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Natalie Cruz

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Cultural Identity and Mental Health Awareness Among a Diverse Sample of College Students

Natalie Cruz

Baruch College

Abstract

Social functioning is intertwined with one's culture (Abdullah & Brown, 2011). Culture is broadly defined as the individual's perception of the complexity of norms and rituals shared by a group of people. As Phinney (1992) has long noted, it is apparent that cultural factors can have a great influence on our identities and how we perceive the world around us. In Phinney's opinion, this is especially true for sensitive topics such as mental health or mental illness. But could we fully understand what the cultural risk factors are that would predispose people toward biased views of mental health and mental illness? Those with a strong cultural identity who also come from collectivistic cultures could have more biases in mental health. In this thesis, I use the interdependent and independent sense of self or "I" and "We" scale (Dowd & Artistic, 2016), to explore that those from collectivistic cultures (Latinx, Black, Asian etc.) have a more interdependent sense of self. I also explore the relationship between closeness to one's culture and mental health awareness. To this end, I develop a novel assessment for culture and mental health views. My findings showed a strong correlation between closeness to one's culture and mental health awareness.

Cultural Identity & Mental Health Awareness

Identity is constructed through many components such as, ethnicity/race, childhood development, trauma, culture, society, etc. Primarily for people of color research has focused on ethnicity and race as key dimensions in collective identity (Yoon, 2011). Considering being a part of a collective group shapes how you perceive yourself and the outside world. Ethnic identity is common in research and has been deemed important for people of color especially in the face of discrimination and oppression (Phinney & Ong, 2007). There is a clear protective factor with ethnic identity that strives from collectivist cultures and the “group” mentality. Primarily, people of color have a stronger connection to ethnic identity than white individuals, which influences their well-being (Smith & Silva, 2011). There is value in ethnic identity that holds importance, but there seems to be a lack of “culture” in these identity constructs. Culture is here defined as people’s perception of the sum total of norms and rituals shared by a group of individuals. Even though a strong ethnic identity can influence us, we must consider how these cultures - Latinx Americans, African Americans, Asian-Americans – make up an individual’s identity. As Phinney (1992) has stated society and culture impact our day-to-day life, our perceptions, and behaviors. Culture plays a role in how we behave and perceive situations so it should make up a huge part of identity. Even with strong ethnic identity, our culture is what will solidify our identities and sense of belonging. In research there must be a drive to understand cultural identity without excluding individuals based on whom, they interact with from the same ethnic background. Some of the components that can influence cultural identity are self-construal’s, mental health stigma; in turn culture can influence mental health stigma. Therefore, culture should be more immersive in literature and research to further explore the complexities

that make up identity. We will explore cultural identity with interdependent & independent self-construal's and mental health stigma in collectivistic cultures.

Interdependent and Independent Self- Construal & Cultural Identity.

Culture and other social factors affect even individual's self-construal, interdependent and independent self; these self-constructs in turn can affect behavior, cognition and emotion (Dowd & Artistico, 2016). A self-construal is the perception of oneself in relation to other individuals or groups of individuals. An interdependent self-construal focuses on the "we" and sees relationships with others or one's place or role in the community as a vital aspect of who they are. An independent self-construal prefers the concept of "I", sees themselves as independent of those around them, and uses other individuals as measures for comparison. Those with a more interdependent self can explicitly or implicitly adapt to behaviors more approved by their group, which is common in collectivistic cultures like, Asian, Latinx, African- (Markus & Kitayama, 1991). Although within culture differences exist typically, eastern philosophy cultures tend to foster an interdependent self-construal, thus being more attentive to the "other" feelings and thoughts. Whereby western philosophy cultures tend to beget views consistent with the independent self-construal, thus being more in charge of your own thoughts and behaviors (Singelis, 1994). To further expand our knowledge of cultural identity, the components of interdependent self-construal that can be found in collectivistic cultures should be explored.

