Roles of Race, Gender, and Coping Strategies in Hypocognition of Mental Illness

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Abstract

The identification of coping mechanisms is necessary to understand how stress affects human health and functioning. There is mixed evidence on how coping strategies differ across populations, and very little is known about how coping mechanisms relate to mental illness *hypocognition*. Hypocognition is the lack of cognitive or linguistic representations of a concept (Wu & Dunning, 2018), in this case being the complete illiteracy of mental illness. Racial and gender differences in coping strategies and hypocognition of mental illness were examined for 152 Black and White Americans recruited from MTurk. Coping strategies were assessed with the COPE Inventory, and hypocognition was then assessed using three mental illness vignettes. A one-way analysis of variance (ANOVA) demonstrated Black Americans used more emotion-focused coping strategies, particularly in positive reframing and religion, while White Americans reported utilizing humor to cope more frequently. There were no gender differences in problem-solving or emotion-focused coping, but women used emotional social support more often than men. No support was found to suggest racial differences in hypocognition of mental illness in general, but men were more hypocognizant of mental illness than women. Participants also demonstrated being the most hypocognizant of social anxiety in comparison to depression or paranoid schizophrenia. Finally, coping mechanisms were not found to be correlated with hypocognition. Implications of results and recommendations for future research are discussed.

Keywords: coping, hypocognition, racial differences, gender differences

Roles of Race, Gender, and Coping Strategies in Hypocognition of Mental Illness

An understanding of coping strategies is crucial to explaining the impact of stress on physical and mental health and well-being (Stanisławski, 2019). Once a situation is perceived as threatening, a person decides how dangerous or problematic it is and what kind of coping strategy to use to reduce the potential harm to their mental and/or physical well-being. In order to cope efficiently, however, it is essential for the individual to *recognize* that they are in a state of distress, particularly crucial in the realm of mental illness. Thereby, there is a need for research comparing populations in coping mechanism most utilized, hypocognition of mental illness, being the illiteracy of such, and the role coping strategies play in hypocognition. This research examines diversity in coping mechanisms between Black and White Americans, then how hypocognizant each population is in terms of mental illness. Correlational effects between coping strategies and hypocognition of mental illness are then determined.

Overview of Psychological Coping

Psychological distress does not necessarily lead to mental disorders, as the trajectory is highly mediated by coping mechanisms. Since the establishment of the stress and coping field around three decades ago (Lazarus & Folkman, 1984), understanding such factors is paramount given their potent influence on mental health and well-being (Pearlin, 1999). The study of stress and the coping with such remains essential as excessive amounts of stress may lead to bodily and psychological harm (Sapolsky, 2004), with emotional stress being a major contributing factor to the leading causes of death in the U.S., including cancer, coronary heart disease, and respiratory disorders (Salleh, 2008). It is also associated with the development of most major mental health problems, such as depression, anxiety, and PTSD (Herbert, 1997). The broad definition of coping can be understood as all responses to stressful events or episodes (Silver & Wortman, 1980), but

a more explicit interpretation of coping had defined the concept as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984). Cognitive and behavioral efforts are thus highlighted as integral in regulating stress and stressful situations, with research implying differences in coping methods and strategies across individuals (Folkman & Lazarus, 1985).

Through the Ways of Coping Questionnaire (WCQ), one of the first studies of distinctions of coping processes, two general types of coping were concluded: problem-solving coping and emotion-focused coping (Folkman & Lazarus, 1985). Problem-solving coping is intended at action-based alteration of the source of stress, whereas emotion-focused coping is aimed at reducing and/or managing the emotional reactions upon encountering the stress source (Folkman & Lazarus, 1985). Although the distinction of problem-solving vs emotion-focused coping may have "led to an oversimple conception of the way coping works" (Stanisławski, 2019), the division of these two coping strategies is still important, as it gives individuals a broad idea of which coping style is most beneficial to them (Magai & McFadden, 1996). More recent scales, particularly the Coping Orientation to Problems Experienced (COPE) Inventory, introduced additional dimensions to coping strategies, including active coping, suppression of competing activities, humor, among other coping tactics (Carver et al., 1989).

Problem-Solving Coping

Problem-solving coping includes strategies that involve acting on the environment, such as seeking support from others to solve the problem, or the self, as can be seen in the act of cognitive restructuring (Dubow & Rubinlicht, 2011). For example, when anxious about an upcoming exam, use of problem-solving coping strategies might involve checking with the

professor about material one is unsure of, or increasing the time spent studying. The COPE inventory identifies active coping, instrumental social support, and planning as problem-solving strategies (Carver, 1997).

Emotion-Focused Coping

Emotion-focused coping includes strategies that are used to regulate one's stressful emotions, such as emotional ventilation. In other words, emotion-focused coping aims at managing the emotions associated with the situation, rather than changing the situation itself (Dubow & Rubinlicht, 2011). Carver (1997) has categorized the strategies of acceptance, emotional social support, humor, denial, positive reframing, and religion in the COPE inventory as emotion focused.

Diversity in Literature

Because this area of psychological research has gained attention and interest from academics, attempts have been made to diversify observations and findings in the field of coping and stress. An example of observing differing populations is Brougham et al. (2009) study, where evidence indicated sex differences in sources and levels of stress-- and more importantly in the ways of coping. Despite these endeavors to vary findings, it remains nonetheless that people from Western, educated, industrialized, rich, and democratic (WEIRD) backgrounds are highly overrepresented in psychological research as a whole-- particularly White individuals of that group (Graham, 1992). The study cited previous regarding sex differences was influential in the field of stress and coping, yet nonetheless consisted entirely of college students, with the majority of the sample comprising freshmen (62%), White participants (70%), and students wealthy enough afford attending the university without employment (67%) (Brougham et al., 2009). The WEIRD population engulfing research has lead to the critical fallacy of assuming that

everyone shares most fundamental cognitive and affective processes, and that findings from the WEIRD population apply across the board (Henrich et al., 2010).

Because of this exclusion of non-WEIRD samples in most published journals and articles, little evidence exists demonstrating differences in coping samples across various cultures. Despite the quantity of this area of research leaving much to be desired, it has been nevertheless determined that "ethnic differences in coping are related to important cultural variations in self-construals," meaning that coping strategies are culturally shaped behaviors (Lam & Zane, 2004). As such, it is of utmost importance to further cross-cultural research efforts to better understand what currently remains unexplored.

