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Examining Reflexive Communication Following a Break in Alcohol Abstinence

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EXAMINING REFLEXIVE COMMUNICATION FOLLOWING A BREAK IN ALCOHOL ABSTINENCE

By

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Abstract

Over 107 million individuals are thought to have alcohol use disorder (AUD) (Ritchie & Roser, 2018). Discontinuing drinking can be difficult, but social support is thought to promote sobriety efforts. The r/stopdrinking online public community supports such efforts. This study has two broad aims: (1) explore how resilience building might occur on r/stopdrinking among initial users disclosing an abstinence disruption and responses from other users; and, (2) explore possible relationships, within initial posts, between resilience and three other phenomena (i.e., trauma, stated views of Alcoholics Anonymous, statements reflecting the transtheoretical model's ten processes of change; Prochaska & Prochaska, 2021). To explore these, 193 initial posts and 1238 first-level responses were examined—guided by an analytical lens composed of four elements, apropos of reflexive communication (Merten, 1977). Collapsed into sets corresponding to initial posts, responses were more resilience-heavy than initial posts, suggesting a positive outcome for r/stopdrinking users looking to disclose an abstinence disruption. Other findings include theoretical and methodological contributions such as: (1) suggesting a possible, fourth dimension of reflexive communication (Merten, 1977); (2) extending the use of the communication resilience process scale (CRPS; Wilson et al., 2021) by applying it to content analysis—which was, in part, binarily-guided and thus enabled a resilience volume comparison between initial and response posts; (3) identifying three distinct response post perspectives for conducting content analysis research, guided by the Communication Theory of Resilience (CTR; Buzzanell, 2010; 2019) and the CRPS; and, (4) identifying and suggesting gratitude as an additional CTR/CRPS resilience building process.

Keywords: resilience, alcohol use disorder (AUD), health behavior change, relapse, recovery, trauma, r/stopdrinking, Alcoholics Anonymous, 12-step

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Dedication

To the millions of individuals struggling with alcohol use disorder and to the thousands who freely share their experience on r/stopdrinking. To all who have felt injured by addiction.

You matter. You are not less than.

Our struggles, however different, represent the humanity that connects us all.

Your raw vulnerability is beautiful, your shares inspiring.

May we each persevere and discover the liberation of self-acceptance.

To those who first spoke up and those who will yet join the conversation, *thank you*.

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Chapter 1: Introduction

America's relationship with alcohol (i.e., beer, wine, hard liquor) has long been fraught by a lingering and untidy social problem—alcohol misuse. Individuals who drink uncontrollably, whether they want to stop or not, are generally thought to misuse alcohol (Levine, 1985; Mann et al., 2000). Society has adopted and abandoned many negative labels for such misuse (e.g., drunk, dipsomaniac, boozer) (Ashford et al., 2019; Bevacqua & Hoffman, 2010). Today, alcohol misuse labels are drinking descriptors rather than person descriptors and include binge drinking or heavy use, high-intensity drinking, and alcohol use disorder (AUD; NIAAA, 2022). Current diagnostic criteria view the full spectrum of alcohol misuse as AUD, with differences in severity (i.e., mild, moderate, severe) (APA, 2013; NIAAA, 2020). Thus, AUD is used throughout this examination to reference alcohol misuse.

While AUD is experienced at the individual level and individuals might self-select any number of drinking descriptors, severity labels regarding AUD point to the quantity of alcohol being consumed over specific periods (e.g., daily, one occasion, total). The Centers for Disease Control (CDC) and the National Institute on Alcohol Abuse and Alcoholism (NIAAA) similarly define alcohol misuse (CDC, 2022a). For instance, the CDC (2022a) defines it as "a pattern of drinking that results in harm to one's health, interpersonal relationships or ability to work" (par. 4). The NIAAA defines it as "consumption that puts individuals at increased risk for adverse health and social consequences" (CDC, 2022a, par. 3). Although the CDC[1] and NIAAA[2] each measure AUD in terms of drink quantity by gender, these quantity considerations have slight

[1] The CDC (2022a) quantifies alcohol misuse as—on average—the daily consumption of more than one drink per day for women and more than two drinks per day for men. The CDC (2022a) quantifies binge drinking in terms of number of drinks consumed during one occasion (i.e., four or more for women, five or more for men).
[2] The NIAAA defines excess *daily consumption* as "more than 4 drinks per day for men or more than 3 drinks per day for women" (CDC, 2022a, par. 3) and defines excess *total consumption* as "more than 14 drinks per week for men or more than 7 drinks per week for women" (CDC, 2022a, par. 3).

differences and are outlined in the footnotes below (CDC, 2022a). Notwithstanding these small quantification differences, each organization measures AUD in terms of drinks—which holds a specific meaning. According to the CDC, "a standard drink[3] is equal to 14.0 grams (0.6 ounces) of pure alcohol" (CDC, 2022b). Thus, according to these criteria, ascertaining how much alcohol one consumes requires assessing both the frequency of consumption and the quantity of *standard drinks*. The latter is a mathematical labor where an individual must consider their drink volume in terms of number of ounces, alcohol type, and percent of alcohol content.

Regardless of gender and consumption variances, AUD remains a complex and alarmingly large problem, nationally and globally. For instance, in 2019, the National Survey on Drug Use and Health (NSDUH) found that 14.5 million Americans had AUD—414,000 were youths 12 to 17 years of age (NIAAA, 2022). However, fewer than 10% of Americans with AUD received any treatment (NIAAA, 2022). This means that roughly more than 12.7 million adults and 372,600 youth who needed AUD treatment did not receive it. Other 2019 data estimate that globally, 107 million individuals have AUD (Ritchie & Roser, 2018), yet this figure includes only 8.13 million Americans. These data discrepancies may stem from many factors, including cultural practices and social perceptions that might impact self-reporting. One must also consider the many individuals who fit the AUD definitional criteria but did not self-report their alcohol misuse; that is, the numbers reflected here are likely an underestimation. Also, recent changes in diagnostic criteria (APA, 2013) regarding AUD might impact reporting. For example, there could be inconsistent definitional applications regarding AUD across populations; but there could also be mixed interpretations by participants regarding what counts as an AUD.

[3] Four examples of standard drink equivalents, according to percent of alcohol content: 12 oz beer (5%), 8 oz malt liquor (7%), 5 oz wine (12%), 1.5 oz (i.e., a shot) distilled spirits (40%).

A brief history helps to situate modern views on AUD and illustrate the shaping impact that social support groups can have on societal perceptions regarding AUD and individuals' efforts to change their drinking behavior (e.g., stop, reduce). Americans highly regarded and heavily consumed alcohol from early colonization through much of eighteenth century; indeed, drinking at social and religious events like weddings, funerals, and minister ordinations was common and expected (Katcher, 1993; Levine, 1985). By the turn of the nineteenth century, however, some individuals began to describe their alcohol use as less controlled and more unrestrained (e.g., irresistible urges, overwhelming desires) (Levine, 1985). Moreover, this emerging social noise grew into a strong anti-drinking sentiment as American religious fervor intensified (Blocker, 2006; Levine, 1985).

Over the next one hundred years, movements to abstain from and temper alcohol use were led by numerous social and religious groups; these ultimately received enough support that Congress passed the 18th Amendment in 1920, thereby prohibiting the American manufacture, transport, or sale of alcohol (Blocker, 2006; Levine, 1985; Mann et al., 2000; Miron & Zwiebel, 1991). While Prohibition outlawed these activities for thirteen years, none came to a full stop. Rather, lucrative markets emerged for illegal alcohol production and sales (i.e., bootlegging), as did a demand for secret drinking establishments (i.e., speakeasies) (Blocker, 2006). Thus, America's thirst for alcohol was clearly insuppressible (Levine, 1985)—regardless of restrictive laws and a growing culture of temperance (Blocker, 2006; Miron & Zwiebel, 1991).

However, historians give competing accounts of alcohol consumption during Prohibition. For instance, Blocker (2006) suggests that social support for alcohol temperance and prohibition yielded such drastic changes in general drinking habits that per capita alcohol consumption was essentially flattened. Yet, Miron and Zwiebel (1991) found that while alcohol consumption saw a

sharp decrease (i.e., about 30 percent of pre-Prohibition quantities) during early Prohibition, it also saw a sharp increase (i.e., about 60-70 percent of pre-Prohibition quantities) during mid-late Prohibition. Similarly at odds is Miron and Zwiebel's (1991) assessment that consumption grew back to pre-Prohibition quantities within the first post-Prohibition decade and Blocker's (2006) report that per capita consumption remained below the pre-Prohibition peak until the 1970s.

Regardless of Prohibition's debated impact on alcohol consumption—during its leadup, alcohol use began to share an unflattering association with issues regarding public health (e.g., mental illness, disease) and public safety (e.g., crime) (Blocker, 2006). Indeed, for a time, the visible American stance (e.g., in entertainment and education) towards alcohol consumption was one of hostility (Blocker, 2006). Given Prohibition-related closures of inebriate asylums[4] and declines in self-help societies, the negative connotations of alcohol use became amplified for individuals whose alcohol consumption was habitual and destructive (Blocker, 2006).

For as long as individuals have consumed alcohol, misuse has never been far away. And regardless of label or generation, such misuse has drawn the attention of the affected and the care provider (Cocozzelli & Hudson, 1989; Järvinen, 2015; Katcher, 1993; Ries, 1977; Saltz, 1988). Over time, as society worked to understand and respond to alcohol misuse, various terms were used—both to describe behavior and to identify individuals. For example, in 1849, *alcoholism* was introduced by Swedish doctor Magnus Huss (Lesch et al., 1990), and the term has long since characterized alcohol misuse. Relatedly, in the 1930s, following the creation of Alcoholics Anonymous (AA) (AAWS, 1980, 2022b; W. Bill, 2001), the term *alcoholic* was popularized by individuals recovering from alcoholism, and the term continues to be used by many as a label for individuals who misuse alcohol.

[4] Inebriate asylums were specialized medical institutions where individuals with alcoholism could receive care (Brown, 1985).

The terms *alcoholism* and *alcoholic* became even better known after the American Medical Association recognized alcoholism as an illness in 1956 (Bettinardi-Angres & Angres, 2010), and Jellinek (1960) formalized the disease concept of alcoholism. While these efforts made the concept official, given that alcoholism had been considered a type of disease for at least 100 years prior (Brown, 1985), it was far from a new idea. Notably, the disease concept of alcoholism has been and continues to be contested (Crawford & Heather, 1987; Faulkner et al., 1988; Heather, 2017; Ries, 1977; L. B. Young, 2011). Still, the conceptualization of alcoholism as a disease remains widely accepted by medical and mental health professionals (Foddy, 2011; Järvinen, 2015; Levine, 1985; Lewis, 2017; Mann et al., 2000; Vaillant & Hiller-Sturmhöfel, 1996). Moreover, research demonstrates broad and consistent public acceptance of the disease concept. But interestingly, the same research also reveals the persistence of perceiving AUD as a moral failing (T. C. Blum et al., 1989; Caetano, 1987; Crawford & Heather, 1987; Cunningham et al., 2007).

The establishment of the disease concept of alcoholism was on trend with increasingly tolerant social views regarding alcohol consumption (Blocker, 2006). For instance, in American popular culture, magazines, movies, and novels began to romanticize drinking (Blocker, 2006). Additionally, producers (e.g., distillers, brewers) worked to cultivate classier images of alcohol use, in part by creating advertisements that showcased women serving alcohol to household guests (Blocker, 2006). Thus, alcohol-friendly attitudes slowly spread and helped to normalize drinking (Blocker, 2006). Importantly, the disease concept also provided a new way to consider and communicate about alcoholism—one that was kinder than the widespread moral failing view so popular when AA was established (Kurtz, 1991; Mann et al., 2000).

Given the longstanding social perception that alcoholism was a kind of disease (Brown, 1985), it seems natural that early AA members often referred to alcoholism as an illness or a disease while sharing their experience. Consequently, as AA grew, the use of the disease concept also expanded (Kurtz, 2002). From its early days, according to the literature, AA presented as a resource for individuals to openly discuss their drinking problem and related struggles (e.g., abstinence efforts) (Faulkner et al., 1988; Kurtz, 2002; Vaillant & Hiller-Sturmhöfel, 1996). In hindsight, the advent of AA marked a new era of specialized social support: Individuals who identified as alcoholics could share their stories and experience with like others in service of giving and receiving support.

In AA, through particular types of talk and action, individual and collective liberation from a prolonged inability to manage alcohol use was newly available. Thus, AA was a novel, communication-based, topic-specific social support system that reinforced its members' desires to stop drinking (AAWS, 1980; Kurtz, 1982). Notably, the prevailing view in AA holds that a true alcoholic (i.e., compulsive drinker) cannot manage drinking (W. Bill, 2001). Thus, in AA, liberation from AUD includes a continued abstinence from alcohol (AAWS, 2022d).

Although AA is just one program with a relatively small footprint, when compared to the global AUD problem—its influence extends beyond alcoholism recovery. For instance, many other specialized social support groups (e.g., Narcotics Anonymous) follow AA's model, having sought and received approval to adopt and adapt AA's proprietary Twelve Steps[5] (see Appendix A) to other behaviors (12Step.org, n.d.). Such petitions require review and approval from AA's General Service Office (AAWS, 2022b). Moreover, the AA 12-step approach to behavior change (i.e., an iterative, spiritual-based process) has influenced the medical treatment of AUD, having

[5] For brevity, the Twelve Steps of Alcoholics Anonymous (see Appendix A) are hereafter referred to as 12-step or 12-steps.

been integrated[6] into treatment facilities beginning in 1952 (Anderson et al., 1999). Thus, AA's influence on other self-help programs and AUD medical treatment is indisputable.

Importantly, as a program, AA claims a focus on the alcoholic—not on alcoholism (Kurtz, 2002). However, despite numerous advancements in medicine, addiction, and mental health, AA's person-centric view nevertheless seemingly appears to privilege a 1930s lens. For instance, the late 1980s saw a shift in alcohol-related research: Elements of trauma began to be identified and discussed in relation to AUD and other addictions (Cocozzelli & Hudson, 1989; Saltz, 1988; Shier & Turpin, 2017). By the mid-1990s, trauma-related addiction research began in earnest with the launch of the Substance Abuse and Mental Health Services Administration (SAMHSA) in 1992 (U.S. Department of Health & Human Services, 2022). In brief, SAMHSA (2014a) characterizes individual *trauma* in terms of three E's (i.e., event, experience, effect) that can generate intense stress responses (i.e., physical, psychological); this will be further explained in a later section.

The relationship between trauma and addiction (e.g., AUD) has been increasingly well-established since the 1980s (Davis, 2008; Miller, 2002; van der Kolk, 2001). And many studies demonstrate a correlation between adverse childhood experiences (ACEs) and later life alcoholism, other substance misuses, and behavioral addictions (Dube et al., 2002; SAMHSA, 2014b; Shahab et al., 2021; Shier & Turpin, 2017). These findings suggest that AUD treatment and recovery programs (e.g., 12-step) might be well-served by considering a trauma-informed lens—one that invites all involved parties to consider behavior choice and behavior change with

[6] The integration of AA's 12-step model for behavior change with AUD medical treatment began as the Willmar Model in 1952; in the 1960s it became known as the Hazelden Model; finally, it was popularized in the 1970s as the Minnesota Model, (Anderson et al., 1999).

a fuller view of the whole person (Dingle et al., 2015; Shier & Turpin, 2017; Wiechelt & Straussner, 2015).

In its current form, AA—a program dedicated to helping individuals abstain from misusing alcohol (AAWS, 2022d), as a model does not appear to include terminology about trauma. Indeed, the word trauma is absent from the 12-steps, *The Big Book*, and the AA website (AAWS, 2022b, 2022c; W. Bill, 2001). Yet, trauma, based on the aforementioned literature, seems to be another component worthy of consideration to assist individuals along their recovery paths. Further, individuals working to change AUD behavior through AA and its 12-step program might benefit from the incorporation of such knowledge. Considering the cognitive focus of AA's 12-steps (Miller, 2002) and its central role in AA, together with its seeming exclusion of trauma or trauma's impact on behavior and cognition (see Perry et al., 1995; Perry & Winfrey, 2021), individuals armed with AA and its 12-steps could possibly be hard-pressed to view AUD behavior change as anything more than a cognitive endeavor.

Related to AA's ostensible choice to not incorporate trauma-related epistemological advances in addiction research is the set language of the 12-steps. The 12-steps are well-insulated from edits since the passing of a little-known 1955 resolution. The resolution requires the written consent of at least seventy-five percent of AA groups before any edits or changes can be made to three key AA texts—including the 12-steps (W. Bill, 2018). Unsurprisingly, no updates have been made to the 12-steps since. Notably, the 12-steps has seen only a singular change, which also occurred in 1955, when Bill W. replaced *experience* with *awakening* in step 12 (B. Dick, 2011). Hence, an ideology of alcohol misuse—contrived before World War II—continues to influence numerous behavior change programs, thereby informing an unknown number of individuals' perceptions of AUD and their beliefs regarding health behavior change.

While AA continues to present itself as a solution to alcoholism—an enduring health problem, it also appears, according to the literature, to have recused itself from "engaging in research" (AAWS, 2022a, par. 5). Still, some internal research is perhaps reflected in the context of AA reporting recovery estimates which make clear that AA can work—given that AA's website estimates at least "two million successfully recovering members… in more than 180 countries" (AAWS, 2022b). Hence, AA's model might be viewed as somewhat challenging for health researchers to investigate. However, the efficacy of AA and the 12-steps have become an interdisciplinary area of study (K. Blum et al., 2015; Khantzian, 2014; Krentzman, 2008; Pagano et al., 2004; Wright, 1997). For example, the Cochrane Collaboration recently systematically reviewed 27 studies and found that clinically delivered 12-step interventions, with a goal of AA participation (i.e., AA meeting attendance), tend to result in increased rates of uninterrupted abstinence (Kelly et al., 2017). Although debates continue regarding AA and 12-step efficacy, they are not central to this study.

Instead, of consideration in this investigation is identifying possible AA and/or 12-step influence in a public site that is not governed by AA but welcomes AA members, where there is shared alcohol abstinence goal but individuals either disclose or respond to a break in abstinence. Specifically, although this study is not about AA, of interest in this investigation, among other things, is whether posts on the site refer to AA or its 12-step ideology and, if so, in what way (e.g., the steps are mentioned, recommended, questioned, or argued against). Of interest is what is posted by site users about their recovery experience (e.g., if 12-step programs played a role; the relationship between past trauma and recovery).

Because AA's 12-steps are well-accepted by the general public and integrated into many healthcare programs, 12-step informed views on behavior change are widespread—including

particular views on two key aspects: *recovery* and *relapse*. For example, 12-step programs generally measure and celebrate recovery success in terms of periods of sobriety (i.e., an absence of relapse or return to a behavior) (AAWS, 2022c). Yet, nearly three decades ago, health behavior researchers developing the stages of change identified that when it comes to addiction, "relapse is the rule rather than the exception" (Prochaska et al., 1993, p. 1104); in particular, they note, "most individuals will relapse" (p. 1104). Further, the diagnostic material regarding AUD characterizes it as a variable course with "periods of remission and relapse" (APA, 2013, p. 493). Given these realities, a more accurate view of recovery includes instances of relapse, not an absence of relapse. That is, breaks in abstinence are more an expected stop along the recovery road, less a detour from recovery.

Indeed, AA and its 12-step views are not without utility. The program undoubtedly holds historical position and has long been considered a standard for care. That said, it is argued in this study that also worthy of consideration is the notion of trauma and its role in behavior and cognition. Because 12-step work includes learning, adapting, and reappraising—all necessary elements of trauma recovery (Gelpin et al., 1996), some might argue that trauma *is* attended to, at least implicitly. However, when considered together with SAMHSA guidelines regarding trauma, AA's 12-step focus on taking personal responsibility for one's actions and faults (Davis, 2008) does not appear to explicitly acknowledge the trauma events, experiences, and effects that individuals have endured (Perry & Winfrey, 2021). Yet, explicit attention to both directions (i.e., what I did and what happened to me) might set the stage for a more comprehensive self-inquiry. Moreover, it might help individuals to reduce a common tendency to assign self-blame regarding trauma (Carruth & Burke, 2008) and increase self-compassion (i.e., bringing kind awareness to emotional wounds) (McQuillan et al., 2022). For example, individuals often think along the lines

of, “if only I had been (smarter, well behaved, stronger, less seductive, good), so and so would not have had to (beat, abuse, neglect, molest, abandon) me” (Davis, 2008, p. 52).

Creating and communicating resilience is central to trauma healing (Costello & Walters, 2021; Miller, 2002; SAMHSA, 2014a). In particular, bringing *reflexive communication* to bear on a disruption (e.g., break in alcohol abstinence) can expand an individual’s ability to transform and positively change (Brooks et al., 2013; Buzzanell & Houston, 2018). Merten (1977) suggests that reflexive communication can be considered in terms of social, objective, and temporal dimensions. First, the social dimension includes at least two people who are capable of providing simultaneous communication “input, output, perception, and action” (Merten, 1977, p. 123). Second, the objective dimension includes making statements about statements (Merten, 1977). Finally, the temporal dimension includes the impact of feedback—over time—on future communication (Merten, 1977). Further, Merten (1977) suggests that when these dimensions of reflexivity are present together, the effects of such communication can include outcomes like “consensus, understanding, and sympathy” (p. 124). One consequence of interactive social media spaces, like subreddits, is the heavy intersection of these three dimensions. Briefly, subreddits are topic-specific communities on Reddit where users are anonymous and can communicate with other users without being identified (de Choudhury & De, 2014; Hintz & Betts, 2022).

This study explores particular instances of reflexive communication: subreddit posts that disclose an individual’s alcohol abstinence disruption and response posts to those disclosures. Notably, r/stopdrinking is a large, well-established online community with over 420k users. Indeed, at the time of this writing, it is the largest subreddit dedicated specifically to alcohol abstinence or temperance[7]; most posts are centered around alcohol abstinence. Thus,

[7] Because r/stopdrinking users usually self-identify as having a relationship with alcohol (i.e., past or present) that makes controlling alcohol consumption difficult, an AUD is assumed, regardless of explicit mention.

r/stopdrinking is an ideal site to examine four interrelated communication phenomena that are thought to be reflected in the various inputs and outputs, as well as the communicated perceptions and actions (i.e., social dimension) of its community (i.e., users). The four communication phenomena include: (1) resilience building discourse; (2) trauma discourse and identification; (3) discourse regarding users' views of AA; and, (4) discourse regarding intentional health behavior change. Given the interactive nature of Reddit includes experience sharing and response opportunities (i.e., social dimension), layered statements about statements within and between subreddit posts (i.e., objective dimension), and the abiding capacity, regular practice, and dynamic impact of continued feedback over time (i.e., temporal dimension), such posts are a rich source of reflexive communication.

In service of seeking knowledge regarding ways that individuals transform and positively change following disruption(s), this investigation focuses on one type of disruption: breaks in alcohol abstinence. Specifically, this study investigates how individuals communicate resilience and build resilience when disclosing or responding to an abstinence disruption. Relatedly, this study examines whether trauma is mentioned, either explicitly (i.e., through term use) or implicitly (i.e., post statements that align with the SAMHSA (2014) definition of trauma[8])—and considers whether such acknowledgments share a relationship with communicating resilience. Further, as aforementioned, this study takes into subreddit users' stated views regarding AA's 12-step ideology—and considers whether these share any relationship with communicating resilience. Finally, another goal of this study is to examine whether processes proven to be involved in intentional health behavior change are operating according to established

[8] "Individual trauma results from an **event**, series of events, or set of circumstances that is **experienced** by an individual as physically or emotionally harmful or life threatening and that has lasting adverse **effects** on the individual's functioning and mental, physical, social, emotional, or spiritual well-being" (SAMHSA, 2014a, p. 7).

predictions—and consider whether the apparency of these processes shares any relationship with communicating resilience.

Chapter 2: Literature Review

Trauma and Alcohol Use Disorder (AUD): Common Co-Occurring Diagnoses

Individuals who have post-traumatic stress disorder (PTSD) tend to use and misuse alcohol (i.e., have AUD) more than individuals without PTSD (Anthenelli, 2012; Brady & Back, 2012; Jacobsen et al., 2001; Smith & Cottler, 2018). A review of studies reveals that the two disorders (i.e., AUD, PTSD) consistently co-occur (Jacobsen et al., 2001); this relationship has been observed in Europe, Australia, and the United States (Jacobsen et al., 2001; Smith & Cottler, 2018). For example, in a study of 5877 individuals, the National Comorbidity Survey (Kessler et al., 1995) found that 51.9 percent of men who participated had both AUD and PTSD, whereas 34.4 percent had AUD but not PTSD. This trend was similar in women; 27.9 percent had both AUD and PTSD, whereas 13.5 percent had AUD but not PTSD.

Clinicians have noted that individuals with PTSD "suffer from impaired cortical control over subcortical areas responsible for learning, habituation, and stimulus discrimination" (van der Kolk, 2001, p. S54). Essentially, this means that areas of the brain which regulate learning, habituation, and stimulus discrimination are not functioning properly. Relatedly, individuals with PTSD commonly rely on both prescribed and illegal substances in an effort to self-medicate or manage their distress (van der Kolk, 2001). Of similar importance, when PTSD and substance use disorders co-occur, the symptoms of each are generally more severe—and more resistant to treatment (Jacobsen et al., 2001).

While AUD and PTSD frequently co-occur, they are distinct complex health disorders and are defined by specific criteria outlined in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM), currently in its fifth edition (DSM-5; APA, 2013). Although the names and diagnostic criteria have evolved, alcohol misuse has appeared in every edition of the DSM since

it began in 1952 (Smith & Cottler, 2018). However, PTSD was not designated as a disorder until the DSM-III (i.e., third edition) (Smith & Cottler, 2018). Yet, PTSD has since become the most commonly diagnosed trauma-related disorder (SAMHSA, 2014d). Importantly, the two disorders continue to be refined, as is evident in recent DSM-5 diagnostic updates (APA, 2013).

First, alcohol abuse and alcohol dependence were once separate diagnoses; while these terms are still sometimes used, AUD has diagnostically replaced both alcohol abuse and alcohol dependence in the DSM-5 (APA, 2013; NIAAA, 2020). The DSM-5 defines AUD as "a problematic pattern of alcohol use leading to clinically significant impairment or distress" (APA, 2013, p. 490) that generates a "cluster of behavioral and physical symptoms" (APA, 2013, p. 492). An AUD diagnosis requires that at least two of eleven symptoms—patterns of problematic use (e.g., consuming a larger amount than intended, recurrent alcohol use despite continued adverse outcomes)—occur within a 12-month period (APA, 2013). As aforementioned, AUD occurs on a spectrum and is measured according to three levels of severity: mild (2-3 symptoms), moderate (i.e., 4-6 symptoms), and severe (i.e., 6+ symptoms) (APA, 2013).

Second, the PTSD diagnostic updates are notable and include a reclassification (APA, 2013; Smith & Cottler, 2018). Specifically, formerly an anxiety disorder, PTSD is now classified as a trauma and stressor-related disorder (APA, 2013). Further, symptom criteria no longer require that individuals feel intense fear, horror, or helplessness to qualify for a PTSD diagnosis (APA, 2013). A key diagnostic update is that PTSD symptoms must exist independent of other medical conditions or substance uses (e.g., alcohol) (APA, 2013; SAMHSA, 2014d). Still, the bulk of PTSD symptoms remain unchanged and are varied (e.g., flashbacks, distressing dreams, involuntary memories); symptoms are generally intrusive; thus, individuals often work to avoid

external reminders that trigger trauma memories (APA, 2013; SAMHSA, 2014d; van der Kolk, 2001).

In certain populations, treating PTSD has been shown to improve substance use disorder outcomes (e.g., AUD) (Back, 2010; Hien et al., 2010; Morgan-Lopez et al., 2014). For instance, a finding by Hien et al. (2010) regarding the order of AUD and PTSD treatment was novel and challenged the prevailing sequential model of treatment (Brady & Back, 2012; McCauley et al., 2012). Briefly, Hien et al. (2010) found that for individuals with co-occurring PTSD and substance use disorders, treating PTSD first—or at least concurrently with substance use treatment—will deliver the most effective overall treatment. In contrast, the sequential model centered around the belief that attending to PTSD or trauma-related symptoms before individuals establish three to six months of abstinence from substance use would interfere with substance use recovery—or even increase the likelihood of a relapse (Brady & Back, 2012; McCauley et al., 2012). But however compelling the interconnected nature of PTSD and substance use disorders is, it does not necessarily supersede other relevant factors (e.g., culture, tradition, power) that can impact how individuals may experience treatment and outcomes. Further, given the wide net (i.e., ten substances) cast by Hien et al. (2010) and given that study participants were only women, the findings are not necessarily generalizable to all genders or for populations where AUD is the primary substance. Still, in addition to raising new questions about "abstinence first" practices (i.e., the sequential model), the study also contributed to the idea that—where AUD and PTSD co-occur—alcohol misuse might be partly due to PTSD symptoms (Brady & Back, 2012). Importantly, the novel finding urged researchers to widen the existing search for more integrated AUD and PTSD treatments (Back, 2010).

Another common set of health problems that co-occur with AUD is depressive disorders (McHugh & Weiss, 2019; van der Kolk, 2001). Three of seven distinct depressive disorders outlined in the DSM-5 (i.e., major depressive disorder, dysthymia, substance-induced depressive disorder) frequently co-occur with AUD (McHugh & Weiss, 2019). Major depressive disorder is the number one psychiatric disorder that co-occurs with AUD; it is estimated to affect between 10% to 15% of individuals during their lifetimes (McHugh & Weiss, 2019). A complex disorder, it minimally includes at least five depressive symptoms (e.g., depressed mood, disruptions in sleep, appetite, energy, focus, decision-making) that must persist most of the time, most days, for at least two weeks; in adults, one symptom must be mood related (APA, 2013).

Relatedly, adverse childhood experiences (ACEs) also share a positive relationship with AUD in later life (Brady & Back, 2012; Dube et al., 2002; Rogers et al., 2021; SAMHSA, 2014b). Some examples of ACEs include abuse (e.g., verbal, emotional, physical, sexual), disruptive home environments (e.g., divorce, domestic violence, mental illness), substance use, and incarceration of household members (Dube et al., 2002). A review of studies demonstrates that maltreated children have a higher risk of developing psychiatric disorders and emotional problems, which consistently includes being at greater risk for developing AUD (Brady & Back, 2012). Many theoretical assumptions for the aforementioned have been put forward, including varied neurobiological and social responses to ACEs (Brady & Back, 2012; Guinle & Sinha, 2020). Regardless of response reasons, it is well known that ACE exposure increases the risk of developing AUD (SAMHSA, 2014b); yet the lasting, long-term impact of ACE exposure on AUD has only recently been demonstrated (Rogers et al., 2021).

Problematic Perceptions of AUD Recovery and Relapse

As most AUD-related studies well-illuminate, to either reduce (i.e., temper) or stop (i.e., abstain) misusing alcohol is a difficult endeavor (Laudet, 2007), especially considering that individuals often experience relapse (i.e., engage in behavior they are trying to change) (Brooks et al., 2013; Dennis et al., 2007; Milhorn, 2018; Prochaska et al., 1992). Notably, higher relapse rates have been found in women clients where AUD, PTSD, and mood disorders co-occur (Guinle & Sinha, 2020).

Yet, it is unclear how many individuals realize that relapse is a natural part of human behavior change (Prochaska et al., 1992). However, these relevant findings are likely unavailable to most individuals, given public access to academic research is often restricted by paywalls (Day et al., 2020). Additionally, term literacy may be problematic for individuals who lack familiarity with discipline-specific terms commonly used in publications by behavior change researchers. Moreover, another challenge is that many accredited addiction recovery programs are freely accessible online, and a great many expressly argue that relapse is not part of recovery or include content that conveys this message (e.g., Black Bear Lodge, 2022; Gateway Foundation, 2022; Good, 2021; Hired Power, 2022).

Online recovery resources that adopt a "relapse is not part of recovery" view tend to describe relapse in ways that suggest that individuals working on addiction-related behavior change are viewed not only as impaired by substance misuse but also intellectually limited by an inability to distinguish relapse from recovery. For example, one website argues that framing relapse as part of recovery "could create confusion, uncertainty, and even be considered encouragement for addicts to make excuses for their relapses" (Black Bear Lodge, 2022, par. 8). And this sentiment is echoed across many similar websites. While well-meaning, such content

implicitly communicates a broad view of recovering individuals as habitually looking for an excuse to misuse, thereby emphasizing the very identity an individual is seeking to change (D. Best et al., 2016).

Such a view discounts an individual's desire for behavior change—before they even begin. Factors influencing a person's readiness to change can include being tired of the lifestyle (D. Best et al., 2016; D. W. Best et al., 2008), having support (D. Best et al., 2016; Hunter-Reel et al., 2010), and sufficient self-efficacy to try (D. Best et al., 2016; Bradshaw et al., 2013). Thus, program messaging that questions the intent or desire for behavior change success at the outset runs contrary to a health professional's primary job—to help increase readiness to change (Bradshaw et al., 2013). Although behavior outcome expectations must be built by the individual (Caliendo & Hennecke, 2022), messages that question intent could reduce hope regarding one's ability to change—thereby harming one's readiness to change (Bradshaw et al., 2013). Further, questioning messages do little to reduce the *less-than* stigma these individuals often face (D. Best et al., 2016; Frank, 2011; Laudet, 2007; Matthews et al., 2017; Romo & Campau, 2020).

Notably, social stigma often besieges individuals who misuse alcohol; this phenomenon often carries over into recovery (Anderson et al., 1999; Ashford et al., 2019, 2020; Laudet, 2007; Romo & Campau, 2020; L. B. Young, 2011). For instance, in AA, the beginning of recovery (i.e., abstinence from alcohol) is usually called one's sobriety date (A.A. Grapevine, n.d.; Thatcher, 2016); it marks the day an individual begins to move away from misusing alcohol and into recovery. Many recovery programs and self-help blogs promote the celebration of sobriety dates and even provide online sobriety calculators (e.g., AAGrapevine, n.d.).

It is widespread practice for individuals to reset their sobriety date following a relapse (Reinert, 1997). In fact, Ashford et al. (2020) found that study participants were more likely to

change their sobriety date because of a relapse than they were to report having had a relapse. The researchers suggested this may be related to stigma or shame (Ashford et al., 2020). But, since sobriety length (i.e., abstinence duration) and recovery length (i.e., time working on recovery) are distinct ideas (Ashford et al., 2020), it might be more correct for individuals working on AUD behavior change to refer to this day as their recovery date vs. their sobriety date. Moreover, such a distinction would not only more accurately describe the behavior but also might reduce relapse-related stigma within recovery (Ashford et al., 2020).

Beyond 12-Step: Health Behavior Change and Complexities of AUD Relapse and Recovery

Behavior change for individuals with AUD is often defined and measured by abstinence in recovery (Laudet, 2007) and has often been communicated in terms of success or failure (Dodge et al., 2010; Rahill et al., 2009). Laudet (2007) suggests this approach is likely attributable to the lengthy and pervasive impact of an abstinence-focused 12-step ideology on treatment practices; notably, 12-step participation is usually encouraged by treatment programs (Pagano et al., 2004). However, definitions of success, recovery, and relapse have varied among professionals in the alcohol treatment community (Charlet et al., 2018; Dodge et al., 2010; Laudet, 2007; Rahill et al., 2009; Simonelli, 2005). Thus, a broader view of recovery and relapse regarding AUD necessarily considers the scope of AUD recovery, the processes and nuances of recovery and relapse, and term definitions of *recovery* (Hagman et al., 2022) and *relapse* (Melemis, 2015; Rahill et al., 2009; Simonelli, 2005).

First, AUD recovery is more comprehensive than achieving abstinence; it is also making changes to non-AUD components of life—a process that requires time and effort (Dodge et al., 2010; Hagman et al., 2022; Laudet, 2007). Still, a commonly held belief is the misconception that interrupting alcohol abstinence is the only path to losing control (Milhorn, 2018). However,

neither the lack of nor the interruption of abstinence equals failure in AUD treatment (Rahill et al., 2009). Helpfully, a once dichotomous view of relapse (i.e., return to behavior vs. no return to behavior) has shifted to a continuum view (Rahill et al., 2009; Simonelli, 2005). Thus, relapse is a process more than an event (Milhorn, 2018; Rahill et al., 2009; Simonelli, 2005)—one that usually has a great emotional impact on individuals (Simonelli, 2005).

Relatedly, the term *relapse* is becoming increasingly complex and often is not clearly defined in research (Rahill et al., 2009; Simonelli, 2005). For example, some AUD relapse prevention professionals have adopted harm reduction perspectives that distinguish between a slip, a lapse, and a relapse (Rahill et al., 2009). The three terms are thought to help individuals better navigate their behavior change experience, which often includes some combination of slip (i.e., one-time), lapse (i.e., brief reoccurrence), and relapse (i.e., return to pretreatment use) (Rahill et al., 2009). Relatedly, some individuals who are working on changing drug and alcohol use behaviors are adopting a semi-sober strategy known as California sober; the strategy focuses on use-reduction and substance-replacement (e.g., marijuana instead of cocaine) (Cleveland Clinic, 2021).

Regarding relapse prevention, Melemis (2015) suggests four core ideas. First, relapse occurs gradually over mental, physical, and emotional stages. Second, recovery is an active process of doing tasks that lead to personal growth. Third, relapse prevention usually involves cognitive therapy and adopting mind-body relaxation techniques. And lastly, by practicing five recovery rules (i.e., change your life, be completely honest, ask for help, practice self-care, don't bend the rules), individuals can better avoid relapses. Moreover, Melemis (2015) argues that because relapse has mental, physical, and emotional stages, it can actually begin months before

an individual physically reaches for drugs or alcohol. Notably, this delay is not dissimilar to how early life (i.e., developmental) trauma (e.g., ACEs) can lead to later-life AUD.

Many triggers can influence relapse, including a host of internal (e.g., emotions, stress, coping ability) and external factors (e.g., social pressure, interpersonal conflict, boredom) (Ashford et al., 2020; Giordano et al., 2014; Greenfield et al., 2002; Melemis, 2015; Milhorn, 2018). Yet, some activities are known to help to reduce the impact of these factors in individuals with AUD, including self-care (Melemis, 2015) and having relationships that support healthy behavior change (i.e., not drinking) (Hunter-Reel et al., 2010). In some cases, a person's history heavily influences relapse. For example, Greenfield et al. (2002) showed that, in the first year after AUD treatment discharge, women with sexual abuse histories experienced greater relapse than women with either physical abuse histories or a combination of sexual and physical abuse histories. This finding helps to illustrate how nuanced and complex relapse can be and highlights how specific elements of one's trauma history can influence the relapse struggle. Moreover, disruptions in AUD behavior change goals are thought to be opportunities for individuals to gain more self-efficacy and confidence (Melemis, 2015; Simonelli, 2005). Indeed, for some, the will to stay sober becomes stronger after a slip or a lapse (Milhorn, 2018).