Mental Health Stigma & Cultural Identity

Mental health stigma is still a problem in modern society and has been portrayed inaccurately and harmful to the mental health community. In past research when assessing for mental health stigma most Americans were uneducated on mental health through media, gossip,

news etc. (Borinstein, 1992). Through there is more accurate representation there seems to be a lingering prejudice that comes with those having a mental illness. In general, there is a little knowledge and education about understanding mental health and the effects it has had on the community. Primarily with people of color there seems to be more stigma or prejudice that comes with mental health. Research has shown that examples of stigma for mental illness can be found in many cultures from insular to eclectic (Abdullah & Brown, 2011). From my cultural experience those with a lack of mental stability is deemed as shameful, unholy, fake, and something that must be ignored. Sometimes, mental health is not even a welcome topic of conversation at the prototypical dinner table --- because of the belief that “it doesn’t affect this family.” Even if some relatives have a mental health issue, it will be ignored and never brought to full attention and rather be deemed – it is for those who are “crazy” instead. This prejudice should be furthered explored through cultural identity and how culture relates to mental health stigma. Since there is an unequal distribution in mental health stigma in mainly collectivistic cultures, what are the leading factors to this prejudice? According to Whaley (1997), people in Hispanic, Black, and Asian-pacific Islander communities perceived the dangerousness of mentally ill people more than white participants even after these cultures had high levels of contact with mentally ill people. Knowing there is an unequal prejudice in these cultures when compared to white participants must be explored in research more often. We can consider that mental health stigma affects cultural identity and cultural identity impacts mental health awareness.

Constructing Cultural Identity

Therefore, understanding the complexities of cultural identity through how close these participants feel with their culture can shed light on their mental health stigma and awareness.

Those who are “closer” to their culture will accept the traditions or feel a sense of pride to be a part of their culture. In these collectivist cultures there is a pattern of stigma that could be tailored towards cultural pride. In fact, individuals who have a lot of cultural pride and upbringing can shape their identity based on their culture and cultural experiences (Phinney & Ong, 2007). Further exploring pride and closeness of culture can bring about more understanding of what makes up cultural identity. In turn if we understand where these ideals originate from then we can make strides to better help those with stigmatizing ideals without disregarding their cultural experience. This is one of the main reasons why it is necessary to understand cultural identity in participants and in turn its influence on mental health awareness. Furthermore, if our identity impacts our way of thinking, behaving, etc. it is crucial to understand that culture is one of those major identities.

Since cultural identity can impact who we interact with, what we perceive about mental health, and even how we behave. It could also unconsciously restrict us in finding mental health services due to the stigma around mental health. Specifically, college students come in with heavy influences of their culture and family upbringing. The college setting is the one of the first times when students can expand beyond their cultural restrictions or even strengthen them. It is not easy to expel out all the knowledge given to you at such a young age. During a young age we not only develop a form of attachment but our self-concept is strengthened through culture and society through interdependent and independent self-construal. These construal's allow us to understand how the self regulates behavior (Markus & Kitayama, 1991). Especially in college settings where there is more cultural discourse among students, faculty, and administrators, standard scales might lack the depth and specificity of the whole cultural experience. From my personal experience, typical items of a standardized scale would seem to be concerned with the

bulk of “it” or the essential knowledge that might relate to cultural identity closeness and mental health awareness. Coming from an American Latinx culture, some of those questions do not match my cultural identity. To have a better understanding of what makes up cultural identity and how individual’s feel about their culture, open-ended questions are needed to investigate that.

One of the main aims of this study it to further understand the relationship between cultural identity closeness and mental health awareness through open-ended questions. Research should be tailored on how culture impacts perceptions of mental health, mental illness, and stigma about mental illness. Existing research on this relationship (Abdullah & Brown, 2011) fails to consider the effect of cultural experience. What seems to be missing in the literature is a study that is person-centered and considers identity. Cultural identity is a huge factor that is scarce in research specifically pertaining to mental health awareness. Mental health stigma is already an issue in modern society. This lack of mental health awareness is known, and some would lament that it does not get the proper attention it deserves (Phinney, 1992), but there is little being done from an insider’s perspective. Having a researcher who comes from a collectivistic culture and is dedicated to mental health can make a huge impact on the process of research. An insider prospective (i.e a Latinx college student) allows a more open approach without intruding into other cultures.