Distinguishing Cultural Differences

One of the areas in psychology that leaves much to be desired is the cultural differences in coping. To begin with, it is important to specify that culture is best defined as a highly complex, continually changing system of meaning that is learned, shared, transmitted and altered from one generation to another (Triandis, 1995). This system of meaning encompasses the norms, beliefs, and values that provide prescriptions for behavior. For example, people of different races are grouped as such based on shared physical and/or social qualities into categories generally viewed as distinct by society (Jensen, 1980). Similarly, individuals who identify as different genders also have their own cultures, given the fact that gender tends to shape the way of a person's daily life in the family, the wider community, and the workplace (Lindsey, 2015). For example, in most societies, including the U.S., women are typically expected to take care of the children and household, while men are expected to be the breadwinners (Zuo & Tang, 2000). Given the differences between these groups, cultural

variation in coping style may be salient, and as such is important to note in order to help individuals seek the most ideal coping strategy in therapy.

Racial Differences in Coping

The subject of racial studies is still growing in the field of stress and coping research, and as such, not many studies have been conducted in this area. Contemporary research indicates mixed evidence of racial preference for coping style, particularly when analyzing the Black American demographic. For instance, in a study done on discrimination and responses to it, Black Americans reported using more problem-solving coping strategies than White and Mexian participants (Benjamins, 2013). Other studies have indicated that Black Americans tend to use more emotion-focused coping strategies (Vassilliere et al., 2016) compared to White Americans (Van Gundy et al., 2015), particularly in the realm of turning to religion in times of distress (Malooly et al., 2017). Historians generally agree that the religious life of Black Americans "forms the foundation of their community life" (Nickens, 2008), and serves as a support component in health and social aspects (Scandrett, 1994), with a study indicating that the overwhelming majority of respondents concurring that their religious institution has helped the condition of Black citizens in the U.S. (Taylor et al., 1987).

More importantly, however, most studies analyzing racial differences in coping were specifically considering the realm of discrimination and racism, which may prime participants to respond differently than if they were prompted to think of how they cope with stress in general (Joseph & Kuo, 2009; Plummer & Slane, 1996; Scott & House, 2005; Utsey et al., 2000). Additionally, other research has indicated no significant racial differences in coping style (Markstrom, 2000; Sheu, & Sedlacek, 2004; Zaff et al., 2002).

Gender Differences in Coping

There is evidence of gender differences in coping with stress. Traditional studies in the field have identified women to use more coping strategies in general compared to men (Stone & Neale, 1984), and that women tend to use more emotion-focused coping compared to men, who were found to use more problem-solving coping mechanisms (Folkman & Lazarus, 1980). The trend of women using more emotion-focused coping compared to men continues in current research (Brougham et al., 2009; Liddon et al., 2018; Matud, 2008; Sinha & Latha, 2018). On the other hand, many studies also show no significant difference in coping strategy between men and women. For example, a meta-analysis of 50 studies published between the years 1990 and 2000 indicated that women engage in more coping strategies across a variety of behaviors in general, with no evidence to suggest that men engage in problem-solving coping (Tamres et al., 2002).

Identifying differences in coping styles among populations is relevant for academics and practitioners in the field of psychology due to the role coping plays in psychotherapy. For example, dialectic behavioral therapy (DBT) emphasizes a stage in treatment which focuses on reducing a client’s vulnerability in which they learn to accumulate positive emotions and to plan coping mechanisms in advance, with the goal of handling difficult experiences in the future better (Chapman, 2006). Cognitive behavioral therapy (CBT) addresses treatment of a client with the idea that symptoms and associated distress can be reduced by teaching new information-processing skills and coping mechanisms in order to reduce thought distortions and maladaptive behaviors (Brewin, 1996) Supportive therapy, which aims to relieve the intensity of presenting symptoms, distress, or disability, specifically stresses the strengthening of a client’s coping mechanisms (Donald & Misch, 2000).

Barriers to Pursuing Treatment

Psychotherapy is not possible if there is no client. In spite of the fact that 20% of adults in the U.S. experience mental illness each year, with 5% of adults experiencing severe cases of mental illness, less than half of those who need treatment received it in 2019 (National Alliance on Mental Illness [NAMI], 2019). Of those individuals, only 32.9% of Black Americans received treatment, compared to the 50.3% of White Americans. Despite the fact that 78% of suicides are committed by men, only 36.8% of men with mental illness sought treatment, compared to 49.7% of women (NAMI, 2019).

Most research indicates that cultural norms and negative attitudes are the reason for the differences in seeking professional help. For example, people of color were much more likely to see therapy as a sign of weakness compared to White Americans (Narendorf et al., 2018). Likewise, men were shown to be less inclined to seek the help of others with the reasoning that it is a sign of "sacrificing" masculinity (Sinclair & Taylor, 2004), with rates of suggestion for professional treatment falling slower compared to women as severity of presenting problems increased (Jackson, 2011).

Coping strategies could also play a role in whether an individual pursues counseling and therapy. For example, while women were 13% more likely than men to receive therapy (NAMI, 2019), it could be due to the fact that more emotion-focused coping methods are aimed towards emotion regulation, which in turn indicates higher awareness of emotional distress (Kopp, 2009). Being attentive of one's emotional state could then be related to rates of seeking mental health treatment, as knowledge of one's feelings would then make evident when a person is abnormally troubled.

Mental Illness Schema and Hypocognition

Several factors are involved in delay or failure of getting professional, but one of the important ones is lack of recognition by the individual that they have a mental disorder (Gulliver et al., 2010). By way of illustration, a study demonstrated that Black American participants did not consider depression to be a legitimate sickness, with an individual being surprised at being asked whether he was depressed, and being quoted as saying, “Mental health? Like was I depressed and stuff? ...That is not even a real sickness. It's no heart failure” (Alang, 2016). Reluctance to self-diagnose among Black Americans could also be due to lack of trust in the healthcare system overall (Jacobs et al., 2006), but acknowledgement of the severity of a disorder pushes individuals to seek professional help. Additionally, men were found to be less apt at recognizing emotional problems within a romantic relationship and seek help, which was offered as an explanation for why wives are more likely to enter the couple into marital therapy (Doss et al., 2003).

