiatric hospitalization. In this discussion, we describe ways TikTok has been used regarding this aspect of mental health. We first explore how creators use humor to build community and then detail how users form positive connections within that community.

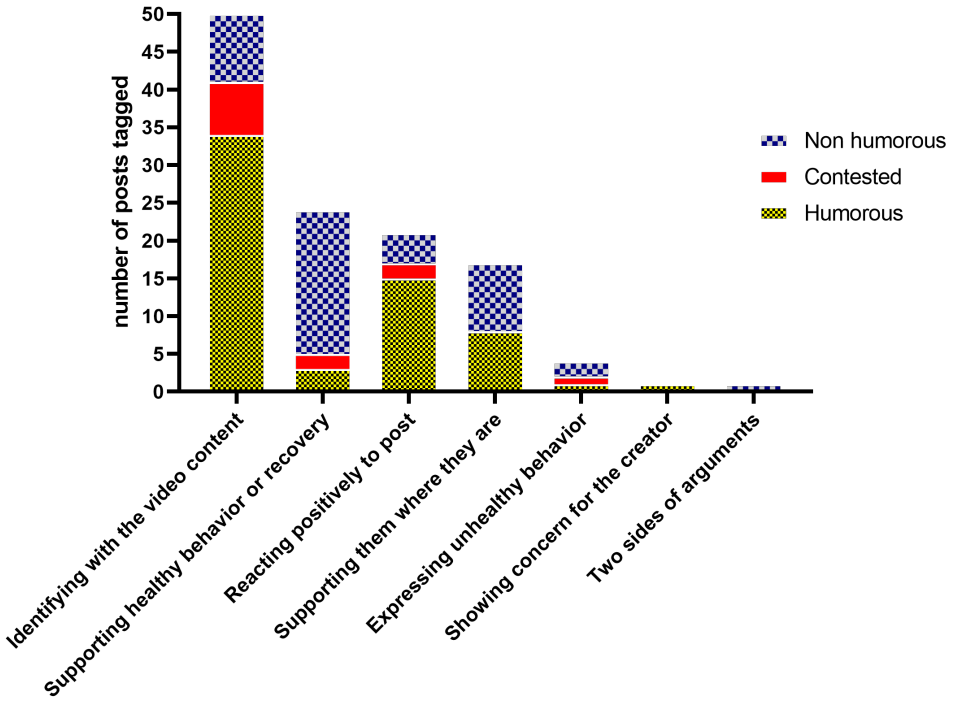

Figure 4: Distribution of comment section codes for 110 TikTok posts (excluding those without comments).

5.1 Using Humor to Build Community

Comedy and musical content are the most popular and frequent categories on TikTok [83], which is reflected by TikTok's official mission: *Inspire Creativity and Bring Joy*. Previous research found the major reason people use TikTok is to watch "interesting content" [56]. In our study, we also found that the community of people connecting around psychiatric hospitalization frequently employ humor in their posts, as we coded at least 51.79% of the posts in our sample as "humorous". Based on our analysis, the perceived primary motivation for posting humorous TikToks was to make fun of the creators' experiences of hospitalization, provider behavior, or their own mental health (see Figure 3). Other researchers have noted that such usage of humor and joking can contribute to community building by smoothing group interactions and separating themselves from outsiders [35], as we saw in our sample of posts. In particular, satire, the most common type of humor in our data (see Figure 1), best exemplifies showing how humor supports community building. In these satirical posts, creators usually employ role-play and other mechanisms to mimic their mental health experiences or highlight comical interactions with health providers (e.g., nurses, therapists, etc.), both in and out of the hospital setting. These posts often attracted positive reactions, such as likes and comments in which others identified with the satirical content and showed support, often using words like *same* or *accurate*. For example, in one post a creator role-played as a nurse coming into a patient's room to check on them frequently while they were sleeping, sometimes even to draw blood for labs. Several commenters identified with this experience, and also found the depiction humorous (*"you look like you haven't been getting any sleep" WONDER WHY*). We noticed this form of humor playing an important role in helping people connect around psychiatric hospitalization and build their community online.