From personal experience, there is much that can be understood and portrayed in research about cultural identity that is not necessarily found in Phinney’s MIEM scale. This scale focuses on proximity and exclusion from culture and while it can influence us it is not what makes individuals’ cultural identity strong or concise. As Schwartz (1999) reported those participants who filled the opened-ended questions were more descriptive and did not have the same answer

when met with multiple choice. Furthermore, they edit their answers to match the researcher's descriptions in multiple choice, but they become truer and more uncensored in open-ended questions. Thus, this current study is using open-ended questions to allow participants to explain how they identify with the values, ideals of their culture as well as having standard scales to measure their proximity / exposure with their own ethnicity/ culture.

Cultural Identity Closeness and Mental Health Awareness

Therefore, I developed a new assessment for cultural identity closeness and mental health awareness to help us understand how much college students connect to their culture and how their culture affects their awareness for mental health. The Cultural Identity Closeness (CIC) assessment is used to measure how close the participants feel to their culture through practices, friendships, career goals etc. In the CIC assessment participants are given free range to explain what they think about their culture and if they believe they are close to it. They can expand on their own beliefs and the beliefs of their culture. In this assessment I strive to get a better idea of how they feel and if they actively use their culture to connect with others and go through life. The Mental Health Awareness (MHA) assessment is used to measure how much participants understand about mental health and if they have an awareness of the practices and mental illnesses. The questions in the MHA assessment are more direct in how the participants talk about mental health and their culture, allowing a wide range of their awareness.

If mental health awareness is influenced by cultural identity, then an open assessment is needed to explore the components of cultural identity to pinpoint these ideals because identity shapes our perceptions and behaviors. Although the constructs of both culture identity and mental health awareness are comprised of many psychological and social dimensions, the specialized literature recognized them as separate unique constructs. Therefore, a preliminary

expectation is that our results will yield a clear understanding that variability around questions on both topics (culture identity and mental health awareness) will be underpinned by one dimension each.

Moreover, there are two sets of hypotheses that can be made. 1) There will be a strong negative correlation between closeness to cultural identity and mental health awareness. This hypothesized relationship will also be explored in light of the participants' background characteristics.

2) Individuals who are more interdependent with group normative values could also see mental health less favorably than those who are either more independent in their self-construal or associate with cultures that nurture positive beliefs about mental health. Since many collectivistic cultures have negative ideals in regard to mental health it can be expected that those with more cultural identity have negative ideal as well.

For the first hypothesis this relationship will be tested numerically even though the participants' responses will be in words with the use of cultural sensitivity coding assessment procedures. The numerical part of this study will help to test the corollary culture differences hypothesis, assuming that there could be culture differences in the relationship between culture identity and mental health awareness. For the second hypothesis I also realized, that much of the verification of this working hypothesis is however dependent on the identification of cultural core beliefs associate with stigma about mental illness – those that I am trying to identify in this study.

Method

Participants

101 participants were recruited from the Baruch College subject pool in exchange for partial credit toward their course requirements. Six participants were excluded from the final analysis due to incompleteness of over 20% of the survey. A total of 63 females and 29 males (4 students did not disclose their sex) completed the survey. Thus, I was able to test the hypotheses based on 95 participants' responses to a study survey. The race background of participants was 21% White, 16% Hispanic, 4% Black, 1% Mexican American and 57% Asian or Asian American (three students did not report their race).

Procedure

Participants were asked to partake in an online survey sent through Baruch's SONA database. Their participation was entirely on a volunteer basis, but they received one SONA credit as compensation for their time. The participants' main task was to complete the survey. The survey was presented in a fully online platform named *Qualtrics*, which represents the gold standard among the software products for remote survey research. Two other key features of this online platform are: 1) the ability to record encrypted data and 2) and the option to respond anonymously to the study questions. The City University of New York IRB approved the study procedure (2020-0326).

The survey was presented as a one-day task to each participant individually. Though participants answered the full survey in one sitting, I have broken it into three main parts below for ease of explanation. The first part of the survey involved two sets of open-ended questions around the themes of cultural identity and formed beliefs about mental illness and mental health practices. The second part of the survey comprised standard questionnaires on mental health awareness and culture identity, in addition to a scale that measured participants' self-construal. The third part was a set of demographic questions.