Lacking literacy of mental illness can be considered an absence of the schema of such, which can then be attributed to *hypocognition*. According to Wu & Dunning (2018), hypocognition is defined as “lacking cognitive or linguistic representations of concepts to describe ideas or explicate experiences.” A complete schema of mental illness would then be comprised of recognition of a disorder’s development and symptoms, knowledge of help-seeking options and treatment, and first aid skills to support others affected by mental health problems (Jorm, 2012). Along the same lines, there is the possibility that individuals who use problem-solving coping mechanisms are more hypocognizant of their emotional state compared to individuals who use emotion-focused coping mechanisms, due to the latter being more adept at identifying what they’re feeling and why.

This study aims to answer whether racial and/or gender differences exist in coping strategy and hypocognition of mental illness, and whether coping strategy is related to the illiteracy of mental illness. It is hypothesized that Black Americans will use emotion-focused coping more frequently than White Americans, and that women will use more emotion-focused coping compared to men. Furthermore, it is hypothesized that Black individuals will be more hypocognizant of mental illness compared to White participants in the study, and men will be more hypocognizant than women. Finally, it is hypothesized that there is a correlation between emotion-focused coping and hypocognition of mental illness schema.

Method

Participants

Participants consisted of 152 individuals recruited from Amazon's Mechanical Turk (MTurk) crowd sourcing facility (48.6% White, 51.4% Black; 48% Men, 52% Women; M_{age} = 40.5, SD_{age} = 12.7) with a $2.50 monetary incentive. Data from an additional 11 participants were omitted due to racial mismatch. The demographic information of the subjects, as presented in Table 1, is similar to the U.S. census data (U.S. Census Bureau, 2020). The age composition of participants in the study generally follows the pattern of national norms.

Assessments and Measures

Coping Strategies

The COPE Inventory (Carver, 1989) is a 60-item self-report instrument that assesses 15 different methods of coping with stress. Three scales within the inventory measure conceptually distinct aspects of problem-solving coping (active coping, planning, seeking of instrumental social support), emotion-focused coping (seeking of emotional social support, positive reinterpretation, acceptance, denial, turning to religion), and dysfunctional coping (behavioral

disengagement, self-distraction, self-blaming, substance use, venting). Dysfunctional coping items were presented to participants but were excluded from data analysis. Furthermore, the sub-dimension of substance use was not included in this study. Participants were presented with 56 items total, and were asked to respond to each item on a 4-point Likert scale, ranging from 1 (*I usually don't do this at all*) to 4 (*I usually do this a lot*). See Appendix A for full list of items from the COPE inventory presented to participants.

Responses for the COPE inventory were coded according to its corresponding Likert scale, which were then compiled into problem-solving and emotion-focused dimensions. This was done by creating new variables composed of the total means of the items for each category.

Mental Illness Hypocognition

Three adapted vignettes (Yap et al., 2015) of an individual struggling with depression, social anxiety, and paranoid schizophrenia based on the diagnostic criteria for each disorder were presented to participants. The gender of the person described in the vignette was randomly assigned to be either male or female for each scenario. After each vignette, participants were then asked open-ended questions based on the telephone survey conducted by Wright et al. (2005), "What, if anything, do you think is wrong with [individual]?", and "How do you think [individual] could best be helped?" See Appendix B for the vignettes and follow-up questions used.

Hypocognition was assumed if respondents could not identify the presenting problem in a vignette, and did not offer an appropriate solution. A participant was considered to have recognized the mental illness in a vignette if they labelled it as something close enough to the presenting problem, for example "social phobia" was considered recognition of social anxiety, "psychosis" was accepted as recognition of paranoid schizophrenia, and so on. Suggesting

professional help, counseling, and/or medication was acknowledged to be appropriate responses to recognizing how to help someone in need. On the other hand, however, a participant who responded to the recognition prompt for the depression vignette by saying, “I think [individual] just needs to get a job,” and then followed it up with, “[Individual] should just take laxatives to feel better,” when asked to provide the best form of help, the participant would then be classified as hypocognizant. The scale of hypocognition ranged from 0 (being cognizant) to 1 (being hypocognizant). While there were instances of partial cognition, such as when participants would fail to recognize that a mental illness was being presented but would still suggest the individual in the vignette to seek a doctor, these levels of responses were not taken into consideration for the data analysis.

Data Analysis

Data was analyzed using IBM SPSS Version 27 (IBM Corp., Armonk, NY). Preliminary analyses included reporting racial and gender comparisons (via ANOVA tests) on coping mechanism more frequently utilized and hypocognition of mental illness. Primary analyses utilized two-way ANOVA, which allowed for the investigation of differences in between-subjects variable(s) (i.e., gender and racial group) across a within-subject variable reflecting different domains within an outcome variable response set (i.e., the COPE inventory subscales).

Results

In order to test for potential racial differences in coping strategies, a one-way between-subjects ANOVA was conducted for comparisons on coping mechanisms based on the COPE factors, as presented in Table 2. While there were no significant differences between the two racial groups in terms of problem-solving coping mechanisms, there were moderately significant differences at the 10% level in utilization of emotion-focused coping mechanisms, $F(1, 150) =$

2.754, p = .099, with White respondents coping in an emotion-focused manner less (*M* = 2.177, *SD* = .398) compared to the Black Americans in the sample (*M* = 2.281, *SD* = .377). This effect appears to be strongest in the religious coping subscale, *F*(1, 150) = 29.024, *p* < .001, with Black participants being using religious means to cope over 1.5 times as much (*M* = 2.664, *SD* = 1.087) as their White peers (*M* = 1.740, *SD* = 1.023). Additionally, there was a strong statistical difference in positive reframing of a situation in order to cope with it, *F*(1, 150) = 3.933, *p* = .049, with Black respondents reporting reconsidering the situation in a positive light more often (*M* = 2.989, *SD* = .658) compared to the White Americans in the sample (*M* = 2.764, *SD* = .745). Finally, despite White Americans using emotion-focused coping less in general, there was a statistically significant difference in utilization of the humor coping dimension (1, 150) = 9.567, *p* = .002, with White participants using humor more frequently (*M* = 2.04, *SD* = .751) than their counterparts (*M* = 1.660, *SD* = .751).