Like relapse, the term *recovery* holds multiple meanings for individuals with AUD. For instance, Laudet (2007) discovered that some individuals are put off by the term because it implies a return to some state or some previously enjoyed quality of life—that never existed for them. Yet, for many individuals with AUD, and their families, recovery holds a more positive connotation that signals hope, change, and healing (Laudet, 2007). Regardless of its varied significance, the term recovery has long been linked to AA, where it is understood to be an ongoing abstinence process (Laudet, 2007; W. L. White, 2005). Indeed, since *The Big Book* was

first published, AA has continuously and explicitly described itself as a "program for recovery" (AAWS, 2022b; W. Bill, 2001).

As aforementioned, an AUD diagnosis follows a "cluster of behavioral and physical symptoms" (APA, 2013, p. 492), occurs on a spectrum, and is measured according to three levels of severity (i.e., mild, moderate, severe)—where more symptoms equate to greater severity. Thus, as part of recovery evaluations, it might be fair to consider improvement to the original diagnostic state. For example, if a client initially presents with severe AUD (i.e., six or more symptoms) and is able to reduce, but not eliminate, the number of symptoms, such change might signal some measure of progress. But the NIAAA's recently formalized definition of recovery considers life improvement (e.g., meeting basic needs, a better quality of life, boosts in social support), not symptom reduction (Hagman et al., 2022). Yet, if someone moved from severe use to moderate use or mild use, such a reduction in AUD severity nevertheless suggests progress.

Notably, the new NIAAA recovery definition does not include abstinence. Not only did the researchers note that abstinence is not the goal of all individuals in recovery, but they also pointed to evidence that suggests some return to drinking is possible. Specifically, they note that some individuals recovering from AUD engage in non-heavy drinking and "fare similarly to those who remain abstinent across indices of biopsychosocial functioning, alcohol-related risk factors, and other measures of well-being" (Hagman et al., 2022, p. 2). Further, the new definition makes clear that recovery is both a process and an outcome (Hagman et al., 2022). First, it is a process whereby "an individual pursues both remission from AUD and cessation from heavy drinking" (Hagman et al., 2022, p. 2). Second, recovery is an outcome wherein "an individual may be considered *recovered* if both remissions from AUD and cessation from heavy drinking are achieved and maintained over time" (Hagman et al., 2022, p. 2). Similar to its

criteria for alcohol misuse, NIAAA considers cessation from heavy drinking[9] in terms of drinks—using the same standard drink definition (see Footnote 3). The new definition is a marked move away from AA's abstinence-centric view of recovery.

The Role of Social Support Groups in AUD Health Behavior Change

Social support is considered "support accessible to an individual through social ties to other individuals, groups, and the larger community" (Lin et al., 1979, p. 109). The social identity model of recovery (SIMOR; Best et al., 2016) recognizes that individuals engaged in AUD health behavior change also simultaneously tackle identity change; that is, they embark on two life changes at once. First, they either temper or abstain from alcohol consumption, and second, they shift their primary identity away from being an alcohol misuser to being in recovery (D. Best et al., 2016). Social support is often considered an essential part of the first life change—maintaining AUD health behavior changes (Brooks et al., 2013). Engaging in self-reflection is important for the second life change—identity change. Regarding the latter, Dingle et al. (2015) found that one's relationships can aid in understanding one's behavior before and during AUD recovery.

An important way that self-help groups (e.g., AA) facilitate AUD health behavior change is by introducing and reinforcing recovery-focused norms and values regarding alcohol and alcohol use (D. Best et al., 2016; Wright, 1997). But, according to SIMOR, an individual first must identify with the messenger(s) before they will become accepting of any ideas promulgated by a potential support network (D. Best et al., 2016). Yet, once this happens, acceptance of the

[9] The NIAAA defines cessation from heavy drinking for men as, "no more than 14 standard drinks per week or 4 drinks on a single day" (Hagman et al., 2022, p. 3). For women, it is "no more than 7 drinks per week or 3 drinks on a single day" (Hagman et al., 2022, p. 3).

new ideas often manifests in meaning-making efforts, as was the case in Wright (1997), where new AA members adopted the group's worldview to newly interpret life events (Wright, 1997).

Social support has always been a core component of the AA 12-step program; in fact, group meetings began before AA was formally established, when its members conducted weekly meetings together as an alcohol abstinence extension of the Oxford Group[10] (AAWS, 1980; Kurtz, 1991). After early members cut ties with the Oxford Group and formed Alcoholics Anonymous, the traditional weekly meetings continued separately (AAWS, 1980; Kurtz, 1991). AA meetings are cost-free and highly support-oriented (AAWS, 2022b), making them an appealing resource for individuals struggling with AUD (Tusa & Burgholzer, 2013; Zemore et al., 2017).

Receiving social support is thought to be vital for maintaining sobriety, particularly in early recovery (Brooks et al., 2013). While AA 12-step meetings, and the AA community, more broadly, can provide a structure for this support, additional support comes from partners, family, friends, and even colleagues (Brooks et al., 2013; Giordano et al., 2014). Giving social support can also be key which is why serving other community members through sponsorship is a foundational activity within the AA 12-step program (AAWS, 1980, 2022b). Such behavior is posited to positively impact sobriety length (Zemore et al., 2017). And while abstinence is not the only AUD treatment outcome goal, one study found that participants had greater abstinence outcomes during the year following AUD treatment if they were either actively engaged in sponsorship or another way of *carrying the message* (i.e., worked step 12) (AAWS, 2022c) during AUD treatment (Pagano et al., 2004).

[10] The Oxford Group (OG) was a body of Christian worshipers organized in the early 1900s by Frank Buchman, a Pennsylvania Lutheran Minister (For A New World Foundation, n.d.; The AA Grapevine, 1988). Many OG ideals are reflected in the 12-steps of Alcoholics Anonymous (AAWS, 1980; Kurtz, 1991).

Laudet (2003) found that 12-step participants and clinicians generally appreciate the helpfulness a 12-step group can offer to individuals working on AUD, but 64% of clinicians in the study indicated concern that 12-step participation could trigger or retraumatize individuals. Still, peer support in 12-step has specifically been identified as a key positive contributor to AUD recovery (Laudet, 2003; Pagano et al., 2004). The 12-step structure offers individuals a way to contribute to a community, which can bring feelings of usefulness and purpose (Pagano et al., 2004). Further, 12-step groups are a place where individuals can openly disclose AUD and recovery (Faulkner et al., 1988; Kurtz, 2002; Vaillant & Hiller-Sturmhöfel, 1996). Not only can this help encourage sobriety and recovery efforts, but it also pushes back against stigma (Romo & Campau, 2020)

As aforementioned, social media platforms are an increasingly popular way for people to interact and create social networks virtually (Wright, 2016). Reddit supports such interaction. Within platforms, users form subcommunities that are usually topically organized (e.g., health, news) (Wright, 2016). Reddit is especially popular; for instance, the platform had 1.7 billion worldwide visits in May 2022 (Statista, 2022c). Notably, United States traffic accounts for 47.13% of all Reddit desktop traffic (Statista, 2022b). As of September 2019, Reddit's mobile app had about 48 million United States users (Statista, 2022a).

Reddit is well-known for anonymity in community-specific conversations (Hintz & Betts, 2022; Leavitt, 2015; O'Neill, 2018); this is particularly valuable for vulnerable populations, like individuals with AUD. In subreddits, users can enjoy anonymity while seeking support, new information, or conversation (Panek et al., 2017); they also provide a unique space for trauma survivors to share stories, be heard, and feel validated (O'Neill, 2018). Baptista et al. (2021) note that online support groups are one resource individuals can turn to when dealing with health-

related uncertainty. Further, they note that subreddit users dealing with the same health issues often have high empathy for each other (Baptista et al., 2021).

Thus, as feelings of safety, familiarity, and encouragement have increased Reddit user engagement, the platform's popularity continues to provide communication scholars with many opportunities to conduct meaningful, focused research (Hintz & Betts, 2022; Proferes et al., 2021). Helpfully, conversations are stored online and are available for ongoing examination (Proferes et al., 2021). As mentioned previously, r/stopdrinking (2010) is presently the largest subreddit with a specific focus on stopping or controlling alcohol consumption; it has 389k users as of October 2022. By contrast, r/alcoholicsanonymous has almost 51k users. Hence, r/stopdrinking has nearly eight times more users than the official AA subreddit. Given the public familiarity with AA, this disparity might suggest a widespread paradigm shift in how individuals approach AUD.

In 2016, r/stopdrinking had only 30k users (Dewey, 2016), so its growth since is appreciable. According to Dewey (2016), at the time, 20 percent of r/stopdrinking users reported the subreddit was their only support group. Like other online forums, r/stopdrinking is accessible 24/7. In addition to the subreddit, there is an online chat room and a virtual book club (Dewey, 2016). While these are valuable resources, it is the large community of individuals, including volunteer moderators, that makes it an inviting alternative to traditional in-person AA 12-step meetings (Dewey, 2016). Notably, recent technology advancements allow self-help organizations to offer online meeting formats, including AA 12-step meetings (12 Step Online, n.d.). The growth of r/stopdrinking reflects an ongoing expansion of individuals publicly giving voice to AUD experiences, which might signal a growing reduction of stigma regarding AUD.

Researchers have begun to explore r/stopdrinking in innovative ways, often analyzing the content through machine learning. For example, Harikumar et al. (2016) examined over 40,000 posts, looking at differences between short and long-term abstainers. They discovered that long-term abstainers were instrumental in offering supportive messages in response to stresses that were communicated by short-term abstainers (Harikumar et al., 2016). Relatedly, Tamersoy et al. (2015) explored the potential of social media regarding the cessation and abstinence of smoking and drinking alcohol, respectively. One innovation they offer is that language, and interaction cues of users might potentially be operationalized into a kind of early warning system to potentially help individuals avoid abstinence disruptions (Tamersoy et al., 2015). More recently, Gauthier et al. (2022) examined ways that r/stopdrinking and r/OpiatesRecovery offer support to addiction recovery. They found that both subreddits seem to foster a particularly strong sense of community through sharing stories, lending advice, providing emotional support, and heavily moderating threads to ensure respect. Further, they identified that one peer support theme centered around users providing support of formal addiction treatment (e.g., detox clinics, 12-step groups like AA). Specifically, this included support for member concerns about 12-step programs (e.g., locating female support in a male-dominated space, encouraging newcomers, and validating some concerns regarding 12-step references to a higher power) (Gauthier et al., 2022).

The Over-Privileging of Cognition in AUD Behavior Change

When taken to such extremes that they create distress or harm, many unhealthy behaviors (e.g., smoking, drinking) (Beresford, 2007) are often considered problematic and addictive and in need of change—as are some otherwise healthy behaviors (e.g., sex, eating) or recreational behaviors (e.g., gambling) (Kardefelt-Winther et al., 2017). However, these behaviors often co-occur, intersect, or overlap in some way with trauma (i.e., traumatic events, experiences, effects)

(Brady & Back, 2012; Guinle & Sinha, 2020; Smith & Cottler, 2018; Wiechelt & Straussner, 2015). Indeed, a growing body of empirical evidence has well established a relationship between trauma—its lingering impacts on the body and brain—and addictions, broadly (Brady & Back, 2012; Esfeld et al., 2021; Hambrick et al., 2019; Mergler et al., 2018; Shahab et al., 2021; Weinhold & Weinhold, 2010).

For instance, one detrimental impact is a disruption to cognitive functioning when the cerebral cortex shuts down following certain types of stress responses (Perry & Winfrey, 2021). For individuals thus affected, behavior change is a more complex process that necessarily includes incorporating practices known to help reactivate the cortex (e.g., breath, movement) (Costello & Walters, 2021; Perry et al., 1995; Perry & Hambrick, 2008). While choosing is a vital part of behavior change and trauma healing (SAMHSA, 2014a), because more primary parts of the brain activate trauma responses in the body, one cannot only think their way through trauma healing (Perry & Winfrey, 2021; van der Kolk, 2014). Hence, when trauma healing coincides with AUD recovery, it is all the more vital to expand beyond cognitive practices.

However, many AUD recovery programs heavily privilege cognition while underutilizing non-cognitive processes like AUD medication treatments (SAMHSA, 2015). For example, three nonaddictive medications (i.e., naltrexone, acamprosate, disulfiram), approved by the U.S. Food and Drug Administration (FDA), are available for use in AUD treatment and can help manage alcohol dependence and support relapse prevention (Patel & Balasanova, 2021; SAMHSA, 2015). Both naltrexone and acamprosate can support abstinence, manage alcohol cravings, and help to reduce heavy drinking (Patel & Balasanova, 2021). Disulfiram also supports abstinence, but because it blocks alcohol breakdown, it often causes uncomfortable side effects, like nausea (Patel & Balasanova, 2021). The SAMHSA (2015) suggests that these medications should be

used in conjunction with other treatment components (e.g., therapy, support groups) (SAMHSA, 2015).

Thus, medication treatments hold the potential to aid individuals' AUD recovery process as an augmentation of cognitive efforts and self-help group participation, such as AA. However, AA holds a cautious view of prescription medication use. For instance, in a recent supplemental pamphlet, AA outlines several points for how individuals can avoid prescription medication misuse (AAWS, 2018). And although the pamphlet was published after the AUD medications were approved by the FDA, there is no mention of the drugs or even that this type of prescription medication is available (AAWS, 2018).

AA's 12-steps (see Appendix A)—the basis for numerous behavior change programs and self-help groups—are nearly entirely cognitive in addition to being spiritually focused. Each step assumes an individual's ability to engage the cortex. For example, first, there is the cognitive recognition that one's drinking practices have led to an unmanageable life. This awareness is then followed by cognitively adopting a belief in a higher power and cognitively choosing to surrender one's will and life over to that power. Further work includes the cognitive labor of reflectively identifying, inventorying, and then interpersonally communicating many aspects of one's unhealthy drinking behavior (i.e., moral inventory, character defects, person's harmed) (see Appendix A) (AAWS, 2022c).

The privileging of cognition in health behavior change might implicitly communicate to individuals that choosing new behaviors is the only way to achieve health behavior change. But it might also suggest, albeit more quietly and potentially harmfully, that individuals obtained their unhealthy behaviors entirely by choice, thereby pointing to the moral failing perspective. Importantly, neither of these messages captures the full scope of addictive behavior or the

challenge of changing addictive behaviors. However, mental health professionals and health communication scholars are well-positioned to conduct interdisciplinary investigations into this phenomenon and participate in expanding current health behavior change models. Such work can further develop existing theoretical foundations to include more trauma-informed perspectives and adopt more trauma-informed processes.

Building Resilience: A Trauma-Informed View of AUD and Behavior Change

A trauma-informed perspective of AUD and behavior change can increase safety and nurture resilience for individuals working on AUD behavior change (SAMHSA, 2014a, 2015). Although *trauma-informed* as a perspective has seen inconsistent use over time, researchers have identified six key principles that individuals and organizations can use in service of creating and updating content, communication, policy, and practices—and thus be more trauma-informed and trauma-aware: (1) safety; (2) transparency and trustworthiness; (3) peer support; (4) collaboration and mutuality; (5) empowerment (i.e., voice, choice); and, (6) cultural, historical, and gender issues (SAMHSA, 2014a; 2014b).

Implementing SAMHSA's six-point trauma-informed perspective into behavior change theories, programs, and organizations not only benefits the individuals working on behavior change (e.g., AUD), but it also promotes the achievement of organizational goals and objectives and increases collaboration in health campaigns (Clements et al., 2021; Craig et al., 2020), thus benefiting the systems that serve the people (SAMHSA, 2014a). Importantly, trauma-informed programs promote resilience building and illustrate the interconnectedness of trauma and resilience (SAMHSA, 2014a, 2014b, 2014c).

In related research, Williamson et al. (2020) further existing knowledge regarding perpetrator trauma. Briefly, this type of trauma occurs when an individual experiences symptoms

of PTSD that stem from their own behavior(s) (Williamson et al., 2020). Although the topic of perpetrator trauma is underdeveloped (Williamson et al., 2020), it does point to a collective experience (i.e., harmed self and others) shared by many individuals working to overcome AUD and other addictions. But notably, the 12-steps only attend to the latter of these two injuries (see Appendix A, Step 8). Hence, this area of trauma research lends support to the need to update the 12-steps to acknowledge the very large role that trauma plays in the lives of individuals who have harmed themselves or others through substance or behavior addictions.

That the DSM-5 included the self as a perpetrator is "a conceptual and controversial shift in traditional definitions of trauma disorders" (Williamson et al., 2020, p. 77). However much controversy this might bring, it also signals a more trauma-informed diagnostic manual. Given that not only are many addicted individuals traumatized in early childhood (Brady & Back, 2012; Hambrick et al., 2019; Mergler et al., 2018; Shahab et al., 2021; Weinhold & Weinhold, 2010), but their addictive coping strategies proved to be maladaptive and ultimately resulted in their becoming perpetrators of trauma to others. Such individuals deserve and need a more complete knowledge that fosters new understanding and leads to self-awareness and self-compassion. A trauma-informed update to the 12-steps would significantly reduce an individual's study of self-defects (Eng, 2016) and work to build resilience—a remarkable step in the healing direction.

Theoretical Foundation

The Transtheoretical Model

The transtheoretical model (TTM) takes a comprehensive view of intentional health behavior change (Fava et al., 1995; Norcross et al., 2011; Prochaska et al., 1992; Velicer et al., 1996). The multiple constructs of TTM were drawn from numerous theoretical assumptions in an effort to capture and integrate the prevailing knowledge regarding health behavior change, hence

its name (i.e., transtheoretical) (Prochaska et al., 1992, 1994, 2008). The TTM holds a realist ontology and objective epistemology, respectively (Prochaska et al., 2008). First, some reality regarding behavior change is available, and it can be discovered; second, knowledge about that reality can be objectively determined and shared (Prochaska et al., 2008). Since TTM was first conceptualized in the 1970s, it has consistently been applied to the study of intentional health behavior change and heavily influenced addiction treatment strategies (Migneault et al., 2005; Prochaska et al., 2008; Velasquez et al., 2005).

Clients and therapists have noted many, sometimes contradictory, reasons for poor or unsuccessful behavior change outcomes (Prochaska et al., 1992). That is, individuals who labor to adopt or forsake a particular health behavior, usually iteratively, are unsuccessful. Although behavior change can occur unintentionally, an individual's intent to change is foundational in TTM. Therefore, researchers interested in intentional change—regarding problematic health behaviors like an addiction—sought to find commonalities in the structure of behavior change. Specifically, they compared self-directed change (i.e., without therapeutic intervention) and treatment-mediated change (i.e., with therapeutic intervention) (Prochaska et al., 1992, 1994; Prochaska & di Clemente, 1982, 1983). Within these broad categories, researchers sought to understand the disparity between addiction treatment goals vs. addiction treatment outcomes. In particular, researchers sought answers for why some individuals recover, why others briefly improve but return to the behavior, and why still others forsake treatment prematurely (Prochaska et al., 1992).

Two key constructs of TTM are the stages of change (SoC) and the processes of change (PoC) (Fava et al., 1995; Prochaska et al., 1992; Velicer et al., 1996). Together, these constructs provide some explanation for *when* (i.e., stage) and *how* (i.e., process) individuals intentionally

change behavior (Prochaska et al., 1992; Velicer et al., 1996). According to TTM, for most individuals, intentional health behavior change is nonlinear and includes many processes. More specifically, individuals tend to move through the series of change stages in a spiral manner and tend to enact change processes relative to the change stages (Prochaska et al., 1992; Velicer et al., 1996). The two constructs also highlight key cognitive components needed for intentional health behavior change—whether change is self-directed or mediated (Prochaska et al., 1992; Velicer et al., 1996). Self-directed behavior change is sometimes incorrectly called spontaneous remission (Prochaska et al., 1992). But given the many internal and external adaptations required to attain intentional behavior change, it is useful to recognize that both self-directed and mediated change are labor-intensive endeavors.

The utility of TTM for this study comes from the foundational understanding and clarity that two constructs (i.e., the stages and processes of change) (see Appendix B) provide regarding intentional health behavior change. The two constructs are empirically proven, clearly defined, and include specific treatment or intervention implications (Fava et al., 1995; Prochaska et al., 1992, 2013; Velicer et al., 1996). Given that the communications under investigation in this study result from someone experiencing a disruption in their efforts to stop drinking, the stage location of these individuals is already partially known. So, although the SoC have historically been used to study substance use behaviors (e.g., AUD) (Migneault et al., 2005), in this study, the stages serve to provide an important context for exploring whether individuals apply the PoC in accordance with TTM predictions. However, before it is feasible to understand the PoC, it is first necessary to introduce and briefly explain each SoC and two ways that individuals might experience movement between stages. The stages of change (SoC) and processes of change (PoC) are further articulated in the following section.

The Stages of Change

Whether mediated or self-directed, TTM identifies that behavior change occurs similarly and temporally (i.e., marked by time) (Norcross et al., 2011; Prochaska et al., 1992). The TTM identifies time durations for each stage (see Appendix B); these are intended to provide a way to consistently compare patient interview responses (Prochaska & Prochaska, 2021). Researchers credit knowledge of the SoC to "ordinary people struggling to change on their own" (Prochaska, 2008, p. 576). An early linear model presented four distinct stages (i.e., precontemplation, contemplation, action, maintenance) (Prochaska & Di Clemente, 1982). Yet, later this model expanded to include a fifth stage (i.e., preparation) between contemplation and action (Prochaska et al., 1992; Velicer et al., 1996). Relatedly, as researchers began to notice that intentional behavior change follows a less linear, more spiral pattern, they also began to understand that disruptions in behavior change (i.e., relapses) are largely unavoidable (Prochaska et al., 1992, 2013; Velicer et al., 1996). Most recently, a sixth stage (i.e., termination) has been included; it follows the maintenance stage and is characterized by individuals having full self-efficacy and zero temptation (Prochaska & Prochaska, 2019, 2021) (see Appendix B). Thus, in total, the original four stage model has been expanded to a six-stage model.

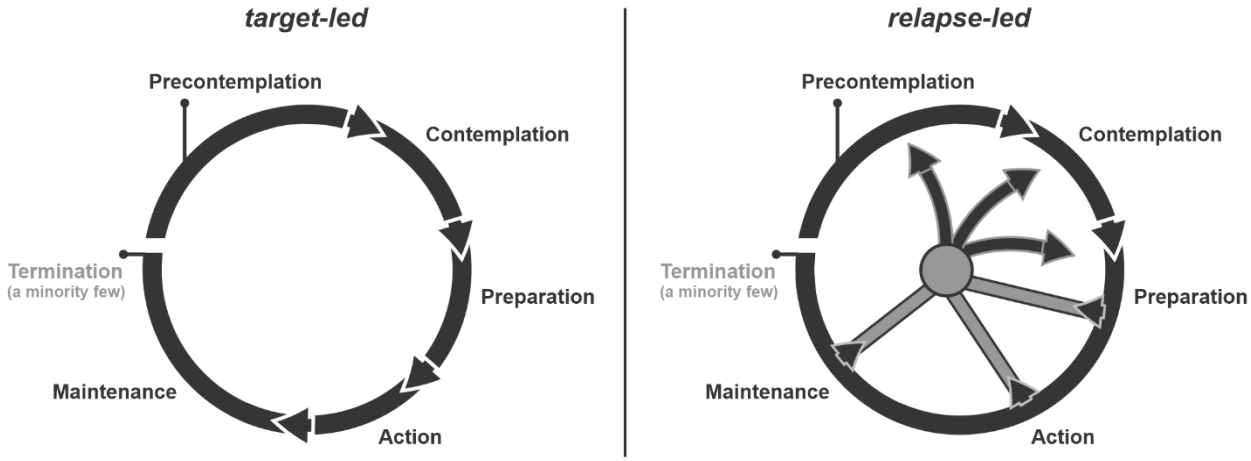
In TTM, relapse more describes how an individual moves between stages rather than how a behavior change was disrupted (e.g., consumed alcohol, smoked a cigarette) (Velicer et al., 1996). Essentially, when behavior change goes according to the intended plan, individuals can experience a *target-led* or sequential movement between stages. But, when behavior change deviates from what was intended, individuals can experience *relapse-led* movement between stages. These stages of change movements are illustrated in Figure 1. Specifically, in relapse-led movement, individuals move between stages in a nonlinear, spiral manner (Prochaska et al.,

1992). That is, due to a break in behavior change, an individual often moves from the action or maintenance stage to the precontemplation, contemplation, or preparation stage (Prochaska et al., 1992; Velicer et al., 1996). Notably, behavior change is difficult, and most individuals do not enjoy uninterrupted target-led movement through each stage (Prochaska et al., 1992, 2013).

The SoC are cognitively directed: Activating the processes of intentional health behavior change cannot begin until an individual experiences sufficient evaluative increase (i.e., cognition) to contemplate making a change (Prochaska et al., 1994). Moreover, target-led movement between stages relies on an individual's ability to employ cognitive thought

Figure 1

Path of Movement through The Stages of Change



The above models offer a simplistic view of the complexities involved in the Stages of Change, regarding the path of movement an individual pursuing health behavior change might experience. In practice, such change is often messy and involves many starts, continuations, and disruptions, although individuals are likely to move from disruption into precontemplation, contemplation, or preparation (Prochaska et al., 1992; Velicer et al., 1996). **Left:** Illustrates progressive or *target-led* movement through the Stages of Change, where an individual might start and continue a health behavior change, moving from one stage to another stage without experiencing a disruption. **Right:** Illustrates iterative or *relapse-led* movement through the Stages of Change where an individual might start a health behavior change and experience any number of disruptions and subsequent restarts.

(e.g., plan, choose) (Prochaska et al., 1994). Consider that interventions for individuals in contemplation are thought to lead to action when they are tailored around reducing the number of perceived cons—regarding the behavior change (Prochaska et al., 1994). However, relapse-led movement into a new iteration of intentional behavior change also heavily relies on cognition (e.g., reflection) (Prochaska et al., 1992; Velicer et al., 1996). For instance, some people will feel poorly about themselves and their experience and prefer to take a break from behavior change labor; these individuals experience a relapse-led movement into precontemplation (Prochaska et al., 1992). Yet, study findings suggest that for most individuals, a relapse-led movement results in a return to either contemplation or preparation, where they seek to learn from previous change labor efforts and make plans for additional change (Prochaska et al., 1992).

In *precontemplation*, the first stage, individuals might desire behavior change, but they lack a serious intent to change within at least six months (Prochaska et al., 1992, 1994), which is thought to be the greatest amount of future time an individual plans behavior change (Velicer et al., 1996). Individuals in precontemplation are often insufficiently aware that there is even a problem to address (Prochaska et al., 1992). But because those closest to them often can identify a problem behavior, sometimes a precontemplator is heavily pressured to see a therapist or get some kind of help (Prochaska et al., 1992).

The second stage is *contemplation*; in this stage, individuals have become aware that there is a behavior problem, and they give serious thought (i.e., contemplation) to how they might attend to the problem (Prochaska et al., 1992, 1994)—again, within six months (Prochaska et al., 1994; Velicer et al., 1996). In this stage, individuals are uncommitted to a particular course of action (Prochaska et al., 1992), and it is not uncommon for people with AUD to get stagnate

here (Patterson Silver Wolf & Nochaski, 2010). One reasoning for this stagnation is that an individual might know what they want to do but are not yet ready to take action (Patterson Silver Wolf & Nochaski, 2010; Prochaska et al., 1992).

Once an individual feels ready to take action, they move into the third stage, *preparation*; here, they have a clear plan they intend to enact—within one month (Prochaska et al., 1992; Velicer et al., 1996). Also, individuals who have previously attempted behavior change without achieving the intended outcome, but feel ready to try again, fit this phase (Prochaska et al., 1992, 1994; Velicer et al., 1996). While it is not uncommon to see small steps toward behavior change occur in this stage, it is a time of planning and making decisions (Prochaska et al., 1992).

The fourth stage, *action*, begins with implementing the behavior change (Prochaska et al., 1992, 1994). Individuals remain in this stage from day one up to six months of behavior change (Prochaska et al., 1992; Velicer et al., 1996). During action, it is necessary for people to modify many aspects of life to support the behavior change goal (Prochaska et al., 1992). Given the high visibility of many modifications, Prochaska et al. (1992) note that action often gets mistaken for an outcome, even by professionals. More specifically, because behaviors altered during the action stage are generally quite visible and are often markedly different from old behaviors, they can become conflated as change outcomes (Prochaska et al., 1992). Because this stage involves enacting the decisions made during preparation, it has been coined the busiest stage of change (Velicer et al., 1996).

After six months of sustained behavior change, an individual moves into the fifth stage, *maintenance* (Prochaska et al., 1992, 1994). Here, they continue the actions of behavior change and work to avoid behavior change disruptions (Prochaska et al., 1992). Maintenance begins after six months of consistent behavior change; it is thought to continue for at least five years

(Prochaska et al., 1992, 1994; Prochaska & Prochaska, 2019; Velicer et al., 1996). The primary goal of maintenance is to avoid behavior change disruptions and solidify the intentional health behavior change (Prochaska et al., 1992; Velicer et al., 1996).

According to TTM, individuals who are successful in maintaining behavior change can eventually reach an ideal outcome: the stage where one's problem behavior is finally terminated (i.e., the *termination* stage) (Prochaska & Prochaska, 2019, 2021). Notably, for the minority of individuals who experience this outcome, "it is as if they never acquired the habit in the first place" (Prochaska & Prochaska, 2019, p. 221). Indeed, regardless of internal or external factors, these individuals experience no temptation to engage in the behavior (Prochaska & Prochaska, 2019). The SoC have been widely studied in the context of overcoming many problematic health behaviors, including AUD (Prochaska et al., 1994; Rollnick et al., 1992; Velicer et al., 1996).

AUD behavior change is complex (Velicer et al., 1996) and usually involves multiple and varied types of change disruptions—including lapses in abstinence (Brooks et al., 2013; Dennis et al., 2007; Milhorn, 2018; Prochaska et al., 1992). Moreover, as noted by the recent NIAAA definition of AUD recovery, not everyone shares a goal for sustained abstinence (Hagman et al., 2022). Regardless of whether abstinence is the end goal, individuals working on AUD behavior change deserve to understand that behavior change disruptions are the rule—not the exception (Norcross et al., 2011; Prochaska et al., 1992; Velicer et al., 1996). Indeed, multiple iterations of the behavior change process are expected (Norcross et al., 2011; Prochaska et al., 1992; Velicer et al., 1996). Unfortunately, behavior change disruptions that result in relapse-led movement between stages can overshadow behavior change gains (Prochaska et al., 1992, 2013).

The negative emotional impact of such disruptions can be so overwhelming for some that they abandon the behavior change entirely, at least temporarily (Prochaska et al., 1992, 2013).

But most individuals in this space will evaluate the disruption, consider what new strategies might lead to more sustained change, and then move into a new iteration of behavior change (Prochaska et al., 1992, 2013; Velicer et al., 1996). Contrary to popular belief, this cycling through the stages multiple times does not equal starting over (Prochaska et al., 1992, 2013; Velicer et al., 1996). A new iteration through the SoC does not imply regression; rather, it generally marks progression (Prochaska et al., 1992; Velicer et al., 1996). Whereas the SoC illustrate *when* change occurs (i.e., attitude, decision, action), the PoC unpack *how* these occur; that is, how individuals experience changes in attitude, intention, and behavior using visible and invisible behavior change strategies (Norcross et al., 2011; Prochaska et al., 1992; Velicer et al., 1996).

The Processes of Change

Each of the PoC outlined in TTM (see Appendix B) is a distinct, broad category that draws on varied, well-established psychotherapeutic methods, techniques, and interventions (Prochaska et al., 1992; Prochaska & di Clemente, 1983). Together, the PoC is a framework of core theoretical ideas, synthesized into a construct that usefully illuminates *how* individuals intentionally change health behavior. Given this structure and purpose, the PoC construct can well-guide an essential part of this study (i.e., of r/stopdrinking initial posts that communicate some instance of behavior change disruption during intentional health behavior change, what PoC are evident, and are they occurring as TTM suggests?).

The PoC fall into one of two dimensions, experiential or behavioral; presently, each dimension has five processes (Fava et al., 1995; Freyer et al., 2006; Prochaska et al., 2008). Whereas experiential processes are generally cognitive and align with the early SoC (i.e., precontemplation, contemplation), behavioral processes are generally active and usually occur in

the later SoC (i.e., action, maintenance) (Freyer et al., 2006; Norcross et al., 2011; Prochaska et al., 2013). Each process has an established definition with common intervention strategies.

Experiential Dimension: Processes in this dimension include: (1) self-reevaluation; (2) environmental reevaluation; (3) consciousness-raising; (4) social liberation; and, (5) dramatic relief (Fava et al., 1995; Norcross et al., 2011; Prochaska et al., 2008). *Self-reevaluation* includes seeing the self anew; it requires making assessments about oneself regarding behavior that is considered problematic; interventions are heavily cognitive (e.g., imagining future self without problem behavior) and are in service of generating improved self-perceptions (Norcross et al., 2011; Prochaska et al., 1992; Prochaska & Prochaska, 2019). Relatedly, e*nvironmental reevaluation* assesses ways that one's problem impacts one's environment and explores how behavior change might impact that environment; interventions and empathy training can encourage such reevaluation (Prochaska et al., 1992; Prochaska & Prochaska, 2019). *Consciousness-raising* involves acquiring information about oneself and one's problem behavior; here, targeted interventions include raising awareness of the pros of pursuing behavior change as well as highlighting positive outcomes of psychotherapy (Norcross et al., 2011; Prochaska et al., 1992; Prochaska & Prochaska, 2019). *Social liberation* is a form of public support that often follows systemic change and leads to more socially available behavior alternatives; however, smaller social networks can provide similar, pressure-free spaces that support behavior change (Norcross et al., 2011; Prochaska et al., 1992; Prochaska & Prochaska, 2019). *Dramatic relief* involves making space to explore and experience one's feelings about one's behavior problem and possible solutions, particularly change-based relief; interventions here include role-playing and considering another's experience (Norcross et al., 2011; Prochaska et al., 1992; Prochaska & Prochaska, 2019).

Behavioral Dimension: Processes in this dimension include: (1) helping relationships; (2) counter-conditioning; (3) self-liberation; (4) reinforcement management; and, (5) stimulus control (Fava et al., 1995; Norcross et al., 2011; Prochaska et al., 2008). *Helping relationships* encourage individuals to become open and trusting with others about their problem behavior; interventions tend to be action-oriented (e.g., use the buddy system, attend a self-help group) (Norcross et al., 2011; Prochaska et al., 1992; Prochaska & Prochaska, 2019). *Counter conditioning* encourages individuals to replace problem behaviors with healthier ones; a targeted intervention could encourage an anxious client to adopt relaxation techniques (Norcross et al., 2011; Prochaska et al., 1992; Prochaska & Prochaska, 2019). *Self-liberation* relies on an individual's capacity to adopt a belief in their ability to change a particular behavior and their commitment to act on that belief; notably, as individuals exercise choice regarding behavior change activities, their motivation to change tends to rise (Prochaska et al., 1992; Prochaska & Prochaska, 2019). *Reinforcement management* often includes adopting specific reward plans that support behavior change goals; because self-reinforcement (i.e., giving and accepting self-praise) is more readily available than social reinforcement (i.e., giving and accepting group praise), individuals are strongly encouraged to hone self-skills (Norcross et al., 2011; Prochaska et al., 1992; Prochaska & Prochaska, 2019). *Stimulus control* generally requires individuals to actively manage their environment; common interventions include environmental changes that help to decrease one's desire for behavior, like removing tempting stimuli (e.g., removing alcohol) and adding supportive stimuli (e.g., joining a support group) (Prochaska et al., 1992; Prochaska & Prochaska, 2019).

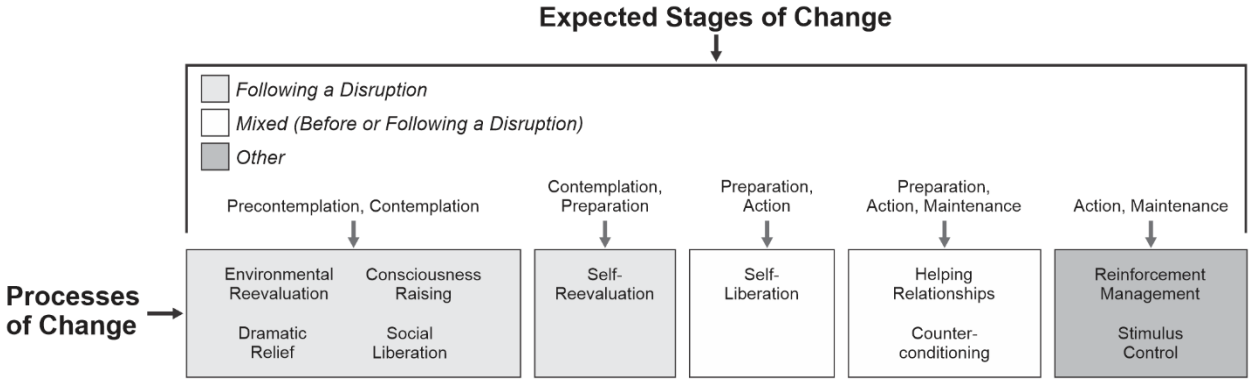
While any process of change can occur during any stage of change, research findings demonstrate that certain processes tend to be emphasized between specific stages; these are

illustrated in Figure 2 (Prochaska et al., 1992; Prochaska & di Clemente, 1983; Prochaska & Prochaska, 2021). First, between precontemplation and contemplation, three processes (i.e., consciousness-raising, dramatic relief, environmental reevaluation) have long been emphasized (Norcross et al., 2011; Prochaska et al., 1992); however, social liberation was recently added here (Prochaska & Prochaska, 2021). Next, self-reevaluation is emphasized between contemplation and preparation, and self-liberation is emphasized between preparation and action (Prochaska et al., 1992). Finally, while helping relationships and counterconditioning are emphasized across preparation, action, and maintenance stages—reinforcement management and stimulus control are only emphasized between the action and maintenance stages (Prochaska et al., 1992; Prochaska & Prochaska, 2021).