Survey Part 1. Open-ended Questions. Participants were asked open-ended questions about their core beliefs on culture, and mental health. This is the novel part of this study created with the help of a renowned cultural psychology expert. There are six questions in the Cultural Identity assessment and five questions in the Mental Health assessment. Some examples of Cultural Identity questions are, “How do you feel your culture impacts your relationship with other people?” and “How close do you feel to your culture? Why?” Some examples of questions for mental health awareness are “When you hear the phrase mental health what thoughts come to mind? Why do you think those specific thoughts come to mind?” and “How does your family talk about mental health? Why do you think that is?”

In the first set of questions that assess cultural identity, my research assistant and I were coding for how close the participants are to their culture and how elaborate are they in answering the question. Closeness was measured through three categories: 1) if participants are exposed to their culture, 2) whether they embody their culture through practice, beliefs, values etc., and 3) if they accept their cultural views (or have no negative views). If participants have all three measures of closeness, they received a score of three; if they have only two categories, they received a score of two; and so on. Those with a three are closer to their culture; those with a two are somewhat close; and lastly those with a one are not close at all. Those participants who did not answer the question at all, or did not in any way have at least one of the categories for closeness, were coded with “zeros.” (as a side note, no zeros were recorded right/) Assessment of elaboration comprised three parts: 1) if participants fully answered the question, 2) if they explained their answer, and 3) if they gave examples. This new assessment of closeness was used to allow participants to freely discuss their culture and have a coding system to find quantitative patterns.

The table below shows how the Cultural Identity Closeness (CIC) assessment was coded on a scale of one to three. For example, take the participants labeled “A”, they subtly explain their closeness. They may not state it so clearly, but by their statement we can see that they enforce their culture by creating relationships with others to become family. They are surrounded by their culture because they have relationships with those of similar cultures, and they accept their culture because there is no rejection or negative connotations. Now take the participant labeled “B”, who received a score of 2. They reported being exposed to their culture, because they state it may affect their relationship with others, and their culture is reinforced only if they meet people of different cultures. But there is no embodiment of their culture with these relationships. Lastly, the participant labeled “C” is very vague with their answer, and you cannot really account for embodiment or exposure of their culture. Since they have a positive answer, though, they were coded with a one.

Cultural Identity Closeness (CIC) Coding		
Question 5. How do you feel your culture impacts your relationship with other people?	Elaboration on Closeness	Closeness
A. It makes me want to be closer to them and make them feel as if they are part of my family. Make them feel comfortable	3	3

<p>B. I believe that it does not affect my relationship. It might affect my relationship with other people if they have different cultural beliefs</p>	<p>2</p>	<p>2</p>
<p>C. I feel that it's a good thing in its own way</p>	<p>1</p>	<p>1</p>

In the second section of questions that assess for mental health stigma, we are coding for participants’ awareness of mental health as well as how much they elaborate in their answers. Elaboration coding is the same as for the cultural identity assessment. When coding for awareness, we measured participants on: 1) their knowledge about mental health, 2) their willingness to learn more or strive to educate others, and 3) positive attributions or no stigmatizing views. If participants have all three of these measures for awareness, they receive a score of three; if they have only two categories, they receive a score of two; and so on. Those with a three are more open; those with a two are somewhat close; and lastly those with a one are not close at all. Those participants who did not answer the question at all or did not in any way have at least one of the categories for awareness, were coded with zeros.

The table below shows how the Mental Health Awareness (MHA) assessment was coded on a scale of one to three. For example, the table groups participants under “A.” they have no negative attributions in their phrase and explain mental health with some background knowledge. Their response is also explicit about their willingness to learn more. Now take the participant labeled, “B”, they have no negative attributions, and some knowledge about mental health, but

they show no willingness to educate or learn more. Lastly, participant labeled “C” spoke about mental illness and has knowledge, but there are negative connotations, and they have no willingness to learn more.

Mental Health Awareness (MHA) Coding		
Question 1: When you hear the phrase mental health what thoughts come to mind? Why do you think those specific thoughts come to mind?	Elaboration on Openness	Openness
A. When I hear mental health i think about therapy and phycological issues. I think about the stigma many people have about this topic. I am also little bit ignorant to the truth about it but I am open to learn about it.	2	3
B. I would think of meditation and relaxing because that will really help if you are dealing with mental issues. It is also a great way	2	2

<p>C. The first thing that came to my mind is mentally ill people that are in asylums. And I think that came to my mind because in my culture, people that have extremely different thoughts than those around them are considered "crazy" or not viewed as normal.</p>	<p>3</p>	<p>1</p>
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There were two researchers who become coders of the participants' responses. I was coder number 1, so I was not blind to the hypothesis but unaware of participants' background characteristics as well as to who provided the responses to be coded. The second coder was fully blind to the hypothesis and other participants' characteristics or research procedure. The fully blind coder was however, extensively trained on how to code for closeness and openness and their elaboration. We both coded separately and came together to analyze their differences. Less than 5% of disagreements were resolved via discussion.