We found humorous posts frequently utilizing gallows humor. One of our motivation categories, "laughing so you don't cry," reflects the self-protective aspect of gallows humor in which the creators cope with their bad experiences by identifying their humorous aspects. For example, one post in this category involved the creator role-playing as themself waking up in the morning, ignoring the loud, anthropomorphized manifestation of "horrible thoughts [they] can't even tell their therapist," and begrudgingly deciding to go to work instead of being hospitalized. This shift in perspective can serve as a powerful stress-coping mechanism [76] and contribute to their self-acceptance. It also supports community building by providing a way for people to connect with each other around shared experiences: commenters responding to the previously-mentioned post made comments like *Atleast I'm not alone* and *accurate as fuck sir!*

5.2 Forming Positive Connections

People with severe mental illness, such as people who have experienced or are considering psychiatric hospitalization, often suffer from loneliness and seek connection [47, 80, 89]. Additionally, psychiatric hospitalization is a unique and often traumatic experience that few can relate to [20], particularly for young adults and youth,

who represent the majority of TikTok users' demographic. Online platforms provide an opportunity, that is often unavailable offline, for them to connect to others who have similar experiences.

Because of the short-video format, TikTok makes it easy for creators to post and share their immediate experiences with the community, and use their creativity to express their emotions freely. Although it is difficult to determine creators' motivation without asking them directly, the perceived motivations we coded align with previous survey research which shows the major motivations of TikTok users are: archiving, self-expression, social interaction, and peeking [68].

Another characteristic of these posts is the ambiguous boundary between private and public content. On one hand, since the topic of mental health is usually personal and sensitive, creators' perceptions of whether or when the posts should be public could change frequently. In our sample, more than 10% of our posts became unavailable before we could code their comments. Although some posts may have been censored by TikTok, others seem to indicate that the creator chose to remove them, or changed their accounts' privacy settings. Creators could hide or delete posts due to the blurred boundary between perceived private and public content, which leads to the transient nature of these posts. On the other hand, researchers have noted that one motivation of TikTok creators is to log and archive their daily life [68], similar to writing a personal diary. However, unlike a diary, which assumes the audience and the author to be the same person, TikTok videos are open to public audiences. As demonstrated in our results, the nature of public-oriented expression encourages the content to be more about sharing and support-seeking, rather than self-documentation or self-reflection as in a diary.

Our analysis of users' comments showed that many TikTok creators are receiving the support they seek, and the feared negative effects are largely absent. Only a few comments on four respective posts expressed unhealthy behavior or ideas, and no comments show digital self-harm. We also note that "unhealthy" behavior may have very different definitions depending on the perspective of the researcher. For example, many posts and their respective comments discuss hiding behavior from providers to avoid consequences like law enforcement conducting "welfare checks" or a person being involuntarily admitted to a psychiatric ward or hospital. Although some people perceive such hiding behaviors as harmful, for multiple marginalized communities, the potential consequences can be equally or more harmful, traumatic, or even life-threatening. Ultimately, unhealthy and harmful behavior must be discussed and determined within the context of this community, by this community. Thus, we did not categorize these posts as promoting unhealthy behavior.

Over a third of the posts had comments explicitly supporting the creator (e.g., *There are brighter days ahead love* 🥰), including offers to talk with the creator if they need a supportive ear and explicitly discouraging harmful behavior (e.g., *YOU WILL NOT BE OFFING YOURSELF ON MY WATCH!!!*). Commenters also demonstrated connection by matching the humor and tone expressed by the creator; sometimes also including references to their own similar expierences (e.g., *legit me im gunna be out soon but i feel like ill be back*). However, even on posts that had a humorous tone, some commentors would show more serious concern (e.g., *are you ok??*). The large amount of positive support and the absence of digital self-harm or other toxic interactions seem to establish TikTok as a generally welcoming environment for people to connect around psychiatric hospitalization.