Following that, an ANOVA was conducted for gender effects on coping strategies, reported in Table 3. Although there were no significant overall gender differences in problem-solving or emotion-focused coping mechanisms, using emotional social support to cope was the exception, *F*(1, 150) = 4.409, *p* = .037, with women in the sample reporting using that coping subtype more frequently (*M* = 6.057, *SD* = 1.835) than their male counterparts (*M* = 5.373, *SD* = 2.175).

Subsequently, in order to reduce probability of conducting a type I error and assuming a false positive, two-way ANOVAs were conducted on overall coping categories for all groups in the sample.

Coping Mechanisms

Racial and gender differences in coping strategies were analyzed through a 2 (race: White vs Black) × 2 (gender: male vs female) ANOVA on type of coping mechanism utilized (see Table 4). Race of the participant was not significantly associated with problem-solving coping mechanisms, $F(1, 148) = .533$, $p = .567$, partial $\eta^2 = .004$, nor gender, $F(1, 148) = .060$, $p = .808$, partial $\eta^2 < .001$. Notwithstanding, the race X gender interaction was significant at the 10% level in how likely problem-solving coping strategies would be used, $F(1, 148) = 3.096$, $p = .081$, partial $\eta^2 = .020$. Thereby, whether a Black or White participant uses problem-solving coping mechanisms depends on their gender.

Following that, a two-way ANOVA was conducted to analyze racial and gender differences in problem-solving and emotion-focused coping mechanisms, as presented in Table 5. Similar to what was demonstrated in the one-way ANOVA in Table 2, White participants were moderately less likely to use emotion-focused coping strategies at the 10% level (M = 2.177, SD = .398) compared to their Black counterparts (M = 2.281, SD = .377), $F(1, 148) = 3.290$, $p = .072$, partial $\eta^2 = .022$. The main effect of gender was not significant $F(1, 148) = 1.198$, $p = .276$, partial $\eta^2 = .008$. There was a significant effect of the race X gender interaction on how likely a participant would utilize emotion-focused coping strategies, $F(1, 148) = 4.993$, $p = .027$, partial $\eta^2 = .033$. As with the problem-solving coping strategies, this implies that using emotion-focused coping depends on a Black or White participant's gender.

Mental Illness Hypocognition

A 2 (race: White vs Black) × 2 (gender: male vs female) ANOVA was calculated on how hypocognizant a participant was in terms of schema of mental illness (see Table 6). There was no significant effect of race on hypocognition of mental illness, $F(1, 148) = 2.033$, $p = .156$, partial

$\eta^2 = .014$. On the other hand, the main effect of gender on hypocognition of mental illness was significant, $F(1, 148) = 18.898$, $p = < .001$, partial $\eta^2 = .113$. Male participants were significantly more hypocognizant of mental illness schema ($M = .217$; $SD = .229$) compared to female participants ($M = .072$; $SD = .174$). There was no significant interaction effect of race X gender on how hypocognizant a participant was, $F(1, 148) = .359$, $p = .550$, partial $\eta^2 = .002$.

Participants were nearly three times as hypocognizant of anxiety ($M = .313$, $SD = .460$) in general compared to depression ($M = .040$, $SD = .195$) or schizophrenia ($M = .072$, $SD = .260$).

Correlation of Coping Mechanism and Mental Illness Hypocognition

There was no significant correlational effect between problem-solving coping and hypocognition of mental illness, $r(150) = .065$, $p = .427$, nor was there a significant correlation between emotion-focused coping and hypocognition, $r(150) = .068$, $p = .406$, as can be seen in Table 7.

Discussion

The results of the current study provide some support for racial and gender differences in coping strategies and hypocognition of mental illness among participants. As hypothesized, Black Americans reported greater overall use of emotion-focused coping strategies compared to White Americans, with the difference being the strongest in the religious and positive reframing coping dimensions. Despite using emotion-focused coping mechanisms less, White participants were more inclined towards using humor compared to Black respondents. Contrary to the hypothesized relationship between coping strategy and gender, women were not significantly more likely to utilize emotion-focused coping compared to men, but did have higher rates of turning to emotional social support as a coping mechanism. Furthermore, there were no significant differences in hypocognition of mental illness between racial groups, but men were

over twice as illiterate of mental illness compared to women in the sample. Finally, contrary to expectations, there was no correlational effect between coping strategy and hypocognition.

The study indicates that Black and White Americans cope with stress differently, and as such, it is vital for professionals in psychotherapy to be aware of the style of coping used by each particular racial group. For instance, it may be useful to prompt Black clients about their religious beliefs, and whether they tried visiting their religious institution in times of distress. Similarly, a White client laughing and making jokes about their situation in a therapeutic session should not necessarily be considered abnormal or as a warning sign, but rather acknowledged as a coping strategy used more frequently by that population.

The finding that women seek emotional social support from others more frequently than men may be explained by theories that focus on biological differences between men and women. For example, women were found to possess higher levels of oxytocin, which is associated with downregulation of the sympathetic nervous system and facilitation of the parasympathetic nervous system, which was then found related to be expressed as women being more likely than men to "tend and befriend," (Taylor et al., 2000).

The results of this study imply that differences in receiving therapy and professional help between races are not due to Black Americans being more hypocognizant of mental illness. Instead, the alternative explanation of medical distrust among Black Americans seems more likely, which then gives academics and practitioners in psychology an area of focus when looking to solve the racial disparity in mental illness treatment.

Men being significantly more hypocognizant of mental illness compared to women could be related to differences in treatment rates, as well as stigma surrounding the seeking of help. Given that there is a strong and enduring effect of stigma on mental well-being among men (Link

et al., 1997), it is important to address and work to resolve in order to increase treatment and therapy rates. Mental illness cannot be treated if it remains underrated and minimized by men to the degree of it becoming a "silent killer" (Chatmon, 2020), and a way to go about reducing stigma is to educate about the gravity of the situation.

With participants being the most hypocognizant of social anxiety compared to the other mental illnesses presented, it is of utmost importance to educate communities on the difference between the commonly reported "shyness" and symptoms of social anxiety. Underestimating and undermining mental illness could delay pursuing professional aid with the consequences of poorer outcomes due to the longer duration of untreated illness (Altamura, 2008). Moreover, belittling a disorder by using alternative labels such as "stress" or "life problems" are less likely to facilitate professional help seeking altogether (Jorm et al., 2006).