The final internal consistency of the coded items was also tested for internal reliability. Regarding Culture Identity, the Cronbach's alpha = 0.81 for closeness and the Cronbach's alpha = 0.86 for elaboration. Regarding Mental Health, the Cronbach's α = 0.73 for awareness, and the Cronbach's alpha = 0.76 for elaboration.

Survey part 2. The Multigroup Ethnic Identity Measure (MEIM) (Phinney, 1992) consists of 14 items assessing three aspects of ethnic identity; positive ethnic attitudes and sense of belonging (5 items, alpha of Cronbach = 0.64 in this sample); ethnic identity achievement, including both exploration and resolution of identity issues & times (7 items, alpha of Cronbach = 0.14 in this sample) and ethnic behaviors or practices (2 items). This measure also has six items to assess for another group orientation an ethnic group outside of their own (alpha of Cronbach = 0.75 in this sample). Because of the low subscale's reliability in this sample, I preferred to use an overall index by summing the item into a total score (alpha of Cronbach = 0.76 in this sample) A 4 -point scale was used (1 = Strongly disagree, 4 = strongly agree) to record participants' responses. Examples of some of the questions are, "I have spent time trying to find out more about my own ethnic group, such as its history, traditions and customs" and "I like meeting and getting to know people from ethnic groups other than my own." Those who score closer to strongly agree will have a stronger ethnic identity, thus those who score closer to strongly disagree are those who have weaker ethnic identity, according to this MEIM scale.

The Beliefs Towards Mental Illness (BMI) scale (Hirai, & Clum, 2018) is used to measure negative stereotypes towards individuals' views on mental illness and assess three factors; 1) Dangerousness (Cronbach α = 0.86 in this sample), 2) Poor interpersonal and social skills (Cronbach α = 0.91 in this sample) and 3) Incurability (Cronbach α = 0.86 in this sample). In this scale the participants state how much they agree on a 6-point Likert scale ranging from completely disagree to completely agree. An example of some of the questions are, "I would be embarrassed if a person in my family became mentally ill." and "A mentally ill person is more likely to harm others than a normal person." Those who score closer to completely agree have

more negative beliefs toward mental illness, thus those who score closer to completely disagree have a more positive belief towards mental illness.

The last measurement is the Self-Construal Scale with the standard 24 questions from the Singelis (1994). The scale consists of 12 questions that measure independence “I (Cronbach α = 0.85 in this sample)) and 12 questions that measure interdependence “We” (Cronbach α = 0.84 in this sample). This scale measures individuals self-construct whether they are more focus on the others then individual and vice versa. All questions are measured on a 7-point Likert scale from strongly agree (1) to strongly disagree (7). An example of some interdependent self-construal question are, “It is important for me to maintain harmony within my group and “It is important to me to respect decisions made by the group.” Some examples of independent self-construal questions are, “I’d rather say “No” directly, than risk being misunderstood,” and “I am comfortable with being singled out for praise or rewards.” Those who score closer to seven or strongly disagree on either the independent or interdependent have a lower connection with that self-construct, thus those who score closer to one or strongly agree on either have a higher connection to that self-construct.

Survey Part 3. To get a better idea of who is partaking in this study, the participants were asked their age, gender, race, culture, and their proficiency in English. Age ranged from 18 to 34. The choices for race were Mexican American, Hispanic, Black, American Indian, Asian-American, Anglo-American, and White. English proficiency asked on a scale of 1 to 10 how proficient they were in reading, writing, speaking, and understanding English. Ethnicity had the same as race with an addition of mixed and other – all participants were proficient English speakers.

