

# The Effect of Imagined Contact on Attitudes Towards Individuals with Mental Illness

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Research has shown that interventions in which participants imagine a positive experience with an outgroup member can improve attitudes towards outgroup members. The current study examined whether a short-term imagined contact intervention with a peer displaying behaviors consistent with depression could affect individuals' attitudes towards individuals who suffer from mental illness. Black and White college students ( $N = 124$ ) imagined an interaction with a Black or White college student who either displayed or did not display behavior consistent with depression. Results indicated that although the race of the imagined partner did not affect attitudes, participants who imagined a positive interaction with a person with depressive symptoms had more positive attitudes towards individuals with mental illness than those who imagined an interaction with someone without depressive symptoms. This study suggests that a short exercise may improve positive attitudes towards individuals with mental illness.

*Keywords:* mental health, stigma, explicit attitudes, imagined contact, intergroup contact

Les recherches ont montré que les interventions dans lesquelles les participants imaginent une expérience positive avec un membre d'un groupe extérieur peuvent améliorer les attitudes à l'égard des membres de ce groupe. La présente étude a examiné si une intervention de contact imaginé à court terme avec un pair affichant des comportements compatibles avec la dépression pouvait affecter les attitudes des individus à l'égard des personnes souffrant de maladie mentale. Des étudiants noirs et blancs ( $N = 124$ ) ont imaginé une interaction avec un étudiant noir ou blanc qui présentait ou non un comportement compatible avec la dépression. Les participants ayant imaginé une interaction positive avec une personne présentant des symptômes dépressifs avaient des attitudes plus positives à l'égard des personnes atteintes de maladie mentale. Un court exercice pourrait améliorer les attitudes positives envers les personnes avec une maladie mentale.

Mots-clés : santé mentale, stigmatisation, attitudes explicites, contact imaginé, contact intergroupe

According to the National Institutes of Mental Health (2023), mental illness can be categorized as a colloquial term encompassing all mental disorders. Mental disorders are health conditions that alter one's thinking, mood, behavior, or a combination of the three, and is often associated with distress and/or impaired functioning (Preboth, 2000). Individuals with mental illness may face negative attitudes and discrimination from others (Illic et al., 2013; Rusch et al., 2005), with reported levels higher than people with physical illness (Ormel et al., 2008). The onset of common mental diseases (CMDs), such as depression and anxiety,

often start to manifest when individuals reach typical university age. Indeed, studies suggest that anywhere from 10-30% of US college students suffer from a form of depression or anxiety (McNealy & Lombardero, 2020). Some studies suggest that childhood maltreatment may be related, and that the effects of physical or psychological traumatic experiences may manifest through disorders, such as depression, when individuals reach early adulthood (Myers et al., 2021). Studies in recent years have emphasized the importance of mental health literacy and mental health interventions in college students to increase the likelihood of help-seeking behaviors (Clough et al., 2020).

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## Mental Illness & Mental Health Stigma

University students can have negative attitudes towards those who suffer from depression and other psychological ailments, believing that they are "dangerous" and more likely to have other

negative traits (Pompeo-Fargnoli, 2022). Negative attitudes are unfavorable evaluative reactions toward a group of people and may be comprised of stigmas that individuals have towards those who have psychological ailments (McNealy & Lombardero, 2020; Petty et al., 1997). Those who suffer from psychological disorders are often rejected by their peers and can elicit fear and anger from others (Boysen, 2020; Corrigan et al., 2003). Individuals with depression are stereotyped as being unpredictable, incompetent, dangerous, and less than fully human (Boysen et al., 2020; Crisp et al., 2005; Pescosolido et al., 2010). Being stigmatized by others can lead to internalization of these negative attitudes, which negatively affects self-esteem, self-efficacy and quality of life, as well as treatment-seeking and treatment adherence (Dubreucq et al., 2021; Ritsher et al., 2003). Experiencing stigma from peers can lead university students who suffer from psychological disorders to have negative beliefs towards treatment effectiveness and believe that they do not need treatment, which may create attitudinal barriers for treatment-seeking (McNealy & Lombardero, 2022; Myers et al., 2021). Thus, finding ways to improve university students' attitudes towards people with mental illnesses such as depression is imperative.