6 DESIGN PROVOCATIONS

Rather than providing explicit design recommendations for TikTok or other social media platforms, our contributions are at a higher level. We suggest that design features should encourage creativity and that support networks should support serendipitous connections. We close with some provocations around moderation in the community context.

6.1 Design features should encourage creative expression

As a short-video-based social media platform, TikTok provides many features to help creators easily integrate videos with music, still images, animations, captions, as well as employ special effects. These diverse features encourage creativity and afford various novel expressions that traditional media cannot support. For example, we found that TikTok creators frequently used in-video captions and lip-syncing, which utilizes lyrics to express and explain their emotions and experiences. For lip-syncing, instead of making their own narratives and stories, creators use music lyrics as a proxy to speak for themselves. The ability to use sounds memetically, which can be paired with photos, videos, and text, also allows users to participate in the construction of community without needing third-party tools to, for example, digitally alter an image-based meme. The various in-app features that support creators repeating and adding to other creators' work makes for a more inclusive construction of community.

There is a long history of the therapeutic use of creativity, which has been shown to help individuals cope with stress and trauma [21]. Expressing oneself creatively can aid in concretizing nebulous or abstract thoughts and feelings, and can also make individuals feel connected to the broader human experience [8]. When a suicidal person creates a TikTok post about their experience of suffering, implicit in this creation is an assumption—or, at least, a hope —that this is an experience that others can understand. The creators of posts in our study made extensive use of TikTok's creativity features, and the ease of infusing such creativity into their posts could be a substantial draw to the platform, particularly for youth. Thus, other tools that attempt to support people with mental health challenges, especially youth, should consider including features that encourage such creativity.

6.2 Support networks should support serendipitous connections

Unlike social media platforms that require a person to self-categorize to find others with shared interests or identity, (i.e., a person must know that they have an eating disorder to search for and join eating disorder related spaces on Facebook, Reddit, Twitter, or Instagram), TikTok clusters people according to shared interests inferred by its algorithm. This feature can spur the creation of networks such as the one we observed that connects people around psychiatric

hospitalization. This automatically connecting feature deprioritizes clinical designations like official DSM diagnoses in favor of a shared psychiatric experience. Thus, it allows for the inclusion of people who do not have a diagnosis, those who have a misdiagnosis, and those who have multiple diagnoses. It supercedes the dominant hierarchies of knowledge that privilege professional, "technical" knowledge over experiential knowledge. Although such an effect was unlikely consciously planned by TikTok, it arguably follows Pendse et al.'s "Designing for Healing" guideline to center lived experience over colonial clinical constructs [73].

Social media that allows users to find others with similar identities, interests, and needs without forcing them to categorize themselves in the process could potentially support other marginalized communities who may otherwise have difficulty finding each other, or are even unaware that there are others with whom they can connect. Additionally, algorithmic clustering can encourage creativity and playfulness—a common sentiment expressed on TikTok is that "the algorithm brought you here for a reason" and feeling "called out" by the algorithm for showing a viewer what they feel is very niche content. At the same time, users are not entirely at the mercy of the For You Page; they have the freedom to search for terms they're interested in, and to follow popular hashtags and sounds from posts they like to find similar content. Promoting such serendipitous connections could help support people from marginalized communities as well as socially or physically isolated people who need to connect with others but don't necessarily know how to find such connections.

6.3 Moderation should consider the community context

Many social media sites, including TikTok, moderate or censor content considered dangerous or potentially harmful. In particular, TikTok censors posts with some hashtags related to mental illness, including #suicide, #suicideawareness, #selfharm, and #eatingdisorder. When users try to search these hashtags, TikTok displays helplines on the search page in lieu of results. Other hashtags are censored without explanation or providing an intervention like a helpline, most notably #depression, as well as a few common antidepressant brand names, such as Prozac, Zoloft, and Paxil. To bypass the censorship, TikTok creators routinely use acronyms or different terminologies to avoid being automatically flagged: e.g., "self-harm" becomes "SH," and "eating disorder" becomes "ED." Other orthographic and lexical variations of censored terms also occur; this phenomenon has been studied on other platforms, such as Instagram as well [19, 84], but we are choosing not to make these alternate terminologies visible to those outside of this network, to avoid further censorship (as has been noted in [31]). Such censorship tends to discriminate against marginalized communities talking about their own experience, and TikTok specifically has been criticized for such actions [10, 67].