Given that there was no correlation between coping mechanism and hypocognition, it can then be concluded that an individual being hypocognizant of a mental disorder has little to do with whether they act on the environment or the self to cope, or if they focus more on regulating their own stressful emotions. The lack of mental health literacy could then be related to other factors an individual faces, such as stigma or distrust of the medical field in general.

Limitations

Because all participants were recruited using MTurk, results may not be as theoretically meaningful when considering the representativeness of the sample on the general population. MTurk users may respond differently compared to general population averages, as being a MTurker is a cultural group of its own. Respondents were also not asked about their religious beliefs or their level of religiosity before beginning the survey, and as such interpretations are difficult to draw from the racial differences in religious coping. Furthermore, while this study

only compared men and women in order to determine gender differences, there is a lack of representation of queer identities in the sample, such as transgender or nonbinary individuals. Finally, mental illness hypocognition was assumed when respondents could not recognize the illness presented in a vignette and offered an "inappropriate" form of help, but what is considered appropriate or not is determined by what currently exists in current empirical research (Lee et al., 2010), which is determined by American ideals that do not apply to all populations (Watters, 2010). What may have been a cognizant first aid response to symptoms could have been misattributed in the study, thereby misidentifying participants as lacking mental health literacy.

Future Directions

Future research should aim to duplicate this study on different populations using more diverse recruitment approaches. For example, very little is known about the relationship between coping mechanism and hypocognition of mental illness in Hispanic/Latino, Arab, Asian, or mixed race individuals, and Prolific users may answer very different compared to MTurkers. Moreover, queer individuals who are not heterosexual and/or are not cisgender may have very different responses than the participants in the existing studies regardless of racial background. This study also did not analyze effectiveness of different coping strategies, which could be an element to be further explored.

Furthermore, because participants in the study were giving different responses to the vignettes based on the gender of the individual in the scenario, in future replications it may be beneficial to independently analyze hypocognition rates based on presenting gender. For example, future research could test whether participants would be more hypocognizant of mental illness if a male name was shown in each vignette compared to if it was a woman's name, and

how hypocognition rates may differ with a vignette featuring a nonbinary individual with a gender neutral name and pronouns.

References

Alang, S. M. (2016). “Black folk don't get no severe depression”: Meanings and expressions of depression in a predominantly black urban neighborhood in Midwestern United States. *Social science & medicine*, *157*, 1-8.

Altamura, A. C., Dell Osso, B., D Urso, N., Russo, M., Fumagalli, S. A. R. A., & Mundo, E. (2008). Duration of untreated illness as a predictor of treatment-response and clinical course in generalized anxiety disorder. *CNS spectrums*, *13*(5), 415.

Benjamins, M. R. (2013). Comparing measures of racial/ethnic discrimination, coping, and associations with health-related outcomes in a diverse sample. *Journal of Urban Health*, *90*(5), 832-848.

Brewin, C. R. (1996). Theoretical foundations of cognitive-behavior therapy for anxiety and depression. *Annual review of psychology*, *47*(1), 33-57.

Brougham, R. R., Zail, C. M., Mendoza, C. M., & Miller, J. R. (2009). Stress, sex differences, and coping strategies among college students. *Current psychology*, *28*(2), 85-97.

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: a theoretically based approach. *Journal of personality and social psychology*, *56*(2), 267.

Carver, C. S. (1997). You want to measure coping but your protocol’s too long: Consider the brief cope. *International journal of behavioral medicine*, *4*(1), 92-100.

Chapman, A. L. (2006). Dialectical behavior therapy: Current indications and unique elements. *Psychiatry (Edgmont)*, *3*(9), 62.

Chatmon, B. N. (2020). Males and Mental Health Stigma.

Donald, A., & Misch, M. D. (2000). Basic Strategies of Dynamic Supportative Therapy. *Journal of Psychotherapy Practice and Research*, *9*, 173-189.

Doss, B. D., Atkins, D. C., & Christensen, A. (2003). Who's dragging their feet? Husbands and wives seeking marital therapy. *Journal of Marital and Family Therapy*, *29*(2), 165-177.

Dubow, E. F., & Rubinlicht, M. (2011). Coping. In B. B. Brown & M. J. Prinstein (Eds.), *Encyclopedia of adolescence* (pp. 109-118). Academic Press.

Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of health and social behavior*, 219-239.

Folkman, S., & Lazarus, R. S. (1985). If it changes it must be a process: A study of emotion and coping during three stages of a college examination. Journal of Personality and Social Psychology, 48, 150-170

Graham, S. (1992). "Most of the subjects were White and middle class": Trends in published research on African Americans in selected APA journals, 1970–1989. *American Psychologist*, *47*, 629–639.

Gulliver, A., Griffiths, K.M. & Christensen, H. Perceived barriers and facilitators to mental health help-seeking in young people: a systematic review. *BMC Psychiatry* **10,** 113 (2010).

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature*, *466*(7302), 29.

Herbert, J. (1997). Fortnightly review: Stress, the brain, and mental illness. *Bmj*, *315*(7107), 530-535.

Jackson, J. (2011). Gender differences in seeking help.

Jacobs, E. A., Rolle, I., Ferrans, C. E., Whitaker, E. E., & Warnecke, R. B. (2006). Understanding African Americans' views of the trustworthiness of physicians. *Journal of general internal medicine*, *21*(6), 642-647.

Jensen, A. R. (1980). Bias in mental testing.

Jorm, A. F., Kelly, C. M., Wright, A., Parslow, R. A., Harris, M. G., & McGorry, P. D. (2006). Belief in dealing with depression alone: results from community surveys of adolescents and adults. *Journal of affective disorders*, *96*(1-2), 59–65.

Jorm, A. F., Wright, A., & Morgan, A. J. (2007). Beliefs about appropriate first aid for young people with mental disorders: findings from an Australian national survey of youth and parents. *Early Intervention in Psychiatry*, *1*(1), 61-70.

Jorm, A. F. (2012). Mental health literacy: empowering the community to take action for better mental health. *American psychologist*, *67*(3), 231.

Joseph, J., & Kuo, B. C. (2009). Black Canadians' coping responses to racial discrimination. *Journal of Black Psychology*, *35*(1), 78-101.