Negative attitudes towards those with psychological ailments can be attributed to a lack of mental health literacy and limited experience with people with mental illness, as well as stereotypes and prejudices towards them. These negative attitudes can lead to discrimination against people they believe, or know, suffer from mental illness (Thornicroft et al., 2007). Mental health literacy has often been associated with attitudes towards individuals with mental illness. Previous literature has shown overwhelming support that personal knowledge and experience with a mental illness can significantly affect stigma towards those with CMDs (Henderson & Robinson, 2020; Thornicroft et al., 2007). This stigma impacts different behaviors, such as whether an individual will date, hire, or leave their children in the care of a person with mental illness (Freidl et al., 2008). People with depression also face housing and employment discrimination (Link & Phelan, 2001).

### **Imagined Contact Theory**

Prior research on Contact Theory suggests that positive experiences with people with mental illness can improve attitudes towards them

(Couture & Penn, 2003). Contact Theory suggests that intergroup contact can lessen hostility towards those with marginalized identities and lead to more positive intergroup attitudes (Allport, 1954; West et al., 2008). However, it is not always possible to have direct contact with someone from an outgroup. Therefore, researchers have examined whether imagining a positive interaction with an outgroup member can improve attitudes. Imagined contact is a mental simulation of a positive encounter with a person from an outgroup group (Crisp & Turner, 2009; Stathi et al., 2012). Experiments on imagined contact typically offer participants the context in which an encounter with an outgroup takes place, describing aspects that could reveal the outgroup nature of the person, and allowing participants' imagination to determine the course and success of such a conversation.

Imagined contact has been shown to activate the same brain regions as a face-to-face interaction (Ganis et al., 2004). Studies involving imagined contact have shown that this form of contact is as successful as face-to-face interactions in improving attitudes towards outgroup members, including successfully reducing personal and public stigma towards mental health related issues (Crisp et al., 2010; Crisp & Turner, 2012). Imagined contact is an accessible way for individuals to interact with populations with whom they would not otherwise engage (Kim & Harwood, 2019). Further, this exercise precludes the risk of mental distress or harm towards people with a stigmatized identity. In their studies, Allen et al. (2024) and Dickter and Burk (2021) tested whether imagined contact could improve attitudes towards people with developmental disabilities. College students who imagined an interaction with an autistic person displaying behaviors associated with autism showed more positive attitudes toward autistic people. Imagined contact may also encourage future interactions with outgroup members, which can lead to more positive interactions with those who face discrimination and stigma for their mental illness. Indeed, previous work has shown that university students who imagined a positive interaction with a schizophrenic person had reduced stereotypes and stronger intentions to engage in future interactions with people with schizophrenia (Stathi et al., 2012).

### **Gaps in Previous Literature**

This work is limited, however, since the researchers did not measure participants' explicit

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attitudes towards the group. Further, participants were explicitly told they were interacting with a person with schizophrenia, which may have limited ecological validity. In fact, in real life, people are unlikely to know with certainty that the person with whom they are interacting is suffering from mental illness. In the current study, we chose to focus on imagined contact with individuals suffering from depression, as that is one of the two most common mental disorders university students suffer from (Myers et al., 2021).

Another important limitation in previous literature is that few studies have examined attitudes towards intersectional groups such as people of color who have psychological disorders. Previous research suggests that racial stereotypes may play a role in how individuals with mental illness are perceived and treated, with studies demonstrating additive effects of discrimination towards people of color with mental illness. For example, Glover et al. (2010) recruited people with diagnosed CMDs through a community health clinic and found that their experiences with discrimination differed based on intersectional categories, including race. Further, Jennings (1996) found that Black people who sought out mental health services reported being discriminated against and mistreated by mental health professionals. Importantly, experiences of discrimination discouraged them from seeking future services, which can amplify the mental health crisis within the Black community.