Like the stages, the processes have been rigorously tested and applied to diverse health behavior problems (e.g., smoking, alcohol use, diet) (Prochaska et al., 1992, 1994; Velasquez et al., 2005; Velicer et al., 1996). Such research has consistently yielded strong theoretical and

Figure 2

Expected Stage of Change for Each Process of Change



The processes of change are organized here according to the stages of change which the transtheoretical model predicts they are most likely to occur in. The illustration relies on the Prochaska and Prochaska (2021) explanation of the Stages of Change and the Processes of Change.

empirical support for TTM among both self-directed and mediated changers (Prochaska et al., 1992; Prochaska & Prochaska, 2019). The PoC are often operationalized as predictor (i.e., independent) variables (Prochaska et al., 1992). Notably, in smoking cessation studies, the PoC construct has provided more predictive power regarding the stage of change progress than other predictor variables (e.g., demographics, problem severity, reasons for behavior) (Prochaska et al., 1992).

Consequently, this construct can be operationalized to interpret and categorize online communication regarding disruptions to intentional behavior change. Additionally, TTM posits that an individual's PoC points to their location (i.e., stage) in the behavior change process. Specifically, regarding relapse-led stage movement, TTM predicts where an individual is likely to land and what processes they are likely to adopt following a behavior change disruption. Therefore, individuals who post on r/stopdrinking about such disruptions might provide statements that agree with TTM predictions, but they might not. Either way, both the SoC and PoC provide distinct guidelines that can be adopted as lenses for analyzing these communications.

The Communication Theory of Resilience

The communication theory of resilience (CTR) is both a practical and theoretical lens that is useful for examining and explaining how individuals communicate and build resilience during and after a life disruption (i.e., minor to monumental upset) (Buzzanell, 2019). Accepted as an interpretive tool but not yet viewed as a predictive tool, the CTR holds a social constructionist view of reality that is colored by "critical and dialectic sensibilities and strategies" (Buzzanell, 2019, p. 77). In accordance with a social constructionist view, it accepts that multiple realities exist and that individuals construct these "socially and contextually over space and time" (p. 77);

but it also acknowledges ongoing tensions between change and stability and continuity and discontinuity (Buzzanell, 2019). These foundations work together to produce "actionable forms of knowledge" (Buzzanell, 2019, p. 70) across micro, meso, and macro levels.

Following its introduction (Buzzanell, 2010), the theory has largely seen qualitative application and validation (Buzzanell, 2019). However, researchers are now also finding ways to apply CTR to quantitative studies (e.g., Hintz et al., 2021; Sánchez & Lillie, 2019; Venetis et al., 2019). Extending CTR's utility, the newly developed communication resilience process scale (CRPS) (see S. R. Wilson et al., 2021) can measure the extent that individuals perform CTR resilience processes, thus furthering CTR's utility in quantitative research. Specifically, CRPS enables researchers to: (1) set boundary conditions and test CTR predictions; (2) explore the impact of stereotypes and stigma on an individual's ability to enact resilience; and (3) test theory assumptions regarding anticipatory resilience (S. R. Wilson et al., 2021). Portions of this current study are guided by the seven resilience process items that were validated by S. R. Wilson et al. (2021) in the CRPS; these are covered in greater detail in the Methods section.

The CTR comprises three components: (1) trigger events; (2) anticipatory and reactive resilience; and, (3) five processes that humans adopt in service of re/gaining power following life disruptions (Buzzanell, 2019). Rather than a state or trait, CTR views resilience as a dynamic process that all individuals can choose to enact and build—one that both informs and is informed by intersecting levels of communication (e.g., self, dyad, family, community) (Buzzanell, 2019). Specifically, through the use of "language, interaction, networks, and attention to their identities and identifications" (Buzzanell, 2019, p. 68), individuals work to shape new norms and senses of normalcy in anticipation of or response to life disruptions.

According to CTR, individuals can experience a *trigger event* to varying degrees of impact and finality (e.g., illness, job loss, relationship disruption/termination) (Buzzanell, 2019; S. R. Wilson et al., 2021). Such disruptions might fit the SAMHSA (2014a) definition of trauma, but they also might not. The CTR imagines that trigger events are problem-driven and lead to sensemaking activities. For instance, one human response to a trigger event is to grapple with *why* (e.g., "why this" "why me") (Buzzanell, 2019). But, more broadly, following a trigger event, resilience is activated and is manifest through the human response of enacting any number of communicative sensemaking practices, which CTR suggests aligns with one of the five resilience processes (Buzzanell, 2010, 2019). This response then holds the power to generate positive, even radical, changes in perspective (Buzzanell, 2018).

Importantly, resilience building neither implies nor needs a return to what was. Initially, this idea may seem at odds with the TTM SoC characterization of individuals who experience behavior termination (i.e., as though they never acquired the habit) (Prochaska & Prochaska, 2021). However, resilience building is a process that includes forward-facing growth practices that manifest differently across time and circumstance (Buzzanell, 2019). While TTM makes clear that behavior change often includes multiple disruptions to change efforts, CTR identifies that how people enact *reactive resilience* (i.e., respond, react) to disruptions (e.g., abstinence breaks) becomes part of the disruption (Buzzanell, 2018). Thus, obtaining termination implies that an individual has likely responded repeatedly to breaks in behavior change with forward-facing practices (i.e., resilience); hence, the two ideas are more complimentary than opposing. Also, considering how resilience building might manifest in spaces of addiction recovery points to the diversity of what it can mean to build resilience.

Notably, resilience does not mean the same thing to everyone: How an individual chooses to respond to and assign meaning to a life disruption is itself a resilience building endeavor. In this way, individuals are empowered to enact creativity (Buzzanell, 2019), change their stories, and bring intention to a disruptive event (Buzzanell, 2018). Resilience building requires care and cultivation (Buzzanell, 2018). Such work operationalizes and portrays difficult lived experiences in ways that can empower those affected and build stability for the self and the other—in the present and the future (i.e., anticipatory resilience) (Buzzanell, 2018). Buzzanell (2019) defines *anticipatory resilience* as "resilience that presumes loss and is fostered prior to human engagement with events that are perceived as disruptive" (p. 68). This can be characterized as an awareness of future likelihoods (e.g., the eventual death of a loved one) that individuals can anticipate encountering. However, work regarding anticipatory resilience is ongoing and will likely continue to shape CTR (Betts et al., 2022).

For example, although not generalizable to all populations, Betts et al. (2022), suggest that anticipatory resilience might be usefully viewed in certain bounds as "an antenarrative process that shapes how individuals understand the future in terms of the disruptive events they have already experienced" (p. 227). The antenarrative view challenges more dominant views within resilience communication theorizing (i.e., privileging coherent narratives) and instead gives privilege to the incoherent, often disjointed, and fragmented thoughts that accompany trigger events (Betts et al., 2022)—like trauma. Such a view might usefully increase trauma awareness in CTR and perhaps even facilitate a future inclusion of noncognitive body resilience processes (e.g., sensorimotor processing; see Costello & Walters, 2021) that can foster cognition when trauma memory activation interferes with cortex functioning (Perry & Winfrey, 2021).

While heavily cognitive, resilience work extends beyond the individual mental labor of adapting, recovering, or coping from difficulties and disruptions; it includes the relational labor of connecting with others through reaching out, sharing, and offering support (Buzzanell, 2018). Notably, CTR recognizes that resilience is not inherently good; sometimes, individuals bounce forward in destructive ways (Buzzanell, 2018). In addition, transformation and positive change can become limited if individuals fail to communicate reflexively regarding their disruptions (Buzzanell & Houston, 2018). Thus, developing productive resilience requires having an ability to cognitively evaluate, interpersonally communicate, and connect with others.

According to CTR, both nature and nurture (i.e., individuality, sociality) impact five core nonprogressive resilience processes, which unfold over time through communicative events (e.g., d/Discourse, messages, narrative) (Buzzanell, 2010, 2019). Although these processes are not necessarily new, their "function as the basis of resilience is" (Buzzanell, 2010, p. 3). CTR's five resilience processes are: (1) craft normalcy; (2) foreground productive action and background negative feelings; (3) affirm identity anchors; (4) use/maintain communication networks; and, (5) construct alternative logics (Buzzanell, 2010, 2018, 2019).

Crafting normalcy enables individuals to regain a sense of relief and implement new norms after experiencing a life disruption (e.g., maintain or create routine) (Buzzanell, 2010, 2019); this process occurs largely through talk and interaction (Buzzanell, 2019). Given that disruptions usually impact individuals or families on multiple levels simultaneously (e.g., social, financial), crafting normalcy across all areas of disruption may become necessary (Buzzanell, 2010, 2018). Considered both a process and preferred outcome, crafting normalcy is often observable (e.g., seen, heard, felt) in that individuals work to keep things normal and perform usual routines (Buzzanell, 2010, 2019; S. R. Wilson et al., 2021).

The process of *foregrounding productive action and backgrounding negative feelings* enables individuals to validate their experience without emphasizing the negative outcomes or circumstances (e.g., loss, disruption) (Buzzanell, 2010, 2019). Although still cognitive, this resilience labor also has a vital emotional tension. That is, while individuals acknowledge their right to feel angry, they do not privilege anger (Buzzanell, 2019). Rather, they recognize the forward motion of life and choose to privilege positive actions and focus on productive goals and resilient outcomes (Buzzanell, 2010).

When individuals *affirm identity anchors*, they enact the identities or roles that are at stake following a trigger event and garner support from others to affirm these (Buzzanell, 2019). The CTR conceptualizes identity anchors as a kind of orienting touchstone that individuals use to situate themselves in relation to others (Buzzanell, 2010, 2019). However, this does not mean all individuals share agreement on these perceptions. Rather, identity anchors can be both voluntary and assigned to us by others, and likewise, they can be accepted or rejected (Hintz et al., 2021).

Maintaining and using communication networks includes seeking "resources from connections with others" (Buzzanell, 2019, p. 74). This resilience labor commonly consists of seeking out new connections with others (e.g., individuals, communities) or relying on existing ones (Buzzanell, 2010, 2019). Hence, CTR notes that strong or established connections usually become the primary resource for people following a trigger event. These connections present opportunities to offer or draw on social capital in times of disruption, a common practice on r/stopdrinking (e.g., many posts seek support seeking posts with high engagement).

Finally, *constructing alternative logics* is a process that aids individuals in facing "the illogical, counterintuitive, and contradictory nature of life" (Buzzanell, 2019, p. 74). This process might include employing humor, applying metaphors (Hintz et al., 2021) and responding to the

problem or trigger event in creative, unusual, and even unexpected ways (e.g., with humor) (Buzzanell, 2010, 2019). By finding these new perspectives, individuals expand their capacity for resilience. In short, this brief introduction and description of trigger events, reactive and anticipatory resilience, and the five resilience processes explains what CTR is and illustrates how resilience is communicatively constructed (Buzzanell, 2019).

As has previously been established, disruptions in AUD behavior change are common, even expected. Whereas the TTM maps when (i.e., stage) and how (i.e., process) a person enacts intentional behavior change, the CTR (i.e., through the CRPS) facilitates a consideration of the resilience building processes in terms of possible statements. Thus, through the CRPS (S. R. Wilson et al., 2021), the CTR can help to guide an examination of whether and to what extent each resilience building process is present within r/stopdrinking disclosures of, and responses to, abstinence disruptions. Hence, the CTR is a useful lens to analyze communications regarding abstinence related disruptions on r/stopdrinking. Therefore, the CTR intersects well with the TTM in service of interrogating and measuring established processes of behavior change and resilience building in r/stopdrinking communicative practices. Taken collectively, the aforementioned lead to the following research questions:

Research Questions

RQ1a: To what extent do r/stopdrinking posts *include resilience building processes*—as identified in CTR and conceptualized by the CRPS—in *initial posts* where an individual discloses an abstinence disruption?

RQ1b: To what extent do r/stopdrinking posts *include resilience building processes*—as identified in CTR and conceptualized by the CRPS—in *response dialogues* to initial posts?

RQ2a: To what extent do r/stopdrinking posts explicitly mention *trauma* (i.e., use the term) in *initial posts* where an individual disclosed an abstinence disruption?

RQ2b: To what extent do r/stopdrinking posts *identify and acknowledge trauma* (i.e., events, experiences, effects) in *initial posts* where an individual discloses an abstinence disruption?

RQ3a: To what extent do r/stopdrinking posts *communicate acceptance or rejection* of AA's 12-step ideology—in terms of fully accept, mixed view, fully reject, or not say?

RQ3b: To what extent do r/stopdrinking posts *promote AA and its 12-steps*—in terms of referencing, recommending, or challenging AA or the 12-steps (i.e., argue, question, disagree)?

RQ4a: In r/stopdrinking *initial posts*—where an individual discloses an abstinence disruption, how many of the TTM processes of change are identifiable?

RQ4b: In r/stopdrinking *initial posts*, to what extent do the processes of change follow the predictions outlined in TTM?

RQ5a: Drawing on the RQ3 categories and the aggregate resilience score of a post (generated by RQ1), is there any relationship between acceptance or rejection of AA's 12-step ideology and the aggregate resilience score of *initial posts*?

RQ5b: Is there any relationship between whether *trauma* is explicit in an *initial post* and the aggregate resilience score of *initial posts*?

RQ5c: Is there any correlation between the total number of processes of change identified in *initial posts* and the aggregate resilience score of *initial posts*?

Chapter 3: Methodology

Content analysis is a diverse research method that allows for qualitative and quantitative exploration of various content (e.g., social media posts) (M. D. White & Marsh, 2006). It enables researchers to examine existing texts (e.g., self-published Reddit initial posts and responses), code, and analyze data in accordance with established practices (Hsieh & Shannon, 2005; M. D. White & Marsh, 2006). The flexibility of content analysis enables it to be applied to a host of issues and topics; it is robust enough to guide a study but compatible enough to work with other research methods (M. D. White & Marsh, 2006).

Although it has colored communication-related research for centuries, the term content analysis was not coined until Berelson and Lazarsfeld (1948) introduced it in their publication, *The analysis of communication content* (Krippendorff, 2019). Despite content analyses dating back to the late 1600s—following the arrival of the printing press, the method did not gain popularity until the 20th century, when the emergence of mass newspaper production ignited quantitative newspaper analysis. Later, as more communication media came online (e.g., radio, television), researchers adapted these methods to fit all media, thus leading to modern content analysis (Krippendorff, 2019).

Whereas print media (e.g., advertising, textbooks, newspaper) dominated early content analysis research (Krippendorff, 2019), social media (e.g., interactive self-publish platforms) are poised to dwarf that body of work. Indeed, following the advent of interactive web pages (i.e., Web 2.0) (dictionary.com, 2012), social media platforms (e.g., Reddit, Twitter) have become an integral part of human communication. For instance, of a global population approaching nearly 8 billion people (Statista, 2022a), 4.26 billion people were identified as social media users in 2021 (Statista, 2022d)—roughly 56 percent. Moreover, this figure is expected to increase to 74 percent

by 2027 (Statista, 2022d). While these data do not distinguish between users and producers, given that users can also publish (i.e., produce), as social media users increase, so does social media content. Notably, when accounting for the impact of the digital divide (Muller & Aguiar, 2022), usage rates are likely even higher among individuals with access to social media.

Hence, the current volume of self-published content is vast, and its expected continual growth presents numerous novel challenges and opportunities regarding the study of human communication. For instance, self-published content on nearly every subject of human behavior and nearly every topic of human interest is available online (Krippendorff, 2019). Thus, many social media platforms are spaces that researchers can easily access and study (D'Souza et al., 2021; McIntosh, 2019)—and many are. For example, researchers are finding ways to investigate social media in service of discovering new health insights (e.g., addiction recovery, behavioral awareness, self-disclosure, social support, mental health stigmatization) (Bowen, 2016; Chen & Xu, 2021; de Choudhury & De, 2014; D'Souza et al., 2021; Gaspar et al., 2022; Gauthier et al., 2022).

One unique advantage of content analysis research is that it examines published public data after the fact (e.g., self-published social media) rather than seeking data from individuals. Thus, researchers do not directly interact with human subjects, and approval from an institutional review board approval (IRB) is not typically sought or required (Merrigan & Huston, 2008; Proferes et al., 2021). Another advantage is that self-published content remains online long past the initial posting date unless deleted by users or moderators—thus building growing libraries of potential research data (Panek et al., 2017). Subsequently, content analysis is considered the "fastest-growing technique" (Neuendorf, 2017, p. 2) in mass communication research: Never before has research produced such a spike in published articles employing content analysis.

Given that public social media data (e.g., Reddit) are readily available for examination, researchers with internet capability can access data for content analysis with relative ease (Proferes et al., 2021). In addition, because individuals can post anonymously, some might feel more comfortable entering a conversation (e.g., post, respond), especially if the topic carries any stigma. Thus, not only are researchers presented with a host of investigative opportunities that can lean into the aforementioned flexibility of content analysis, but they might also be able to include more diverse voices. In particular, the voices of individuals who want to be heard but not identified. Therefore, such data and method pairing can guide research that examines to what extent existing theories—developed and empirically supported either prior to or outside of social media—still hold when applied to the wild spaces of social media. Specifically, public online communications (i.e., data) can newly test and be tested by suitably adapting established self-report measures to content analysis (i.e., method)—a salient endeavor of this study.

Procedures

As aforementioned, this study explores four interrelated communication phenomena that might occur within a particular public discourse (i.e., initial r/stopdrinking posts that disclose a break in alcohol abstinence and response posts to such disclosures). The four phenomena under investigation are: (1) resilience building discourse; (2) trauma discourse and identification; (3) discourse regarding users' views of AA; and, (4) discourse regarding intentional health behavior change. The phenomena are explored in terms of Merten's (1977) three dimensions of reflexive communication (i.e., social, objective, temporal). To summarize, the social dimension includes both experience sharing and response opportunities; the objective dimension includes making statements about statements; the temporal dimension includes the capacity, practice, and impact of continued feedback over time (Merten, 1977).

Goals of this study include investigating whether established epistemologies regarding resilience and health behavior change (i.e., TTM, CTR) tend to operate in the wild (i.e., subreddit posts)—according to existing theory and model expectations. In particular, the study concerns certain posts made on r/stopdrinking, which reported over 420k users in February 2023—making it the largest subreddit dedicated to achieving and maintaining temperance or abstinence from alcohol consumption at the time of this writing. Given its user abundance, the data site was expected to host a rich collection of reflexive communication among users regarding disclosed breaks in alcohol abstinence. Initially, a comparison between r/stopdrinking and r/alcoholicsanonymous was considered for this study. Yet, out of respect to AA's statement regarding the organization not participating in research, r/alcoholicsanonymous was not included as a data site for this investigation. However, what does remain an area of interest in this study, in regard to AA, is whether users of a public site not governed by AA might refer to AA or its 12-step ideology and, if so, in what way (e.g., the steps are mentioned, recommended, questioned, argued).

Hence, this study analyzed initial r/stopdrinking posts that disclose a break in alcohol abstinence and response posts to such disclosures for the presence or absence of each of the four communication phenomena under investigation. Notably, response posts were included and explored in this study to explore possible similarities or differences in whether or how resilience building behaviors might be identified between the initial post statements and response post statements—in terms of the study coding parameters. Given the research goals and the data site selected for this study, a mixed content analysis approach was taken (Hsieh & Shannon, 2005). Thus, study decisions regarding the qualitative and quantitative components are next explained.

In qualitative study, content analysis has been defined as "a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns" (Hsieh & Shannon, 2005, p. 1278). A qualitative content analysis often means that a researcher will adopt one of three approaches: conventional, directed, or summative. First, the *conventional* approach seeks to describe a phenomenon by examining data without relying on pre-established categories; instead, it privileges observations that appear within the data (Hsieh & Shannon, 2005). Although the present study was not guided by the conventional approach, it remained conventionally sensitive that themes (e.g., resilience behaviors) might be present within the communication phenomenon under investigation but fall outside the theory-guided, pre-established codes.

Indeed, this is how gratitude came to be established as an additional resilience building behavior in this investigation. Namely, gratitude statements were made by r/stopdrinking users with such frequency that gratitude was identified as a theme early in the coding process. In light of the emerging relationship between gratitude and resilience (e.g., Caleon et al., 2019; J. T. Wilson, 2016), and given that gratitude statements within posts were generally straightforward with low nuance, gratitude statements were added to the resilience building coding schema. Relatedly, storying and reflection statements were also recognized within the posts. However, these constructs and their possible role in resilience building require a deeper investigation that falls outside the scope of this study. For these reasons, such statements were set aside unless they met the coding criteria for another category. Notably, such communicative practices might well bolster resilience in an individual; thus, the presence of storying and reflection statements in both data sets is noted.

The second, *directed* approach, is more structured than the conventional approach, given that it seeks to test existing theories and models—a goal of this investigation. In a directed approach, a study's theoretical foundation also guides the framing of research questions (Hsieh & Shannon, 2005). For example, code criteria—based on existing factors (e.g., theory or model constructs, variables) and established operational definitions (e.g., CRPS items)—are developed in advance of analysis. Hence, depending on the data and the study goals, researchers establish theory-guided codes, then choose to either begin coding immediately or delay coding in favor of an initial, impression-led phenomenological review of the content (Hsieh & Shannon, 2005). Given the goals of this study center around a type of theory testing, once the data collection was complete, coding began immediately. However, the researcher remained alert to possible phenomena nuances that, while not initially identified, could potentially surface. As these nuances emerged, it became necessary to better identify and clarify the boundaries of each coding category and create clear instructions regarding the study's coding parameters.

Finally, the third, *summative* approach, counts words or other textual content in service of exploring their usage (Hsieh & Shannon, 2005). For instance, such analyses first establish the word or content frequency. However, rather than relying on the counts to make inferences about content meaning, this approach relies on interpreting counts (i.e., latent content analysis) to uncover nonobvious but detectable meanings. Specifically, counted data can point to patterns and help provide a context for the codes. For example, in this study, the word count of a post was central to establishing a metric (i.e., resilience percentage) that was used to compare the volume or saturation of unique resilience building statements in a post across data sets. Of the three content analysis approaches, the summative most closely aligns with quantitative content

analysis. Of course, each approach also has drawbacks that must be considered before deciding how to conduct a given study (see Hsieh & Shannon, 2005).

In quantitative study, content analysis deductively seeks to operationalize concepts by establishing valid, relevant, and exhaustive codes before (i.e., a priori) a researcher begins coding (M. D. White & Marsh, 2006). Nevertheless, using a priori codes does not mean that analysis or coding will be a rapid process; instead, researchers must attend to the text carefully and iteratively. Further, in service of establishing criteria that generate reliable coding across researchers, codebooks need explicit instructions, definitions, and examples (M. D. White & Marsh, 2006). For example, in this study, two coding schemas were necessary to guide the analysis and coding of two data sets (i.e., initial and response posts). Consequently, the initial and response post coding schemas are introduced in separate coding parameter documents (see Appendix C, E, respectively) and further outlined in corresponding codebooks (see Appendix D, F, respectively). The subsequent coding arrangements are introduced here and explained in greater detail in the data analysis section.

The first coding schema is for initial posts; it is complex and has four components: two are broad, and two are narrow (see Appendix C). The narrow components include statements regarding resilience behaviors and processes of change. Importantly, these are narrow because only statements reflecting the period that follows the break in abstinence are relevant to this study. The broad components include statements that identify trauma and any stated views regarding AA—regardless of the time period relative to the break in abstinence. The second coding schema is for response posts; it is less complex, given its one component is statements regarding resilience behaviors. However, because it considers three perspectives, it required a separate set of coding instructions and examples (see Appendix E).

The coding arrangements for resilience behaviors were designed around the established CRPS measure (see S. R. Wilson et al., 2021); however, gratitude was added for the reasons outlined earlier. The coding arrangement for trauma relied on the explicit use of the term and the (2014a) SAMSHA trauma definition and categories (i.e., the three E's). The coding arrangement for stated views regarding AA relied on a general categorization of possible statements. Finally, the coding arrangement for processes of change relied on definitions established by Prochaska and Prochaska (2021; see Table 5.2, p. 90). Each coding arrangement is further explained in the data analysis section. Noted here, though, is that the existing definitions, measure, and model were valuable tools in developing valid, relevant, and exhaustive codes in advance of conducting a content analysis. Importantly, applying a priori coding requires that attention be given to coding reliability and validity both in advance of the analysis (M. D. White & Marsh, 2006) and later following the analysis (Neuendorf, 2017).

First, regarding advance consideration: Given the subjective nature of face validity (i.e., a measure's goodness of fit)—a common step in content analysis—researchers are wise to solicit expert input to bring as much objectivity as possible to the coding choices that will guide concept probing (M. D. White & Marsh, 2006). After coding choices are established, the researcher(s) code all included data in accordance with the detailed instructions outlined in the codebook. In this investigation, the content being analyzed (i.e., initial subreddit posts and responses) is primarily qualitative and requires qualitative attention. Specifically, the overall approach taken here was to analyze and code the collected data following a directed approach—in terms of *what* was analyzed, *how* it was considered, and *where* it was categorized and coded. However, it also approached the analysis quantitatively by counting and exploring: (1) the quantity and frequency of resilience and trauma statements; and, (2) the total quantity of processes of change statements.

Regarding the former, it explored *how many* unique resilience building statements were present in initial and response posts and *how much* trauma was expressed in initial posts. Regarding the latter, it explored how many processes of change were identified in each initial post. Thus, a portion of the qualitatively analyzed data was counted. These counts resulted in several ratio variables (e.g., resilience behaviors, trauma categories) that could be quantitatively examined (e.g., descriptive statistics, relationship, correlation).

Second, the latter consideration of coder reliability (i.e., intercoder reliability) must be analyzed when humans analyze content. Although reliability analyses test for the similarity or difference in coding between coders (Neuendorf, 2017), these also identify "how much of the variance in the observed scores is due to variance in the true scores" (Hallgren, 2012, p. 24), after removing coder-related measurement error. Hence, reliability analyses test and help to validate coding schemas (Neuendorf, 2017). Importantly, intercoder reliability must be established for each coded variable (Hallgren, 2012; Neuendorf, 2017). As there are many ways to assess reliability, researchers should take care to select an appropriate analysis (Hallgren, 2012; Neuendorf, 2017). Selecting a suitable reliability analysis requires considering the study design (e.g., quantity of coders), the type of data (e.g., nominal, ratio), and the reason for the reliability estimate (e.g., rating reliability of individual coders vs. reliability of mean ratings across coders) (Hallgren, 2012).

One reliability analytic is Cohen's *kappa* (κ) and its variants; these are often used to assess the reliability of nominal-level data (Hallgren, 2012; Neuendorf, 2017), which applies to 18 variables in this study. Notably, Cohen's *kappa* analyses are only suitable for comparing two coders (Hallgren, 2012). However, when three coders rate the same subset of data (i.e., a fully crossed design), as this study engaged, Cohen's *kappa* is nevertheless applicable, but extra steps

must be taken. Specifically, Light (1971) proposed a two-step process for each variable: (1) compute a *kappa* score for each coder pair; and, (2) calculate the mean of these scores to determine the overall index of agreement (see Hallgren, 2012). When a *kappa* score is at least .80 percent (i.e., $\kappa = .80$), it is usually considered an acceptable level of reliability (Neuendorf, 2017). A second type of reliability analysis, intra-class correlation (ICC), is commonly used to assess the reliability of continuous-level data (Hallgren, 2012; Neuendorf, 2017); this applies to 14 variables in this study. The ICC is appropriate whether there are two or more coders. Further, it is suitable when three coders rate a subset of the data and a primary coder rates the remainder (Hallgren, 2012)—as was done in this study. An ICC value in the .60 – .74 range is considered good; a value in the .75 – 1.0 range is considered excellent (Hallgren, 2012). Reliability test results for this study are outlined in the data analysis section.

Sample

Purposive sampling is a type of population sampling employed by researchers when the particular characteristics of a given population are the guiding interest (Mujere, 2016)—as is the case in this study. Yet, there are multiple types of purposive sampling, and the characteristics and goals of each inform how a researcher might approach data collection. Given that sampling types may be used alone or in combination, purposive sampling can bring unique flexibility to social science research. This study draws on two types of purposive sampling: extreme and maximum variation (Mujere, 2016).

The first purposive type, *extreme*, is useful for studying special or unusual cases (Mujere, 2016, p. 119). For many users within the r/stopdrinking population, the focus is on achieving or maintaining abstinence from alcohol. Hence, posts that disclose a break in abstinence represent a deviation from this objective and can thus be viewed as extreme cases within the population.

Studying extreme cases can shed new light on a topic or a situation; indeed, this type of sampling can sometimes "reflect the purest form of insight" (p. 119) about the phenomena being explored. The second purposive type, *maximum variation,* seeks to capture the widest possible range of perspectives (i.e., heterogeneous) regarding the phenomena being explored (Mujere, 2016). This study aimed to capture a full range of perspectives regarding both initial and response posts—in terms of: (1) sample selection; and, (2) subsequent data analysis.

To capture the widest possible range (i.e., heterogeneous) of perspectives regarding the phenomena being explored, this investigation planned to sample initial posts and response posts across twelve months (i.e., October 2021 – October 2022). The range was chosen in part because certain days (e.g., holidays) are known to sometimes trigger abstinence disruptions (Marks, 2004; Milhorn, 2018; Rosenbloom, 2009). Therefore, it was thought that sampling an entire year would be best to capture day- or date-related abstinence breaks. While one year of data might more fully have attained *maximum variation*, once data exploration began, two factors emerged that highlighted a need to adjust the original plan and sample only one month instead of one year.

These factors were not initially apparent because no data were explored until this study received committee approval. However, once data exploration began, a spot check across the one year revealed that, when provided, reasons for breaks in abstinence were quite similar across the months. That is, dates (e.g., holidays, anniversaries) were not identified in examined posts as being more influential of a break than were other stated factors. Indeed, when provided, such statements most often centered around a user's choice to drink—for various reasons (e.g., test moderation, celebrate accomplishments). Other times, the provided statements might signal that the return to drinking was a trauma response, especially when users made a because-statement

about breaking abstinence (e.g., because my partner left me, because my child received a serious medical diagnosis, because I lost my job).

While the first factor was a curious discovery, it alone would not have necessarily signaled a need to adjust the sample period. However, the sheer volume of subreddit data quickly emerged as a second, unignorable factor. Specifically, thousands of posts were made to the site each month. Complicating things more was that to overcome some search limitations, each 24-hour period had to be manually searched using a third-party portal (this is further explained in a later section). Taken together, these factors led to a deeper dive into the data, month by month, to explore for possible patterns that a given month might be an outlier, compared to the rest.

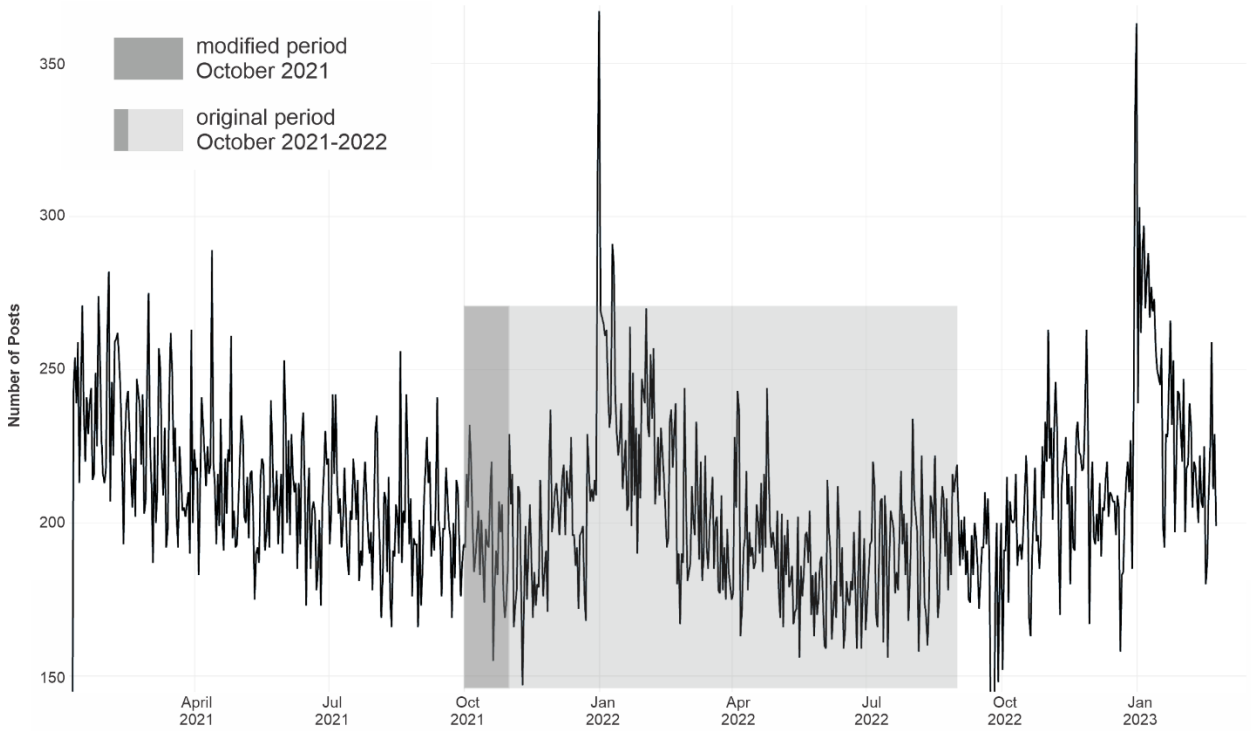
Relatedly, catchy sober titles are sometimes added to certain months of the year (e.g., dry January, dry July, sober October). These so called sober or dry months have gained popularity across the globe—often to inspire fundraisers—since they were first launched in 2013 with Britain's dry January fundraiser (Fletcher, 2022). Then, in 2014, sober October began as a cancer fundraising effort in the United Kingdom—regarding alcohol-related cancers. Not only did this effort highlight yet another month for individuals to consider giving up alcohol, but it grew into a global movement that continues to raise money and awareness about the benefits of sobriety (Healthline, 2020). However, participation in sober October does not require an individual to contribute financially to any organization.

Regardless of catchy sober titles for certain months, the deeper review of posts by month found that in many conversations on r/stopdrinking, users tend to adopt names for *every* month, sometimes with multiple variations (e.g., dry February, fast February, fed up February). Further, r/stopdrinking users are explicit about celebrating every alcohol-free day as a success, with a focus on one day at a time vs. a focus on a given set of days (e.g., week, month). Hence, the

deeper review of posts did not suggest that such sober terms created outlier months—in terms of abstinence break disclosures. Although only an exploration of data, not a complete analysis, this review of posts indicated a *life happens* theme was present across all months. Yet, as Figure 3 illustrates, a spike in posts does occur in January, which likely relates to the common practice of resolution setting. Thus, given these spikes, January was identified as an outlier and was not considered a potential sample month. Equal consideration was given to the remaining 11 months, which appeared equally likely to represent a year's worth of data—regarding overall average post volume (see Figure 3) and similarity across stated reasons for abstinence break disclosures. The month selected for the study was October 2021 had a total of 6,052 initial posts, or an average of 195 per day (subredditstats.com, 2023).

Figure 3

r/Stopdrinking Initial Posts By Period



The graph was generated on https://subredditstats.com/r/stopdrinking with additions by the researcher.

Sample Sizes

The initial post sample data set comprised public, nonidentifiable r/stopdrinking posts that: (1) disclosed a user having experienced a break in alcohol abstinence; and, (2) were posted during October 2021. Of the 6,052 r/stopdrinking posts made during October 2021, only 3.2% (*n* = 193) met the study criteria for initial posts, with a total word count of 31,257. The response post sample data set comprised public, nonidentifiable responses to these posts that met four criteria: (1) was a first-level response; (2) was not a duplicate, (3) was not deleted by the initial user; and, (4) was not posted by either the original user or by a subreddit moderator acting in an official capacity (e.g., rules regarding making comments). These four criteria ensured that all study response posts were unique and directed towards an initial post (i.e., not a tangential conversation) by someone other than the original user and had not been removed from the conversation by the user. Although Reddit metrics for the initial post sample report 2,424 total responses, only half (51.1%, *n* = 1238) met the four inclusion criteria, with a total word count of 59,789. Hence, the two data sets included a total word count of 91,046.

Interestingly, a large number of posts—at least as many as were captured—had subject lines that suggest the post might have met the study inclusion criteria; but these were deleted by the user. These deleted posts are worth noting because although the 193 posts captured in the sample represent 100% of the October 2021 data, still present on the subreddit at the time of data collection (i.e., November 2022), there appears to be a very high occurrence of post deletion by users, at least around this issue. Thus, the percentage of initial posts that meet the inclusion criteria for this study—for a given month—might vary depending on how deletion activity occurs relative to the date of the initial post and the timing of subsequent data collection. That said, however, identifying deletion dates or metrics falls outside the scope of this study. Of

importance here is that the data collected for this study were the data appearing publicly at the time of this data collection.

Sample Collection and Organization

Increasingly, content analysis studies can utilize keyword searches and/or data scraping to facilitate the process of locating and collecting data (Gallagher & Beveridge, 2022; Hintz & Betts, 2022). When study samples can be thus compiled, the often tedious task of data collection is made easier. However, the communication phenomenon examined in this investigation is conveyed in myriad ways by r/stopdrinking users. For instance, only 19.2% of the initial posts (*n* = 37) examined in this study included the term *relapse* when disclosing a break in abstinence. Therefore, in this case, data collection via a data scrape reliant on such a keyword would surely have resulted in an inadequate data sample.

Because r/stopdrinking users employ various ways to communicate having had a break in alcohol abstinence, a manual review of all initial posts was necessary to identify posts that met the study criteria of disclosing a break in alcohol abstinence. A manual review was used for both the preliminary data exploration and the subsequent sample month data collection. Importantly, posts that disclosed a user's struggle to *establish* abstinence without identifying any prior period of abstinence were not included in the sample. This distinction recognizes that experiencing unestablished abstinence is not the same as experiencing a break in abstinence—however similar the two experiences might be.

The manual search and review for this study were conducted using the third-party Reddit search portal, *www.Redditsearch.io*. Such portals can be useful in Reddit research, particularly when researchers must sift through textual nuance to locate a relevant data sample (e.g., Porter III & Robb, 2022). For instance, portal search filters allow for custom, flexible searches (e.g., by

subreddit, within specific time periods). The method of manual search and review used by the researcher in this study included three steps: (1) search r/stopdrinking by day (i.e., in 24-hour increments), which was necessary to overcome some portal limitations regarding output; (2) open and scan each daily post for mention of a break in abstinence; and, (3) save the initial post URL to a data sheet if it met the study criteria; this was for later content collection.