Kelly, M. M., Tyrka, A. R., Price, L. H., & Carpenter, L. L. (2008). Sex differences in the use of coping strategies: predictors of anxiety and depressive symptoms. *Depression and anxiety*, *25*(10), 839–846.

Kopp, C. B. (2009). Emotion-focused coping in young children: Self and self-regulatory processes. *New directions for child and adolescent development*, *2009*(124), 33-46.

Lam, A. G., & Zane, N. W. (2004). Ethnic differences in coping with interpersonal stressors: A test of self-construals as cultural mediators. *Journal of Cross-Cultural Psychology*, *35*(4), 446-459.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.

Lee, H. Y., Lytle, K., Yang, P. N., & Lum, T. (2010). Mental health literacy in Hmong and Cambodian elderly refugees: A barrier to understanding, recognizing, and responding to

depression. *The International Journal of Aging and Human Development*, *71*(4), 323-344.

Liddon, L., Kingerlee, R., & Barry, J. A. (2018). Gender differences in preferences for psychological treatment, coping strategies, and triggers to help-seeking. *British Journal of Clinical Psychology*, *57*(1), 42-58.

Lindsey, L. L. (2015). *Gender roles: A sociological perspective*. Routledge.

Link, B. G., Struening, E. L., Rahav, M., Phelan, J. C., & Nuttbrock, L. (1997). On stigma and its consequences: evidence from a longitudinal study of men with dual diagnoses of mental illness and substance abuse. *Journal of health and social behavior*, 177-190.

Magai, C., & McFadden, S. H. (Eds.). (1996). *Handbook of emotion, adult development, and aging*. Elsevier.

Marin, M. F., Lord, C., Andrews, J., Juster, R. P., Sindi, S., Arsenault-Lapierre, G., ... & Lupien, S. J. (2011). Chronic stress, cognitive functioning and mental health. *Neurobiology of learning and memory*, *96*(4), 583-595.

Markstrom, C. A., Marshall, S. K., & Tryon, R. J. (2000). Resiliency, social support, and coping in rural low-income Appalachian adolescents from two racial groups. *Journal of adolescence*, *23*(6), 693-703.

Malooly, A. M., Flannery, K. M., & Ohannessian, C. M. (2017). Coping mediates the association between gender and depressive symptomatology in adolescence. *International journal of behavioral development*, *41*(2), 185-197.

Matud, M. P. (2004). Gender differences in stress and coping styles. *Personality and individual differences*, *37*(7), 1401-1415.

Narendorf, S. C., Munson, M. R., Ben-David, S., Cole, A. R., & Scott Jr, L. D. (2018). Race and gender differences in attitudes toward help seeking among marginalized young adults with mood disorders: A mixed-methods investigation. *Psychiatric rehabilitation journal*, *41*(4), 277.

National Alliance on Mental Illness. (2019). Mental health by the numbers.

Nickens, M. (2008). Uplifting the People: Three Centuries of Black Baptists in Alabama.

Pearlin, L. I. (1999). Stress and mental health: A conceptual overview. In A. V. Horwitz & T. L. Scheid (Eds.), *A handbook for the study of mental health: Social contexts, theories, and systems* (pp. 161-175). New York, NY, US: Cambridge University Press.

Plummer, D. L., & Slane, S. (1996). Patterns of coping in racially stressful situations. *Journal of black psychology*, *22*(3), 302-315.

Salleh, M. R. (2008). Life event, stress and illness. *The Malaysian journal of medical sciences: MJMS*, *15*(4), 9.

Sapolsky, R. M. (2004). *Why zebras don't get ulcers: The acclaimed guide to stress, stress-related diseases, and coping-now revised and updated*. Holt paperbacks.

Scandrett, A. (1994). Religion as a support component in the health behavior of Black Americans. *Journal of Religion and Health*, *33*(2), 123-129.

Scott Jr, L. D., & House, L. E. (2005). Relationship of distress and perceived control to coping with perceived racial discrimination among black youth. *Journal of Black Psychology*, *31*(3), 254-272.

Sheu, H. B., & Sedlacek, W. H. (2004). An exploratory study of help-seeking attitudes and coping strategies among college students by race and gender. *Measurement and Evaluation in Counseling and Development*, *37*(3), 130-143.

Sinclair, S. L., & Taylor, B. A. (2004). Unpacking the tough guise: Toward a discursive approach for working with men in family therapy. *Contemporary Family Therapy*, *26*(4), 389-408.

Sinha, S., & Latha, G. S. (2018). Coping response to same stressors varies with gender. *National J Physiol Pharm Pharmacol*, *7*, 1053-1057.

Silver, R. L., & Wortman, C. B. (1980). Coping with undesirable life events. In J. Garber & M. E. P. Seligman (Eds.), Human helplessness: Theory and applications (pp. 279-340). New York: Academic Press.

Stanisławski, K. (2019). The coping circumplex model: an integrative model of the structure of coping with stress. *Frontiers in psychology*, *10*, 694.

Stone, A. A., & Neale, J. M. (1984). New measure of daily coping: development and preliminary results. *Journal of personality and social psychology*, *46*(4), 892.

Tamres, L. K., Janicki, D., & Helgeson, V. S. (2002). Sex differences in coping behavior: A meta-analytic review and an examination of relative coping. *Personality and social psychology review*, *6*(1), 2-30.

Taylor, R. J., Thornton, M. C., & Chatters, L. M. (1987). Black Americans' perceptions of the sociohistorical role of the church. *Journal of Black Studies*, *18*(2), 123-138.

Taylor, S. E., Klein, L. C., Lewis, B. P., Gruenewald, T. L., Gurung, R. A., & Updegraff, J. A. (2000). Biobehavioral responses to stress in females: tend-and-befriend, not fight-or-flight. *Psychological review*, *107*(3), 411.

Triandis, H. C. (1995). Individualism & collectivism. Boulder, CO, US: Westview Press.

U.S. Census Bureau (2020). *2020 Demographic Analysis (DA)*. Retrieved from https://www.census.gov/programs-surveys/decennial-census/about/coverage-measurement/da.html?utm_campaign=&utm_medium=email&utm_source=govdelivery.

Utsey, S. O., Ponterotto, J. G., Reynolds, A. L., & Cancelli, A. A. (2000). Racial discrimination, coping, life satisfaction, and self-esteem among African Americans. *Journal of Counseling & Development*, *78*(1), 72-80.