### **The Current Study**

Therefore, in the current study, the race of the imagined person was manipulated by using a stereotypically White (i.e., Chad) or Black (i.e., Tyrone) name in the imaginary interaction. This is based on previous research showing that certain pre-tested names would increase the likelihood to infer a specific race without making race salient (Crabtree et al., 2023). We did not add any other indicators of race to reduce the chances for demand characteristics or race priming effects. Additionally, knowledge about mental illness and self-reported mental health symptoms were explored as potential moderators of the relationship between imagined contact and attitudes towards individuals with mental illness.

### **Objectives/Research Aims**

The goal of the current study was to extend previous research demonstrating that positive

imagined contact improves university students' attitudes towards people with general mental illness symptoms. An additional goal of the current work was to examine whether the race of the imagined target moderated the effectiveness of imagined contact on improving attitudes towards individuals with mental illness. We also explored whether participants' own self-reported mental health symptoms would be associated with attitudes towards individuals with psychological disorders.

In short, in this study, we aimed to explore three questions. First, could imagined contact improve attitudes towards people with depression? Second, do attitudes towards the imagined person differ as a function of their racial identity? Third, does previous experience with mental illness or mental health literacy relate to negative attitudes towards individuals suffering from mental illness? To explore these questions, an experimental task based on previous studies was employed.

Firstly, we hypothesized that, consistent with previous research, participants who imagined an interaction with a person displaying symptoms related to depression would show more positive attitudes towards people with mental illness. Secondly, we expected that participants who imagined an interaction with a White person depicting mental illness symptoms would have more positive attitudes towards people with mental illness than participants who imagined the same interaction with a Black person. Thirdly, it was also predicted that attitudes towards people with mental illness would be related to knowledge about mental disorders. Finally, consistent with Stathi et al.'s (2012) work on attitudes towards people with schizophrenia, it was expected that imagined contact would improve participants' desire for future contact with those with mental illness.

## **Method**

### **Participants**

US college students from a predominantly White medium-sized liberal arts university in the state of Virginia ( $N = 124$ ) completed the study for partial credit for a course or for monetary compensation. Students were recruited through flyers placed around public common areas (such as dining halls, libraries, dorm halls, etc.), as well as advertisements through their introductory psychology courses. The inclusion criteria were

being a student enrolled at the university where the research was conducted and identifying as monoracial White or monoracial Black. The mean age was 18.87 ( $SD = 0.83$ ). For gender identity, 34.51% of the sample identified as men, 61.94% identified as women, and 3.53% identified as non-binary. Twenty-eight participants reported having a mental health condition (i.e., attention deficit hyperactivity disorder, anxiety, autism spectrum disorder, bipolar disorder, depression, obsessive compulsive disorder). Participants identified as Black ( $n = 28$ ) or White ( $n = 96$ ).

## Measures

### *Feelings Thermometer*

The *Feelings Thermometer* (Haddock et al., 1993) is a one item scale that was adapted for participants to express their evaluation of people with mental illness. Participants used a slider to rate how favorable they were towards people with mental illness, ranging from 0 (*Extremely unfavorable*) to 100 (*Extremely favorable*).

### *Participant Mental Health Symptoms*

The *Patient Health Questionnaire* (Brown et al., 2013) contained 9 items with prompts describing common symptoms of depression and how participants related to the prompts. The symptoms mentioned include difficulty falling or staying asleep at night, loss or increase in appetite, increase of negative feelings towards oneself, and difficulty thinking clearly, concentrating or learning new things. The questionnaire utilized a 4-point Likert scale (1 = *none*, 4 = *all of the time*), with higher scores indicating increased likelihood of experiencing mental illness symptoms. An example item for this measure is: *Have you been feeling slack, not wanting to do anything?* The reliability in this sample was acceptable ( $\alpha = .86$ ).