Once the manual search and review of each day were complete and all relevant initial posts were identified, the primary researcher collected the contents of the initial posts and the corresponding response posts. In keeping with best practices regarding protecting Reddit user privacy (see Hintz & Betts, 2022), no personal or identifying data were collected. For example, if a user stated a first name, which happened on a few occasions, such names, even though publicly posted, were removed from the collected content out of caution. Again, for the same reason, the example post statements referenced in this study are paraphrased rather than directly quoted. Although the FAQ page on r/stopdrinking makes clear to users that all information posted is publicly accessible, it similarly makes clear that users prefer anonymity (r/stopdrinking, 2023b). Hence, supporting user anonymity is recognized in this study. The Reddit platform is helpful because it collects minimal information (Reddit.com, 2022) and little to no personal information is publicly available. These factors allows users to publicly share their experience and seek support while protecting their identity.

Figure 4 illustrates how data moved through this study, from r/stopdrinking to the results. First, after data were collected, the initial and response post data sets were organized into two data sheets (DS): initial posts as DS1 ($N = 193$) and response posts as DS2a ($N = 1238$). Posts in both data sets were then assigned a unique identifier. For example, the first initial post was labeled IP1, and so on. Next, following this pattern, response posts were assigned a unique

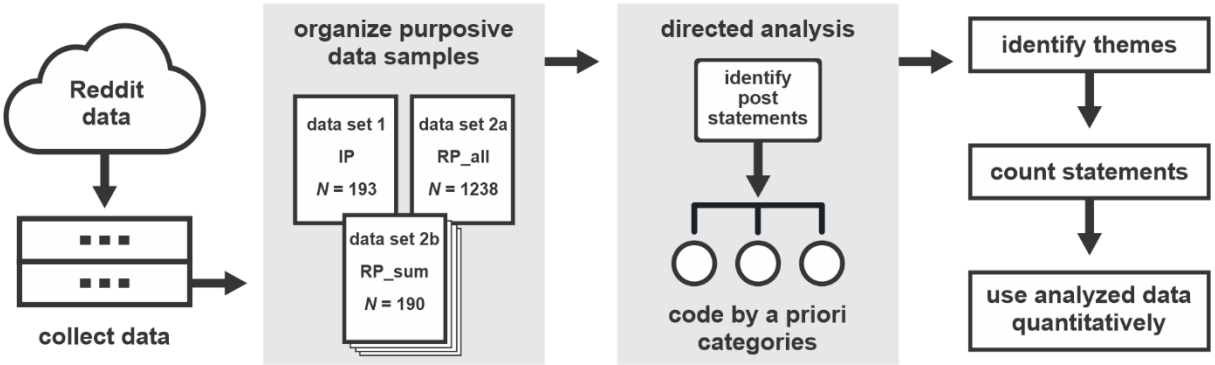
identifier corresponding to the initial post. For example, IP1 had 15 included responses; thus, the identifiers for this set of response posts ranged from IP1RP1–IP1RP15 and so on. Once the data were organized, a mixed but directed analysis was conducted, wherein post statements were identified and coded according to a priori categories, as aforementioned.

Finally, all post statements were qualitatively assessed, both in a binary manner regarding whether the statement met any a priori category coding criteria (i.e., yes or no) and in a thematic manner. This approach allowed the data to be systematically sorted into categories and fostered the visibility of themes within categories; it also enabled some variables to be later counted and analyzed quantitatively.

Notably, the practice of corresponding response post IDs with initial post IDs allowed for the later summing and collapse of response data into a third data set (i.e., DS2b; $N = 190$)—once DS2a coding was completed. This third and final data set allowed response posts to be explored as summed sets (i.e., by initial post), which was key in comparing the metric of resilience volume between initial and response posts. However, not all initial posts had responses; hence, a slight difference ($n = 3$) exists between DS1 and DS2b.

Figure 4

Mapping Data Collection, Organization, and Analysis



Note. Multiple *N* values. IP = Initial posts; RP_all = Response Posts, all; RP_sum = Response Posts summed and collapsed.

Data Analysis/Coding

As aforementioned, this investigation explored two data sets. More specifically, it first analyzed *initial posts* (i.e., DS1) that disclosed a break in alcohol abstinence for any of four types of statements; two were broad, and two were narrow (see Appendix C). The broad components included user statements regarding trauma and any stated views regarding AA—regardless of the time period relative to the break in abstinence. Conversely, the two narrow components include statements regarding resilience building and processes of change that reflect the period following a break in abstinence. The investigation next analyzed *response posts* (i.e., DS2a; responses to disclosure posts) for only one type of statement: resilience building. However, response posts often hold multiple perspectives. For example, a user might perform a resilience behavior, but they might also promote and/or validate a resilience behavior. Thus, in an effort to best capture all possible resilience building statements, the response post coding schema was expanded to include all three perspectives (i.e., perform, promote, validate).

Once all initial and response post data were collected from r/stopdrinking, data analysis began with the intercoder reliability process. After reliability was established using a random 20% of posts from each data set among the researcher and the two, independent coders, the primary researcher analyzed and coded the remaining 80% of posts in both data sets. Still, all data analysis (i.e., intercoder sample, remaining sample) followed the same ordered four-step process. Specifically, beginning with initial posts: (1) coders read each post; (2) coders considered each distinct post statement and assessed whether or not it met the codebook criteria for any category; (3) coders identified the statements on a corresponding coding chart (see Appendix G), either by pasting the statement or marking a box, depending on the category; and, (4) for relevant categories (i.e., resilience, trauma), coders counted and recorded the total number

of unique statements made. Next, response posts were analyzed and coded in like manner, but coders used the corresponding response post codebook and coding chart (see Appendix F, H).

Because individuals write uniquely, entire posts vs. individual post statements were used as the unitizing factor in these data (M. D. White & Marsh, 2006). Therefore, in addition to examining the rich qualitative characteristics of the data, the coding schemas and resulting statement counts enabled the qualitative content to be explored quantitatively. One step towards the latter analysis was to find a way to compare posts. Hence, the word count of posts served as a value central to establishing a metric that allowed the volume or saturation of resilience building statements to be compared across data sets. For consistency, the Excel LEN function was used to determine the word counts of initial and response posts in the data sheet.

However, obtaining the word count of posts required taking additional steps to attend to an acronym (i.e., IWNDWYT) commonly stated by subreddit users. Thus, all IWDNWYT occurrences were counted according to the number of words represented (i.e., seven). Specifically, the acronym stands for "I will not drink with you today." According to one 2017 post, the acronym is unique to r/stopdrinking. The seven letters reflect a community solidarity where users stay sober through mutual support and understanding. This sentiment highlights that no one needs to walk the sober road alone because there is an ever-growing community of individuals to journey with. The subreddit is well-known for its supportive and encouraging environment. While users will sometimes modify the acronym (e.g., add a word), it is still highly identifiable among the community. Moreover, the acronym shows up frequently on this subreddit. For consistency in this study, special coding instructions apropos of the acronym IWNDWYT were included in the coding parameters (see Appendix C, E). In brief, coders noted the existence of IWNDWYT but did not code for it. Instead, through intercoder agreement, all

occurrences (i.e., acronym, fully stated) were identified as meeting the coding criteria of three categories: one resilience (i.e., network) and two processes of change (i.e., helping, self-liberation). Consequently, the presence of the acronym or full statement was noted in the data sheet. Excel formulas were then used to: (1) automatically add one occurrence to the total count for *network*; and, (2) automatically adjust the yes/no binary coding for the presence of *helping* and *self-liberation* in the processes of change component. This coding decision helped to minimize the potential for human error regarding the coding of IWNDWYT.

The coding parameters (i.e., considering, coding, counting statements) and arrangements used in the study are next explained. First, however, it is important to note that while the coding explanations center around how post statements were coded and counted—with a quantitative focus, the qualitative nature of post statements is what made such coding possible. By examining posts for the presence of all coding categories, statements became organized in coding charts in a way that highlighted themes within categories across all four study components. These themes are identified in the Results' section and further explored in the Discussion section.

Considering, Coding, Counting Statements

In regard to *considering parameters* for post statements, a set of coding instructions was developed for each coding schema (i.e., initial, response). In the case of initial posts, statements had to meet time frame criteria to be coded in either resilience building or processes of change. Specifically, a statement had to reflect the period following a break in abstinence. However, all statements regarding trauma or AA were open for consideration, regardless of the time frame. As aforementioned, in the case of response posts, only resilience building was examined, and statements could take one of three perspectives (i.e., perform, promote, validate).

In regard to the category *coding parameters* for both initial and response posts, coders were instructed to code statements in the category that best matched the coding criteria. That is, a coder was supposed to prioritize identifying one best category for each statement vs. just coding the same statement in multiple categories. However, suppose a coder determined that a statement equally met the coding criteria for more than one category. In such cases, coders were instructed to capture the overlap by coding the statement in all best-matched categories.

In regard to *counting parameters*, only unique statements were identified and counted. This instruction was made clear in both the initial post and response post coding parameters (see Appendix C, E). For this investigation, a unique statement was defined for coders as being a unique remark (e.g., a fact, an idea) or a unique question. Therefore, when a user repeated the same fact, idea, or question, such duplicate statements were coded in the chart as needed but were *counted* as only one unique statement in the QTY column on the coding chart.

Component 1: Resilience Building

As mentioned, posts from both data sets were examined for statements of resilience building, where coding criteria were necessarily adapted. First, as a reminder, only *initial post* (i.e., DS1) statements that reflected the period following a break in abstinence could be coded for a resilience building category (see Appendix C). Second, any *response post* (i.e., DS2a) statement could be coded as resilience building so long as it met the criteria for one of three perspectives (i.e., perform, promote, validate) (see Appendix E). Yet, the *counting parameters* for these remained the same across both data sets; this continuity was necessary for the consistent calculation of resilience scores and percentages.

The coding arrangement for resilience behaviors was initially guided by components of the CRPS measure (see S. R. Wilson et al., 2021); thus, seven resilience behavior categories

were identified and operationalized as ratio variables (e.g., ROU_KEEP, ROU_CHNG). Yet, as aforementioned, gratitude was added to the coding schema, bringing the total number of resilience behaviors to eight. Importantly, because it is understood that not drinking is the overarching goal on r/stopdrinking and that such an outcome is generally the focus of its users, coding regarding *routines* (i.e., keep, change) was limited to statements of *non-drinking routines* across both data sets. Conversely, other categories (e.g., AFFIRM, REFRAME) could include a drinking-related statement if these also met any category coding criteria.

Only initial posts (i.e., DS1) were examined for the three other components: Statements that might meet the criteria for: (1) trauma; (2) mentions of AA; and, (3) processes of change. Again, all initial post statements regarding trauma or AA were considered for coding. That is, because this investigation explored whether any statements regarding trauma or AA were present, regardless of whether such a statement reflected the time before or after a break in abstinence, all such statements were coded. Conversely, statements that might reflect a process of change must first have met the abstinence break time frame criteria (i.e., they reflect the period following a break).

Component 2: Trauma

The coding arrangement for trauma relied on the (2014a) SAMSHA definition and categories of trauma (i.e., the three E's). Specifically, trauma was coded for in two ways. First, explicit statements of *trauma* were coded as a binary variable (i.e., yes, no). Second, post statements mentioning trauma *events*, *experiences*, or *effects* were identified and operationalized as three ratio variables (e.g., T_EVENT). This was accomplished by counting the number of instances a given trauma item occurs in a post; when none were identified, a zero score was entered.

Component 3: Mentions of Alcoholics Anonymous (AA)

The coding arrangement for stated views regarding AA relied on a general categorization of possible statements. Specifically, post statements that mentioned a user's views regarding AA or the 12-steps were operationalized nominally and coded in two ways. First, one categorical variable (i.e., IDEOLOGY) captured whether a user made any statements that reflected: acceptance, a mixed view, or rejection of AA—or whether this was left unsaid. Second, four binary variables (i.e., yes, no) related to promoting AA captured statements that: (1) referenced the 12-steps; (2) referenced AA or its materials; (3) recommended AA, the 12-steps, or its materials; and, (4) challenged AA or the 12-steps in terms of comments that argued, questioned, or disagreed with these.

Component 4: Processes of Change

Finally, the coding arrangement for processes of change relied on the definitions established by Prochaska and Prochaska (2021; see Table 5.2, p. 90). TTM processes of change were operationalized in two ways. First, the ten processes were coded as a binary variable (i.e., yes, no). Because TTM suggests which processes are most likely present during relapse-led stage movements, each process was accounted for rather than identifying a count for each process. Second, the total number of TTM processes (i.e., 0-10) was automatically tallied as a ratio variable in the data sheet. This total score identified how many distinct processes were present and was also used to test for correlation with the total resilience score.

However, r/stopdrinking users often made statements that reflected one part of a given process of change but not every part. Therefore, to capture processes of change statements, the coding decision was made to include both full and partial statements (i.e., or vs. and); this was noted in the initial post codebook (see Appendix F). Consequently, the definition of each process

of change—established by Prochaska and Prochaska (2021; see Table 5.2, p. 90)—was adapted such that the term *or* guided the coding decisions vs. the original term *and*. All such adaptations are noted by [or] in the codebook for clarity.

Reliability Assessment

As aforementioned, this study examines initial and response posts; hence, reliability statistics were necessary for all coded variables in both data sets (Hallgren, 2012; Neuendorf, 2017). Therefore, a subset of each data set was needed. These were created by selecting posts randomly using an online random number generator (i.e., CalculatorSoup, 2023) that randomly selects numbers from a range. Specifically, users enter the minimum and maximum number, identify the quantity of random numbers needed, set the repeat option to no, and sort from low to high. Hence, a number range was entered that corresponded with the total number of initial posts and response posts, respectively. Each output included a sorted list of numbers. This task was completed by the primary researcher, who also then extracted the corresponding data rows and created subsets for initial and response posts.

To revisit and explicate the reliability in this study more granularly, three coders (i.e., one primary, two independent, outside coders) coded the same random subset data (i.e., 20% initial posts, 20% response posts). Data coding and reliability analyses of the subset data were conducted first—to establish coding reliability. Once it was established that coding was being done reliably, the primary researcher coded the remaining 80% of the data. More specifically, subset data were analyzed and coded independently, initially by two coders. Many early coding differences were resolved by bringing more clarity to the codebooks. This included adding key examples from the data to improve intracoder and intercoder decision consistency. Other coding differences reflected variations in how a coder interpreted the data. When discussing coding

discrepancies, no coder was pressured to change their coding. Yet, coders often self-corrected because a discussion would highlight a mismatch between a coding decision and the codebook. Because codebook updates and improvements were numerous during the initial round of independent coding, a later, second round of independent coding was conducted by a third coder. Much less initial coding difference occurred, and most were resolved by revisiting the codebook category criteria.

Coding reliability was assessed similarly but separately for each data set (i.e., initial posts, response posts), and both sets included some mix of nominal and continuous variables. For instance, the initial data set has 18 nominal and 14 continuous variables; the response data set has one nominal and ten continuous variables. Therefore, reliability analyses were run among the three coders on 43 total variables (i.e., initial posts, 32; response posts, 11). For nominal data, *kappa* scores for each coder pair were first computed in SPSS v29.0, and the corresponding mean was calculated in Excel, in keeping with Light's (1971) suggestion (see Hallgren, 2012). For continuous data, the ICC was computed using SPSS v29.0.

In brief, presented are *kappa* scores: For initial posts, five variables received no coding by any coder, which held across the study for four variables; two variables were coded only one time by two of the three coders, resulting in insufficient data to measure; 11 variables had very high *kappa* scores (i.e., $\kappa = .93 - \kappa = 1.00$). For response posts, only one variable was nominal and had a very high *kappa* score (i.e., $\kappa = .99$). Notably, the two variables with insufficient intercoder data had a very low occurrence in the final coding. For example, in the subset, each variable was rated only once by two of three coders—one being the primary coder; no additional occurrences were identified for either variable in the remaining data set by the primary coder.

In brief, the resulting *average* ICC values for initial posts fell within the excellent range (i.e., ICC = .95 – 1.0), and *single* ICC values were similarly excellent (i.e., .87 – 1.0). This trend followed in the response posts, where the resulting *average* ICC value fell within the excellent range (i.e., ICC = .89 – .99), and *single* ICC values fell within the good to excellent range (i.e., ICC = .74 – .99). Given these reliability results, intercoder reliability among the three coders is acceptable.

Chapter 4: Results and Interpretation

This investigation explored five multi-part research questions that sought to examine four interrelated communication phenomena that might occur within a particular public discourse (i.e., initial r/stopdrinking posts that disclose a break in alcohol abstinence and response posts to such disclosures). As has been stated, post statements were explored in a particular way apropos of reflexive communication (Merten, 1977). More specifically, the analytical lens used in this study was composed by combining four elements: (1) resilience building categories, primarily guided by the CRPS measure (see S. R. Wilson et al., 2021); (2) established trauma definitions (SAMHSA 2014a); (3) a general categorization of possible statements regarding AA; and, (4) the transtheoretical model's ten processes of change (Prochaska & Prochaska, 2021). Hence, the first four multi-part research questions each relate to one element of the study (e.g., RQ1a, b relate to resilience; RQ2 a, b relate to trauma). In contrast, the final multi-part question relates to possible relationships between these elements. To carry out the investigation, all public r/stopdrinking posts (i.e., 6,052) from October 2021 were examined. Consequently, 193 initial posts and 1238 responses to those posts met the study's inclusion criteria and thus comprised the analysis.

While the quantitative findings from this study sketch the shape and size of the data, the qualitative findings add color and texture. Thus, when viewed only quantitatively, data in this study tell only part of the story. More specifically, four multi-part research questions in this study each include a *to what extent* component that, while quantitative data can provide frequency and prevalence insights, the qualitative themes and examples discovered during analysis and coding further enhance those answers. Hence, the following study findings report *to what extent* using both quantitative data that tell how much—using descriptive or inferential

statistics and qualitative data that tell about—using themes and examples discovered during analysis (i.e., the quantitative data speak to *how many* and the qualitative data speak to *how so*).

Research Question 1a, 1b: Exploring Resilience Building

Both RQ1a and RQ1b examined to what extent r/stopdrinking posts included resilience building processes. Specifically, RQ1a examined initial posts ($N = 193$), which comprise DS1. In contrast, RQ1b examined response posts ($N = 1238$), which comprise DS2a. However, as was mentioned, a third data set, DS2b, was created by summing and collapsing the response data according to initial post identifiers. Hence, DS2b comprises totals or averages of each variable of interest, by response set. These two response data sets allow resilience behavior occurrences to be considered and compared: (1) broadly as a group ($N = 1238$); and, (2) collapsed into response sets ($N = 190$). To sketch the shape and size of the data, a series of tables present key descriptive statistics of the variables relevant to resilience building—for each data set. First, Table 1 reports the occurrences and comparisons of resilience building statements between the data sets. Second, Table 2 reports two types of metadata: words per post and the number of responses to initial posts. Finally, Table 3 reports resilience statements across the data sets in terms of resilience total score and percent score.

While totals, percentages, averages, ranges, etc., help to identify which type of resilience behavior statements were most commonly identified and which appeared most frequently within posts (i.e., use networks), these numbers cannot convey any details shared within the statements. However, the identified themes and examples paraphrased from the data help to enrich these quantitative findings and better explain how reflective communication occurs between users who make initial posts and users who respond to those posts, apropos of a break in alcohol abstinence.

Table 1

Unique Resilience Building Statements (RBS) by Behavior Type

	Initial Posts DS1, *N* = 193				Response Posts DS2a, *N* = 1238		DS2b, *N* = 190			
Resilience Behavior	*n*	% *N*	# RBS	% RBS	*n*	% *N*	*n*	% *N*	# RBS	% RBS
uses/maintains routine	21	10.9	27	5.3	35	2.8	25	13.0	49	1.6
adapts/creates routine	14	7.3	19	3.8	73	5.9	46	23.8	103	3.3
affirms identity anchor	48	24.9	54	10.7	122	9.9	78	40.4	132	4.2
maintains/uses networks	149	77.2	272	53.8	939	75.8	183	94.8	1872	59.6
uses reframing	50	25.9	69	13.6	511	41.3	142	73.6	773	24.6
uses humor	2	1.0	2	0.4	13	1.0	12	6.2	15	0.5
foreg. productive action	16	8.3	19	3.8	69	5.6	44	22.8	110	3.5
expresses gratitude	40	20.7	44	8.7	85	6.9	36	18.7	86	2.7

Note. Multiple *N* values. Initial posts comprising DS1 were coded (see Appendix D) for the total number of unique resilience building statements (RBS); consequently, 506 total RBS were identified. Response posts comprising DS2a were similarly coded (see Appendix F); response posts were then collapsed into DS2b; consequently, 3140 total RBS were identified.

Table 2

Metadata: Number of Words per Post; Number of Responses to Initial Posts

	# Words per Post		# Responses
Descriptive Statistic	Initial Posts DS1, *N* = 193	Responses, all DS2a, *N* = 1238	Responses, sets DS2b, *N* = 190
range	13-737	1-547	1-94
M	162	48	6.5
median	126	34	4.00
SD	118	51	11

Note. Multiple *N* values. Word counts are rounded to the closest whole number.

Table 3

Data Comparison Across Sets: Resilience Total Score (RTS); Resilience Percent Score (RPS)

	Initial Posts DS1, *N* = 193		Responses, all DS2a, *N* = 1238		Responses, sets DS2b, *N* = 190	
Descriptive Statistic	RTS	RPS	RTS	RPS	RTS	RPS
M	2.62	1.85	2.54	8.17	16.53	6.48
median	2.00	1.67	2.00	6.51	9.00	5.60
SD	2.07	1.44	1.93	7.24	26.61	4.15
min	0	0.00	0	0.00	0	0.00
max	12	6.45	18	50.00	204	30.00

Note. Multiple *N* values. The number of unique resilience building statements was tallied to calculate the resilience total score (RTS). Next, the RTS was divided by the post word count to calculate the resilience percent score (RPS); this value facilitated the comparison of resilience across the data sets.

To explore RQ1a and RQ1b, posts from both data sets were examined for statements of resilience building per respective codebook criteria. Although analyzed separately, for simplicity, the findings reported here are summarized according to resilience behavior. While the focus is on prevalent themes, some percentage comparisons are also included to highlight certain differences between initial and response posts. In such cases, for clarity and consistency, the data relate to DS1 and DS2b. This is because collapsed response data (i.e., DS2b) better illustrate how the community of users collectively builds resilience through reflexive communication.

More specifically, DS2b data reflect the occurrence of resilience building in terms of response sets. For example, while *routine keep* occurs 35 times across all response data, the collapsed view identifies that 25 occurrences are in response to 25 different initial posts, and the other ten relate to multiple occurrences somewhere within response sets. When explored as groups—dependent upon an initial post—response post data can better reflect what occurred within the response conversation. Conversely, exploring response posts as individual data—independent of each other—results in a less complete and, thus, less accurate reflection of what occurred in the conversation.

Hence, collapsed response data better illustrate *to what extent* an initial post generated resilience building statements and *to what extent* response conversations include resilience building statements. In turn, this allows for a better analysis of reflexive communication between initial and response users. For example, the average resilience percent score (RPS) of initial posts was (M = 1.85), but the average RPS of response post sets was (M = 6.48); this represents a 250.3% difference in resilience building statements in response sets or conversations, vs. in initial posts (see Table 3). This finding suggests that not only are responses more resilience-

heavy, but it also suggests that an individual disclosing a break in alcohol abstinence—on this subreddit—is likely to receive responses that can help to build resilience.

As a reminder, only *initial post* (i.e., DS1) statements that reflected the period following a break in abstinence could be coded for a resilience building category (see Appendix C). Any *response post* (i.e., DS2a) statement could be coded thus so long as it met the criteria for one of the three perspectives (i.e., perform, promote, validate) (see Appendix E). However, counting parameters for these remained the same across both data sets, as was necessary for the consistent calculation of resilience scores and percentages between data sets (see Table 1, 3). Notably, one category, *uses humor*, is not reported due to insufficient data for intercoder reliability and its low prevalence across the data (see Table 1). In the following section, emergent themes from the initial and response posts are addressed.

Keeps Routine, Changes Routine

Statements of routine keeping and routing changing were coded separately across DS1 and DS2a. However, the findings for both categories are reported together because themes were so similar. Response data show more prevalence, especially regarding routine changing, where the population percentage more than tripled: 23.8% of response sets include some statement of routine change vs. 7.3% of initial posts (see Table 1). Again, as mentioned, only statements of *non-drinking routines* were coded. Interestingly, statements regarding routine keeping or changing across all data centered around themes of health and wellness.

Routine Keeping: In initial posts, such statements reflected routines that *began before an abstinence break and continued afterward*. There were no time frame criteria for response posts. To be thus coded, a statement had to meet at least one of three response perspectives (i.e., perform, promote, validate). If present, statements usually did at least one of the following:

Refer to the continued use of medication or supplements
Refer to continuing to participate in therapy or social support groups
Identify maintaining employment status; goes to work, despite circumstances
Identify maintaining a workout routine
State visiting the subreddit regularly (e.g., each morning for the daily check-in)

Routine Changing: In initial posts, such statements reflected the beginning or adapting of a routine *after an abstinence break*. There were no time frame criteria for response posts. To be thus coded, a statement had to meet at least one of three response perspectives (i.e., perform, promote, validate). If present, statements usually did at least one of the following:

Identify having just ended a relationship (e.g., parent, friend, partner)
Mention a new behavior (e.g., avoid certain people, places, situations, forums)
Mention a new health behavior (e.g., exercise, nutrition)
Mention starting to participate in therapy or social support groups
Mention changing social support or recovery groups
State the user is starting to visit the subreddit regularly
Identify a new practice (e.g., daily prayer or meditation, redefines "treat")

Affirms Identity Anchor

Statements that affirmed some aspect of an individual's identity often centered around the theme of "performing a sober identity." Nearly all identified statements across the data related to sobriety; indeed, few other identities (e.g., parent) were even stated. As with *routine* categories, identity-affirming statements had a similar feel across the data. Again, response data show more prevalence, where 40.4% of response sets included some identity-affirming statement compared to 25.9% of response sets—a population percentage increase of 62.3% (see Table 1).

Initial Posts: When statements of "performing a sober identity" were present in initial posts, they often centered around the user affirming their sobriety ability, that is, to restart or maintain a recent sobriety reset. Paraphrased examples include:

I am back on the sober train; it's been ___ [time] since my last drink.
I am alcohol-free again! I hit 24 hours as of 30 minutes ago!!
I won't let the alcohol win because I intend to watch my daughter grow up.
I am determined not to allow my weak moment last week to grow into anything more.

I no longer participate in alcohol culture.
Even though I am upset and want to drink, I will not drink today.
My choice to be sober is the only thing I can control.
My primary focus now is working on myself, no matter what my partner does.

Response Posts: When statements of "performing a sober identity" were present in response posts, they often appeared in one of three ways: (1) responding users might affirm their own sobriety identity; (2) responding users might promote that an initial user *should* reclaim their sober identity; or, (3) responding users might validate that an initial user *could* or *did* reclaim their sober identity. Paraphrased examples include:

When I play the tape forward, it's easier to keep choosing sobriety.
Staying sober has helped me be better in every way that matters.
I almost caved at dinner tonight but stuck with my soda instead, and am so glad I did.
Staying sober is at the top of every decision tree.
I rely on the motto: I can do anything except drink.
It took many tries, but I am proud to say I stuck with it and am sober today.
Get back in the saddle! Get back on that horse and ride!
You're doing it! Congratulations on staying strong this go-round.
It's great that you stopped and were able to avoid binging.

Uses, Maintains Communication Networks

Statements that reflected an individual using or maintaining their communication networks (i.e., network) were not only the most common resilience building behavior across DS1 and DS2a (see Table 1) but also the most diverse—in terms of: (1) which networks individuals relied upon; and, (2) what individuals did to use or maintain a network.

Regarding which network, r/stopdrinking was unquestionably the most oft-mentioned—partly due to the frequent use of IWNDWYT, which, as mentioned, is native to r/stopdrinking. More specifically, its use holds a particular inference of network support within the community. In addition, posts across all data commonly mentioned the subreddit explicitly. Indeed, many users identified it as "the reason they are sober," while others cited it as "their primary source of getting sobriety support." Further, three other network types emerged across the data: partners,

professional therapy, and meetings—although the latter was often vague (i.e., no meeting name was given).

As aforementioned, IWNDWYT was coded as one occurrence of using or maintaining a network. Notably, however, the acronym was generally used *in addition* to other network statements rather than *in place* of them. Indeed, users incorporated it into posts in various ways, often signing off with an "IWNDWYT." More specifically, the acronym was present in 64 initial posts (33.2%) and 312 response posts (25.2%), which is consistent with Gauthier et al.'s (2022) finding that the acronym occurs across many types of user posts, including relapse stories. However, to explore the possible impact of this coding decision on total network occurrences, DS1 network statements were examined separate of IWNDWYT. Consequently, network was identified in 65.3% (n = 126) of initial posts vs. 77.2% (n = 149) of initial posts when IWNDWYT was included—representing an 11.9% difference in total network occurrence. Further, the acronym showed even less of an impact on total network occurrence in a comparison of DS2a data. More specifically, network statements were identified in 69.4% (n = 859) of response posts vs. 75.8% (n = 939) of initial posts when IWNDWYT was included, representing only a 6.5% difference. Thus, the data demonstrate that network was the most commonly identified resilience building behavior, and they also confirm that coding decisions regarding IWNDWYT did not unduly skew findings regarding total network statements.

When it came to how individuals used the subreddit as a communication network, there was some difference between initial and response posts, which possibly relates to perspective. For example, with initial posts, the content was a good mix of statements and questions. Yet, in response posts, statements were much more common than questions. In addition, at 77.2%, network statement prevalence was high among initial posts. However, the prevalence was even

greater among response posts: 94.8% of response sets included at least one network statement (see Table 1).

Initial Posts: When network statements were present in initial posts, they often centered around five main themes: (1) to get something "off their mind;" (2) to share something that "only the group would understand;" (3) to celebrate a victory; (4) to seek support; or, (5) to praise the subreddit community. Such content referenced multiple types of communication networks (e.g., intrapersonal, interpersonal, group, online). Paraphrased examples include:

> *This place is why I have been able to stay sober more now than in previous years.*
> *Finding this subreddit is probably the best thing I've ever done.*
> *I just needed to confess to someone that I slipped and drank for the first time in a year.*
> *Hi fellow sobernauts, cheers to another booze-free day!*
> *Because of your support, I made it through a whole day without a drink.*
> *I just wanted to share my small victory with you all.*
> *I appreciate reading people's success stories because they inspire me so much!*
> *I hope that my share helps someone who might be contemplating having a drink.*
> *I really need some kind words right now.*
> *Please pray for me.*
> *I'm sharing today just because it feels good to write it out.*
> *This post is for my future self to read, the next time I want to drink (self-accountability).*
> *I am so grateful that my partner is sticking with me through this.*
> *My therapist told me these slips are common, but I still feel like a failure.*
> *Attending AA is helping me, and I just found a sponsor.*

In addition, users frequently posed questions to the r/stopdrinking community; these often related to themes of boredom, food and hunger, general health, and sobriety success—which was most common. Paraphrased examples include:

> *How are people dealing with boredom?*
> *Does anyone else struggle with binging on sugar? What can I do about these cravings?*
> *Has anyone been treated for anxiety? If so, did it help with sobriety?*
> *I have lost so much because of alcohol, how do I handle all the grief that I have?*
> *How do I change my [Reddit settings related to reporting one's sobriety]?*
> *Why am I this way? How do I keep screwing things up so badly?*
> *Have other people been able to stay sober without attending meetings?*
> *Nothing is working for me; what tips do people have?*
> *What is people's experience with 12-step or AA? Should I consider these?*
> *How do I find the motivation to quit?*

Has anyone used a program different from AA?
Does anyone have suggestions for how to not feel trapped or uncomfortable at a party?

Response Posts: When network statements were present in response posts, they often related to themes of general support and encouragement. Paraphrased examples include:

Congratulations!
Welcome back!
I am so glad you are here!
Your post really resonated with me, nailed it, so powerful.
Keep going, you can do it!
Coming to this sub helped me so much, it saved my life; I hope it helps you too.
Hugs.
Stories like this one help my recovery the most.
Your story was very inspiring.
Keep coming here and keep sharing!
It helps to hear stories from folks who tried drinking again and regret doing so.
I just want to echo what others here have said…
One piece of advice that worked for me was to take up a hobby.
You deserve to be proud of what you did accomplish.
It sounds like we are going through the same thing. I'm with you friend.
I was sorry to hear about your [situation], it sounds tough. Thinking of you.

As with initial posts, response posts also sometimes posed questions; rather than directed to the community at large, they were directed to the initial user. Such questions often centered around themes of securing support or recovery recommendations. Paraphrased examples include:

Have you ever looked into SMART Recovery?
Is there someone that you feel safe reaching out to?
Might you consider looking into individual therapy?
Have you ever done the "90 meetings in 90 days?"

Uses Reframing

Statements that reflected an individual reframing some part of their experience or situation often had one theme: A change in perspective regarding alcohol. More specifically, users often shared new perspectives regarding alcohol or what it newly means to not drink. Like previous categories, reframing statements had a similar feel across all the data. And again, response data demonstrate more prevalence, where 73.6% of response sets include at least one

reframe statement vs. 25.9% of initial posts—a population percentage increase of 184.2% (see Table 1). However, given the focus of initial posts and the supportive nature of the subreddit, this finding is not altogether surprising. Paraphrased examples include:

Initial Posts: Such statements in initial posts are best described thematically as shifting from a more negative emotional valence to a more positive one. Paraphrased examples include:

I acted like a dork, but at least I didn't hurt myself or anyone else.
Even though I got arrested, I was lucky because…[personal]
I messed up, but I take some comfort in knowing I went longer than ever before.
That I survived living this way for so long is a miracle.
Real failure only happens once I quit trying.
It was a blip in my journey; my slip doesn't define me.
We need to celebrate the small victories in this journey.
I slipped, but I am still proud of being sober for __ days.
My moderation "success" wasn't worth the mess I'm in now.
I need to forgive myself, apply what I learned, and move on from my mistake.
Even though this is stressful, it is manageable.
My relapse was a useful last straw in my relationship with alcohol.
This situation feels like a cosmic sign, a chance to really inventory and start fresh.
My hospital stay gave me a head start on sobriety, I'm not throwing that away.
I can't change [the loss], but I can change my life.

Response Posts When such statements were present in response posts, they usually reflected a theme of: (1) discouraging others from engaging in self-recrimination; or, (2) focusing on the future, with an emphasis on *today*. Paraphrased examples include:

You made progress, there's no point in beating yourself up.
Instead of focusing on the slip, try answering "what is next?"
Take things one day at a time.
What strategies worked for you in the past? Might they work again?
Today is all that matters.
We wouldn't need this sub if any of this was easy.
Each "day one" still counts. Without day one, you cannot have a day two.
You didn't lose your sober days, you earned those.
How might you learn from this? Are there any new triggers that you can identify?
Relapse is common, most people slip.
It helped me to stop focusing on the term alcoholic.
What feels insurmountable today will get easier over time.
Hey! You didn't drink for ___ days, that is awesome!! [often stated by % of sober days]
Yesterday's slip doesn't need to stop you from making progress today and tomorrow.

You might have lost one battle, but that's no reason to quit fighting.

Foregrounds Productive Action

Statements that reflected an individual having foregrounded a productive action over having highlighted a difficulty or struggle had a relatively low prevalence in initial posts. Yet again, the population percentage nearly tripled among responses: 22.8% of response sets include a foregrounding statement vs. 8.3% of initial posts (see Table 1). However, given the subreddit focus, foregrounding might be more prevalent among other topic-specific conversations within the community; such a possibility would require further investigation. Interestingly, users across all the data often mentioned relying on similar resources (e.g., books, podcasts). Further, many users noted that such reliance often proved productive in generating abstinence support.

Initial Posts: When such statements were present in initial posts, they often centered around two themes: (1) avoiding or eliminating temptation; or, (2) taking intentional action to improve how a user felt (e.g., physically, emotionally). Paraphrased examples include:

I tossed my remaining alcohol today, my desire is still there, but the temptation is gone.
Dumped my stash tonight.
I am establishing new precautions so I don't relapse again.
I forced myself to [leave the house, attend a meeting, eat, drink water].
I just consumed a giant burrito, I can't wait to start feeling better.
I feel gross, but I read ___ book; it felt good to be productive and the book is helpful.
I left the house, called my partner, and asked them to remove the alcohol I just found.

Response Posts: When such statements were present in response posts, they also often centered around two themes, albeit different ones: (1) action taken when battling an urge to drink; or, (2) action taken to help manage a situation where a user felt concerned about being tempted to drink. Paraphrased examples include:

I suggest getting Annie Grace's book, This Naked Mind and reading it immediately.
Focusing on reading Allen Carr's book, The Easy Way to Stop Drinking helped me.
Take a minute to watch this [video link].
Try to focus only on your breath. That helps me move through some triggers and anxiety.

I suggest taking a minute to check out The Sinclair Method.
Try listing the benefits of being sober and always keep it handy.
Writing all my feelings down has helped me when I get overwhelmed by it all.
Jump into a Zoom meeting and share instead of hanging on to self-pity.
Perhaps consider discussing Naltrexone with your doctor, it helped me immensely.

Expressions of Gratitude

Statements of gratitude were primarily directed to the community at large—for listening, for sharing, for reading, and for walking the sober road together. Yet, other statements expressed gratitude for *someone*—often a partner, for being supportive. On occasion, users would thank a higher power and even themselves. Still, other statements expressed gratitude for or *something*—often experience and knowledge, oft-noted as being borne from recovery stumbles and successes. Notably, although gratitude sentiments were similar across the data sets, they were slightly more prevalent in initial posts, where 20.7% of posts included some expression of gratitude compared to 18.7% of response sets (see Table 1). This finding might be ascribed to the importance of social support to individuals whose actual behavior sometimes contradicts their desired behavior; however, such a relationship would require further investigation.