RESULTS

Validation of the two scores of Cultural Identity Closeness and Mental Health Awareness

This section describes the validation of the scores of the newly developed assessment for Cultural Identity Closeness and Mental Health Awareness. When discussing the tables I use the term openness (awareness) and clarity (closeness) interchangeably. Here the main purpose was to understand the dimensionality of the coded responses to each of the questions (see coding procedure above).

As a methodological note, one could consider a variety of approaches to understand the results from the open-ended written questions I asked to the participants. Together with my supervisor, I decided to analyze the underlying structure of the responses from our participants. This is motivated by the fact that both culture identity and mental health awareness although multifaceted have been understood in the literature as distinct one-dimensional constructs. A technique that really is useful for this purpose is called factor analysis. The results described below are based on the answers that were given to the two sets of questions. The first set of questions is about culture identity closeness, and the second set of questions is about mental health awareness.

At the outset of the results, one should consider that the inter-correlation results among the coded responses for each item of the two sets of questions were high in value (see appendix for a complete report of the intercorrelation results). The principal component analysis was then performed to understand the underlying structures (separately) of Culture Identity Closeness and Mental Health Awareness.

*Culture Identity Closeness (Factor Analysis)***Table 1: Cultural Identity Closeness Principal Component**

	Component	1
1		0.50
2		0.46
3		0.61
4		0.66
5		0.70
6		0.77
7		0.67
8		0.69
9		0.65
10		0.43
11		0.78
12		0.65
13		0.79
14		0.64
15		0.67
16		0.63
Extraction Method: Principal Component Analysis.		
a 1 components extracted.		

The eight questions for the CIC assessment were coded twice for elaboration and clarity (closeness), creating the 16 components in Table 1. Components 1-8 code the elaboration for each question; components 9-16 code the openness for each question.

An exploratory factor analysis was performed with principal component method on the original 16 components as they were coded to represent indexes of culture identity. I measured individual differences in Cultural Identity Closeness using eight components; the remaining eight components were used to measure clarity of elaboration in CIC.

To determine which principal components were significant and interpretable enough to retain, I used the following approach. First, a scree plot analysis was performed as shown in Figure 1 where the leveling off of the curve starts after the first eigenvalue. In Table 2 the eigenvalues were reported. Please note that the difference between the first and the second eigenvalue is more than 31%. The additional “jumps” or increments in explained variance (i.e. from the second eigenvalue to the third eigenvalue, from the third eigenvalue to the fourth

eigenvalue, etc.), are smaller than 2%. The explained variance by the first component is over 42%. Lastly, an exploratory factor analysis with 2, 3, and 4 components (there are only 4 components about the critical value of 1) yielded uninterpretable results. In Table 2 the factorial loadings of the variables on the retained principal component are significant and higher than a conservative critical cutoff point of 0.40.