### *Desire for Intergroup Contact*

The *Desire for Intergroup Contact Measure* (Shelton & Richeson, 2005) was adapted to assess attitudes towards intergroup contact with people with mental health issues at the university in which this research was conducted. This measure consisted of four items concerning the participants' likelihood to have more friends with mental illness and to what extent they feel that their peers would want to have more friends with mental illness. The items were measured utilizing a 7-point Likert Scale (1 = *not at all*, 7 = *very much*). An example

item for this measure is: *To what extent would you like to have more friends with mental illness at the College?* The reliability in this sample was acceptable ( $\alpha = .91$ ).

### *Knowledge about Mental Illness*

The *Mental Health Literacy Scale* (O'Connor & Casey, 2015) contained 35 items concerning the participants' knowledge about various aspects of mental health such as recognizing mental illnesses, gender and mental health, behaviors that may improve mental health, mental health confidentiality, seeking mental health services, perceptions of individuals with mental illness, and willingness to be in proximity to someone with mental illness. The scale utilized a 4-point Likert scale (1 = *very unlikely/unhelpful*, 4 = *very likely/helpful*) and a 5-point Likert scale (1 = *strongly disagree/definitely unwilling*, 5 = *strongly agree/definitely willing*). An example item for this measure is, *To what extent do you think it is likely that Personality Disorders are a category of mental illness?* The reliability in this sample was low ( $\alpha = .38$ ).

### *Liking for Imagined Individual*

One item from the *Likeability Scale* (Na & Chasteen, 2016) was used to assess how much the participant liked the target individual. A 7-point Likert scale (1 = *not at all*, 7 = *very much*) was used. The question was: *How much do you like the individual you conversed with?*

## Procedure

Participants completed the study in a research lab on a computer via Qualtrics. Participants first completed the informed consent form followed by demographic questions. Participants then were randomly assigned to read one of the imagined contact scenarios and write about this encounter for 4-5 minutes.

Specifically, participants were asked to imagine that they were attending a club meeting at their university. Participants were randomly assigned to a condition describing behavior typical of a person with mental illness (depression) or a control group. For the control group, they were given the following prompt:

Everyone seems to be communicating with each other and contributing to the conversation

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except for one student named Chad/Tyrone. Chad/Tyrone often misses meetings set up between you and your group mates and when he does show up, he doesn't contribute during the club discussions. After one of the club meetings, you bump into Chad/Tyrone and end up engaging him in conversation.

In the mental illness (depression) condition, they were given the following prompt, using symptoms of depression in college-aged students identified in previous studies (Bento et al., 2021):

Everyone seems to be communicating with each other and contributing to the conversation except for one student named Chad/Tyrone. Chad/Tyrone used to be very active in the club until as of recent. Now, Chad/Tyrone often misses the weekly meetings, and when he does show up, he is often moody, getting angry and frustrated more easily than the other club members. At the meetings he is often seemingly distracted, paying attention to the discussion initially, though he rarely contributes, but ultimately retreating within himself and seemingly zoning off by the end of the meeting. At almost all the meetings Chad/Tyrone seems visibly tired during your discussions, despite his lack of contribution to the topics as of recent. After one of the club meetings, you bump into Chad/Tyrone and end up engaging him in conversation.

Participants were then asked to take 4-5 minutes to list positive outcomes from the conversation with this person if they were to run into them after one of the club meetings.

Next, participants completed the questionnaires concerning their liking for the person with whom they imagined contact, the Feelings Thermometer, their understanding of mental illness, their self-reported mental health symptoms, and their desire for interracial interactions on campus. After participants completed the survey, they were offered a handout containing information on available mental health resources on campus, were debriefed, and dismissed.