Research Question 2a, 2b: Exploring Trauma

Both RQ2a and RQ2b examined to what extent r/stopdrinking initial posts either mention or reference trauma. Specifically, RQ2a examined how frequently the term *trauma* was used, and RQ2b examined post statements for references to trauma events, trauma experiences, or trauma effects. To explore these research questions, posts were examined for statements in two ways. First, a keyword search was conducted to identify explicit statements of *trauma*; consequently, none were found. Second, posts were analyzed in accordance with the codebook criteria for statements that reflected a trauma event, trauma experience, or trauma effect. The data show that, overall, such statements were moderate (see Table 4). Notably, when present, these often

overlapped. More specifically, only four posts were coded as having statements of either trauma event or trauma experience but *not* trauma effect. Hence, despite the known relationship between early childhood trauma and AUD (Brady & Back, 2012; Hambrick et al., 2019; Mergler et al., 2018; Shahab et al., 2021; Weinhold & Weinhold, 2010), only 25.9% of posts were suggestive of trauma. However, this finding does not diminish the likelihood of trauma for these individuals; rather, it only reports that few statements were identified in the examined posts.

When statements regarding trauma were present in initial posts, they often centered around five themes: (1) abuse and assault; (2) emotional distress; (3) personal emergencies; (4) natural disasters; and, (5) the COVID-19 pandemic. Each of the five themes meets the diagnostic Criterion A for PTSD (i.e., directly experiencing a traumatic event; APA, 2013). Notably, while it is likely that all users experienced some sort of negative impact from COVID-19, only seven posts mentioned it. But all who did identified that it played some role in their abstinence break. Most trauma *event* statements pointed to personal emergencies such as major medical issues, injuries, accidents, tragedy, and death. However, some users talked about experiencing long-term abuse and unexpected job termination, whereas others spoke about COVID-19 or surviving a natural disaster (e.g., a hurricane).

Table 4

Trauma in Initial Posts: Explicit, Identified, or Acknowledged

	Initial Posts: DS1, *N* = 193					
Trauma	n	% *N*	# identified	range	M	SD
explicit mention	-	-	-	-	-	-
trauma event	18	9.3	25	0-3	0.13	0.44
trauma experience	31	16.1	45	0-3	0.23	0.59
trauma effect	46	23.8	80	0-4	0.41	0.87

Note. *N* = 193. The number of initial post statements where trauma events, trauma experiences, or trauma effects were identified, according to the SAMHSA (2014a) definitions.

Because the SAMHSA (2014a) definitions of trauma event and experience that guided the coding in this study are so similar, nearly all *event* statements also met the criteria for *experience*. Hence, most trauma experience statements are similarly themed. Interestingly, nearly all trauma *effect* statements reflected a user experiencing emotional distress. For instance, many mentioned depression, anxiety, and thoughts of self-harm. Relatedly, users frequently cited relational distress (e.g., divorce, betrayal) and emotional distress (e.g., grief, problems at work, feelings of isolation) among the reasons given for their break in abstinence. Notably, just over half of users, 53.4%, even stated a reason.

Research Question 3a, 3b: Exploring Statements about Alcoholics Anonymous

Both RQ3a and RQ3b examined to what extent r/stopdrinking initial posts reference AA. More specifically, RQ3a examined post statements for acceptance or rejection of AA, and RQ3b examined statements for whether a user referenced, recommended, or challenged either AA or the 12-steps. To explore these research questions, posts were analyzed according to codebook criteria for: (1) statements regarding acceptance or rejection of AA's 12-step ideology; and, (2) statements where a user might reference, recommend, or challenge AA or 12-step.

In regard to RQ3a, most users did not state an acceptance or rejection of AA (see Figure 5). This finding was somewhat surprising given AA's longstanding influence on AUD recovery. Yet, given that r/stopdrinking welcomes all who wish to join—and follow community guidelines, this finding is less surprising. Still, AA can be a hot topic on the subreddit. For example, one user shared frustration about a comment made by an AA acquaintance; this resulted in an incredibly high volume of responses. While response posts were not examined for mentions of AA, this example is noteworthy because one of the early responses came from a subreddit moderator who reminded users to avoid overly generalized comments about AA, warning that such statements

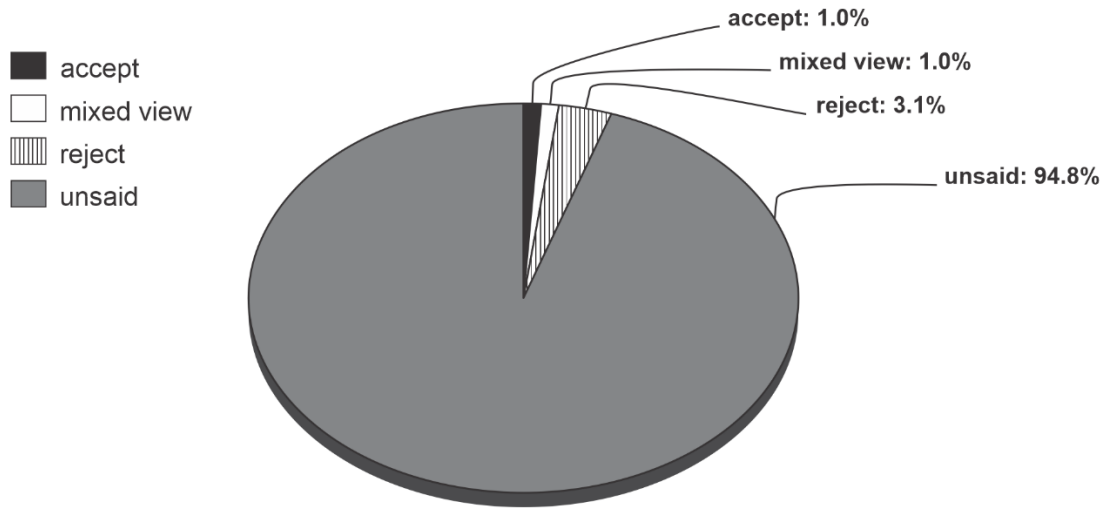
would result in comment removal. Hence, importantly, the lack of stated views regarding AA does not suggest that these users hold no opinion about AA; rather, it only reports that very few opinions were given. Furthermore, given the moderator's warning—such warnings were frequently noted during data exploration and collection—it might be possible that users choose to self-censor some opinions so as to not disrespect the rules of the community or the views of other users. It might also be possible that when disclosing a break in abstinence, users were not reflecting on their views of AA, or were not inclined to speak to those views.

Regardless, it is not possible to know for sure what a user's views were/are and/or why such views were infrequently identified in abstinence disclosure posts, nor is such speculation a focus of this investigation.

Similarly, in regard to RQ3b, most users did not reference AA or its 12-steps. For example, no post recommended or questioned AA. Moreover, only one was coded as arguing

Figure 5

Stated Views Regarding Agreement with Alcoholics Anonymous Ideology



mention was a general reference to AA, which only occurred in 8.9% of posts. Yet, individuals might visit this site as an alternative to other outlets, which might be another reason for the low prevalence.

Research Question 4a, 4b: Exploring Processes of Change in Initial Posts

Both RQ4a and RQ4b examined to what extent r/stopdrinking initial posts identify any of the transtheoretical model (TTM) processes of change and whether these occur as the model predicts. In particular, RQ4a examined post statements, according to codebook criteria, for any of the ten processes of change, and RQ4b explored to what extent processes of change follow model predictions. To explore these research questions, they must first be situated in the model.

Hence, as a reminder, TTM presents health behavior change as a cycle, in terms of stages and processes. Further, the model suggests that certain processes are more likely to occur during certain stages (see Figure 6). Because health behavior change is difficult and complex, most individuals do not enjoy uninterrupted, progressive movement through each stage (Prochaska et al., 1992, 2013), described in this study as a *target-led* move. Thus, when an individual working on a health behavior change encounters a disruption to that change—like a break in abstinence—they move through the stages of change in a nonlinear, spiral manner (Prochaska et al., 1992), described in this study as a *relapse-led* move. Regarding a relapse-led move, the TTM predicts that an individual will likely move into the precontemplation, contemplation, or preparation stage, with an emphasis on the latter two (Prochaska et al., 1992; Velicer et al., 1996). The model also identifies that any of four of ten processes of change can occur during the preparation stage (Prochaska & Prochaska, 2021).

Thus situated, to explore these research questions, it was first necessary to identify which processes of change were present in initial posts; Table 5 reports these findings, and Figure 6

illustrates the frequencies in the context of the expected stages of change. From a broad view, the processes of change identified in initial posts appear to mostly follow TTM model predictions. Thus, one could argue that the study findings do appear to follow the model—albeit with a high rate of individuals moving into the preparation stage (see Figure 6). However, three processes, including the two most frequently identified (i.e., self-liberation, helping relationships; 74.1% and 50.3% of posts, respectively; see Table 5) point to expected (i.e., preparation) *and* unexpected (i.e., action, maintenance) stages of change. Thus, one could also argue that the study findings do not appear to follow the model so well. This lack of clarity relates to the relationship between model processes and model stages.

More specifically, the model suggests that individuals are likely to move into the precontemplation, contemplation, or preparation stage following a disruption to a health behavior change. However, this study discovered a high frequency of self-liberation and helping relationships, both of which point to action and/or maintenance—which, according to the model,

Table 5

Processes of Change Identified in Initial Posts

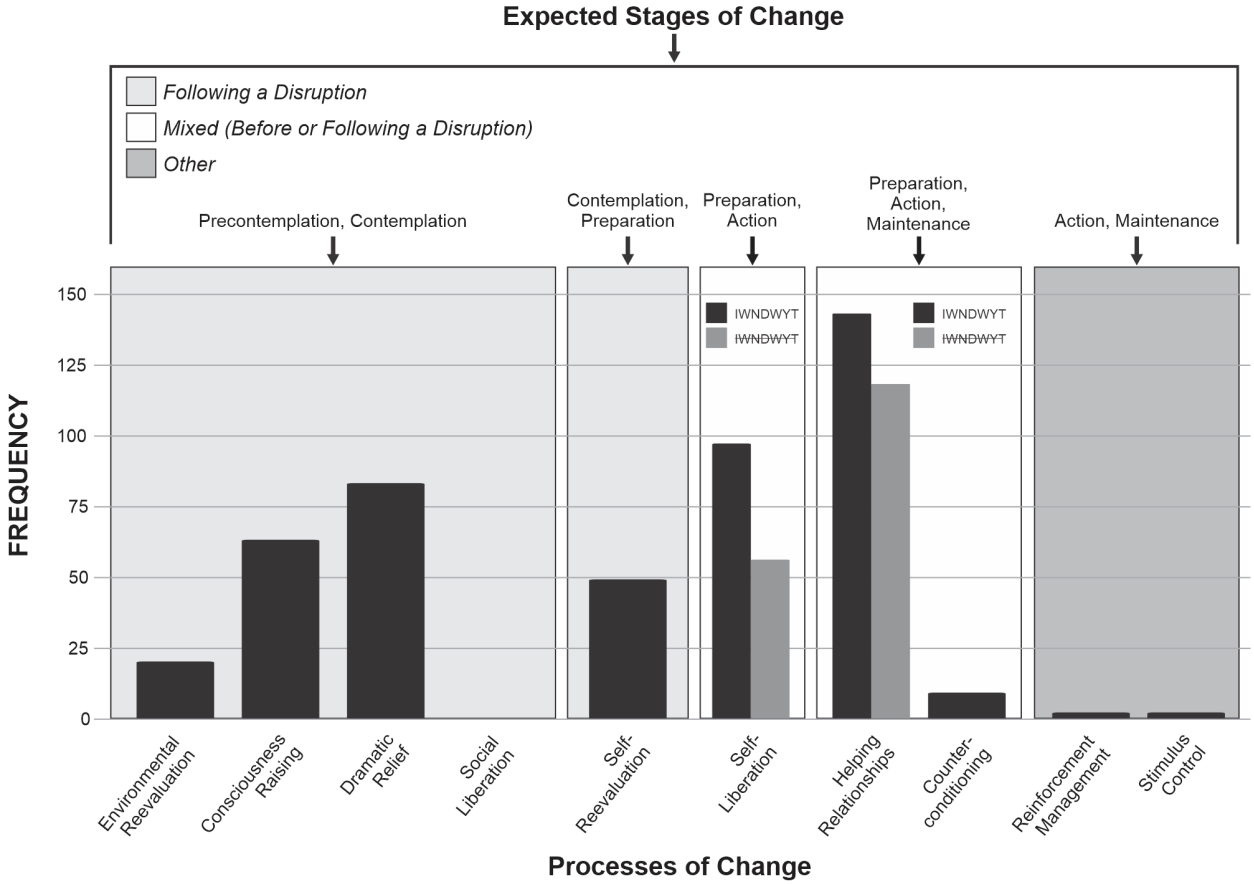
	Initial Posts: DS1, *N* = 193				
Processes of Change (PoC)	n	% *N*			
consciousness-raising	63	32.6			
self-reevaluation	49	25.4			
self-liberation	97	50.3			
counterconditioning	9	4.7			
stimulus control	2	1.0			
reinforcement management	2	1.0			
helping relationships	143	74.1			
dramatic relief	83	43.0			
environmental reevaluation	20	10.4			
social liberation	-	-			
	n	% *N*	range	M	SD
PoC total score	468	242.5	0-6	2.43	1.29

Note. *N* = 193. Processes of change statements.

these are stages that individuals are much less likely to move into following a break in a health behavior change. Therefore, it cannot be said conclusively whether the findings follow the model predictions. Hence, the possibility remains that social media platforms like Reddit are impacting, even changing, which processes individuals are likely to use when working on a health behavior change. Such a possibility should not be ignored and is deserving of further exploration.

Figure 6

Processes of Change Identified in Initial Posts Following a Break in Alcohol Abstinence



The processes of change are organized here according to the stages of change which the transtheoretical model predicts they are most likely to occur in. The processes of change reported here are those identified in the initial posts that were examined in this investigation. The illustration relies on the Prochaska and Prochaska (2021) explanation of the Stages of Change and the Processes of Change.

Given the potential impact of IWNDWYT coding decisions on these frequencies, the data were also examined without IWNDWYT occurrences. Yet, helping relationships was still identified in 61.1% of posts; thus, it remained the most frequent change process. However, this additional examination revealed that IWNDWYT did have a greater impact on self-liberation occurrences (see Figure 6). Interestingly, no posts were identified as having statements that reflect social liberation, which the model suggests would be likely in precontemplation and contemplation. Given that reinforcement management, counterconditioning, and stimulus control were nearly nonexistent, these each better reflect TTM predictions.

Research Question 5a, 5b, 5c: Checking For Relationships Between Variables

RQ5a, RQ5b, and RQ5c each explore possible relationships between three sets of analysis variables. First, RQ5a examined whether any relationship exists between acceptance or rejection of AA's 12-step ideology and the aggregate resilience score. However, 95% of posts made no statements regarding these views. Therefore, the necessary one-way analysis of variance (ANOVA) could not be conducted.

Second, RQ5b examined whether any relationship exists between the explicit use of *trauma* and the aggregate resilience score. Again, given that no initial post explicitly mentioned trauma, conducting an independent *t*-test was not feasible.

Finally, RQ5c examined whether there was a correlation between the total number of processes of change and the aggregate resilience score. To investigate this, a Pearson's product-moment correlation was conducted, revealing a moderate relationship between processes of change and resilience ($r = .49$; $p < .05$).

This summary of findings outlines the shape and size of the data through descriptive and inferential statistics; it also offers rich details by providing examples of the color and texture of

the data examined. When taken together, the two parts tell a more complete story of the data, across both sets. Notably r/stopdrinking users might have engaged in more resilience building behaviors, including behaviors not identified in this study; they might also have experienced more trauma, had any manner of AA experiences, or not; they might have enacted any number of processes of change. Unfortunately, with content analysis, it is impossible to know the difference between what a user has stated and what a user has experienced, although such an insight is not exclusive to the nature of this methodology. It is similarly impossible to determine how much capacity each user might have regarding resilience building or what impact the subreddit, and the user's own post, might have had on that capacity. Nonetheless, these findings usefully contribute to the field—particularly regarding growing the conversations regarding health behavior change, trauma, and resilience, and are further addressed in the following section.

Chapter 5: Discussion

Researchers have begun to explore ways that individuals communicate on r/stopdrinking (Gaspar et al., 2022; Gauthier et al., 2022; Harikumar et al., 2016; Velmurugan & Watson, 2017), but few to none explored how reflexive communication occurs between initial and response users where an initial user discloses having had a break in alcohol abstinence. Hence, the first purpose of this study was to explore possible differences in the presence of resilience building statements between initial and response posts. Study findings suggest that response posts are more resilience-heavy than initial posts—which suggests a positive outcome for individuals disclosing a break in alcohol abstinence on this subreddit because they are likely to receive resilience building responses. The second purpose of this study was to investigate whether transtheoretical model (TTM) processes of change could be identified in initial posts and whether such occurrences would reflect TTM predictions. Study findings indicate this is inconclusive, given that three of the ten processes point to expected *and* unexpected stages of change. Moreover, given that two of these three processes were the most prevalent processes, it is impossible to say definitively whether the study results reflect the model predictions. Finally, given the intertwined nature of resilience, trauma, AUD, and recovery from AUD, the study also examined to what extent trauma was mentioned and to what extent users stated opinions regarding AA. As was reported, neither phenomena were prevalent.

These findings add to a body of research regarding how individuals build resilience through communicative processes, communicate in and through spaces of trauma, and communicate having experienced a break in alcohol abstinence—a particular health behavior change. These contributions to communication research have several theoretical and practical implications and are further addressed, beginning with theoretical implications.

Theoretical Implications

Reflexive Communication

Remarkably, several hundred individuals come to r/stopdrinking and participate in reflexive communication every day. Although user comments suggest that individuals are located across the globe, these comments connect disparate cultures—virtually eliminating physical separators like borders and time zones—in support of each other's sobriety journey. In so doing, users generate hundreds of posts and more than a thousand comments or response posts daily; sometimes, comments reach over two thousand daily (subredditstats.com, 2023). Such high engagement in this heavily moderated (i.e., for positivity) community has resulted in a space where individuals have many options for building relationships and gaining social support.

Interpersonal relationships, social support, and social skills are all thought to be essential to AUD recovery (Stillman & Sutcliff, 2022). Not only does r/stopdrinking offer vital social support for AUD recovery, but the subreddit also inherently fosters each of Merten's (1977) three dimensions of reflexive communication. Notably, despite the many advancements in technology that occurred between Merten's (1977) publication and Reddit's 2005 launch (Stafford, 2016) and the disparate times and communication realities that separate these occurrences, each dimension of reflexivity is apparent on r/stopdrinking. These dimensions are likely to be similarly apparent across other subreddits given that subreddit design and operation are similar across the Reddit platform. Hence, the scale with which individuals can communicate reflexively across social, objective, and temporal dimensions on subreddits is expansive—especially when contrasted with the communication channels available to individuals in 1977.

First, the Reddit platform allows many individuals to simultaneously engage in conversation contribution and conversation consumption (i.e., social dimension)—though all

must first create a user account (Reddit.com, 2022). Second, individuals can make statements about statements (i.e., objective dimension) in varied ways: by responding to other user statements, responding to one's own statements, or creating new post threads. Third, communication among individuals is subject to the impact of time (i.e., temporal dimension). Some visible impacts might include: (1) the number of comments or upvotes that a post receives within a given period; (2) the available "sort by" features for viewing subreddit activity; (3) a basic Reddit function that prevents users from commenting on posts older than six months (r/TheoryOfReddit, 2023); and, (4) the deleted post, where at least two distinct points in time are inferred. More specifically, there was: (1) a time when a user gave voice to something; and, (2) a later time when a user, for whatever reason, chose to retract that voice. This behavior might be a digital likeness to verbal statements like, "I take it back," that are sometimes uttered in face-to-face conversations. Regardless, exploring the impact of and the possible reasons for such deletion activity falls outside the scope of this study. However, these are of tangential interest because, as aforementioned, a large population of deleted posts—possibly matching the inclusion criteria of initial posts—were identified during the October 2021 study period.

An interesting observation noted during this investigation is that, in addition to Merten's (1977) three dimensions of reflexive communication, there appears to be a fourth, previously unidentified dimension: The moderated dimension, where entire communications or aspects of conversation are governed and warned against, such that these can be removed by an individual who is not the initial poster. Although communication can be and long has been moderated by many factors, the presence of a moderated dimension was not formerly included as a dimension of reflexive communication. However, this lack of inclusion does not definitively exclude the existence of a fourth, moderated dimension. It might be that social media conversations, like

those occurring on r/stopdrinking, are highlighting reflexive communication in new ways. Thus, the moderated dimension might be more visible today than was possible to see in 1977—before the Internet and social media spaces like Reddit came about, bringing new tools and rules to human communication, and ultimately impacting communication research. Yet, speculation regarding possible reasons why a moderated dimension was not being previously identified is not a focus of this investigation. However, its discovery in this study was both unexpected and noteworthy; indeed, it presents an area for future exploration regarding reflexive communication.

Importantly, the moderated dimension cooccurs with the other three. More specifically, the moderation of communication can only occur *because* individuals are engaging socially, objectively, and temporally. Without these, no moderation is needed. Notably, in no other dimension is communication rule-oriented. More specifically, no other dimension gives attention to what is allowed or disallowed or identifies that voices can be removed from the collective conversation—which is the essence of what is being suggested as the moderated dimension. Given that the moderated dimension has a particular role regarding inclusion for many conversations, especially within digital public spaces, and given that its core characteristics fall outside the social, objective, and temporal dimensions, it potentially reflects an important new fourth dimension. This discovery was based on researcher observations during data exploration and collection. In particular, the observation of many moderator comments and many user responses to these comments.

Notably, the moderating (i.e., allowing, disallowing) of certain types of information, communication, and the like is not a new phenomenon in human communication. Indeed, history is rich with examples of such moderating. However, what is newly apparent, possibly because of self-governed platforms like Reddit, is the acceptance and practice of moderation in reflexive

communication. For instance, many subreddits are governed by volunteer moderators who enforce the guiding rules of a subreddit—usually regarding the type of content a user can post (Stokel-Walker, 2022), which users generally agree to abide by. Consequently, when a user violates a subreddit's rules, a moderator might warn the user, remove the post, or even ban a user under certain conditions (Reddit Mods, 2023). Such enforcement is subreddit-specific; thus, the impact of moderator influence on user posts likely varies by subreddit. An individual might seek to become a moderator to provide service to the community or for any number of other reasons. Nevertheless, the prevalence of moderated posts highlights a moderated dimension regarding reflexive communication. For example, an individual might self-censor, so their post is not deleted; they might also choose to repost a deleted comment out of protest. Identifying all possible ways that a moderated dimension might be apparent in reflexive communication falls outside the scope of this investigation; yet, its presence was observed, and its existence noted, together with the other three enduring dimensions of reflexive communication.

The Transtheoretical Model

Millions worldwide struggle with alcohol use disorder (AUD) (Ritchie & Roser, 2018). While the number of individuals working on recovery is not known, what is known is that such individuals often experience relapse or a return to the health behavior they are seeking to change (Brooks et al., 2013; Dennis et al., 2007; Milhorn, 2018; Prochaska et al., 1992). As mentioned in the Theoretical Foundations of this study, researchers and practitioners have long used the transtheoretical model (TTM) to better understand intentional health behavior change and support individuals embarking on these challenging endeavors. Such understanding and support from researchers and practitioners inform health and media campaigns related to such issues as AUD and, thus, impact members of the public.

According to TTM, health behavior change is usually an iterative experience that occurs in a series of stages and includes many processes. The model suggests that certain processes are more likely to occur during certain stages (Prochaska & Prochaska, 2021). Although the stages are often circularly conceptualized, individuals are unlikely to move through these in an uninterrupted, progressive manner. Thus, in this investigation, the terms *target-led* and *relapse-led* movement were used to refer to how an individual might move through TTM's stages of change.

The terms offer individuals working on health behavior change an objective perspective that is more descriptive of their journey vs. evaluative of their progress. Given that these terms provide individuals with language reflecting the difficulties suggested by the model—regarding the likelihood of disruption—but buffer self-judgment, these might benefit individuals prone to the negative self-talk that often accompanies perceived failures in AUD behavior change. Notably, reducing such unhelpful repetitive thinking might aid AUD treatment (Hamonniere et al., 2020). Hence, the terms might offer individuals with AUD a less binary, more ebb and flow way to view their behavior change experience. In other words, rather than viewing their health behavior change of alcohol abstinence in terms of success vs. failure, this perspective and terminology might encourage individuals to communicate about their behavior change—to themselves and others- in a less evaluative and more descriptive manner.

Negative self-talk can contribute to the perpetuation of a poor self-concept, trigger some effects of trauma, potentially invoke new trauma, and even disrupt an individual's effort to overcome AUD (Kinderman et al., 2013; SAMHSA, 2014b; Stapinski et al., 2015). Thus, it stands to reason that it matters *how* an individual talks about the disruptions they have had or are likely to have when tackling a major health behavior change (e.g., alcohol abstinence)—perhaps

especially so when such disruptions are likely to occur many times for the average individual. Thus, terms like *target-led* and *relapse-led*—regarding moving through AUD health behavior change—might aid health communication researchers and healthcare practitioners in promoting a more trauma-informed or more trauma-sensitive way to discuss these experiences. Further, such a linguistic shift might help some individuals increase or maintain self-efficacy for AUD recovery.

For example, many individuals tend to perceive a disruption to a desired health behavior change effort as a failure (Simonelli, 2005)—at least initially, as was the case in this study. However, this study also found that many r/stopdrinking users tended to engage in reframing or cognitive restructuring (Menon & Kandasamy, 2018) such that they could perceive, or encourage others to perceive, the abstinence disruption as a learning opportunity (i.e., shift from a negative to positive emotional valence). These reframing statements seemed to help users to navigate and emotionally process abstinence disruptions. Further, such statements appeared to relate to user's expressions of gratitude to and for the community. For example, one of the collective reframes is that *relapse is part of the journey and that no one deserves to beat themselves up over it*. Hence, the subreddit helps individuals cultivate social support, build essential social skills, and create relationships that can serve in AUD recovery efforts. It also tends to promote positive self-talk.

An interesting finding from this investigation regarding TTM was that social liberation, a recent addition to the processes of change (Prochaska & Prochaska, 2021), was not identified in any post in the sample analyzed. Indeed, the opposite was true. For example, many initial post statements reflect user views, like *society holds an overly celebratory view of alcohol use or consumption*. But, again, as with other low occurrence categories in this investigation, the absence of statements regarding social liberation does not suggest that these users are unaware of

the shifting trends regarding alcohol-free celebrations. Rather, the findings only reflect that no statements were made and that users tended to mention an annoyance with movies and television portraying alcohol use as "normal," even though, according to many users, "alcohol is a destroyer."

As aforementioned, the study findings are inconclusive regarding whether initial posts follow TTM predictions in regard to the processes of change. Importantly, as mentioned, the possibility remains that social media platforms like Reddit are impacting, even changing, the processes individuals are likely to use when working on a health behavior change. Given such platforms' potential for influencing humans, such a possibility should continue to be investigated.

Finally, it merits mentioning that coders noticed many similarities between the TTM processes of change and the resilience building processes outlined in the CRPS. Indeed, the coding criteria tended to overlap in some categories (e.g., CRPS's network and TTM's helping). Furthermore, this observation was supported by the moderate relationship found between the aggregate resilience score of initial posts and the total number of processes of change. Yet, this is not altogether surprising given the expectation that an analytical lens composed in large part of the communication theory of resilience (CTR) and TTM would uncover new insights into disclosures of alcohol abstinence disruptions on r/stopdrinking. Still, a deeper examination into the processes of change might reveal additional resilience processes related to health behavior change that the CTR and the CRPS do not currently identify.

The Communication Theory of Resilience

As previously noted, the CTR (Buzzanell, 2010, 2019) identifies five resilience processes, and the recently developed communication resilience process scale (CRPS) (see S. R.

Wilson et al., 2021) extended two of these, resulting in seven resilience processes. While the CRPS guided the resilience building coding schema, as aforementioned, gratitude was noted as an additional resilience theme among user posts during analysis. This discovery together with the emerging relationship between gratitude and resilience (e.g., Caleon et al., 2019; J. T. Wilson, 2016)—and the relatively low nuance in such statements—informed the decision to include gratitude in the final resilience building coding schema. Notably, this inclusion led to the discovery of gratitude statements in roughly one-fifth of all initial posts and response post sets. Therefore, gratitude likely represents a meaningful extension of the CTR and the CRPS in terms of a new resilience process and merits further exploration.

Hence, the examined posts of r/stopdrinking users highlighted an existing theoretical gap within both the CTR and the CRPS. More important, though, the voices of these individuals have made a meaningful contribution to communication research. In addition, when considering "what was left"—content that did not fit any category in the coding schemas—themes of narrative (i.e., story sharing) and reflection were identified. Although both narratives and statements of reflection were noted as having a potential role in building resilience, their inclusion required a deeper exploration of the constructs that fell outside the scope of this investigation. Notably, given that these findings were discovered by applying a self-report measure to content analysis, they serve as compelling evidence that such endeavors can be both useful and fruitful and are worthy of future consideration and additional development.

Study findings suggest that initial posts disclosing a break in alcohol abstinence are more likely than not to include one or more statements that reflect a resilience building behavior. However, the findings further suggest that response posts are more resilient-heavy. More specifically, of all October 2021 initial posts where an abstinence break was disclosed, three out

of four posts (77.2%) were identified as making at least one statement reflecting resilience building. Yet nearly all initial posts (98.4%) *received* at least one response from another user that reflected statements of resilience-building. While the volume difference between populations is striking, so is the average number of such statements within each population. More specifically, the average number of unique resilience building statements is substantially higher between initial ($M = 2.62$) and response post sets ($M = 16.53$). Hence, on average, users who disclosed a break in alcohol abstinence during October 2021 received back more than six times the number of resilience building statements they made. Given obtaining social support is often considered essential to AUD recovery (Best et al., 2016), this finding might offer individuals struggling with AUD a new boost of encouragement. Similarly, these offerings of social support might also present healthcare researchers and practitioners with an additional resource they can recommend to individuals struggling to locate a support system or community.

These findings suggest that an individual connected to a community that engages in reflexive communication—even anonymous and virtual—can give and receive statements that help to foster resilience building. Yet, these findings do not imply any causal relationship between community engagement and resilience; such a relationship would require further investigation and experimental design. However, the findings bode well for individuals who might disclose having had a break in alcohol abstinence on this subreddit because they are very likely to receive resilience building responses from other users.

Relatedly, this study did not explore the collective impact of resilience building statements on an individual's capacity for—or their reservoir of—resilience; such an impact would likely be difficult, perhaps even impossible, to ascertain. Nevertheless, intentionally or not, the vast majority of initial and response posts examined in this study contributed in some

way to the resilience building vibe of the r/stopdrinking community. Thus, again, the voices of these subreddit users must be credited for their positive contribution—this time to the world, not just in furthering communication theory.

Public spaces that foster resilience building are crucial, particularly because an individual's capacity for and ability to build resilience is foundational to their growth and development following disruptions (Richardson, 2002). Hence, a community like r/stopdrinking can help to foster resilience in individuals who are struggling to overcome alcohol use disorder (AUD). Indeed, it potentially presents the more than 107 million individuals across the world who are struggling, to varying degrees, with AUD (Ritchie & Roser, 2018) and the unknown number who are attempting to recover, in some way, from AUD (Laudet, 2007) with a new well of resilience from which to draw on. However, many online sites, such as the one investigated in this study, are not overseen by medical doctors, licensed therapists, or any other medical professional. Hence, importantly, and as is emphasized on the subreddit, not all information shared by users represents sound medical information. Indeed, the subreddit discourages users from either soliciting or offering medical advice (r/stopdrinking, 2023b), and moderators actively warn users and remove posts when content crosses these boundaries.

Finally, occurrences of humor among examined posts were notably low; indeed, they were too low to establish intercoder reliability. Yet, statements of humor were seen more broadly on the subreddit during the data exploration, and collection phases as the primary researcher was locating initial posts that met the study criteria. Thus, while humor was not a prevalent trait among October 2021 user posts that disclosed a break in abstinence, the use of humor was not entirely uncommon across the subreddit. This finding might suggest that individuals who are

disclosing a break in abstinence could feel a sense of heaviness or seriousness in those moments of disclosure. Certainly, it does not suggest a lack of humor among subreddit users.

Practical Implications

In this investigation, many users (i.e., initial, response) identified that disruptions in their abstinence efforts broadly represent a new chapter in their life or in their recovery. In particular, many reframed such events as *newly gained field research* that would (or did) inform their progress during a future sobriety attempt. Notably, many initial posters referred to their next attempt as *a final attempt*—one that would generate the life-changing momentum they were seeking. Relatedly, many of the response posters who self-reported having lengthy periods of abstinence described the day they gained freedom from alcohol as the day their life really began. Another overarching theme voiced by this group of responders was that recovery is a process such that there is "no getting better" from an AUD—in terms of future moderate drinking. Indeed, no response post even promoted the idea that moderate alcohol use was possible.

Such sentiments are echoed by findings from other investigations related to addiction. For instance, Laudet (2007) found that one-third of study participants identified that getting a *new lease on life* was the most beneficial aspect of recovery. Further, most Laudet's (2007) study participants described recovery as an ongoing process vs. a journey with a destination. However, at odds with these lived experience perspectives is a recent definition of AUD recovery from the National Institute of Alcohol Abuse and Alcoholism (NIAAA; Hagman et al., 2022). The definition states, in part, that recovery can be considered an outcome as well as a process. Yet, the seeming differences regarding possible recovery outcomes might point to differences in term use and meaning. More specifically, in this investigation, when users referred to recovery as a life-long process, one without an end point, they nearly always stated that this meant that

moderation would never be possible for them. Notably, while the NIAAA definition notes that an individual can be recovered, it does not state that individuals *can* eventually moderate. Hence, perspectives regarding what it means to recover might range from being able to drink moderately to identifying recovery as unattainable.

Although trauma shares a known relationship with alcohol use disorder, and although a trauma-informed perspective of AUD can foster resilience in individuals working to change AUD behavior (SAMHSA, 2014a, 2015), at the time of this writing, the term *trauma* was not apparent on the r/stopdrinking homepage or its FAQs; neither was it apparent on a search of the Alcohol Anonymous website. This observation does not suggest that either public resources are unaware or dismissive of such a relationship. Rather, such an absence might point to any number of thoughtful reasons for not identifying the connection between trauma and AUD.

As aforementioned, statements of trauma had a relatively low prevalence in the examined posts. However, many statements unrelated to abstinence break disclosure were read during data exploration and collection, at least cursory. Consequently, statements of trauma were identified with greater frequency in posts that did not disclose an abstinence break. This discovery merits mention because, from one post, an entirely new phenomenon surfaced regarding the mention of trauma—which can best be described as "shoot the messenger." In brief, one user shared some insights learned from reading van der Kolk (2014). Despite the wide acceptance of this research in academia and its valuable contributions regarding understanding the connection between trauma and behaviors like AUD, the users' posts received some very harsh responses. Essentially, despite sharing valid and valuable information, the user was ostracized to an extent. In particular, their accountability for attending to this behavior "problem" was questioned.

Yet, the existence of this thread, and undoubtedly others like it, highlights the need to amplify conversations regarding the connection between trauma and AUD, both in public spaces like r/stopdrinking and publicly resources like Alcoholics Anonymous. Such an amplification in these spaces could provide members of the respective communities with a more complete explanation of AUD and how trauma, particularly early childhood trauma, is known to inform AUD (Brady & Back, 2012; Dube et al., 2002; Rogers et al., 2021; SAMHSA, 2014b).. Moreover, both r/stopdrinking and Alcoholics Anonymous could easily attend to providing such an explanation; for instance, each could simply note that such a relationship is known in their respective public domains. Moreover, given the reach and influence of Alcoholics Anonymous' 12-steps in addiction recovery spaces, digital and otherwise, a modification incorporating trauma holds the potential to bring a more complete perspective into focus for individuals who rely on this program—often because it is free.

Obtaining recovery resources is more difficult for individuals in lower socio-economic situations—even free online resources. For example, such affordability has been identified as one of the major disparities regarding the digital divide or an individual's ability to access the Internet (Muller & Aguiar, 2022). During the recent COVID-19 pandemic, Indigenous populations were identified as having great difficulty obtaining affordable and sustainable Internet access (Muller & Aguiar, 2022; Weatherall et al., 2020). Such a reality is especially troubling, given Indigenous populations are known to have an increased risk for AUD (Weatherall et al., 2020). Furthermore, inequity regarding Internet access extends to other domains, increasing divides in many areas of life (e.g., healthcare, education, economic opportunity) (Muller & Aguiar, 2022). Relatedly, the ability or inability to pay for healthcare services is not only evident in the existent healthcare divide (R. Young, 2021), but one's

socioeconomic status has also been identified as contributing to inequality apropos of age at death and overall life expectancy—regarding alcohol-specific causes of death (Angus et al., 2020).

Limitations

There exist some limitations regarding this investigation worthy of note. The first one regards the generalizability of the data examined. More specifically, examined public posts are from only one month of one year of one subreddit. While study findings can identify to what extent a phenomenon occurred—within posts examined during the study period—no general statements can be made regarding this subreddit or Reddit at large. For instance, it is unknown what happened in r/stopdrinking posts that were made before or after October 2021, and posts that were made in October 2021 but were deleted prior to November 2022, when data were collected for this study. It is similarly unknown what users might say regarding this issue on other subreddits, during any time period. Thus, for any general statements to be suggested regarding how Reddit users might engage in reflexive communication when disclosing a break in alcohol abstinence, a much broader sample of posts would need to be studied. More specifically, additional months on this subreddit would need examination. Similarly, time point investigations would be needed from other subreddits where users are likely to disclose a break in alcohol abstinence.

Yet, however complete and generalizable a sample of online data might be, all such samples entirely exclude offline individuals. As aforementioned, such individuals include those who might be uncomfortable with online sharing or those who might be adversely impacted by an existing digital divide (Muller & Aguiar, 2022)—such that accessibility to a computer or the Internet is a challenge or impossibility. Thus, although generalizable statements regarding how

Reddit users reflexively communicate about specific topics might be attainable, such generalizations could not be assumed for non-Reddit populations, let alone populations of offline individuals.

The following important limitation regards study codebooks. To explore the four phenomena of interest to this investigation, coding schemas were developed to guide the analysis of post statements for phenomena occurrences. Although the construction of these schemes was guided by the thoughtful application of existing theoretical perspectives, for coding schemas to be as robust and sound as possible, the coding should be refined among even more data. Hence, additional coding and subsequent reliability testing would better establish coding schema validity and reliability.

In addition, the coding components related to Alcoholics Anonymous and statements of trauma, which were not guided by a theoretical lens, might be revisited and retooled to capture such references better. For instance, although *trauma* was not explicitly stated, trauma events, experiences, and effects did surface in many initial posts. More specifically, each of the five identified themes meet the diagnostic Criterion A for PTSD (i.e., directly experiencing traumatic events; APA, 2013). Thus, it might be possible to design future trauma-oriented content analysis in ways that assess the presence of trauma according to key PTSD diagnostic criteria.