The highly contextual nature of any community means that top-down, outsider moderation will inevitably fail. While communities should have freedom for creative expression, including the freedom to post dark or negative content, harmful and hateful content still necessitates moderation. However, a simplified, "one-size-fits-all" approach to content moderation often ends up causing harm rather than removing it [31]. As other scholars have argued, allowing people in these communities to help create moderation guidelines and algorithms will result in much more effective moderation [73]. Understanding what content is actually harmful instead of making assumptions without knowledge of the community's culture and context can better support people as they seek support. We have shown that many people, often youth who have more limited access to resources for support, creatively express themselves—often through humor—and reach out to others in their community for much needed support concerning serious mental health challenges. Largely, these TikTok creators appear to be receiving that support from others within the community. Therefore, we ask: Who should be defining and determining what content is harmful? Should such a creative and supportive outlet be censored because of the serious mental health topics covered? Does such censorship cut off a valuable creative outlet and source of support, particularly for vulnerable youth? How do we balance supporting the need for positive connections against the potential for harm?

7 LIMITATIONS AND FUTURE WORK

As with many creative works, such as paintings or poems, the meaning of TikTok videos are often ambiguous, and difficult to interpret, which led to our contention on some of the categorizations. A contributing factor to that ambiguity is the short length of TikTok videos, typically around 30 seconds or less. When compared to other video platforms such as YouTube where videos can be many minutes or even hours long, many TikTok videos do not form a well-established narrative or story. We tried to address the ambiguity by having all four authors code all videos; nonetheless, others could interpret the TikTok videos differently. Future work should include interviews with the creators of TikTok videos or the commenters on those posts to further clarify interpretations.

In terms of our sample, as Feuston and Piper [31] reported, methods relying on keywords to collect data excludes individuals who do not explicitly signal their posts as having to do with mental health or illness, which can be a significant percentage of the population under study. The method we have chosen has, in many ways, constructed the population we are attempting to observe. However, we hope that these methods will suffice as an entry point into describing this community, which we can further investigate and understand by interviewing its members.

Although we have shown that people connecting around psychiatric hospitalization form group connections and support networks on TikTok, our research cannot determine how using TikTok will impact any given individual's recovery. Future work should provide clinical validation on how humor can help TikTok users manage their mental health. In addition, interviewing creators would be the next step to probe what their motivation is in detail and how TikTok use influences their mental health.

8 CONCLUSION

In our content analysis of TikTok posts by people connecting around psychiatric hospitalization, we describe types of humor and mechanisms creators utilized to build community and share their experiences. Creators and commenters tend to use gallows

humor and satire to connect with each other and cope with serious and stressful circumstances, such as mental distress, crises, and hospitalization. Our study also demonstrates the ways that TikTok serves as a community-building platform for people to connect around psychiatric hospitalization, share their experiences and humor, celebrate their recovery, identify with other inpatients, receive peer support, and support each other's mental health journey. We found that TikTok's content creation features encourage playfulness and creativity that help people connect and support one another. Additionally, TikTok's clustering of users with similar interests seems to stimulate the creation of support networks centered on lived experience, rather than medical diagnoses. We found largely healthy and supportive behavior in this community, rather than the assumed harmful behaviors. Thus, we question the common practice of censoring communities that discuss serious mental health topics. People, particularly vulnerable and often isolated youth, need more rather than fewer creative, hopeful, and humorous ways to connect with each other, especially about serious mental health concerns. In this work, we contribute new insights for social media design features that support creativity, humor, and serendipitous connections, particularly to help youth with serious mental illnesses who often lack adequate social support. Designers and social media platform developers need to collaborate with mental health communities to value and support the sharing of mental health expertise that comes from lived experience. Such support could provide one avenue for helping people with serious mental health challenges to survive and thrive.

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