### Results

To examine whether participants' Feelings Thermometer scores varied as a function of imagined contact mental health condition and imagined contact race condition, a 2 X 2 analysis of variance (ANOVA) was conducted. Results indicated a main effect of mental health condition,

$F(1,119) = 4.72, p = .032, \eta_p^2 = .038$ , such that there were higher scores for participants in the mental health symptom condition ( $M = 71.55, SE = 2.53$ ) compared to the control condition ( $M = 63.62, SE = 2.63$ ). There was no effect of race condition nor was there an interaction.

To test whether participants' desire for future contact with individuals with mental illness varied as a function of imagined contact mental health condition and imagined contact race condition, a 2 X 2 ANOVA was conducted. No significant main effects or interactions were found, with all  $p$ -values were greater than .44.

We conducted correlational analyses to examine factors associated with attitudes toward people with mental illness. We specifically examined whether participants' self-reported mental health symptoms, knowledge about mental illness, and desire for contact were associated with their attitudes towards people with mental disorders. There was a negative significant correlation between participants' self-reported mental health and Feelings Thermometer, such that participants who reported more negative mental health symptoms held more negative attitudes toward mental illness,  $r = -.22, p = .015$ . There was no relation between mental health literacy and attitudes towards mental illness,  $r = .03, p = .738$ . There was a significant positive correlation between the desire for intergroup contact and attitudes towards individuals with mental illness,  $r = .19, p = .039$ . Participants who liked the imagined person also reported higher scores on the Feelings Thermometer,  $r = .30, p < .001$ .

To examine whether the relationship between the condition and the Feelings Thermometer would be moderated by the self-reported variables mentioned above, we conducted moderation analyses using Model 1 of PROCESS for SPSS. Analyses indicated that desire for future intergroup contact was a marginally significant moderator,  $t = -1.76, p = .081$ , with a significant positive relationship for participants at the mean or one standard deviation above the mean for the desire for contact ( $p < .022$ ), but not for participants one standard deviation below the mean. Neither desire for intergroup contact nor liking of the imagined individual were significant moderators.

### Discussion

The purpose of this study was to examine if attitudes towards people with mental illness were

influenced by imagining a positive interaction with someone displaying depressive behaviors. Further, we examined if this effect differed as a function of the race of the imagined person. Contrary to our second and third hypotheses, there was no significant interaction found between race and mental health status, nor knowledge of mental illness and attitudes towards the imagined individual. However, in support of our first and fourth hypotheses, more positive attitudes towards people with mental illness were found for participants who imagined a positive interaction with someone displaying depressive symptoms than those who imagined an interaction with someone without these symptoms. We found that engaging in a short exercise can improve attitudes towards individuals with mental illness regardless of the race of the imagined person. These results extend previous research, which found that imagining a positive interaction with a schizophrenic person weakened stereotypes (Stathi et al., 2012). Finally, our hypothesis that knowledge about mental illness would significantly affect attitudes towards people with depression was infirmed in this study.

Although previous research suggests that imagined contact with a person with schizophrenia improved participants' desire for future contact with people with schizophrenia (Stathi et al., 2012), the current research did not replicate this result with mental illness symptoms. However, desire for future intergroup contact marginally moderated the relationship between contact condition and attitudes towards people with mental illness such that only participants moderate or high in the desire for contact showed a significant effect of the imagined contact condition. It is important to further explore whether the imagined contact paradigm as a short-term intervention could be as effective for individuals who already do not have a desire to interact with those with mental illness symptoms. Further, these results and implications should be interpreted with caution, as these results did not reach statistical significance.