Another limitation regards the study methodology. Specifically, while content analysis is a flexible framework that enables researchers to approach data and meaning-making through different perspectives (e.g., cultural norms and contexts), such analyses do not allow for communication (e.g., meaning clarification) between researcher and participant. Consequently, content analysis cannot fill information gaps that might be relevant. Similarly, given a non-

experimental design was employed, causal considerations and statements cannot be made. Nevertheless, this study did identify nuances and seeming connections among the data.

Future Directions

The study data and subsequent findings illuminate some possible areas for future research to expand on the contributions made by this investigation. Given the role of resilience in trauma healing and overcoming diversity, such as AUD, how individuals disclose breaks in abstinence and how individuals build resilience through such disclosure and subsequent conversations are important topics for future exploration. Relatedly, further codebook testing and development might consider whether and how narrative or reflection statements might contribute to resilience building; if so, these might be included as resilience building processes in future research.

Although this investigation required a manual search to identify initial posts that met the study criteria, the posts can be newly examined for key words or phrases that point to abstinence break disclosures. For instance, *relapse* has been mentioned as one key word. However, the presence of other key words and phrases is worth exploring, given that a comprehensive set might allow researchers to identify initial posts through data mining—a less time-consuming data collection method. Hence, the initial post content collected in this study might help to determine the suitability of data mining to discover similar posts across other periods and other public conversations. Such a discovery might be a practical first step in paving the way for conducting more comprehensive inquiries into how reflexive communication occurs among r/stopdrinking users and users of other subreddits when an individual discloses a break in alcohol abstinence. It might also inform the development of communication literature and health programs regarding preventative and responsive practices related to alcohol abstinence.

Another direction for future research to expand on this investigation is further explicating response post conversations. More specifically, this study examined only first-level responses. Future research into reflexive communication between initial users and response users might explore the potential multilayered response levels and gradations or explore the impact of subsequent posts by initial users and moderators on each dimension of reflexivity. Finally, another future direction might be to further explore the nuances separating each of the three response perspectives (i.e., perform, promote, validate) that were identified in this investigation. Exploring each perspective separately, vs. considering them as one, as was done in this study, might help healthcare professionals and communication researchers better understand which types of response post statements tend to occur with more frequency and explore whether any type has a more significant impact on fostering resilience building. Such exploration might lead to an even deeper understanding of how social support impacts resilience building.

Conclusion

This study examined four interrelated communication phenomena that were thought to occur within a particular public discourse (i.e., initial r/stopdrinking posts that disclose a break or disruption to alcohol abstinence and response posts to such disclosures) and comprised two parts. The examined post statements were explored apropos of reflexive communication (Merten, 1977) using an analytical lens composed of four elements, the development of which was guided by existing theoretical knowledge, established definitions, and general categorization. In the first part of the study, initial and response posts were examined for statements of resilience building, the first phenomenon, to explore how individuals might communicatively build resilience when disclosing or responding to an abstinence disruption on the r/stopdrinking subreddit. In the second part of the study, only initial posts were examined for statements apropos of the three

remaining phenomena: mentions of trauma, any stated user views of AA, and statements that pointed to any of the transtheoretical model's ten processes of change (Prochaska & Prochaska, 2021), to consider whether any of these components might share a relationship with communicating resilience.

The findings of this investigation demonstrate that, of examined posts, response posts were more resilience-heavy than were initial posts, which suggests a positive outcome for individuals who might find themselves wanting or needing a safe community with which to disclose a disruption in alcohol abstinence. Additional findings indicate that a moderate relationship was found between communicating resilience and processes of change. By taking this issue to an online social support space, r/stopdrinking users are forging new ways to promote healthy behavior change regarding overcoming alcohol use disorder. Further, in so doing, they are creating conversations that might generate resilience and offer support to a community of like individuals, all navigating a shared health behavior challenge. Such support has been identified in other r/stopdrinking research (Gauthier et al., 2022; Velmurugan & Watson, 2017).

These findings add to a body of research regarding how individuals build resilience through communicative processes, communicate in and through spaces of trauma, and communicate having experienced a break in alcohol abstinence. In addition, the study results indicate that r/stopdrinking is an active community. Yet, disclosures of disruptions to alcohol abstinence were found to occur with relatively low frequency in comparison to all subreddit initial posts. Yet, such reflexive communication on r/stopdrinking might help individuals feel safe, supported, able to disclose disruptions, ask questions, and feel part of something bigger than themselves. Hence, such conversations might positively contribute to a user's self-efficacy regarding attaining and maintaining a particular desired health behavior, alcohol abstinence.

Appendix A: The Twelve Steps of Alcoholics Anonymous

The Twelve Steps

1. We admitted we were powerless over alcohol — that our lives had become unmanageable.
2. Came to believe that a Power greater than ourselves could restore us to sanity.
3. Made a decision to turn our will and our lives over to the care of God as we understood Him.
4. Made a searching and fearless moral inventory of ourselves.
5. Admitted to God, to ourselves, and to another human being the exact nature of our wrongs.
6. Were entirely ready to have God remove all these defects of character.
7. Humbly asked Him to remove our shortcomings.
8. Made a list of all persons we had harmed, and became willing to make amends to them all.
9. Made direct amends to such people wherever possible, except when to do so would injure them or others.
10. Continued to take personal inventory and when we were wrong promptly admitted it.
11. Sought through prayer and meditation to improve our conscious contact with God as we understood Him, praying only for knowledge of His will for us and the power to carry that out.
12. Having had a spiritual awakening as the result of these Steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs.

Appendix B: The Stages and Process of Change

Sample Patient Interview Staging Questions (Prochaska & Prochaska, 2021, p. 85)
Do you intend to {insert action criteria}?
No. I don't intend to do so in the next 6 months (precontemplation).
Yes. I intend to do so in the next 6 months (contemplation).
Yes. I intend to do so in the next 30 days (preparation).
Yes. I have been doing so for less than 6 months (action).
Yes. I have been doing so for more than 6 months (maintenance).

The Stages of Change[11]

Precontemplation	Unaware of problem(s), is not ready to change, may experience change as coerced, usually sees change as more cons than pros, may be resistant and respond with denial. Might feel discouraged by poor behavior change outcomes from during earlier attempts.
Contemplation	Aware of problem(s), recognizes benefits and cons of change, has interest in eventually changing but is currently ambivalent, often lacks self-efficacy to make a change. Might also feel stuck.
Preparation	Intends to make a change within the next 30 days, is preparing to act and has taken some small steps towards change, sees more pros than cons to change, has increased self-efficacy regarding change.
Action	Recently began the behavior change, is still putting time and energy into behavior change, can identify times when the change is difficult to sustain. Might feel urges to return to old behavior.
Maintenance	Has maintained the behavior change for at least 6 months, has a high commitment for change, has high self-efficacy regarding change, old behavior is less tempting. Can still experience slips in behavior change.
Termination	Has 100% self-efficacy, does not experience temptation. Behavior is certain regardless of environment or emotional state.

The Processes of Change[12]

Consciousness-raising	Learning new facts, ideas, and tips that support the healthy behavior change
Dramatic relief	Experiencing negative emotions (fear, anxiety) that go along with old behaviors or the positive emotions (inspirations) that go along with behavior change
Environmental reevaluation	Realizing the negative impact of one's behavior—and the positive impact of change—on others
Self-reevaluation	Looking back to how they think and feel about themselves and forward to how they will think and feel about themselves when free from their unhealthy habit

[11] The characteristics common to each SoC according to TTM (Prochaska & Prochaska, 2021, p. 87, 92-94).
[12] The PoC according to TTM, as outlined in Prochaska and Prochaska (2021, p. 90; see Table 5.2).

Social liberation	Realizing that social norms are changing to support the healthy behavior
Helping relationships	Seeking and using social support to make and sustain changes
Counterconditioning	Substituting healthy alternative behaviors and thoughts for unhealthy ones
Reinforcement management	Increasing the intrinsic and extrinsic rewards for healthy behavior change and decreasing the rewards for old behaviors
Stimulus control	Removing reminders or cues to engage in the old behaviors, and using cues to engage in the new healthy behavior
Self-liberation	Believing in one's ability to change and making a commitment to change based on that belief

Appendix C: Initial Posts Coding Parameters[13]

Study Components:

This study analyzes two different types of public posts made on r/stopdrinking by its users: (1) initial posts that disclose a break in alcohol abstinence; and, (2) first-level responses to those posts. This instruction set relates to initial posts that disclose a break in alcohol abstinence. The coding schema for the initial posts has two broad components and two narrow components.

The two broad components consider all statements in a post for any mentions of trauma and any stated views regarding Alcoholics Anonymous (AA)—regardless of the time period relative to the break in abstinence. The first broad component includes identifying any statement about trauma. Explicit use of the term trauma is done by keyword search. Post statements that might suggest trauma are considered and included if they meet the provided SAMHSA definitions and examples of trauma event, trauma experience, or trauma effect. The second broad component includes considering whether any stated views regarding AA are present. If yes, such statements are categorized according to whether they accept, reject, promote, question, or argue with AA.

The two narrow components consider statements regarding resilience behaviors and processes of change. Importantly, only the statements which reflect the period of time that follows the break in abstinence are included. The first narrow component includes identifying any statements that reflect a resilience behavior and counting the number of occurrences of each type. (The coding rules regarding counting are covered in the next section.) The resilience behavior categories are based on the resilience processes identified by the CRPS, and coding consideration for these is guided by examples from the CRPS. However, initial coding

[13] Note: any example Reddit statements are generalized from posts, no quotes are taken directly from the data.

discovered a high occurrence of expressions of gratitude. Given the established relationship between gratitude and resilience, gratitude was added to the resilience building coding schema. The second narrow component includes identifying whether any statements regarding the processes of change—according to the transtheoretical model—are present or not present; binary codes of yes/no are used.

Note that the narrow components seek to capture the statements that a user shares regarding resilience behaviors and processes of change (e.g., habits, thoughts, feelings, behaviors, routines, self-talk, reflection)—that reflect the *period following a break in alcohol abstinence*. Thus, any post statements that might "fit" a category for either of these components must first meet the time frame criteria in order to be included.

Step 1: Consider Statements:

Each post should be closely read and each distinct statement should be assessed for whether or not it meets the coding criteria of each of the four initial post study components (i.e., resilience, AA, trauma, processes of change). One approach is to first eliminate statements that do not meet any criteria. Doing this can help coders to focus on the statements that do meet some criteria. One way to eliminate such statements is to change the text font color of these statements to gray; this can help to reduce the amount of text a coder needs to focus on.

When determining whether a distinct statement meets the coding criteria of any category, it is critical that a coder sets aside any bias regarding how they might feel about the content of a post. Agreeing or disagreeing with and liking or disliking a post statement is irrelevant to this study. Instead, post statements should be assessed for whether or not they meet the criteria of a category, as defined and explained in the codebook. Also, if a coder holds a different personal

definition for a category, it should be set aside so that coding decisions for all coders are guided by the same codebook definitions.

If a post statement does not fit into a category, it should be evaluated for whether it represents another type of resilience; if it does not, it should be set aside. Not all statements will meet coding criteria.

Note that there might be multiple statements in a given "sentence;" therefore, coders should not rely on the punctuation of a post to identify its statements. To guide the assessment of whether a post statement meets the coding category criteria for any of the initial post study components, a detailed explanation and example statements for each category are included in the codebook.

- Consider statements regarding resilience behaviors and processes of change—only those that meet the time frame criteria for following a break in abstinence. *If a post references more than one break in abstinence (i.e., a prior period of sobriety), only code statements that reflect the time period regarding the most recent break in abstinence.*
- Consider all statements regarding AA.
- Consider all statements that reflect a trauma event, trauma experience, or trauma effect.

Step 2: Code Statements:

After a statement has been identified as meeting the coding criteria for a category, copy the statement—which might be only a portion of a sentence—and paste it into the cell on the coding chart that corresponds to the identified category. Repeat this process for all post statements that meet the coding criteria for a category.

Across Components: A post statement might meet the coding criteria for a category in more than one of the four initial post study components (i.e., resilience, AA, trauma, processes of change). For example, "I reached out to a new group" meets the coding criteria for one resilience category (i.e., network) and one processes of change category (i.e., helping). Hence, this statement would be coded in its respective category, thus appearing in two components.

Category Coding Decisions: Coders should code statements in the category that best matches the coding criteria. That is, a coder should prioritize identifying one best category for each statement over just coding the same statement in multiple categories. However, if a coder determines that a statement equally meets the coding criteria for more than one category, the coder should capture this overlap by coding it in the categories that it matches. For example, the statement, "I started weekly therapy today" meets the coding criteria of two categories (i.e., routine change, network) in the resilience component. Hence, this statement would be coded and counted in two resilience categories.

- Code each statement that meets the coding criteria of a category in the corresponding cell on the coding chart; statements might be able to be coded in more than one component.
- Identify the best matched category for each statement, within a component.
- If a statement equally meets the coding criteria for more than one category within a component, code it in the categories that it best matches.

IWNDWYT: Coders should note in the chart, but not code, the acronym IWNDWYT, or the spelled-out version, "I will not drink with you today," or any other very close variation (e.g., a user might change the phrase by one or two words). Through intercoder agreement, the statement IWNDWYT has been identified as meeting the coding criteria of three categories: one resilience (i.e., network) and two processes of change (i.e., helping, self-liberation). Simply put an X in the corresponding box on the coding chart. For consistency, and to streamline the process of coding for IWNDWYT in the data sheet, a coding decision was made to: (1) locate IWNDWYT statements using a keyword search; and, (2) manually record these as a "1" in a column in the data sheet. Data sheet formulas were then created to: (1) automatically add one occurrence to the total count for *network*; and, (2) automatically adjust the yes/no binary coding for the presence of *helping* and *self-liberation*. Using such formulas helps to minimize the likelihood of human error in the data sheet.

Step 3: Count Statements:

In regard to the categories of resilience and trauma—where the number of occurrences is counted—each unique statement should be identified and considered. For the purposes of this investigation, a unique statement is defined as a unique remark (e.g., fact, idea) or a unique question. Thus, if a user repeats the same remark or question, it would be *counted* only once in the QTY column on the coding chart.

For instance, the following two statements reflect the same idea: "I am grateful for this learning experience" and "I appreciate what I learned." Although these are two statements, they both reflect the same idea of gratitude and thus are not unique. Therefore, only one gratitude statement would be counted. However, if one said, "I am grateful for this learning experience" and another said, "Thank you for reading my post," this would represent two unique statements of gratitude; therefore, a coder would enter a "2" in the gratitude QTY box on the coding chart.

After a coder has considered each post statement, made coding decisions, and pasted the coded statements into the coding chart, the coder should then identify and enter the total quantity of unique statements for each resilience and trauma category. For example, if there are 3 statements in the *network* category, then the coder should enter a "3" in the corresponding QTY box on the coding chart.

- Count the number of unique statements within each resilience building category, record this in the corresponding QTY cell on the coding chart.
- Count the number of unique statements within each trauma category, record this in the corresponding QTY cell on the coding chart.

Appendix D: Initial Posts Codebook[14]

METADATA

Label: DATE

The date of the initial post.

Label: POST_ID

Tracks the type of post (i.e., initial post, response post). Pair codes to correspond; that is, include the initial post (IP_ identifier in each response post (RP) identifier. For example, IP1 points to initial post 1 and IP1_RP3 points to the third first-level response to that post.

- label initial post (i.e., IP_)
- label each response to correspond with its initial post (i.e., IP_RP_)

Label: WORDS

The word count of a post, as calculated by the LEN function in Microsoft Excel.

CODED DATA

Resilience Building Statements

Label: ROU_KEEP

Tracks whether an individual mentions—in an initial post on r/stopdrinking that discloses a break in alcohol abstinence—that they are *maintaining routines (crafting normalcy) during the time period following an abstinence break*. Guided by the following CRPS scale items/definitions, code the number of mentions (e.g., (3)) that this resilience building activity receives; code (0) if none.

[14] Note: any example Reddit statements are generalized from posts, no quotes are taken directly from the data.

This category reflects routines that a user kept through the break in abstinence. Because it is understood that not drinking is the overarching goal on r/stopdrinking, and that such an outcome is generally the focus of its users, statements regarding drinking routines are excluded (e.g., "I'm keeping on trying to not drink").

- *I tried to keep life as normal as possible.*
- *I continued to do the things I normally would.*
- *I made an effort to keep up with my daily routines.*
- *I tried to keep busy doing what I normally do.*

Example initial post statements that reflect a user keeping to a routine that they had before their break in abstinence.

"I am continuing therapy"
"I still take my medication"
"I am still walking every day"
"I make sure to read after work"
"I keep attending group"
"I visit this site regularly"
"I am continuing to be kind to myself"
"I still went to work"

Label: ROU_CHNG

Tracks whether an individual mentions—in an initial post on r/stopdrinking that discloses a break in alcohol abstinence—that they are *adapting/creating new routines (crafting normalcy) during the time period following an abstinence break*. Guided by the following CRPS scale items/definitions code the number of mentions (e.g., (3)) that this resilience building activity receives; code (0) if none. This category reflects changes or adaptations in a user's routine that began after the break in abstinence. Because it is understood that not drinking is the overarching goal on r/stopdrinking, and that such an outcome is generally the focus of its users, statements regarding drinking routine changes are excluded (e.g., "day 1 again").

- *I started to build new routines.*
- *I started to do new things that over time became ordinary.*
- *I adjusted my daily habits to the new circumstances.*

- *I adjusted my routines in light of what happened.*

*NOTE: these are routine-based actions rather than event-based actions; that is, some amount of frequency is explicitly stated. So, when a user refers to a one-time behavior change (i.e., action) following an abstinence break, the action would be considered a foregrounding activity unless it is identified by the user as being a new routine. For example, a statement like, "I am going to eat a giant breakfast burrito" would not be counted here unless the user indicates that eating a burrito will be part of a new routine.

Example initial post statements that reflect a user building or changing a routine following a break in abstinence.

"I just joined a weekly group"
"I am back to this subreddit regularly"
"I just ended a relationship"
"I redefined what a treat"
"I have begun using __ new safeguard"
"I am going to check in here every day"
"I used to do __ but now I __"

Label: AFFIRM

Tracks whether an individual mentions—in an initial post on r/stopdrinking that discloses a break in alcohol abstinence—that they are *affirming identity anchors during the time period following an abstinence break*. Guided by the following CRPS scale items/definitions, code the number of mentions (e.g., (3)) that this resilience building activity receives; code (0) if none.

- *I maintained key aspects of my identity amidst everything that was going on.*
- *I kept in mind who I wanted to be throughout the situation.*
- *I held onto the most important parts of myself despite everything that went on.*
- *I dug deep into what I value the most as the situation unfolded.*
- *I tried to act like the person I ideally wanted to be.*
- *I focused on my most important roles during this time.*

*NOTE: statements that affirm/perform the self as a non-drinker are included because being sober is often an important identity anchor to r/stopdrinking users. Thus, code positive

statements that reflect a user affirming (e.g., performing, confirming, doing) their identity vs. statements that reflect a user desiring or longing for some new aspect of identity (e.g., "I want to be different"). Such statements often center around some tense of the *be* verb (e.g., am, is, be).

Example initial post statements that reflect a user affirming (e.g., performs, confirms, does) their identity anchors following a break in abstinence.

"I see that I am a strong person"
"Keeping going is key for me"
"I want to drink, but I will not"
"I still got up and took care of my kids"
"I am back on the sober wagon"
"I am working to be a better parent/partner/employee, etc."
"I am a nondrinker now"

Label: NETWORK

Tracks whether an individual mentions—in an initial post on r/stopdrinking that discloses a break in alcohol abstinence—that they are *maintaining/using communication networks during the time period following an abstinence break*. Guided by the following CRPS scale items/definitions, code the number of mentions (e.g., (3)) that this resilience building activity receives; code (0) if none.

- *I turned to family and close friends for support.*
- *I turned to other people in my network for what I needed.*
- *I sought guidance from people I know.*
- *I reached out to other people for help.*
- *I relied on my connections with others during the situation.*

Example initial post statements and questions that reflect a user maintaining or using their communication networks following a break in abstinence.

"Any advice would be really appreciated"
"I reached out to my __"
"This community is such a great help"
"Has anyone else experienced this?"
"My partner sat with me"
"I need help"
"How do I decide what to do next?"

"Because of this sub, I don't feel alone"
"I just need some extra support"
"I am going to a meeting"
"How can I get sober?"
"I had to get this off my chest"
"I just joined so I can share here"
"What do people think or suggest?"
"Please help me"
"I confided in my __"
"How do others manage boredom?"
"This is so hard, I just need some encouragement"
"Support from this sub gave me strength"
"I am looking for someone to connect with for accountability"

Label: REFRAME

Tracks whether an individual mentions—in an initial post on r/stopdrinking that discloses a break in alcohol abstinence—that they are *reframing (constructing alternative logic) during the time period following an abstinence break*. Guided by the following CRPS scale items/definitions, code the number of mentions (e.g., (3)) that this resilience building activity receives; code (0) if none.

- *I found a different way to make sense of the difficult situation.*
- *I tried to see the difficult situation in a new light.*
- *I found ways of thinking outside of the box in the situation.*
- *I found a way to reimagine what was happening in the difficult situation.*
- *I thought about the situation in ways that I had not considered before.*

Example initial post statements that reflect a user reframing their situation or their understanding about their situation following a break in abstinence.

"I am a little bit proud of myself"
"It was a good run, I can see progress"
"This slip was better than previous slips"
"I see now why drinking sucks"
"Drinking is not a way to celebrate"
"If I had fun, it was pointless because I can't remember"
"I see that I need to take this one day at a time"
"I regret my choice but I recognize that I stopped my bender"
"I understand now that I can't moderate"
"I can still have a social life if I don't drink"
"I'm not a loser but I am annoyed with myself"

"Not drinking goes against a social norm"
"My experiment showed me that abstinence is easier than trying to moderate"
"I see that drinking no longer works in my life"
"I needed a break, but drinking is not worth the troubles it brings me"
"I traded one night for a physical and mental ass kicking"

Label: HUMOR

Tracks whether an individual—in an initial post on r/stopdrinking that discloses a break in alcohol abstinence—*uses humor (constructing alternative logic) during the time period following an abstinence break*. Guided by the following CRPS scale items/definitions, code the number of mentions (e.g., (3)) that this resilience building activity receives; code (0) if none.

- *I tried to find humor in the situation even though it was difficult to do so.*
- *I relied on humor to get through the challenging times.*
- *Even though the situation was serious, I found myself using humor to lighten things up.*
- *Even though I didn't expect to, I found myself laughing at something funny that happened in the situation.*

*NOTE, a user might make a joke in a post and that would count as a statement of humor.

Example initial post statements that reflect a user relying on or using humor following a break in abstinence.

"brain freeze is the worst thing I can get from ice cream, lol."

Label: FOREGRND

Tracks whether an individual mentions—in an initial post on r/stopdrinking that discloses a break in alcohol abstinence—that they are *foregrounding productive actions during the time period following an abstinence break*. Guided by the following CRPS scale items/definitions, code the number of mentions (e.g., (3)) that this resilience building activity receives; code (0) if none.

*NOTE, to meet the criteria for this category, a post statement should reflect that a user is taking a productive action vs. a user not doing something.

- *I focused on actions that would help me move forward even though it was difficult.*
- *Despite how I was feeling, I chose to focus on things that were productive.*
- *I focused on what would help me carry on even though it was challenging.*
- *Despite how I was feeling, I focused on taking constructive actions.*

Example initial post statements that reflect a user demonstrating taking a productive action despite difficulty following a break in abstinence.

"So, I made some tea and read a book"
"I threw away all of the alcohol"
"I made myself eat and leave the house"
"I was depressed, so I went for a walk"
"I wanted to drink, so I left the event"
"I chose not to attend the next party"
"I ate a huge burrito and am getting things done"
"I made a list of things I can do next time"
"I wrote down some ways to make amends with myself"
"I chose to stay overnight so that I wouldn't drive drunk"
"Things feel really shitty right now, so I came here and am continuing to try"

Label: GRATUDE

Tracks whether a user mentions being grateful, having gratitude, or expressing gratefulness in posts where an abstinence break was disclosed. Code the number (e.g., (3)) of gratitude statements; code (0) if none.

- *I appreciate this community/members/posts/support*
- *I am grateful/thankful for __*
- *Thank you all so much for listening/being here/offering support*
- *I am glad to be back*
- *Thank you for sharing*

Example initial post statements that reflect a user being grateful and/or appreciative about something following a break in abstinence.

"Thank you all for listening"
"I appreciate this community"
"I appreciate you reading this"
"Thank you in advance for your advice"
"I so appreciate you all being here"
"I am so grateful to share this journey"

"I can't express my gratitude enough for this subreddit"

Label: RES_TOT

The aggregate score of unique resilience building statements, an automatic tally of the coded resilience behaviors.

Label: RES_PER

A metric of the volume or saturation of a post, in terms of RES_TOT divided by WORDS, an automatic tally.

Trauma

Because one's trauma history is broadly considered, when coding for these elements, consider all statements regardless of the time period relative to the break in abstinence.

Label: TRAUMA*

Tracks whether an individual explicitly states having trauma or being in trauma and uses the term *trauma* in the post. Code 1 if yes, code 0 if not. *identify by key word search

Label: T_EVENT

Tracks whether an individual mentions any *trauma event(s)* in original posts when disclosing an abstinence disruption. Code irrespective of whether the term *trauma* is used. Likewise, code regardless of when the event(s) occurred (e.g., present, past). Guided by SAMHSA (2014a, p. 8) definition of *trauma events*, code the total number (e.g., (3)) of distinct *trauma events* mentions; code (0) if none are mentioned.

- "actual or extreme threat of physical or psychological harm" (e.g., natural disaster, violence)
- "severe, life-threatening neglect for a child that imperils healthy development"
- are either "a single occurrence or [occur] repeatedly over time"

Example initial post statements that reflect a trauma event.

"I was assaulted"
"My house burned down"
"My child was just diagnosed with __ (e.g., a serious health issue)"

Label: T_EXPER

Tracks whether an individual mentions any *trauma experience(s)* in original posts when disclosing an abstinence disruption. Code irrespective of whether the term *trauma* is used. Likewise, code regardless of when the event(s) occurred (e.g., present, past). Guided by SAMHSA (2014a, p. 8) definition of *trauma experiences*, code the total number (e.g., (3)) of distinct *trauma experience* mentions, irrespective of when the event occurred (e.g., present, past), code (0) if none are mentioned.

- "a particular event may be experienced as traumatic for one individual and not for another" (e.g., impact variance of: child home removal, war displacement, varied abuses)
- often "elicit a profound question of "why me?"
- usually include feeling "humiliation, guilt, shame, betrayal, or silencing" (e.g., survivor guilt, self-blame"
- can be informed by an individual's:
    - cultural beliefs
    - availability of social support
    - age or stage of development

Example initial post statements that reflect a trauma experience.

"I was unexpectedly fired"
"My husband has been ignoring me for the past year"
"I drank the hand sanitizer"
"My partner cheated on me"
"I am adjusting to my child's new serious health issue"
"My partner just ended things"
"I just experienced __ tragedy"

Label: T_EFFECT

Tracks whether an individual mentions any *trauma effect(s)* in original posts when disclosing an abstinence disruption. Code irrespective of whether the term *trauma* is used. Likewise, code

regardless of when the event(s) occurred (e.g., present, past). Guided by SAMHSA (2014a, p. 8) definition of *trauma effects*, code the total number (e.g., (3)) of distinct *trauma effect* mentions, irrespective of when the event occurred (e.g., present, past), code (0) if none are mentioned.

- "adverse effects may occur immediately or may have a delayed onset"
- "effects can be short to long term"
- individuals "may not recognize the connection between the traumatic events and the effects"
- some signs include an individual's inability to:
    - "cope with normal stresses and strains of daily living"
    - "trust and benefit from relationships"
    - "manage cognitive processes" (e.g., memory, attention, thinking)
    - "regulate behavior" or "control the expression of emotions"
- "may range from hypervigilance [i.e., constant alert, arousal] to numbing or avoidance"

Example initial post statements that reflect a trauma effect.

"So I grabbed booze and blow"
"I feel numb"
"I will keep drinking because I cannot accept my life"
"Recent conversations with my therapist have reopened some old and painful wounds"
"My breakup was awful and led me back to drinking"
"I got triggered and used it as an excuse to drink"
"The tragedy in my family made me drink again"

12-Step

Because one's views regarding AA are broadly considered, when coding for these elements, consider all statements regardless of the time period relative to the break in abstinence.

Label: IDEOLOGY

Tracks whether an individual mentions accepting or rejecting AA's 12-step ideology.

1. accept
2. mixed view
3. reject
4. unsaid

Label: PROMOTE

Tracks whether or not individuals promote core elements of AA (i.e., steps, materials) and whether or not individuals promote the program. Code 1 if yes, code 0 if no.

1. refers to AA's 12-steps
2. refers to AA materials (e.g., Big Book)
3. recommends AA program
4. questions AA program
5. argues against AA program

TTM Processes of Change

Label: TTM_PROC

Tracks whether or not any of the ten TTM processes of change are identifiable—in an initial post on r/stopdrinking that discloses a break in alcohol abstinence—*during the time period following an abstinence break*. Consider each TTM process and code 1 if it is identifiable within the post, code 0 if it is not.

*Note: A user might make statements that clearly reflect one part of a given process of change, but not every part. Hence, in order to capture processes of change statements, a coding decision was made to include both full and partial statements (i.e., or vs. and). Thus, definitions for the processes of change, as outlined by Prochaska and Prochaska (2021; see Table 5.2, p. 90), have been adapted here such that the term "or" guides coding decisions, vs. the original term "and." All adaptations are noted by [or] in each definition.

1. *consciousness-raising*: learning new facts, ideas, [or] tips that support the healthy behavior change

Example initial post statements that reflect that a user has experienced consciousness raising in regard to gaining a new understanding that supports stopping drinking.

"Wow! My brain still associates drinking with fun"
"I learned how important it is to HALT"
"I recognize ways that my antidepressant is reducing my urge to drink"
"It's clear now that nothing about drinking benefits me"
"I am newly seeing that I have a problem"
"I realized again why drinking sucks"
"Life without alcohol is so much better"
"I hope that I can remember that abstinence is easier than moderation"
"I thought that I could have a couple of beers, now I see that I cannot"

"This lesson taught me that I can never moderate"
"Drinking no longer works with my life because I blackout"
"My moderation experiments are destroying my life"
"My therapist said that having the desire to stop drinking is the most important thing"

2. *self-reevaluation*: looking back to how they think and feel about themselves [or] forward to how they will think and feel about themselves when free from their unhealthy habit

Example initial post statements that reflect that a user has reevaluated themselves in regard to stopping drinking.

"I sleep better, feel less anxious, and more stable when I am sober"
"I look forward to being sober again, I know I will feel more comfortable"
"I love waking up sober and feeling clear"
"Drinking made my body ugly and not drinking is how I will begin to fix it"
"I don't want to embarrass myself anymore by sending drunk texts"
"I needed an out, but letting everyone down wasn't worth a drink"
"I can't remember how I got home last night, I can't keep doing this"
"I am so disappointed with my choice, I want more out of life"
"I can't wait to feel clear headed again once the alcohol is out of my system"
"I am excited to again experience the joy of sobriety and being active in this community"

3. *self-liberation*: believing in one's ability to change [or] making a commitment to change based on that belief

Example initial post statements that reflect that a user has a belief in their ability to stop drinking or has made a commitment to stop drinking.

"This is hard but I know that I can do it"
"I can stop struggling by not drinking"
"I can and will get back on the sober wagon"
"My future actions will be focused on me beating this"
"This will take time but I am ready to do it"
"For the first time, I have the motivation to stop drinking"
"I stopped my bender and I will stay stopped"
"I may be broken but I am also committed to being sober"
"Even though I am so tempted, I will not drink!"

4. *counterconditioning*: substituting healthy alternative behaviors [or] thoughts for unhealthy ones

Example initial post statements that reflect that a user has substituted healthy behaviors or thoughts for unhealthy behaviors or thoughts.

"I practiced self-compassion instead of negative self-talk"
"I came back to this group instead of continuing to drink"
"I took a bath and watched a fun movie instead of drinking"
"I need to rethink what a treat is, because it is not a drink"
"Rather than ruminating on my bad choice, I am going to eat and get stuff done"
"Instead of drinking, I will soak in the tub and listen to calming music"
"I am going to drink tea, not my favorite fall drink"
"Instead of moping, I'm going to put good food into my body and leave the house for a while"

5. *stimulus control*: removing reminders or cues to engage in the old behaviors, [or] using cues to engage in the new healthy behavior

Example initial post statements that reflect that a user has removed drinking reminders or has added behavior change cues that support stopping drinking.

"I threw away all my alcohol"
"I bookmarked this subreddit"
"I put ___ book/resource on my nightstand"
"I stopped going out with my coworkers"

6. *reinforcement management*: increasing the intrinsic (i.e., psychological) and extrinsic (i.e., tangible) rewards for healthy behavior change [or] decreasing the rewards for old behaviors

Example initial post statements that reflect that a user has changed how they use rewards.

"I used to think that alcohol was a reward, I don't anymore"
"I reward myself each night with conscious time"

7. *helping relationships*: seeking and using social support to make [or] sustain changes

*NOTE, paid therapy is not coded as social support.

Example initial post statements that reflect that a user has sought and used social support to make or sustain changes.

"I just joined this sub"

"Here I am again"
"Please help me with __"
"I love this using this sub chat"
"How can I __?"
"I would appreciate any advice"
"I'm looking for accountability partners"
"I value your thoughts on __"
"Here's to a sober tomorrow my SD friends"
"What have others learned about __?"
"This subreddit helps me so much"
"Going to be more active on this community this time"
"I just really needed to share this with someone"
"This is so hard, I really need some encouragement"

8. *dramatic relief*: experiencing negative emotions (e.g., fear, anxiety) that go along with old behaviors or experiencing positive emotions (e.g., joy, inspiration) that go along with behavior change

Example initial post statements that reflect that a user has experienced negative emotions related to their drinking behavior or positive emotions related to stopping drinking.

"I have so much self loathing"
"It hurts so bad to fail"
"I feel discouraged"
"I am so so sad"
"I just feel horrible about myself"
"Addiction is so hard sometimes"
"I am disappointed in myself"
"I am afraid of failing again"
"I am depressed because I let everyone down"
"I worry I am heading down a slippery slope"
"I am scared about the future"
"I feel so disgusting, like I deserve how much my partner hates me"
"Right now I feel completely worthless"
"Drinking has made my anxiety skyrocket"
"It scares me how powerful my addict brain is"
"Last night was so embarrassing"
"I feel so much sadness that it hurts in my body"
"I feel afraid to admit my problem"
"I feel angry at myself for being out of control"
"I have so much shame for placing them in that position"
"I feel proud of how long I did stay sober"

9. *environmental reevaluation*: realizing the negative impact of one's behavior—[or] the positive impact of change—on others

Example initial post statements that reflect that a user realizes how their drinking behavior impacts others or how stopping their drinking might impact others.

"Wow, my drinking really hurt my parents"
"Because of my slip, my partner doesn't trust me now"
"I can see how my drinking has hurt everyone in my life"
"Now I feel terrible, I had made promises that I would not drink again, I let everyone down"

10. *social liberation*: realizing that social norms are changing to support the healthy behavior

Example initial post statements that reflect that a user realizes ways that social norms are changing to support stopping drinking.

"This sub helped save my life"
"I went to a party and felt supported in my decision to not drink"
"The bar menu included some NA drinks!"

Label: PC_SCORE

The aggregate number of TTM processes of change identified in a post, an automatic tally.

Appendix E: Response Posts Coding Parameters[15]

Study Component:

This study analyzes two different types of public posts made on r/stopdrinking by its users: (1) initial posts that disclose a break in alcohol abstinence; and, (2) first-level responses to those posts. This instruction set relates to the first-level response posts. The coding schema for the first-level response posts has only one component, resilience.

The resilience component considers whether any post statements reflect resilience behaviors. The coding schema for resilience behaviors is similar to that of the initial posts. However, because the inclusion criteria for response posts is different from initial posts, there are some changes in coding considerations. First, regarding alcohol abstinence, there is no time frame consideration when analyzing a response post because these are responses to a user who has disclosed a break in abstinence. Second, there are often multiple perspectives present in a response post. That is, a user might perform resilience behaviors, but they might also promote and/or validate resilience behaviors. Hence, in an effort to better capture all resilience behavior statements, the coding schema is expanded to include three perspectives (i.e., perform, promote, validate). As in the initial post coding schema, the number of each resilience behavior occurrence is counted.

Step 1: Consider Statements:

Each post should be closely read and each distinct statement should be assessed for whether or not it meets the coding criteria of any resilience category (e.g., reframe, humor, gratitude). One approach is to first eliminate statements that do not meet any criteria. Doing this

[15] Note: any example Reddit statements are generalized from posts, no quotes are taken directly from the data.

can help coders to focus on the statements that do meet some criteria. One way to eliminate such statements is to change the text font color of these statements to gray; this can help to reduce the amount of text a coder needs to focus on.

When determining whether a distinct statement meets the coding criteria of any category, it is critical that a coder sets aside any bias regarding how they might feel about the content of a post. Agreeing or disagreeing with and liking or disliking a post statement is irrelevant to this study. Instead, post statements should be assessed for whether or not they meet the criteria of a category, as defined and explained in the codebook. Also, if a coder holds a different personal definition for a category, it should be set aside so that coding decisions for all coders are guided by the same codebook definitions.

If a post statement does not fit into a category, it should be evaluated for whether it represents another type of resilience; if it does not, it should be set aside. Not all statements will meet coding criteria. In addition, some response posts lack any context, and no correct meaning can be interpreted. For example, a user might reply, “Awesome.” However, without context, it is not clear what the user is referring to; these responses cannot be correctly coded and should be set aside.

Note that there might be multiple statements in a given “sentence;” therefore, coders should not rely on the punctuation of a post to identify its statements. To guide the assessment of whether a post statement meets the coding category criteria for any of the response categories, a detailed explanation and example statements for each category are included in the codebook.

- Consider all statements that reflect resilience building from any of the three perspectives (perform, promote, validate).

Step 2: Code Statements:

After a statement has been identified as meeting the coding criteria for a category, copy the statement—which might be only a portion of a sentence—and paste it into the cell on the coding chart that corresponds to the identified category. Repeat this process for all post statements that meet the coding criteria of a category.