Van Gundy, K. T., Howerton-Orcutt, A., & Mills, M. L. (2015). Race, coping style, and substance use disorder among non-Hispanic African American and White young adults in South Florida. *Substance use & misuse*, *50*(11), 1459-1469.

Vassilliere, C. T., Holahan, C. J., & Holahan, C. K. (2016). Race, perceived discrimination, and emotion-focused coping. *Journal of Community Psychology*, *44*(4), 524-530.

Watters, E. (2010). *Crazy like us: The globalization of the American psyche*. Simon and Schuster.

Wright, A., Harris, M. G., Jorm, A. F., Cotton, S. M., Harrigan, S. M., McGorry, P. D., ... & Hurworth, R. E. (2005). Recognition of depression and psychosis by young Australians and their beliefs about treatment. *Medical Journal of Australia*, *183*(1), 18-23.

Wu, K., & Dunning, D. (2018). Hypocognition: Making sense of the landscape beyond one's conceptual reach. *Review of General Psychology*, *22*(1), 25-35.

Yap, M. B. H., Reavley, N. J., & Jorm, A. F. (2015). Is the use of accurate psychiatric labels associated with intentions and beliefs about responses to mental illness in a friend? Findings from two national surveys of Australian youth.

Zaff, J. F., Blount, R. L., Phillips, L., & Cohen, L. (2002). The role of ethnic identity and self-construal in coping among African American and Caucasian American seventh graders: An exploratory analysis of within-group variance. *Adolescence*, *37*(148), 751.

Zuo, J., & Tang, S. (2000). Breadwinner status and gender ideologies of men and women regarding family roles. *Sociological perspectives*, *43*(1), 29-43

Tables

Table 1

Demographic Breakdown of Participants

Variable *M* (*SD*) or %	Overall Sample (N = 152)	White American (*N* = 74) Men (*N* = 34)	White American (*N* = 74) Women (*N* = 40)	Black American (*N* = 78) Men (*N* = 39)	Black American (*N* = 78) Women (*N* = *39)*
Age	40.5 (12.7)	41.5 (11.9)	43.2 (13.1)	35.8 (10.5)	41.7 (14.1)
Annual Income					
< $24,999	15.8	20.6	15.0	12.8	15.4
≥ $24,999	84.2	79.4	85.0	87.2	84.6
Education					
No College	11.8	17.6	7.5	10.3	12.8
Some College or Higher	88.2	82.4	92.5	89.7	87.2
Employment					
Unemployed	16.7	12.5	25.0	5.1	23.1
Part-Time or Higher	80.7	84.4	75.0	92.3	71.8
Full-Time Student	2.7	3.1	0.0	2.6	5.1

M = means, *SD* in parentheses = standard deviations

Table 2

Means, Standard Deviations, and One-Way Analysis of Variance of Coping Strategies by Race

COPE Factors	Overall (N = 152)		White American (N = 74)		Black American (N = 78)			
	M	*SD*	*M*	*SD*	*M*	*SD*	$F(1, 150)$	Sig.
Problem-Solving	2.881	.559	2.881	.598	2.941	.521	.445	.506
Active Coping	3.012	.657	2.990	.686	3.032	.632	.156	.694
Instrumental Social Support	2.502	.819	2.514	.815	2.490	.827	.030	.862
Planning	3.222	.647	3.139	.707	3.301	.577	2.427	.121
Emotion-Focused	2.230	.390	2.177	.398	2.281	.377	2.754	.099
Acceptance	2.806	.678	2.912	.644	2.705	.698	3.603	.060
Denial	1.213	.407	1.162	.342	1.262	.456	2.297	.132
Emotional Social Support	2.426	.890	2.446	.881	2.407	.905	.072	.789
Humor	1.844	.772	2.04	.751	1.660	.751	9.567	.002**
Positive Reframing	2.879	.708	2.764	.745	2.989	.658	3.933	.049*
Religion	2.214	1.150	1.740	1.023	2.664	1.087	29.024	< .001**

* $p < .05$, **$p < .001$

Table 3

Means, Standard Deviations, and One-Way Analysis of Variance of Coping Strategies by Gender

	Overall (N = 152)		Male (N = 73)		Female (N = 79)			
COPE Factors	*M*	*SD*	*M*	*SD*	*M*	*SD*	$F(1, 150)$	Sig.
Problem-Solving	2.912	.559	2.927	.545	2.898	.5744	.103	.748
Active Coping	3.012	.657	3.096	.638	2.934	.668	2.338	.128
Instrumental Social Support	2.502	.819	2.404	.833	2.592	.800	2.007	.159
Planning	3.222	.647	3.281	.5877	3.168	.697	1.161	.283
Emotion-Focused	2.230	.390	2.200	.393	2.259	.387	.886	.348
Acceptance	2.806	.678	2.767	.6658	2.842	.691	.458	.499
Denial	1.213	.407	1.273	.458	1.582	.347	3.055	.083
Emotional Social Support	2.426	.890	2.277	.877	2.563	.887	3.988	.048*
Humor	1.844	.772	1.856	.760	1.832	.787	.036	.850
Positive Reframing	2.879	.708	2.924	.646	2.839	.764	.543	.462
Religion	2.214	1.1503	2.099	1.074	2.320	1.214	1.395	.239

* $p < .05$

Table 4

Two-Way Analysis of Variance of Problem-Solving Coping Strategies by Race and Gender

Source	*df*	F	Sig	Partial η^2
Race	1	.533	.567	.004
Gender	1	.060	.808	< .001
Race X Gender	1	3.096	.081	.020
Error	148			
Total	152			

Table 5

Two-Way Analysis of Variance of Emotion-Focused Coping Strategies by Race and Gender

Source	*df*	F	Sig	partial η^2
Race	1	3.290	.072	.022
Gender	1	1.198	.276	.008
Race X Gender	1	4.993	.027*	.033
Error	148			
Total	152			

$*p < .05$

Table 6

Two-Way Analysis of Variance of Hypocognition of Mental Illness Schema by Race and Gender

Source	*df*	F	Sig	Partial η^2
Race	1	2.033	.156	.014
Gender	1	18.898	< .001	.113
Race X Gender	1	.359	.550	.002
Error	148			
Total	152			

Table 7

Correlation Table of Coping Mechanism and Mental Illness Hypocognition

	M	*SD*	1	2
1. Problem-Solving Coping	2.912	.559	—	—
2. Emotion-Focused Coping	2.230	.390	.557**	—
3. Hypocognition	.141	.214	.061	.001

** $p < .01$

Appendix A

We are interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel, when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress.