Participants with more self-reported mental health issues had negative attitudes towards those with mental illness. This may be due to internalized or self-stigma, in which stigmatized groups endorse the stereotypes that others hold about their group (people with mental illness in our case; Corrigan et al., 2006; Gerlinger et al., 2013). Thus, participants with greater symptomology in our study may have endorsed negative stereotypes about mental illness more so than those with fewer

symptoms, leading to more negative attitudes. Some possible interventions to counteract this could include mental health stigma education assigned to college students. The intervention could include student videos with student actors that could provide them with a model on approaching potentially tough conversations rather than avoiding them entirely, like interventions that have been done at similar predominantly White universities regarding reducing racial bias (Robey & Dickter, 2022). These video interventions could also provide visualizations of what students with mental illness may present themselves, sound, or act like, how to contact the right resources to help a fellow student in need, and encourage students to seek out their own university's mental health resources. To avoid stereotyping, confederates of different races and sexes could be utilized for these interventions. As self-stigma can lead to feelings of shame and lower self-esteem and self-efficacy (Corrigan & Watson, 2002), it is important to examine interventions to reduce self-stigma (Mills et al., 2020).

While previous research found that knowledge of mental illness was associated with attitudes towards mental illness (Henderson & Robinson, 2020), these variables were unrelated in our study. This may have been at least partially due to a high amount of mental illness literacy in our current sample, in which most participants were enrolled in an Introductory Psychology course where they learned about a variety of mental health issues. This also could be in part due to the reliability of this scale, which was below threshold in our current participants. On the other hand, it may not be the case that knowledge of specific mental health conditions, as assessed by the mental health literacy inventory, predicts general attitudes towards people with mental illness broadly defined. Secondly, we hypothesized that there would be a correlation between race and attitudes towards the person with mental illness, but we did not find a significant interaction between them. A study looking at how race could potentially affect other types of bias would be appropriate at a university with a more mixed population, unlike the predominantly white institution where this study took place. There was trouble recruiting a reasonable number of participants who identified as monoracially Black. Further, participants who liked the imagined individual more had more positive attitudes towards individuals with mental illness. This finding underscores the importance of imagining a positive interaction in an imagined contact scenario, a key component of imagined

contact interactions (Crisp & Turner, 2012; Crisp et al., 2010).

### Limitations and Future Directions

The study had several limitations that can inform future research. First, although this study aimed to examine attitudes of university students towards mental illness and race, the university where this research was conducted is a predominantly white institution. As our sample was not racially diverse, we were unable to analyze if there were differences between majority race and minority race student participants. We attempted to fill a gap in the literature that does not address how people who already suffer from mental illness could suffer further due to racial biases (Jennings, 1996). We encourage researchers to look further and address the intersectionality between racial prejudice and prejudice against mental health. Future research could also expand upon the findings of this study by examining mental health stigma in a different context, such as those trying to enter the workforce. In the current study, the imagined contact scenario was limited to describing the symptoms and behavior of a person suffering from general mental health concerns. These symptoms were comprised to describe the most typical mental illness an average college student would experience: depression (National Institute of Mental Health, n.d.). However, early adulthood is when individuals typically experience onset for a variety of CMD's, not just depression (McNealy & Lombardero, 2020). Future research may examine whether manipulating symptoms and behaviors of specific mental illnesses common in a college aged population would affect the efficacy of the imagined contact situation. Further expansion of the range of mental illness conditions could inform whether this imagined contact task would improve sentiments towards those with other mental illnesses or disorders (Crisp et al., 2010; Dickter & Burk, 2021). Finally, it is unclear whether the attitude improvement we observed is short-term or long-term. However, this could be explored in future longitudinal studies. Future research should follow up with participants to examine whether long-term change occurred.

### Conclusion

The current research suggests that imagining positive interactions with a person displaying behaviors associated with depression can increase positive attitudes towards people with mental illness. Our work adds to previous literature

demonstrating the potential impact imagined contact has in positively affecting attitudes towards outgroup members (Holmes & Matthews, 2010). Future research would benefit from exploring the potential long-term effects to determine whether imagined contact is a suitable and reliable method in decreasing bias and improving attitudes towards people with mental illness.

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