- Code all statements that reflect resilience building from any of the three perspectives (perform, promote, validate).

Category Coding Decisions: Coders should code statements in the category that best matches the coding criteria. That is, a coder should prioritize identifying one best category for each statement over just coding the same statement in multiple categories. However, if a coder determines that a statement equally meets the coding criteria for more than one category, the coder should capture this overlap by coding it in the categories that it matches. For example, the statement, "I started weekly therapy today" meets the coding criteria of two categories (i.e., routine change, network). Hence, this statement would be coded and counted in both categories.

- Code each statement that meets the coding criteria of a resilience building category, from any of the three perspectives, in the corresponding cell on the coding chart.
- Identify the best matched category for each statement.
- If a statement equally meets the coding criteria for more than one category, code it in the categories that it best matches.

IWNDWYT: Coders should note in the chart, but not code, the acronym IWNDWYT, or the spelled-out version, "I will not drink with you today," or any other very close variation (e.g., a user might change the phrase by one or two words). Through intercoder agreement, the statement IWNDWYT has been identified as meeting the coding criteria of one resilience category (i.e., network). Simply put an X in the corresponding box on the coding chart. For consistency, and to streamline the process of coding for IWNDWYT in the data sheet, a coding decision was made to: (1) locate IWNDWYT statements using a keyword search; and, (2) manually record these as a

"1" in a column in the data sheet. Data sheet formulas were then created to automatically add one occurrence to the total count for *network*. Using such formulas helps to minimize the likelihood of human error in the data sheet.

Step 3: Count Statements:

In regard to the categories of resilience—where the number of occurrences is counted—each unique statement should be identified and considered. For the purposes of this investigation, a unique statement is defined as a unique remark (e.g., fact, idea) or a unique question. Thus, if a user repeats the same remark or question, it would be *counted* only once in the QTY column on the coding chart.

For instance, the following two statements reflect the same idea: "I am grateful for this learning experience" and "I appreciate what I learned." Although these are two statements, they both reflect the same idea of gratitude and thus are not unique. Therefore, only one gratitude statement would be counted. However, if one said, "I am grateful for this learning experience" and another said, "Thank you for reading my post," this would represent two unique statements of gratitude; therefore, a coder would enter a "2" in the gratitude QTY box on the coding chart.

After a coder has considered each post statement, made coding decisions, and pasted the coded statements into the coding chart, the coder should then identify and enter the total quantity of unique statements for each resilience category. For example, if there are 3 statements in the *network* category, then the coder should enter a "3" in the corresponding QTY box on the coding chart.

- Count the number of unique statements within each resilience building category, record this in the corresponding QTY cell on the coding chart.

Appendix F: Response Posts Codebook[16]

METADATA

Label: DATE

The date of the initial post.

Label: POST_ID

Tracks the type of post (i.e., initial post, response post). Pair codes to correspond; that is, include the initial post (IP_ identifier in each response post (RP) identifier. For example, IP1 points to initial post 1 and IP1_RP3 points to the third first-level response to that post.

- label initial post (i.e., IP_)
- label each response to correspond with its initial post (i.e., IP_RP_)

Label: WORDS

The word count of a post, as calculated by the LEN function in Microsoft Excel.

CODED DATA

Resilience Building Statements

Label: ROU_KEEP

Tracks whether a user **performs, promotes, or validates** *maintaining routines (crafting normalcy)* in a first-level response post to a r/stopdrinking user who has disclosed a break in alcohol abstinence. Guided by the following adapted CRPS scale items/definitions, code the number of times (e.g., (3)) that this resilience building behavior is performed, promoted, and/or validated; code (0) if none.

[16] Note: any example Reddit statements are generalized from posts, no quotes are taken directly from the data.

This category reflects routines that a user is *keeping*. Because it is understood that not drinking is the overarching goal on r/stopdrinking, and that such an outcome is generally the focus of its users, statements regarding drinking routines are excluded (e.g., "I'm 40 days sober").

PERFORMED: user enacts or models maintaining routines

- *I tried to keep life as normal as possible.*
- *I continued to do the things I normally would.*
- *I made an effort to keep up with my daily routines.*
- *I tried to keep busy doing what I normally do.*

PROMOTED: user offers encouragement about maintaining routines

- *Try to keep life as normal as possible.*
- *Continue to do the things you normally would.*
- *Make an effort to keep up with your daily routines.*
- *Try to keep busy doing what you normally do.*

VALIDATED: user offers acknowledgement for maintaining routines

Post states something like: "*I notice* or *Good job* or *It's clear*" [in some way acknowledges or validates that the initial user has done this resilience building behavior].

- *That you try to keep life as normal as possible.*
- *That you are continuing to do the things you normally would.*
- *That you are making an effort to keep up with your daily routines.*
- *That you are trying to keep busy doing what you normally do.*
- *Other statements of encouraging or validating routine maintenance (e.g., keep going, you got this!).*

Example response statements where a user: (1) performs keeping a routine; (2) promotes keeping a routine; or, (3) validates another user in keeping a routine.

"I have been working out every day for the past month"
"I keep taking Naltrexone"
"I read every night"
"The daily check-in is an important part of every morning"
"I read my list of reasons to stay sober daily"
"Whenever I feel a craving, I pray"
"I make sure to cook healthy meals"
"I find it helpful to gift myself some free time every day"

Label: ROU_CHNG

Tracks whether a user **performs, promotes, or validates** *adapting/creating new routines (crafting normalcy)* in a first-level response post to a r/stopdrinking user who has disclosed a break in alcohol abstinence. Guided by the following adapted CRPS scale items/definitions, code the number of times (e.g., (3)) that this resilience building behavior is performed, promoted, and/or validated; code (0) if none.

This category reflects changes or adaptations in a user's routine. Because it is understood that not drinking is the overarching goal on r/stopdrinking, and that such an outcome is generally the focus of its users, statements regarding drinking routine changes are excluded (e.g., "it's day 1 for me again too").

PERFORMED: user enacts or models adapting/creating new routines

- *I started to build new routines.*
- *I started to do new things that over time became ordinary.*
- *I adjusted my daily habits to the new circumstances.*
- *I adjusted my routines in light of what happened.*

PROMOTED: user offers encouragement about adapting/creating new routines

- *Start to build new routines.*
- *Start to do new things that over time become ordinary.*
- *Adjust your daily habits to the new circumstances.*
- *Adjust your routines in light of what happened.*

VALIDATED: user offers acknowledgement for adapting/creating new routines

Post states something like: "*I notice* or *Good job* or *It's clear*" [in some way acknowledges or validates that the initial poster has done this resilience building behavior].

- *That you are starting to build new routines.*
- *That you are starting to do new things that over time become ordinary.*
- *That you are adjusting your daily habits to the new circumstances.*
- *That you are adjusting your routines in light of what happened.*
- *Other statements of encouraging or validating new routines (e.g., good job on __).*

*NOTE: these are routine-based actions rather than event-based actions, some amount of recurrence is stated.

Example response statements where a user: (1) performs changing a routine; (2) promotes changing a routine; or, (3) validates another user in changing a routine.

> "I stopped going out with friends for a long time after I quit"
> "Good job deciding to start attending a weekly meeting"
> "Have you thought about journaling regularly?"
> "After I quit drinking, I changed a lot of my daily routines to fill the drinking void"
> "What things can you do differently this time?"
> "Get an instrument and learn to play it"
> "Another person suggested using a daily sticker chart that helps to track progress"
> "I ended up changing nearly everything in my life when I got sober"
> "When I got out of rehab, the first thing I did is find a job that I liked"
> "I changed my eating habits"
> "I joined a ___ group"
> "What kind of changes will you make to your routine?"
> "I started taking a new health supplement"
> "I used to reward myself with cookies, but now I treat myself to a new coffee every week"

Label: AFFIRM

Tracks whether a user **performs, promotes, or validates** *affirming identity anchors* in a first-level response post to a r/stopdrinking user who has disclosed a break in alcohol abstinence. Guided by the following adapted CRPS scale items/definitions, code the number of times (e.g., (3)) that this resilience building behavior is performed, promoted, and/or validated; code (0) if none.

PERFORM: user enacts or models affirming identity anchors

- *I maintained key aspects of my identity amidst everything that was going on.*
- *I kept in mind who I wanted to be throughout the situation.*
- *I held onto the most important parts of myself despite everything that went on.*
- *I dug deep into what I value the most as the situation unfolded.*
- *I tried to act like the person I ideally wanted to be.*
- *I focused on my most important roles during this time.*

PROMOTED: user offers encouragement about affirming identity anchors

- *Maintain key aspects of your identity amidst everything that was going on.*
- *Keep in mind who you want to be throughout the situation.*
- *Hold onto the most important parts of yourself despite everything that went on.*
- *Dig deep into what you value the most as the situation unfolds.*
- *Try to act like the person you ideally want to be.*
- *Focus on your most important roles during this time.*

VALIDATED: user offers acknowledgement for affirming identity anchors

Post states something like: "*I notice* or *Good job* or *It's clear*" [in some way acknowledges or validates that the initial poster has done this resilience building behavior].

- *That you maintained key aspects of your identity amidst everything that went on.*
- *That you kept in mind who you wanted to be throughout the situation.*
- *That you held onto the most important parts of yourself despite everything that went on.*
- *That you dug deep into what you valued the most as the situation unfolded.*
- *That you tried to act like the person you ideally want to be.*
- *That you focused on your most important roles during this time.*
- *Other statements of encouraging or validating through affirming (e.g.,).*

*NOTE: statements that perform the self as a non-drinker are included because being sober is often an important identity anchor to r/stopddrinking users. Thus, code positive statements that reflect affirming (e.g., performing, confirming, doing) a user's identity. Such statements will often center around some tense of the *be* verb (e.g., am, is, be).

Example response statements where a user: (1) performs affirming an identity anchor; (2) promotes affirming an identity anchor; or, (3) validates another user's identity anchor.

"You were able to stop yourself from continuing"
"I am better at everything when I am sober"
"I'm nearly at six months of choosing sobriety"
"Good job staying strong friend"
"Get back on that sober train"
"You got back on the horse"
"Keep going, it will help you be your best self"
"I love my being sober"
"It's been two years and I am still sober"
"You are here and still trying to be your best"

Label: NETWORK

Tracks whether an individual **performs, promotes, or validates** *maintaining/using communication networks* in a first-level response post to a r/stopdrinking user who has disclosed a break in alcohol abstinence. Guided by the following adapted CRPS scale items/definitions, code the number of times (e.g., (3)) that this resilience building behavior is performed, promoted and/or validated; code (0) if none.

A response post might include statements of network benefit or statements of general support (e.g., relatability, empathy, encouragement). Such statements from one user to another user are made in return (i.e., are reciprocal). Such reciprocity *performs* maintaining/using communication networks; thus, a coding decision was made to code *mentions of network benefits* and *statements of network support* as a NETWORK occurrence.

PERFORM: user enacts or models maintaining/using communication networks

- *I turned to family and close friends for support [or I gave support].*
- *I turned to other people in my network for what I needed [or responded to their needs].*
- *I sought guidance from people I know.*
- *I reached out [or responded] to other people for help.*
- *I relied on my connections [or made space to connect] with others during the situation.*
- network benefits
    - *"Reading your story helped me to think/feel/understand ____"*
    - *"Because of what you shared, I ____ "*
- network support (supportive statements, questions)
  "Keep on trying"
  "You can do this"
  "Congratulations"
  "You're doing great?"
  "I feel for you"
  "We've got this"
  "I've been through that"
  "Hang in there"
  "Don't give up"

PROMOTED: user offers encouragement about maintaining/using communication networks

- *Turn to family and close friends for support.*

- *Turn to other people in your network for what you need.*
- *Seek guidance from people you know.*
- *Reach out to other people for help.*
- *Rely on your connections with others during the situation.*

VALIDATED: user offers acknowledgement for maintaining/using communication networks

Post states something like: "*I notice* or *Good job* or *It's clear*" [in some way acknowledges or validates that the initial poster has done this resilience building behavior].

- *That you turned to family and close friends for support.*
- *That you turned to other people in your network for what you need.*
- *That you sought guidance from people you know.*
- *That you reached out to other people for help.*
- *That you relied on your connections with others during the situation.*

Example response statements where a user: (1) performs; (2) promotes; or, (3) validates using/ maintaining communication networks.

"I'm sorry that you lost your job"
"Asking for help is a sign of strength"
"Good work relying on your support system"
"I'm sending you positive vibes"
"I felt inspired by your post"
"What about trying 90 meetings in 90 days?"
"Have you looked into SMART recovery?"
"Stories like yours help me so much"
"Welcome back, we are glad you are here"

Label: REFRAME

Tracks whether an individual **performs, promotes, or validates** *reframing (constructing alternative logic)* in a first-level response post to a r/stopdrinking user who has disclosed a break in alcohol abstinence. Guided by the following adapted CRPS scale items/definitions, code the number of times (e.g., (3)) that this resilience building behavior is performed, promoted, and/or validated; code (0) if none.

PERFORMED: user enacts or models reframing (constructing alternative logic)

- *I found a different way to make sense of the difficult situation.*
- *I tried to see the difficult situation in a new light.*
- *I found ways of thinking outside of the box in the situation.*
- *I found a way to reimagine what was happening in the difficult situation.*
- *I thought about the situation in ways that I had not considered before.*

PROMOTED: user offers encouragement about reframing (constructing alternative logic)

- *Find a different way to make sense of the difficult situation.*
- *Try to see the difficult situation in a new light.*
- *Find ways of thinking outside of the box in the situation.*
- *Find a way to reimagine what was happening in the difficult situation.*
- *Think about the situation in ways that you have not considered before.*

VALIDATED: user offers acknowledgement for reframing (constructing alternative logic)

Post states something like: "*I notice* or *Good job* or *It's clear*" [in some way acknowledges or validates that the initial poster has done this resilience building behavior].

- *That you found a different way to make sense of the difficult situation.*
- *That you tried to see the difficult situation in a new light.*
- *That you found ways of thinking outside of the box in the situation.*
- *That you found a way to reimagine what was happening in the difficult situation.*
- *That you are thinking about the situation in ways that you had not considered before.*
- *Other statements of encouraging or validating through reframing (e.g., you should be proud of yourself).*

Example response statements where a user: (1) performs; (2) promotes; or, (3) validates reframing.

"You should be proud of yourself"
"Each day 1 counts"
"That is a great record"
"Stopping drinking is not impossible"
"This is not a failure"
"There are countless better things to do than drink"
"If quitting were easy, none of us would be here"
"We must remember these hard-earned lessons so we don't need to relearn them"
"I finally know that I cannot moderate"
"What sort of things did you feel before you relapsed?"
"There is no need to beat yourself up"
"You don't have to explain your decision to anyone"

"We are all here just learning about ourselves every single day"
"Use the parts of [a program] that work for you, you don't have to agree with it all"
"Take it one day at a time"
"It sounds like you learned from that lesson"
"Relapses are not uncommon"
"Good job finding a lesson in this experience"
"Focus on that you are back here and trying again"

Label: HUMOR

Tracks whether an individual **performs, promotes, or validates** *humor (constructing alternative logic)* in a first-level response post to a r/stopdrinking user who has disclosed a break in alcohol abstinence. Guided by the following adapted CRPS scale items/definitions, code the number of times (e.g., (3)) that this resilience building behavior is performed, promoted, and/or validated; code (0) if none.

PERFORMED: user enacts or models using humor (e.g., makes a joke)

- *I tried to find humor in the situation even though it was difficult to do so.*
- *I relied on humor to get through the challenging times.*
- *Even though the situation was serious, I found myself using humor to lighten things up.*
- *Even though I didn't expect to, I found myself laughing at something funny that happened in the situation.*

PROMOTED: user offers encouragement through humor

- *Try to find humor in the situation even though it was difficult to do so.*
- *Rely on humor to get through the challenging times.*
- *Even though the situation was serious, can you use humor to lighten things up?*
- *Even though you didn't expect to, can you laugh at something funny that happened in the situation?*

VALIDATED: user offers acknowledgement through humor

Post states something like: "*I notice* or *Good job* or *It's clear*" [in some way acknowledges or validates that the initial poster has done this resilience building behavior].

- *That you are trying to find humor in the situation even though it was difficult to do so.*
- *That you are relying on humor to get through the challenging times.*
- *That even though the situation was serious, you used humor to lighten things up.*

- *That even though you didn't expect to, you can laugh at something funny that happened in the situation.*
- *Other statements of encouraging or validating through humor (e.g., it's great that you can laugh at yourself).*

Label: FOREGRND

Tracks whether an individual **performs, promotes, or validates** *foregrounding productive actions* in a first-level response post to a r/stopdrinking user who has disclosed a break in alcohol abstinence. Guided by the following adapted CRPS scale items/definitions, code the number of times (e.g., (3)) that this resilience building behavior is performed, promoted, and/or validated; code (0) if none.

*NOTE, to meet the criteria for this category, a post statement should reflect that a user is taking a productive action vs. a user stating *not* doing something.

PERFORMED: user enacts or models foregrounding production actions

- *I focused on actions that would help me move forward even though it was difficult.*
- *Despite how I was feeling, I chose to focus on things that were productive.*
- *I focused on what would help me carry on even though it was challenging.*
- *Despite how I was feeling, I focused on taking constructive actions.*

PROMOTED: user encouragement about foregrounding production actions

- *Focus on actions that would help you move forward even though it is/was difficult.*
- *Despite how you are feeling, choose to focus on things that are productive.*
- *Focus on what would help you carry on even though it was challenging.*
- *Despite how you are feeling, focus on taking constructive actions.*

VALIDATED: user acknowledgement for foregrounding production actions

Post states something like: "*I notice* or *Good job* or *It's clear*" [in some way acknowledges or validates that the initial poster has done this resilience building behavior].

- *That you focused on actions that would help you move forward even though it was difficult.*
- *That despite how you are feeling, you chose to focus on things that are productive.*
- *That you focused on what would help you carry on even though it was challenging.*

- *That despite how you are feeling, you focused on taking constructive actions.*
- *Other statements of encouraging or validating productive action (e.g., try reading __).*

Example response statements where a user: (1) performs; (2) promotes; or, (3) validates taking productive actions despite the difficulty.

"So, I made some tea and read a book"
"I felt discouraged, so I read __"
"You might try reading __"
"After the last time, I made some big life changes"
"Go eat a healthy meal"
"After my relapse, I read ___"
"I find that a taking hot shower can help"
"Just try out a different recovery group"
"What is your plan for next time?"
"I wrote down some goals"
"I chose self care anyway"
"Work on regulating your emotions"
"Make a plan so it doesn't happen again"
"Have you tried a deep breathing exercise?"
"Try writing down how you feel"

Label: GRATUDE

Tracks whether a user **performs, promotes, or validates** being grateful, having gratitude, or expressing gratefulness in a first-level response post to a r/stopdrinking user who has disclosed a break in alcohol abstinence. Code the number (e.g., (3)) of gratitude statements; code (0) if none.

- *I appreciate this community/members/posts/support*
- *I am grateful/thankful for this community*
- *Thank you all so much for listening/being here/offering support*
- *Thank you for sharing*

Example response statements where a user: (1) performs; (2) promotes; or, (3) validates doing foregrounding productive actions.

"I am so glad I found this community"
"Thanks for your share"
"Thank you all so much"
"I'm grateful that you are here"
"Thank you for such sincere honesty"
"I appreciate this community"

"I'm glad to hear that you feel stronger"
"I appreciate how everyone helps me keep on track"
"I can't express my gratitude enough for this subreddit"

Label: RES_TOT

The aggregate score of unique resilience building statements, an automatic tally of the coded resilience behaviors.

Label: RES_PER

A metric of the volume or saturation of a post, in terms of RES_TOT divided by WORDS, an automatic tally.

Appendix G: Initial Posts Coding Chart

POST ID		**IWNDWYT—Y/N** *see codebook details, note Y/N if phrase is present*	
**Refer to the codebook for a detailed explanation along with examples for the following Resilience categories.*			
ROU_KEEP	**Y/N**	**POST STATEMENT**	**QTY**
see codebook		copy/paste example statements	
ROU_CHNG	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			
AFFIRM	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			
NETWORK	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			
REFRAME	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			
HUMOR	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			
FOREGRND	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			
GRATUDE	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			
OTHER RESILIENCE	**Y/N**	**POST STATEMENT**	**QTY**
T_EVENT	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			

T_EXPER	Y/N	POST STATEMENT	QTY
see codebook			
T_EFFECT	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			
ACCEPT / REJECT AA IDEOLOGY?		**PROMOTES AA?**	**Y/N**
1 - accept		REFERENCES 12-STEP	
2 - mixed view		REFERENCES AA	
3 - reject		RECOMMENDS AA	
4 - unsaid		QUESTIONS AA	
		ARGUES AGAINST AA	

**Refer to the codebook for a detailed explanation and examples for the following Processes of Change.*

CON_RAIS	Y/N	POST STATEMENT
consciousness-raising: learning new facts, ideas, and tips that support the healthy behavior change		
REEVAL	**Y/N**	**POST STATEMENT**
self-reevaluation: looking back to how they think and feel about themselves and forward to how they will think and feel about themselves when free from their unhealthy habit		
SELF_LIB	**Y/N**	**POST STATEMENT**
self-liberation: believing in one's ability to change and		

making a commitment to change based on that belief		
COUNTER	**Y/N**	**POST STATEMENT**
counterconditioning: substituting healthy alternative behaviors and thoughts for unhealthy ones		
STIMULUS	**Y/N**	**POST STATEMENT**
stimulus control: removing reminders or cues to engage in the old behaviors, and using cues to engage in the new healthy behavior		
REINFORC	**Y/N**	**POST STATEMENT**
reinforcement management: increasing the intrinsic and extrinsic rewards for healthy behavior change and decreasing the rewards for old behaviors		
HELPING	**Y/N**	**POST STATEMENT**
helping relationships: seeking and using social support to make and sustain changes		
DRAMATIC	**Y/N**	**POST STATEMENT**
dramatic relief: experiencing negative emotions (fear, anxiety) that go along with old behaviors or the positive emotions (inspirations) that		

go along with behavior change		
ENVIRON	**Y/N**	**POST STATEMENT**
environmental reevaluation: realizing the negative impact of one's behavior—and the positive impact of change—on others		
SOC_LIB	**Y/N**	**POST STATEMENT**
social liberation: realizing that social norms are changing to support the healthy behavior		
IWNDWYT	**Y/N**	
see codebook for details, simply note Y/N here for if this phrase is present		

Appendix H: Response Posts Coding Chart

POST ID		IWNDWYT—Y/N *see codebook details, note Y/N if phrase is present*	
**Refer to the codebook for a detailed explanation along with examples for the following Resilience categories.*			
ROU_KEEP	**Y/N**	**POST STATEMENT**	**QTY**
see codebook		copy/paste example statements	
ROU_CHNG	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			
AFFIRM	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			
NETWORK	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			
REFRAME	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			
HUMOR	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			
FOREGRND	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			
GRATUDE	**Y/N**	**POST STATEMENT**	**QTY**
see codebook			
OTHER RESILIENCE	**Y/N**	**POST STATEMENT**	**QTY**

References

12 Step Online. (n.d.). *Online AA meetings*. https://www.12step-online.com/meetings/online-aa-meetings/

12Step.org. (n.d.). *12 step versions in different fellowships*. https://12step.org/references/12-step-versions/

A.A. Grapevine, Inc. (n.d.). *Sobriety calculator*. The International Journal of Alcoholics Anonymous. https://www.aagrapevine.org/sobriety-calculator

A.A. Grapevine, Inc. (1988). *The language of the heart: Bill W.'s Grapevine writings* (Kindle). A.A. Grapevine, Inc.

AAWS. (1980). *Dr. Bob and the good oldtimers: A biography, with recollections of early A.A. in the Midwest* (Kindle). Alcoholics Anonymous World Services, Inc.

AAWS. (2018). *The AA Member: Medications & other drugs*. Alcoholics Anonymous World Services, Inc.

AAWS. (2022a). *A.A. can support professionals*. Aa.Org. https://www.aa.org/aa-professionals

AAWS. (2022b). *Alcoholics Anonymous*. Aa.Org. aa.org

AAWS. (2022c). *The twelve steps*. Alcoholics Anonymous World Services. https://www.aa.org/sites/default/files/literature/The Twelve Steps of Alcoholics Anonymous - SMF-121.pdf

AAWS. (2022d). *What is AA?* Aa.Org. https://www.aa.org/what-is-aa

Anderson, D. J., McGovern, J. P., & Dupont, R. L. (1999). The origins of the Minnesota Model of addiction treatment – A first person account. *Journal of Addictive Diseases*, *18*, 107–114. https://doi.org/10.1300/J069v18n01

Angus, C., Pryce, R., Holmes, J., de Vocht, F., Hickman, M., Meier, P., Brennan, A., & Gillespie, D. (2020). Assessing the contribution of alcohol-specific causes to socio-economic inequalities in mortality in England and Wales 2001–16. *Addiction (Abingdon, England)*, *115*(12), 2268. https://doi.org/10.1111/ADD.15037

Anthenelli, R. M. (2012). Overview: Stress and alcohol use disorders revisited. *Alcohol Research and Health*, *34*(4), 386–390.

APA. (2013). *Diagnostic and statistical manual of mental disorders, fifth edition (DSM-5-TR)* (5th ed.). American Psychiatric Association Publishing.

Ashford, R. D., Brown, A., & Curtis, B. (2019). Expanding language choices to reduce stigma: A Delphi study of positive and negative terms in substance use and recovery. *Health Education*, *119*(1), 51–62. https://doi.org/10.1108/HE-03-2018-0017

Ashford, R. D., Giorgi, S., Mann, B., Pesce, C., Sherritt, L., Ungar, L., & Curtis, B. (2020). Digital recovery networks: Characterizing user participation, engagement, and outcomes of a novel recovery social network smartphone application. *Journal of Substance Abuse Treatment*, *109*, 50–55. https://doi.org/10.1016/j.jsat.2019.11.005

B. Dick. (2011). Introduction. In *Alcoholics Anonymous: The Big Book: The original 1939 edition* (2nd ed.). Alcoholics Anonymous World Services, Inc.

Back, S. E. (2010). Toward an improved model of treating co-occurring PTSD and substance use disorders. *American Journal of Psychiatry*, *167*(1), 11–13. https://doi.org/10.1176/appi.ajp.2009.09111602

Baptista, N., Pinho, J. C., & Alves, H. (2021). Examining social capital and online social support links: A study in online health communities facing treatment uncertainty. *International*

Review on Public and Nonprofit Marketing, *18*(1), 57–94. https://doi.org/10.1007/s12208-020-00263-2

Beresford, T. P. (2007). What is addiction, what is alcoholism? *Liver Transplantation*, *13*(S2), S55–S58. https://doi.org/10.1002/lt

Best, D., Beckwith, M., Haslam, C., Haslam, A., Jetten, J., Mawson, E., & Lubman, D. I. (2016). Overcoming alcohol and other drug addiction as a process of social identity transition: The social identity model of recovery (SIMOR). *Addiction Research & Theory*, *24*(2), 111–123. https://doi.org/10.3109/16066359.2015.1075980

Best, D. W., Ghufran, S., Day, E., Ray, R., & Loaring, J. (2008). Breaking the habit: A retrospective analysis of desistance factors among formerly problematic heroin users. *Drug and Alcohol Review*, *27*(6), 619–624. https://doi.org/10.1080/09595230802392808

Bettinardi-Angres, K., & Angres, D. H. (2010). Understanding the disease of addiction. *Journal of Nursing Regulation*, *1*(2), 31–37. https://doi.org/10.1016/S2155-8256(15)30348-3

Betts, T., Hintz, E. A., & Buzzanell, P. M. (2022). Emplotting anticipatory resilience: An antenarrative extension of the communication theory of resilience. *Communication Monographs*, *89*(2), 211–234. https://doi.org/10.1080/03637751.2021.1971272

Bevacqua, T., & Hoffman, E. (2010). William James's "sick-minded soul" and the AA recovery paradigm: Time for a reappraisal. *Journal of Humanistic Psychology*, *50*(4), 440–458. https://doi.org/10.1177/0022167810373041

Black Bear Lodge. (2022). *Is relapse really just part of the recovery process?* Blackbearrehab.Com. https://blackbearrehab.com/is-relapse-really-just-part-of-the-recovery-process/

Blocker, J. S. Jr. (2006). Did prohibition really work? Alcohol prohibition as a public health innovation. *American Journal of Public Health*, *96*(2), 233–243. https://doi.org/10.2105/AJPH.2005.065409

Blum, K., Thompson, B., Demotrovics, Z., Femino, J., Giordano, J., Oscar-Berman, M., Teitelbaum, S., Smith, D. E., Roy, A. K., Agan, G., Fratantonio, J., Badgaiyan, R. D., & Gold, M. S. (2015). The molecular neurobiology of twelve steps program & fellowship: Connecting the dots for recovery. *Journal of Reward Deficiency Syndrome*, *01*(01), 46–64. https://doi.org/10.17756/JRDS.2015-008

Blum, T. C., Roman, P. M., & Bennett, N. (1989). Public images of alcoholism: Data from a Georgia survey. *Journal of Studies on Alcohol*, *50*(1), 5–14.

Bowen, M. L. (2016). Stigma: Content analysis of the representation of people with personality disorder in the UK popular press, 2001–2012. *International Journal of Mental Health Nursing*, *25*(6), 598–605. https://doi.org/10.1111/inm.12213

Bradshaw, S. D., Shumway, S. T., Harris, K. S., & Baker, A. K. (2013). Predictive factors of readiness for change during inpatient treatment. *Alcoholism Treatment Quarterly*, *31*(3), 280–302. https://doi.org/10.1080/07347324.2013.800429

Brady, K. T., & Back, S. E. (2012). Childhood trauma, posttraumatic stress disorder, and alcohol dependence. *Alcohol Research: Current Reviews*, *34*(4), 408–413.

Brooks, F., Arminio, J., & Caballero-Dennis, K. A. (2013). A narrative synthesis of addictions, surrender, and relapse: Confirmation and application. *Alcoholism Treatment Quarterly*, *31*(3), 375–395. https://doi.org/10.1080/07347324.2013.800427

Brown, E. M. (1985). “What shall we do with the inebriate?” Asylum treatment and the disease concept of alcoholism in the late nineteenth century. *Journal of the History of the*

Behavioral Sciences, *21*(1), 48–59. https://doi.org/10.1002/1520-6696(198501)21:1<48::AID-JHBS2300210105>3.0.CO;2-X

Buzzanell, P. M. (2010). Resilience: Talking, resisting, and imagining new normalcies into being. *Journal of Communication*, *60*(1), 1–14. https://doi.org/10.1111/j.1460-2466.2009.01469.x

Buzzanell, P. M. (2018). Organizing resilience as adaptive-transformational tensions. *Journal of Applied Communication Research*, *46*(1), 14–18. https://doi.org/10.1080/00909882.2018.1426711

Buzzanell, P. M. (2019). Communication theory of resilience in everyday talk, interactions, and network structures. In S. R. Wilson & S. W. Smith (Eds.), *Reflections on interpersonal communication research* (pp. 65–88). Cognella.

Buzzanell, P. M., & Houston, J. B. (2018). Communication and resilience: Multilevel applications and insights. *Journal of Applied Communication Research*, *46*, 1–4. https://doi.org/10.1080/00909882.2017.1412086

Caetano, R. (1987). Public opinions about alcoholism and its treatment. *Journal of Studies on Alcohol*, *48*(2), 153–160.

CalculatorSoup. (2023). *Random number generator*. Calculatorsoup.Com. https://www.calculatorsoup.com/calculators/statistics/random-number-generator.php

Caleon, I. S., Qamarina Binte Ilham, N., Leng Ong, C., & Pei-Ling Tan, J. (2019). Cascading effects of gratitude: A sequential mediation analysis of gratitude, interpersonal relationships, school resilience and school well-being. *The Asia-Pacific Education Researcher*, *28*(4), 303–312. https://doi.org/10.1007/s40299-019-00440-w

Caliendo, M., & Hennecke, J. (2022). Drinking is different! Examining the role of locus of control for alcohol consumption. *Empirical Economics*, *63*, 2785–2815. https://doi.org/10.1007/s00181-022-02219-3

Carruth, B., & Burke, P. A. (2008). Psychological trauma and addiction treatment. *Journal of Chemical Dependency Treatment*, *8*(2), 1–14. https://doi.org/10.1300/J034v08n02

CDC. (2022a). *Alcohol & substance misuse*. Workplace Health Strategies. https://www.cdc.gov/workplacehealthpromotion/health-strategies/substance-misuse/index.html

CDC. (2022b). *Alcohol and public health*.

Charlet, K., Rosenthal, A., Lohoff, F. W., Heinz, A., & Beck, A. (2018). Imaging resilience and recovery in alcohol dependence. *Addiction*, *113*(10), 1933–1950. https://doi.org/10.1111/add.14259

Chen, Y., & Xu, Y. (2021). Exploring the effect of social support and empathy on user engagement in online mental health communities. *International Journal of Environmental Research and Public Health*, *18*(13). https://doi.org/10.3390/ijerph18136855

Clements, A. D., Cyphers, N. A., Whittaker, D. L., Hamilton, B., & McCarty, B. (2021). Using trauma informed principles in health communication: Improving faith/science/clinical collaboration to address addiction. *Frontiers in Psychology*, *12*, 1–8. https://doi.org/10.3389/fpsyg.2021.781484

Cleveland Clinic. (2021). *What is the "California sober" approach to substance use?* Healthessentials. https://health.clevelandclinic.org/what-is-cali-sober/

Cocozzelli, C., & Hudson, C. G. (1989). Recent advances in alcoholism diagnosis and treatment assessment research: Implications for practice. *Social Service Review*, *63*(4), 533–552.

Costello, C. M., & Walters, M. E. (2021). Integrating resiliency into neurobiologically-focused mental health counseling through mindfulness. *Journal of Creativity in Mental Health*, *17*(3), 250–362. https://doi.org/10.1080/15401383.2021.1892558

Craig, E. A., Nieforth, L., & Rosenfeld, C. (2020). Communicating resilience among adolescents with adverse childhood experiences (ACEs) through equine assisted psychotherapy (EAP). *Western Journal of Communication*, *84*(4), 400–418. https://doi.org/10.1080/10570314.2020.1754451

Crawford, J., & Heather, N. (1987). Public attitudes to the disease concept of alcoholism. *Substance Use and Misuse*, *22*(11), 1129–1138. https://doi.org/10.3109/10826088709027474

Cunningham, J. A., Blomqvist, J., & Cordingley, J. (2007). Beliefs about drinking problems: Results from a general population telephone survey. *Addictive Behaviors*, *32*, 166–169. https://doi.org/10.1016/j.addbeh.2006.03.011

Davis, B. (2008). Psychodynamic psychotherapies and the treatment of co-occurring psychological trauma and addiction. *Journal of Chemical Dependency Treatment*, *8*(2), 41–69. https://doi.org/10.1300/J034v08n02_03

Day, S., Rennie, S., Luo, D., & Tucker, J. D. (2020). Open to the public: Paywalls and the public rationale for open access medical research publishing. *Research Involvement and Engagement*, *6*, 1–7.

de Choudhury, M., & De, S. (2014). Mental health discourse on reddit: Self-disclosure, social support, and anonymity. *Eighth International AAAI Conference on Weblogs and Social Media*, *May*, 71–80.

Dennis, M. L., Foss, M. A., & Scott, C. K. (2007). An eight-year perspective on the relationship between the duration of abstinence and other aspects of recovery. *Evaluation Review*, *31*(6), 585–612. https://doi.org/10.1177/0193841X07307771

Dewey, C. (2016). Recovering alcoholics find 24/7 fellowship and support on a Reddit forum. *The Washington Post*. https://www.proquest.com/docview/1755231787?parentSessionId=fX5Ry46SYCkv%2FTJeYpOoW%2FuWRp%2FsJLgDiY5x7gEis3g%3D&accountid=3611

dictionary.com. (2012). *Web 2.0*. https://www.dictionary.com

Dingle, G. A., Cruwys, T., & Frings, D. (2015). Social identities as pathways into and out of addiction. *Frontiers in Psychology*, *6*, 1–12. https://doi.org/10.3389/fpsyg.2015.01795

Dodge, K., Krantz, B., & Kenny, P. J. (2010). How can we begin to measure recovery? *Substance Abuse: Treatment, Prevention, and Policy*, *5*, 1–7. https://doi.org/10.1186/1747-597X-5-31

D'Souza, R. S., Hooten, M. W., & Murad, H. M. (2021). A proposed approach for conducting studies that use data from social media platforms. *Mayo Clinic Proceedings*, *96*(8), 2218–2229. https://doi.org/doi.org/10.1016/j.mayocp.2021.02.010

Dube, S. R., Anda, R. F., Felitti, V. J., Edwards, V. J., & Croft, J. B. (2002). Adverse childhood experiences and personal alcohol abuse as an adult. *Addictive Behaviors*, *27*(5), 713–725. http://www.ncbi.nlm.nih.gov/pubmed/12201379

Eng, P. A. (2016). Saints run mad 2.0: Further deliberations on recovery from addictions through a transpersonal lens. *Pastoral Psychology*, *65*(2), 197–213. https://doi.org/10.1007/S11089-015-0678-9

Esfeld, J., Pennings, K., Rooney, A., & Robinson, S. (2021). Integrating trauma-informed yoga into addiction treatment. *Journal of Creativity in Mental Health*, 1–10. https://doi.org/10.1080/15401383.2021.1972067

Faulkner, W., Sandace, D., & Macuire, B. (1988). The disease concept of alcoholism: The persistence of an outmoded scientific paradigm. *Deviant Behavior*, *9*(4), 317–332. https://doi.org/10.1080/01639625.1988.9967789

Fava, J. L., Velicer, W. F., & Prochaska, J. O. (1995). Applying the transtheoretical model to a representative sample of smokers. *Addictive Behaviors*, *20*(2), 189–203.