Then respond to each of the following items by blackening one number on your answer sheet for each, using the response choices listed just below. Please try to respond to each item separately in your mind from each other item. Choose your answers thoughtfully, and make your answers as true FOR YOU as you can. Please answer every item. There are no "right" or "wrong" answers, so choose the most accurate answer for YOU--not what you think "most people" would say or do. Indicate what YOU usually do when YOU experience a stressful event.

1 = I usually don't do this at all

2 = I usually do this a little bit

3 = I usually do this a medium amount

4 = I usually do this a lot

1. I try to grow as a person as a result of the experience.
2. I turn to work or other substitute activities to take my mind off things.
3. I get upset and let my emotions out.
4. I try to get advice from someone about what to do.
5. I concentrate my efforts on doing something about it.

6. I say to myself "this isn't real."

7. I put my trust in God.

8. I laugh about the situation.

9. I admit to myself that I can't deal with it, and quit trying.

10. I restrain myself from doing anything too quickly.

11. I discuss my feelings with someone.

12. I get used to the idea that it happened.

13. I talk to someone to find out more about the situation.

14. I keep myself from getting distracted by other thoughts or activities.

15. I daydream about things other than this.

16. I get upset, and am really aware of it.

17. I seek God's help.

18. I make a plan of action.

19. I make jokes about it.

20. I accept that this has happened and that it can't be changed.

21. I hold off doing anything about it until the situation permits.

22. I try to get emotional support from friends or relatives.

23. I just give up trying to reach my goal.

24. I take additional action to try to get rid of the problem.

25. I refuse to believe that it has happened.

26. I let my feelings out.

27. I try to see it in a different light, to make it seem more positive.

28. I talk to someone who could do something concrete about the problem.

29. I sleep more than usual.

30. I try to come up with a strategy about what to do.

31. I focus on dealing with this problem, and if necessary let other things slide a little.

32. I get sympathy and understanding from someone.

33. I kid around about it.

34. I give up the attempt to get what I want.

35. I look for something good in what is happening.

36. I think about how I might best handle the problem.

37. I pretend that it hasn't really happened.

38. I make sure not to make matters worse by acting too soon.

39. I try hard to prevent other things from interfering with my efforts at dealing with this.

40. I go to movies or watch TV, to think about it less.

41. I accept the reality of the fact that it happened.

42. I ask people who have had similar experiences what they did.

43. I feel a lot of emotional distress and I find myself expressing those feelings a lot.

44. I take direct action to get around the problem.

45. I try to find comfort in my religion.

46. I force myself to wait for the right time to do something.

47. I make fun of the situation.

48. I reduce the amount of effort I'm putting into solving the problem.

49. I talk to someone about how I feel.

50. I learn to live with it.

51. I put aside other activities in order to concentrate on this.

52. I think hard about what steps to take.

53. I act as though it hasn't even happened.

54. I do what has to be done, one step at a time.

55. I learn something from the experience.

56. I pray more than usual.

Appendix B

Scenario 1- Social Anxiety

Male- John is a young person living at home with his parents. Since starting his new course last year he has become even more shy than usual and has made only one friend. He would really like to make more friends but is scared that he'll do or say something embarrassing when he's around others. Although John's work is OK he rarely says a word in class and becomes incredibly nervous, trembles, blushes and seems like he might vomit if he has to answer a question or speak in front of the class. At home, John is quite talkative with his family, but becomes quiet if anyone he doesn't know well comes over. He never answers the phone and he refuses to attend social gatherings. He knows his fears are unreasonable but he can't seem to control them and this really upsets him.

Female- Mary is a young person living at home with her parents. Since starting her new course last year she has become even more shy than usual and has made only one friend. She would really like to make more friends but is scared that she'll do or say something embarrassing when she's around others. Although Mary's work is OK she rarely says a word in class and becomes incredibly nervous, trembles, blushes and seems like she might vomit if she has to answer a question or speak in front of the class. At home, Mary is quite talkative with her family, but becomes quiet if anyone she doesn't know well comes over. She never answers the phone and she refuses to attend social gatherings. She knows her fears are unreasonable but she can't seem to control them and this really upsets her.

Scenario 2- Depression

Male- Robert is a young person who has been feeling unusually sad and miserable for the last few weeks. He is tired all the time and has trouble sleeping at night. Robert doesn't feel like eating and has lost weight. He can't keep his mind on his studies and his grades have dropped. He puts off making any decisions and even day-to-day tasks seem too much for him. His parents and teachers are very concerned about him.

Female- Susan is a young person who has been feeling unusually sad and miserable for the last few weeks. She is tired all the time and has trouble sleeping at night. Susan doesn't feel like eating and has lost weight. She can't keep her mind on her studies and her grades have dropped. She puts off making any decisions and even day-to-day tasks seem too much for her. Her parents and teachers are very concerned about her.

Scenario 3- Paranoid Schizophrenia

Male- Daniel is a young person who lives at home with his parents. He has had a few temporary jobs since finishing school but is now unemployed. Over the last 6 months Daniel has stopped seeing his friends and has begun locking himself in his bedroom and refusing to eat with the family or to have a bath. His parents also hear him walking about in his bedroom at night while they are in bed. Even though they know he is alone, they have heard him shouting and arguing as if someone else is there. When they try to encourage him to do more things, he whispers that he won't leave home because he is being spied upon by the neighbor. They realize he is not taking drugs because he never sees anyone or goes anywhere.

Female- Melissa is a young person who lives at home with her parents. She has had a few temporary jobs since finishing school but is now unemployed. Over the last 6 months Melissa has stopped seeing her friends and has begun locking himself in her bedroom and refusing to eat with the family or to have a bath. Her parents also hear her walking about in her bedroom at night while they are in bed. Even though they know she is alone, they have heard her shouting and arguing as if someone else is there. When they try to encourage her to do more things, she whispers that she won't leave home because she is being spied upon by the neighbor. They realize she is not taking drugs because she never sees anyone or goes anywhere.