Fletcher, K. (2022). *I'm an addiction researcher and therapist. Here's why promoting sober 'dry months' bothers me.* Theconversation.Com. https://theconversation.com/im-an-addiction-researcher-and-therapist-heres-why-promoting-sober-dry-months-bothers-me-176657

Foddy, B. (2011). Addiction and its sciences-philosophy. *Addiction*, *106*(1), 25–31. https://doi.org/10.1111/j.1360-0443.2010.03158.x

For A New World Foundation. (n.d.). *For a new world — stories of lived changed*. https://www.foranewworld.info/

Frank, D. (2011). The trouble with morality: The effects of 12-step discourse on addicts' decision-making. *Journal of Psychoactive Drugs*, *43*(3), 245–256. https://doi.org/10.1080/02791072.2011.605706

Freyer, J., Bott, K., Riedel, J., Wedler, B., Meyer, C., Rumpf, H. J., John, U., & Hapke, U. (2006). Psychometric properties of the "Processes of Change" scale for alcohol misuse and its short form (POC-20). *Addictive Behaviors*, *31*(5), 821–832. https://doi.org/10.1016/j.addbeh.2005.06.007

Gallagher, J. R., & Beveridge, A. (2022). Project-oriented web scraping in technical communication research. *Journal of Business and Technical Communication*, *36*(2), 231–250. https://doi.org/10.1177/10506519211064619

Gaspar, M. A., Sharp, J., Nayyar, G., & Siarri, D. (2022). Mining social media for health intelligence. In U. H. Hübner, G. M. Wilson, T. S. Morawski, & M. J. Ball (Eds.), *Nursing informatics: A health informatics, interprofessional and global perspective* (5th ed., pp. 241–266). Springer. https://doi.org/https://doi.org/10.1007/978-3-030-91237-6_18

Gateway Foundation. (2022). *Is relapse part of recovery?* Gatewayfoundation.Org. https://www.gatewayfoundation.org/addiction-blog/is-relapse-part-of-recovery/#:~:text=With%2040%25%20to%2060%25%20of,a%20mere%20lapse%20in%20judgment.

Gauthier, R. P., Costello, M. J., & Wallace, J. R. (2022). " I Will Not Drink With You Today ": A topic-driven thematic analysis of addiction recovery communities on Reddit. *CHI Conference on Human Factors in Computing Systems*, *April*, 1–17.

Gelpin, E., Bonne, O., Peri, T., Brandes, D., & Shalev, A. Y. (1996). Treatment of recent trauma survivors with benzodiazepines: A prospective study. *The Journal of Clinical Psychiatry*, *57*(9), 390–394.

Giordano, A. L., Clarke, P. B., & Furter, R. T. (2014). Predicting substance abuse relapse: The role of social interest and social bonding. *Journal of Addictions and Offender Counseling*, *35*(2), 114–127. https://doi.org/10.1002/j.2161-1874.2014.00030.x

Good, J. (2021). *Relapse is not a part of recovery*. Narconon-Colorado.Org/Blog. https://www.narconon-colorado.org/blog/relapse-is-not-a-part-of-recovery.html

Greenfield, S. F., Kolodziej, M. E., Sugarman, D. E., Muenz, L. R., Vagge, L. M., He, D. Y., & Weiss, R. D. (2002). History of abuse and drinking outcomes following inpatient alcohol treatment: A prospective study. *Drug and Alcohol Dependence*, *67*(3), 227–234. https://doi.org/10.1016/S0376-8716(02)00072-8

Guinle, M. I. B., & Sinha, R. (2020). The role of stress, trauma, and negative affect in alcohol misuse and alcohol use disorder in women. *Alcohol Research: Current Reviews*, *40*(2), 1–17.

Hagman, B. T., Falk, D., Litten, R., & Koob, G. F. (2022). Defining recovery from alcohol use disorder: Development of an NIAAA research definition. *American Journal of Psychiatry*, 1–7. https://doi.org/10.1176/appi.ajp.21090963

Hallgren, K. A. (2012). Computing inter-rater reliability for observational data: An overview and tutorial. *Tutorials in Quantitative Methods for Psychology*, *8*(1), 23–34. https://doi.org/10.20982/TQMP.08.1.P023

Hambrick, E. P., Brawner, T. W., & Perry, B. D. (2019). Timing of early-life stress and the development of brain-related capacities. *Frontiers in Behavioral Neuroscience*, *13*, 1–14. https://doi.org/10.3389/fnbeh.2019.00183

Hamonniere, T., Laqueille, X., Vorspan, F., Dereux, A., Illel, K., & Varescon, I. (2020). Toward a better understanding of the influence of repetitive negative thinking in alcohol use disorder: An examination of moderation effect of metacognitive beliefs and gender. *Addictive Behaviors*, *111*, 1–10. https://doi.org/10.1016/j.addbeh.2020.106561

Harikumar, H., Nguyen, T., Rana, S., Gupta, S., Kaimal, R., & Venkatesh, S. (2016). Extracting key challenges in achieving sobriety through shared subspace learning. In J. Li, X. Li, S.

Wang, J. Li, & Q. Z. Sheng (Eds.), *Advanced Data Mining and Applications* (pp. 420–433). Springer International Publishing. https://doi.org/10.1007/978-3-319-49586-6

Heather, N. (2017). Q: Is addiction a brain disease or a moral failing? A: Neither. *Neuroethics*, *10*(1), 115–124. https://doi.org/10.1007/s12152-016-9289-0

Hien, D. A., Jiang, H., Campbell, A. N. C., Hu, M.-C., Miele, G. M., Cohen, L. R., Brigham, G. S., Capstick, C., Kulaga, A., Robinson, J., Suarez-Morales, L., & Nunes, E. v. (2010). Do treatment improvements in PTSD severity affect substance use outcomes? A secondary analysis from a randomized clinical trial in NIDA's clinical trials network. *The American Journal of Psychiatry*, *167*(1), 95–101. https://doi.org/10.1176/appi.ajp.2009.09091261

Hintz, E. A., & Betts, T. (2022). Reddit in communication research: Current status, future directions and best practices. *Annals of the International Communication Association*, 1–18. https://doi.org/10.1080/23808985.2022.2064325

Hintz, E. A., Betts, T., & Buzzanell, P. M. (2021). Caring for patients without personal protective equipment (PPE): Material conditions as multidimensional cascading triggers for resilience processes. *Health Communication*, *(ahead of*, 1–10. https://doi.org/10.1080/10410236.2021.1953727

Hired Power. (2022). *Relapse is not part of recovery*. Hiredpower.Com/Blog. https://www.hiredpower.com/blog/relapse-is-not-part-of-recovery/

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, *15*(9), 1277–1288. https://doi.org/10.1177/1049732305276687

Hunter-Reel, D., McCrady, B. S., Hildebrandt, T., & Epstein, E. E. (2010). Indirect effect of social support for drinking on drinking outcomes: The role of motivation*. *Journal of Studies on Alcohol and Drugs*, *71*(6), 930–937. https://doi.org/10.15288/jsad.2010.71.930

Jacobsen, L. K., Southwick, S. M., & Kosten, T. R. (2001). Substance use disorders in patients with posttraumatic stress disorder: A review of the literature. *The American Journal of Psychiatry*, *158*(8), 1184–1190. https://doi.org/10.4324/9780203486320-15

Järvinen, M. (2015). Understanding addiction: Adult children of alcoholics describing their parents' drinking problems. *Journal of Family Issues*, *36*(6), 805–825. https://doi.org/10.1177/0192513X13513027

Jellinek, E. M. (1960). *The disease concept of alcoholism*. Hillhouse Press.

Kardefelt-Winther, D., Heeren, A., Schimmenti, A., van Rooij, A., Maurage, P., Carras, M., Edman, J., Blaszczynski, A., Khazaal, Y., & Billieux, J. (2017). How can we conceptualize behavioural addiction without pathologizing common behaviours? *Addiction*, *112*(10), 1709–1715. https://doi.org/10.1111/add.13763

Katcher, B. S. (1993). Public health then and now: Benjamin Rush' s educational campaign against hard drinking. *American Journal of Public Health1*, *83*(2), 273–281.

Kelly, J. F., Humphreys, K., & Ferri, M. (2017). Alcoholics anonymous and other 12-step facilitation programs for alcohol use disorder. *Cochrane Database of Systematic Reviews*, *11*, 1–120. https://doi.org/10.1002/14651858.CD012880.pub2.www.cochranelibrary.com

Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder in the national comorbidity survey. *Archives of General Psychiatry*, *52*(12), 1048–1060. https://jamanetwork.com/

Khantzian, E. J. (2014). A psychodynamic perspective on the efficacy of 12-step programs. *Alcoholism Treatment Quarterly*, *32*(2–3), 225–236. https://doi.org/10.1080/07347324.2014.907027

Kinderman, P., Schwannauer, M., Pontin, E., & Tai, S. (2013). Psychological processes mediate the impact of familial risk, social circumstances and life events on mental health. *PLoS ONE*, *8*(10), 1–8. https://doi.org/10.1371/JOURNAL.PONE.0076564

Krentzman, A. R. (2008). The evidence base for the effectiveness of Alcoholics Anonymous: Implications for social work practice. *Journal of Social Work Practice in the Addictions*, *7*(4), 27–48. https://doi.org/10.1300/J160v07n04_03

Krippendorff, K. (2019). *Content analysis: An introduction to its methodology* (4th ed.). SAGE Publications, Inc.

Kurtz, E. (1982). Why A.A. works: The intellectual significance of Alcoholics Anonymous. *Journal of Studies on Alcohol*, *43*(1), 38–80. https://doi.org/10.15288/jsa.1982.43.38

Kurtz, E. (1991). *Not-God: A history of Alcoholics Anonymous* (Kindle). Hazelden.

Kurtz, E. (2002). Alcoholics Anonymous and the disease concept of alcoholism. *Alcoholism Treatment Quarterly*, *20*(3–4), 5–39. https://doi.org/10.4324/9781315821269

Laudet, A. B. (2003). Attitudes and beliefs about 12-step groups among addiction treatment clients and clinicians: Toward identifying obstacles to participation. *Substance Use & Misuse*, *38*(14), 2017–2047.

Laudet, A. B. (2007). What does recovery mean to you? Lessons from the recovery experience for research and practice. *Journal of Substance Abuse Treatment*, *33*, 243–256. https://doi.org/10.1016/j.jsat.2007.04.014

Leavitt, A. (2015). “This is a throwaway account”: Temporary technical identities and perceptions of anonymity in a massive online community. *CSCW 2015 - Proceedings of the 2015 ACM International Conference on Computer-Supported Cooperative Work and Social Computing*, 317–327. https://doi.org/10.1145/2675133.2675175

Levine, H. G. (1985). The discovery of addiction: Changing conceptions of habitual drunkenness in America. *Journal of Substance Abuse Treatment*, *2*(1), 43–57. https://doi.org/10.1016/0740-5472(85)90022-4

Lewis, M. (2017). Addiction and the brain: Development, not disease. *Neuroethics*, *10*(1), 7–18. https://doi.org/10.1007/s12152-016-9293-4

Lin, N., Ensel, W. M., Simeone, R. S., & Kuo, W. (1979). Social support, stressful life events, and illness: A model and an empirical test. *Journal of Health and Social Behavior*, *20*(2), 108–119. https://doi.org/10.4337/9781789907285.00012

Mann, K., Hermann, D., & Heinz, A. (2000). One hundred years of alcoholism: The twentieth century. *Alcohol and Alcoholism*, *35*(1), 10–15. https://doi.org/10.1093/alcalc/35.1.10

Marks, A. (2004). *For recovering addicts, a holiday hurdle*. The Christian Science Monitor. https://www.csmonitor.com/2004/1230/p03s01-ussc.html

Matthews, S., Dwyer, R., & Snoek, A. (2017). Stigma and Self-Stigma in Addiction. *Journal of Bioethical Inquiry*, *14*(2), 275–286. https://doi.org/10.1007/s11673-017-9784-y

McCauley, J. L., Killeen, T., Gros, D. F., Brady, K. T., & Back, S. E. (2012). Posttraumatic stress disorder and co-occurring substance use disorders: Advances in assessment and treatment. *Clinical Psychology: Science and Practice*, *19*(3), 283–304. https://doi.org/10.1111/cpsp.12006

McHugh, R. K., & Weiss, R. D. (2019). Alcohol use disorder and depressive disorders. *Alcohol Research: Current Reviews*, *40*(1), e1–e8. https://doi.org/10.35946/arcr.v40.1.01

McIntosh, H. (2019). Social media and research methods. In S. M. Croucher & D. Cronn-Mills (Eds.), *Understanding communication research methods* (2nd ed., pp. 146–157). Routledge.

McQuillan, K., Hyland, P., & Vallières, F. (2022). Prevalence, correlates, and the mitigation of ICD-11 CPTSD among homeless adults: The role of self-compassion. *Child Abuse & Neglect*, *127*, 1–11. https://doi.org/10.1016/j.chiabu.2022.105569

Melemis, S. M. (2015). Relapse prevention and the five rules of recovery. *Yale Journal of Biology and Medicine*, *88*(3), 325–332.

Menon, J., & Kandasamy, A. (2018). Relapse prevention. *Indian Journal of Psychiatry*, *60*(Suppl 4), S473. https://doi.org/10.4103/PSYCHIATRY.INDIANJPSYCHIATRY_36_18

Mergler, M., Driessen, M., Havemann-reinecke, U., Wedekind, D., Lüdecke, C., Ohlmeier, M., Chodzinski, C., Teunißen, S., Kemper, U., Renner, W., Schäfer, I., & Studygroup, T. (2018). Differential relationships of PTSD and childhood trauma with the course of substance use disorders. *Journal of Substance Abuse Treatment*, *93*, 57–63. https://doi.org/10.1016/j.jsat.2018.07.010

Merrigan, G., & Huston, C. L. (2008). Content analysis. In *Communication research methods* (2nd ed., pp. 147–162). Oxford University Press.

Merten, K. (1977). Reflexivity in human communication. *Annals of the International Communication Association*, *1*(1), 121–131. https://doi.org/10.1080/23808985.1977.11923676

Migneault, J. P., Adams, T. B., & Read, J. P. (2005). Application of the Transtheoretical Model to substance abuse: historical development and future directions. *Drug and Alcohol Review*, *24*(5), 437–448. https://doi.org/10.1080/09595230500290866

Milhorn, T. H. (2018). Relapse. In *Substance Abuse Disorders* (pp. 243–252). Springer International Publishing. https://doi.org/10.1007/978-3-319-63040-3

Miller, D. (2002). Addictions and trauma recovery: An integrated approach. *Psychiatric Quarterly*, *73*(2), 157–170. https://doi.org/10.1023/A:1015011929171

Miron, J. A., & Zwiebel, J. (1991). Alcohol consumption during prohibition. *NBER Working Paper Series*, 242–247. https://doi.org/https://doi.org/10.3386/w3675

Morgan-Lopez, A. A., Saavedra, L. M., Hien, D. A., Campbell, A. N., Wu, E., Ruglass, L., Patock-Peckham, J. A., & Bainter, S. C. (2014). Indirect effects of 12-session seeking safety on substance use outcomes: Overall and attendance class-specific effects. *American Journal on Addictions*, *23*(3), 218–225. https://doi.org/10.1111/j.1521-0391.2014.12100.x

Mujere, N. (2016). Sampling in research. In M. Baran & J. Jones (Eds.), *Mixed methods research for improved scientific study* (pp. 108–123). IGI Global. https://doi.org/10.4018/978-1-5225-0007-0.ch006

Muller, C., & Aguiar, J. P. de V. (2022). *What is the digital divide?* Internetsociety.Org. https://www.internetsociety.org/blog/2022/03/what-is-the-digital-divide/

Neuendorf, K. A. (2017). *The content analysis guidebook* (2nd ed.). SAGE Publications, Inc.

NIAAA. (2020). *Alcohol use disorder: A comparison between DSM–IV and DSM–5*.

NIAAA. (2022). *Alcohol facts and statistics: Alcohol use in the United States*. National Institute on Alcohol Abuse and Alcoholism. https://www.niaaa.nih.gov/publications/brochures-and-fact-sheets/alcohol-facts-and-statistics

Norcross, J. C., Krebs, P. M., & Prochaska, J. O. (2011). Stages of change. *Journal of Clinical Psychology*, *67*(2), 143–154. https://doi.org/10.1002/jclp.20758

O'Neill, T. (2018). "Today I speak": Exploring how victim-survivors use reddit. *International Journal for Crime, Justice and Social Democracy*, *7*(1), 44–59. https://doi.org/10.5204/ijcjsd.v7i1.402

Pagano, M. E., Friend, K. B., Tonigan, J. S., & Stout, R. L. (2004). Helping other alcoholics in Alcoholics Anonymous and drinking outcomes: Findings from project MATCH. *Journal of Studies on Alcohol*, *65*(6), 766–773. https://doi.org/10.15288/jsa.2004.65.766

Panek, E., Hollenbach, C., Yang, J., & Rhodes, T. (2017). Growth and inequality of participation in online communities: A longitudinal analysis. *ACM International Conference Proceeding Series #SMSociety17*, *July*, 1–5. https://doi.org/10.1145/3097286.3097337

Patel, A. K., & Balasanova, A. A. (2021). Treatment of alcohol use disorder. *Journal of the American Medical Association*, *325*(6), 596. https://doi.org/10.1001/jama.2020.2012

Patterson Silver Wolf, D. A., & Nochaski, T. H. (2010). Combining the transtheoretical stages of change model and the 12 steps of Alcoholics Anonymous to monitor treatment progression. *Journal of Social Work Practice in the Addictions*, *10*(2), 224–227. https://doi.org/10.1080/15332561003730262

Perry, B. D., & Hambrick, E. P. (2008). The neurosequential model of therapeutics. *Reclaiming Children and Youth*, *17*(3), 38–43.

Perry, B. D., Pollard, R. A., Blakley, T. L., Baker, W. L., & Vigilante, D. (1995). Childhood trauma, the neurobiology of adaptation, and "use-dependent" development of the brain: How "states" become "traits." *Infant Mental Health Journal*, *16*(4), 271–291. https://doi.org/10.1002/1097-0355(199524)16:4<271::AID-IMHJ2280160404>3.0.CO;2-B

Perry, B. D., & Winfrey, O. (2021). *What happened to you? Conversations on trauma, resilience, and healing*. Flatiron Books.

Porter III, J., & Robb, A. (2022). Lingering effects associated with the consumer use of virtual reality. *Frontiers in Virtual Reality*, *3*, 1–13. https://doi.org/10.3389/frvir.2022.880634

Prochaska, J. O., & di Clemente, C. C. (1982). Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy*, *19*(3), 276–288. https://doi.org/10.1037/h0088437

Prochaska, J. O., & di Clemente, C. C. (1983). Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology*, *51*(3), 390–395.

Prochaska, J. O., di Clemente, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to addictive behaviors. *The American Psychologist*, *47*(9), 1102–1114. https://doi.org/10.3109/10884609309149692

Prochaska, J. O., Norcross, J. C., & di Clement, C. C. (2013). Applying the stages of change. *Psychotherapy in Australia*, *19*(2), 10–15. www.savinahopkins.com

Prochaska, J. O., & Prochaska, J. M. (2019). Transtheoretical model. In J. M. Rippe (Ed.), *Lifestyle medicine* (3rd ed., pp. 219–228). CRC Press, Taylor & Francis Group.

Prochaska, J. O., & Prochaska, J. M. (2021). Multiple behavior change as prevention. In W. O'Donohue & M. Zimmerman (Eds.), *Handbook of evidence-based prevention of behavioral disorders in integrated care* (pp. 83–100). Springer.

Prochaska, J. O., Velicer, W. F., Rossi, J. S., Goldstein, M. G., Marcus, B. H., Rakowski, W., Fiore, C., Harlow, L. L., Redding, C. A., Rosenbloom, D., & Rossi, S. R. (1994). Stages of change and decisional balance for 12 problem behaviors. *Health Psychology*, *13*(1), 39–46.

Prochaska, J. O., Wright, J. A., & Velicer, W. F. (2008). Evaluating theories of health behavior change: A hierarchy of criteria applied to the transtheoretical model. *Applied Psychology*, *57*(4), 561–588. https://doi.org/10.1111/j.1464-0597.2008.00345.x

Proferes, N., Jones, N., Gilbert, S., Fiesler, C., & Zimmer, M. (2021). Studying Reddit: A systematic overview of disciplines, approaches, methods, and ethics. *Social Media & Society*, *7*(2), 1–14. https://doi.org/10.1177/20563051211019004

Rahill, G. J., Lopez, E. P., Vanderbiest, A., & Rice, C. (2009). What is relapse? A contemporary exploration of treatment of alcoholism. *Journal of Social Work Practice in the Addictions*, *9*(3), 245–262. https://doi.org/10.1080/15332560902841816

Reddit Mods. (2023). *User management: Banning and muting*. Mods.Reddithelp.Com. https://mods.reddithelp.com/hc/en-us/articles/360009161872-User-Management-banning-and-muting#:~:text=As a moderator%2C you can ban redditors from your community,or they can be temporary.

Reddit.com. (2022). *Reddit privacy policy*. https://www.reddit.com/policies/privacy-policy

Reinert, D. F. (1997). The surrender scale: Reliability, factor structure, and validity. *Alcoholism Treatment Quarterly*, *15*(3), 15–32. https://doi.org/10.1300/J020V15N03_02

Richardson, G. E. (2002). The metatheory of resilience and resiliency. *Journal of Clinical Psychology*, *58*(3), 307–321. https://doi.org/10.1002/jclp.10020

Ries, J. K. (1977). Public acceptance of the disease concept of alcoholism. *Journal of Health and Social Behavior*, *18*(3), 338–344.

Ritchie, H., & Roser, M. (2018). Alcohol consumption. *Our World in Data*. https://ourworldindata.org/alcohol-consumption

Rogers, C. J., Forster, M., Grigsby, T. J., Albers, L., Morales, C., & Unger, J. B. (2021). The impact of childhood trauma on substance use trajectories from adolescence to adulthood: Findings from a longitudinal Hispanic cohort study. *Child Abuse and Neglect*, *120*, 105200. https://doi.org/10.1016/j.chiabu.2021.105200

Rollnick, S., Heather, N., Gold, R., & Hall, W. (1992). Development of a short "readiness to change" questionnaire for use in brief, opportunistic interventions among excessive drinkers. *British Journal of Addiction*, *87*, 743–754.

Romo, L. K., & Campau, C. (2020). An examination of how students in recovery for a substance use disorder manage uncertainty. *Alcoholism Treatment Quarterly*, *39*(4), 471–488. https://doi.org/10.1080/07347324.2020.1840314

Rosenbloom, D. L. (2009). Holidays, triggers, and willpower—Is there a role for medications? A commentary on "The effects of extended-release naltrexone on holiday drinking in alcohol-dependent patients." *Journal of Substance Abuse Treatment*, *36*(1), 7. https://doi.org/10.1016/j.jsat.2008.10.008

r/stopdrinking. (2023a). */r/stopdrinking: a support group in your pocket*. [Online Forum Post]. Reddit. https://www.reddit.com/r/stopdrinking/

r/stopdrinking. (2023b). *r/stopdrinking FAQ*. https://www.reddit.com/r/stopdrinking/wiki/index/

r/TheoryOfReddit. (2023). *Theory of Reddit: Theories about Reddit*. https://www.reddit.com/r/TheoryOfReddit/

Saltz, R. F. (1988). Research in environmental and community strategies for the prevention of alcohol problems. *Contemporary Drug Problems*, *15*, 67–81.

SAMHSA. (2014a). SAMHSA's concept of trauma and guidance for a trauma-informed approach. In *HHS Publication No. (SMA) 14-4884*. Substance Abuse and Mental Health Services Administration.

SAMHSA. (2014b). TIP 57: Trauma-informed care in behavioral health services. In *HHS Publication No. (SMA) 13-4801*. Substance Abuse and Mental Health Services Administration.

SAMHSA. (2014c). Trauma-informed care in behavioral health services, TIP 57: Part 3: A review of the literature. In *HHS Publication No. (SMA) 14-4816*. Substance Abuse and Mental Health Services Administration.

SAMHSA. (2014d). Treatment improvement protocol: Trauma-informed care in behavioral health services. In *HHS Publication No. (SMA) 14-4816*. Substance Abuse and Mental Health Services Administration.

SAMHSA. (2015). Medication for the treatment of alcohol use disorder: A brief guide. In *HHS Publication No. (SMA) 15-4907*. Substance Abuse and Mental Health Services Administration.

Sánchez, V. S., & Lillie, H. (2019). And then the war came: A content analysis of resilience processes in the narratives of refugees from Humans of New York. *International Journal of Communication*, *13*, 4240–4260.

Shahab, M. K., de Ridder, J. A., Spinhoven, P., Penninx, B. W. J. H., Mook-Kanamori, D. O., & Elzinga, B. M. (2021). A tangled start: The link between childhood maltreatment, psychopathology, and relationships in adulthood. *Child Abuse & Neglect*, *121*(July), 1–14. https://doi.org/10.1016/j.chiabu.2021.105228

Shier, M. L., & Turpin, A. (2017). A multi-dimensional conceptual framework for trauma-informed practice in addictions programming. *Journal of Social Service Research*, *43*(5), 609–623. https://doi.org/10.1080/01488376.2017.1364318

Simonelli, M. C. (2005). Relapse: A concept analysis. *Nursing Forum*, *40*, 3–10.

Smith, N. D. L., & Cottler, L. B. (2018). The epidemiology of post-traumatic stress disorder and alcohol use disorder. *Alcohol Research: Current Reviews*, *39*(2), 113–120.

Stafford, C. (2016). *Definition: Reddit*. Techtarget.Com. https://www.techtarget.com/searchcio/definition/Reddit#:~:text=Reddit is similar to Digg,now operates under Advance Publications.

Stapinski, L. A., Rapee, R. M., Sannibale, C., Teesson, M., Haber, P. S., & Baillie, A. J. (2015). The clinical and theoretical basis for integrated cognitive behavioral treatment of comorbid social anxiety and alcohol use disorders. *Cognitive and Behavioral Practice*, *22*(4), 504–521. https://doi.org/10.1016/j.cbpra.2014.05.004

Statista. (2022a). *Global demographics: Statistics & facts*. Statista.Com. https://www-statista-com.ezproxy.library.unlv.edu/topics/9851/global-demographics/

Statista. (2022b). *Most popular mobile social networking apps in the United States as of September 2019, by monthly users*. Statista.Com. https://www.statista.com/statistics/248074/most-popular-us-social-networking-apps-ranked-by-audience/

Statista. (2022c). *Regional distribution of desktop traffic to Reddit.com as of May 2022 by country*. Statista.Com. https://www.statista.com/statistics/325144/reddit-global-active-user-distribution/

Statista. (2022d). The rise of social media. In *Social media usage worldwide*. https://ourworldindata.org/rise-of-social-media

Statista. (2022e). *Worldwide visits to Reddit.com from December 2021 to May 2022*. Statista.Com. https://www.statista.com/statistics/443332/reddit-monthly-visitors/

Stillman, M. A., & Sutcliff, J. (2022). Predictors of relapse in alcohol use disorder: Identifying individuals most vulnerable to relapse. *Addiction and Substance Abuse*, *1*(1), 3–8. https://doi.org/10.46439/addiction.1.002

Stokel-Walker, C. (2022). *Reddit moderators do $3.4 million worth of unpaid work each year*. NewScientist. https://www.newscientist.com/article/2325828-reddit-moderators-do-3-4-million-worth-of-unpaid-work-each-year/#:~:text=The social news website relies,deemed unsuitable for the site.

subredditstats.com. (2023). *r/stopdrinking stats*. https://subredditstats.com/r/stopdrinking

Tamersoy, A., de Choudhury, M., & Chau, D. H. (2015). Characterizing smoking and drinking abstinence from social media. *HT 2015 - Proceedings of the 26th ACM Conference on Hypertext and Social Media*, 139–148. https://doi.org/10.1145/2700171.2791247

Thatcher, M. S. (2016). The role of self-disclosure in the social construction of understandings of alcoholism and mental health within talk between members of Alcoholics Anonymous. In M. O'Reilly & L. N. (Eds.), *The Palgrave handbook of adult mental health* (pp. 269–286). Palgrave MacMillan. https://doi.org/10.1057/9781137496850_15

Tusa, A. L., & Burgholzer, J. A. (2013). Came to believe: Spirituality as a mechanism of change in alcoholics anonymous: A review of the literature from 1992 to 2012. *Journal of Addictions Nursing*, *24*(4), 237–246. https://doi.org/10.1097/JAN.0000000000000003

U.S. Department of Health & Human Services. (2022). *SAMHSA: About us*. SAMHSA.Gov.

Vaillant, G. E., & Hiller-Sturmhöfel, S. (1996). The natural history of alcoholism. *Alcohol Research and Health*, *20*(3), 152–161. https://doi.org/10.4159/9780674044562-005

van der Kolk, B. A. (2001). The psychobiology and psychopharmacology of PTSD. *Human Psychopharmacology*, *16*, S49–S64. https://doi.org/10.1002/hup.270

van der Kolk, B. A. (2014). *The body keeps the score: Brain, mind, and body in the healing of trauma*. Penguin Books.

Velasquez, M. M., von Sternberg, K., Dodrill, C. L., Kan, L. Y., & Parsons, J. T. (2005). The transtheoretical model as a framework for developing substance abuse interventions. *Journal of Addictions Nursing*, *16*(1–2), 31–40. https://doi.org/10.1080/10884600590917174

Velicer, W. F., Rossi, J. S., & Prochaska, J. O. (1996). A criterion measurement model for health behavior change. *Addictive Behaviors*, *21*(5), 555–584.

Velmurugan, M., & Watson, J. (2017). Online peer-to-peer sobriety support: A conceptualization of the peer to peer social support mechanisms in an online "stop drinking" community. *ACIS 2017 Proceedings*, 1–11. https://aisel.aisnet.org/acis2017/53

Venetis, M. K., Chernichky-Karcher, S. M., & Lillie, H. M. (2019). Communicating resilience: Predictors and outcomes of dyadic communication resilience processes among both cancer patients and cancer partners. *Journal of Applied Communication Research*, *48*(1), 49–69. https://doi.org/10.1080/00909882.2019.1706098

W. Bill. (2001). *Alcoholics Anonymous: The story of how many thousands of men and women have recovered from alcoholism* (4th ed.). Alcoholics Anonymous World Services, Inc.

W. Bill. (2018). *The A.A. service manual combined with twelve concepts for world service*. Alcoholics Anonymous World Services, Inc.

Weatherall, T. J., Conigrave, K. M., Conigrave, J. H., & Lee, K. S. K. (2020). What is the prevalence of current alcohol dependence and how is it measured for Indigenous people in Australia, New Zealand, Canada and the United States of America? A systematic review. *Addiction Science and Clinical Practice*, *15*(1), 1–11. https://doi.org/10.1186/S13722-020-00205-7/TABLES/4

Weinhold, J. B., & Weinhold, B. K. (2010). The impact of developmental trauma on human evolution. *Journal of Prenatal and Perinatal Psychology and Health*, *25*, 17–31. https://doi.org/10.5840/techne201014211

White, M. D., & Marsh, E. E. (2006). Content analysis: A flexible methodology. *Library Trends*, *55*(1), 22–45. https://doi.org/10.1353/lib.2006.0053

White, W. L. (2005). Recovery: Its history and renaissance as an organizing construct concerning alcohol and other drug problems. *Alcoholism Treatment Quarterly*, *23*(1), 3–15. https://doi.org/10.1300/J020v23n01_02

Wiechelt, S. A., & Straussner, S. L. A. (2015). Introduction to the special issue: Examining the relationship between trauma and addiction. *Journal of Social Work Practice in the Addictions*, *15*(1), 1–5. https://doi.org/10.1080/1533256X.2015.996501

Williamson, R. E., Reed, D. E., & Wickham, R. E. (2020). A traumatic dissonance theory of perpetrator-related distress. *Journal of Theoretical Social Psychology*, *4*(2), 75–91. https://doi.org/10.1002/jts5.59

Wilson, J. T. (2016). Brightening the mind: The impact of practicing gratitude on focus and resilience in learning. *Journal of the Scholarship of Teaching and Learning*, *16*(4), 1–13. https://doi.org/10.14434/josotl.v16i4.19998

Wilson, S. R., Kuang, K., Hintz, E. A., & Buzzanell, P. M. (2021). Developing and validating the communication resilience processes scale. *Journal of Communication*, *71*(3), 479–513. https://doi.org/10.1093/joc/jqab013

Wright, K. B. (1997). Shared ideology in Alcoholics Anonymous: A grounded theory approach. *Journal of Health Communication*, *2*(2), 83–99. https://doi.org/10.1080/108107397127806

Wright, K. B. (2016). Social networks, interpersonal social support, and health outcomes: A health communication perspective. *Frontiers in Communication*, *1*(October), 1–6. https://doi.org/10.3389/fcomm.2016.00010

Young, L. B. (2011). Joe Sixpack: Normality, deviance, and the disease model of alcoholism. *Culture & Psychology*, *17*(3), 378–397. https://doi.org/10.1177/1354067X11408133

Young, R. (2021). *The healthcare divide*. https://www.pbs.org/video/the-healthcare-divide-rv6npd/?source=amazoncdf&action=play

Zemore, S. E., Kaskutas, L. A., Mericle, A., & Hemberg, J. (2017). Comparison of 12-Step groups to mutual help alternatives for AUD in a large, national Study: Differences in membership characteristics and group participation, cohesion, and satisfaction. *Journal of Substance Abuse Treatment*, *73*, 16–26. https://doi.org/10.1016/j.jsat.2016.10.004

Curriculum Vitae

Lynda Kay Maxfield

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4505 S. Maryland Pkwy. | Las Vegas, NV 89154 | lynda.maxfield1@gmail.com

EDUCATION

M.A. – 05/2023 Communication Studies, University of Nevada, Las Vegas
Advisor: Dr. Tara Emmers-Sommer
Thesis: Examining Reflexive Communication Following a Break in Alcohol Abstinence

B.S. – 05/2021 Communication Studies, University of Utah

A.S. – 05/2019 Communication Studies, Salt Lake Community College

TEACHING

Graduate Teaching Assistant

2021 – 2022: COM 101: Oral Communication
2021–F, 3 sections | 2022–S, 3 sections
Dr. Nick Tatum | University of Nevada, Las Vegas
3 sections x 24 students per semester: deliver weekly lectures, grade

Other Instructional Experience

2021 – 2022 COM 101: Oral Communication
Assist with Basic Course Remodel
Dr. Nick Tatum| University of Nevada, Las Vegas
identify new test questions, help design new assignments

Course Tutor

2021S: COMM 3710: Quantitative Communication
Dr. Ye Sun | University of Utah
R-Studio course tutor: one-on-one and group tutoring via Zoom

Instructional Training

NCA Short Courses

11/2022 Course Cartography: Using Course Mapping to Strengthen Instruction
11/2022 Honoring PLACE: Teaching Leadership and Followership Communication
11/2022 Demystifying Creative Collaboration: A Crash Course in Design Thinking for the Communication Classroom
11/2022 Integrating Ethical Interpersonal Communication Into Your Instruction

RESEARCH

Top Paper Awards

2023 Top Student/Debut Paper
Interpersonal Communication Interest Group
Western States Communication Association

Conference Panelist (submitted)

11/2023, National Communication Association (one of six panelists)
Panel: *Enacting Collective Resilience in Response to Personal Health Issues*
Division: Health Communication
Chair: Chandler Marr, Arizona State University

Conference Papers

Maxfield, L. K. (2023, February 17-20). *Characterizing Verbal Abuse on r/CPTSD: A Look at Emotional Expression* [Paper presentation] Western States Communication Association 93rd Annual Convention. Phoenix, AZ, United States.

Maxfield, L. K. (2023, February 17-20). *Trauma-Informed Communication: Attending to Trauma's Broad but Disproportionate Reach* [Paper presentation] Western States Communication Association 93rd Annual Convention. Phoenix, AZ, United States.

Presenter

04/2023 The 25th Annual Graduate and Professional Student Research Forum
by the UNLV Graduate & Professional Student Association and the Graduate College
Presentation: Examining Reflexive Communication Following a Break in Alcohol Abstinence

Research Awards

04/2023 2022-2023 UNLV Communication Studies
Misti Yang Outstanding Graduate Research Award

04/2023 1st Place Podium Presentation (Session K)
The 25th Annual Graduate and Professional Student Research Forum

Research Assistant

2022S Graduate Research Assistant
Dr. Rebecca Rice | University of Nevada, Las Vegas
used Adobe Premier to process raw audio interview files, organized files for future RAs, performed transcription work

Research Skills & Training

11/2022 *NCA Short Course, NOLA*	Strategies for Building and Managing Interdisciplinary Teams to Navigate Community-Engaged Grand Funded Research
11/2022 *NCA Preconference, NOLA*	Using Creative & Arts-Based Research Approaches to Expand Equity, Advocacy, and Impact of Health and Disability Communication Research
05/2022 *ICA Preconference, Paris*	Reimagining Communication: Epistemologies and the Future of Communication Studies
11/2021 *NCA Preconference, Seattle*	Dynamic Dyadic Systems: Analytic Approach and Step-by-Step Tutorials
12/2022 – present	Mendeley Reference Manager Advisor
08/2020 – present	RStudio: basic

Research Interests

Trauma-Informed Communication	Resilience Building Communication
Public Policy: Child Welfare	Public Policy: Education
Advocacy & Social Justice	Education Attainment, Foster Youth
Organizational Communication	Interpersonal Communication

ACADEMIC SERVICE – University of Nevada, Las Vegas

04/2023	**Event Organizer,** Lead Coordinator: Spring 2023 Golf Event planned, organized, and collaborated with community partners *(raised 20k)*
12/2022	provide holiday care gifts for each UNLV Fostering Scholars Program student
11/2022	organized a private fundraising event for the UNLV Fostering Scholars Program *(raised over 19k)*
10/2022	**Panelist:** COM 700, Dr. Natalie Pennington *met with graduate students, discussed culminating project selection*
10/2022 – present	**Member:** UNLV Fostering Scholars Advisory Board
08/2022 – present	**Advocate**: UNLV Fostering Scholars Program provide communication support to facilitate program growth *(assist with grant writing; collaborate on research-based program development)* raise awareness, build community support, and fundraise to promote student success
2022S	provided funding for summer graduate student research assistantships
2022S	**Member:** Diversity, Equity, Inclusion & Justice Advisory Board

ADDITIONAL SKILLS

Publication Design	Adobe InDesign
	Adobe Acrobat Pro DC
	CorelDraw

OTHER PROFESSIONAL EXPERIENCE

01/2021 – 01/2022	Communication Advisor & Program Editor, Lifehouse Body & Soul
04/2020 – 06/2020	Manuscript Editing & Content Development, SA Lifeline Foundation
2009 – 2021	Independent Sales
1996 – 2009	Business Owner

PROFESSIONAL AFFILIATIONS

09/2021 – present	National Communication Association
10/2021 – present	Western States Communication Association
02/2022 – present	International Communication Association
03/2022 – present	International Association for Relationship Research