Figure 1

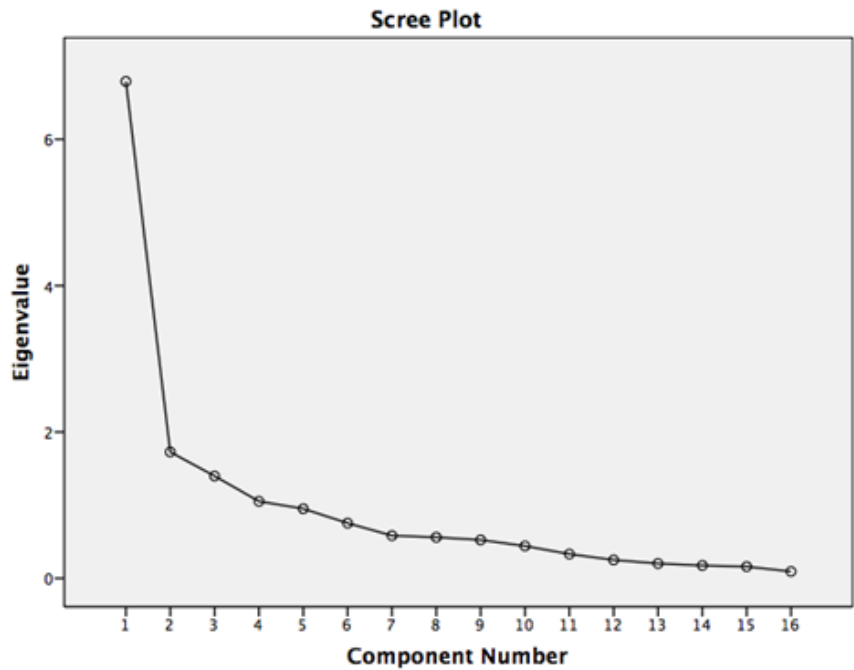


Table 2

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %

1	6.792	42.448	42.448
2	1.727	10.792	53.24
3	1.398	8.739	61.979
4	1.052	6.578	68.557
5	0.951	5.946	74.503
6	0.754	4.714	79.216
7	0.584	3.649	82.865
8	0.561	3.505	86.37
9	0.525	3.281	89.652
10	0.442	2.76	92.411
11	0.332	2.074	94.485
12	0.251	1.57	96.056
13	0.202	1.264	97.32
14	0.175	1.095	98.414
15	0.16	1.001	99.415
16	0.094	0.585	100

Extraction Method: Principal Component Analysis.

Mental Health Awareness (Factor Analysis)

An exploratory factor analysis was performed with principal component method on the original 12 items as they were coded to represent indexes of Mental Health Awareness.

For Table 3 the six questions for MHA assessment were coded twice for elaboration and openness (awareness), creating the 12 components.

Table 3: *Mental Health Awareness Principal Component*

Component		1
1		0.74
2		0.63
3		0.61
4		0.59
5		0.74
6		0.67
7		0.62
8		0.63
9		0.68
10		0.63
11		0.64
12		0.51

Extraction Method: Principal Component Analysis.
a 1 components extracted.

I measured individual differences on a sense of awareness to the mental health stigma and mental illness using six items, whereby the remaining six items were used to measure a clear elaboration on their awareness to mental health stigma and mental illness.

To determine what principal components were to be retained I used the following approach. First, a performed scree plot analysis described in Figure 2. Here, the leveling off the curve starts after the first eigenvalue. In the Table 4 the eigenvalues are reported. Please note that the difference between the first and the second eigenvalue is more than 30%. The additional “jumps” or increments in explained variance (i.e. from the second eigenvalue to the third eigenvalue, from the third eigenvalue to the fourth eigenvalue, etc.), are smaller than 2%. The explained variance by the first component is over 41%. Lastly, an exploratory factor analysis with 2, 3, and 4 components (there are only 3 components about the critical value of 1). In table 4 the factorial loadings of the variables on the retained principal component are significant and higher than a conservative critical cutoff point of 0.50.

FIGURE 2:

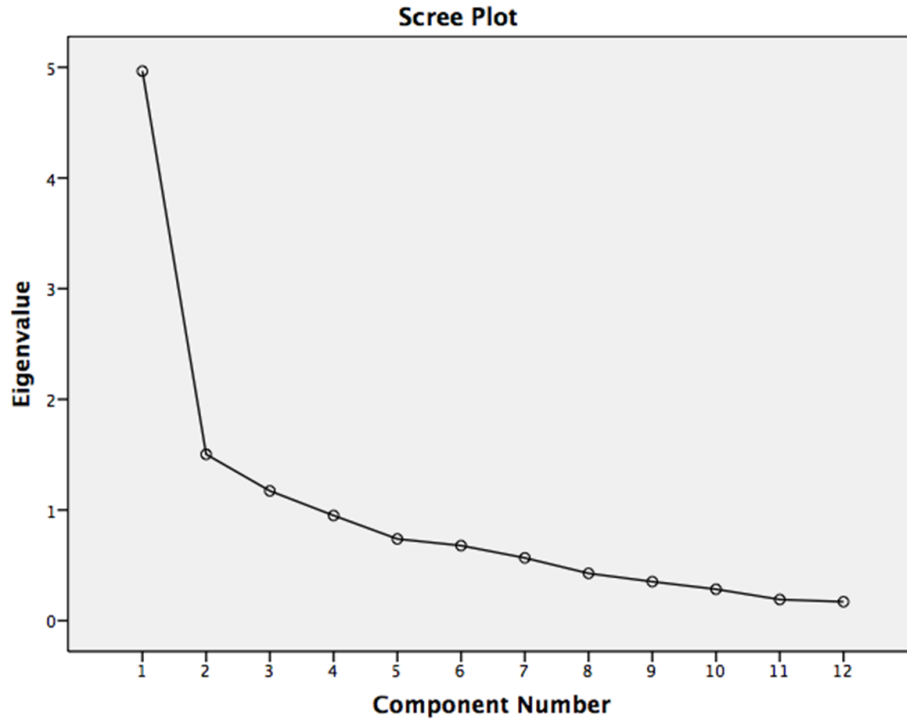


Table 4

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	4.966	41.38	41.38
2	1.503	12.524	53.904
3	1.172	9.771	63.675
4	0.95	7.918	71.592
5	0.738	6.154	77.746
6	0.678	5.65	83.397
7	0.567	4.725	88.122
8	0.427	3.561	91.683
9	0.352	2.937	94.619
10	0.284	2.366	96.985
11	0.191	1.592	98.577
12	0.171	1.423	100

Extraction Method: Principal Component Analysis.

Relationship among Demographics, Culture Identity Closeness, and Mental Health Awareness

After having validated two principal components, one named “Culture Identity Closeness,” while the other named “Mental Health Awareness”, I turn now to the testing of these research hypotheses. At outset of the hypothesis testing, I should mention that I retained the factor scores of each component. This was to assure that only the common variance explained by each component was computed in our analysis. As common practice in factor analysis, these two factor scores are computed on the known normal distribution of z-scores ($M = 0$; $SD = 1$). It is then possible to apply inferential statistics to the testing of our hypotheses.

With our first hypothesis, I proposed that there might be culture differences in the relationship between culture identity closeness and mental health awareness. I have found that in the sample there were no statistical differences measured by any demographic information of our participants where all the statistical analysis performed yielded probability values well above 0.05. Specifically age was not correlated with the two factor scores (Culture Identity Closeness $r = 0.12$, $p > 0.10$; Mental Health Awareness $r = 0.13$, $p > 0.10$); male, female, or undisclosed gender mean scores did not differ on Culture Identity Closeness ($F = 0.15$, $p > 0.10$) or on Mental Health Awareness ($F = 0.28$, $p > 0.10$); Asian, Latino, White or Other Defined Culture mean scores did not differ on Culture Identity Closeness ($F = 0.64$, $p > 0.10$) or on Mental Health Awareness ($F = 0.62$, $p > 0.10$).

However, Culture Identity Closeness and Mental Health Awareness factor scores were significantly correlated ($r = 0.52$, $p < 0.01$). This indicates a strong relationship between Cultural Identity Closeness and Mental Health Awareness, which indirectly prove two points. First, there exists a direct relation between one’s own sense of cultural identity and a positive attitude toward

mental health. Second, as a corollary of the first point, the strong relationship does not seem to be affected by background or demographic characteristics among a sample of college students.

Relationship among BMI, MEIM, Culture Identity Closeness, and Mental Health Awareness

The two factor scores were correlated with the subscales of the BMI and the total score of the MEIM. Based on the results reported in Table 5 two discussion points can be made. First, the MEIM total scores do not correlate with scores on Culture Identity Closeness or scores on Mental Health Awareness.

Table 5: CIC & MHA correlation with MIEM & BMI

		MEINT	Dangerousness	Incurability	Poor Social Skills
CICFS	Pearson Correlation	0.04	-0.15	-0.15	-.22*
MHAFS	Pearson Correlation	0.02	-0.04	-0.04	-0.18

* Correlation is significant at the 0.05 level (2-tailed).
 BMI Scale: Dangerousness, Incurability, Poor Social Skills
 CIC: Cultural Identity Closeness
 MHA: Mental Health Awareness
 MIEM: Multigroup Ethnic Identity Measure

Recall, the MEIM indicated poor reliability within its subscales thus, making it less relatable to the other measures in the study. Secondly, the index of BMI is only related to the Culture Identity Closeness factor scores, which is a good sign of the construct validity for the newly developed assessment on cultural closeness.

Relationship among Self-Construal, Culture Identity Closeness, and Mental Health Awareness

The second hypothesis, which was that the concept of self-construal could relate to CIC and MHA differently. In the sample there were 49 students who were identified by the Singelis’s scale as “We”, 45 students who were identified by the Singelis’s scale as “I,” and one student who did not respond to the Singelis’s scale (Singelis, 1994). There were no statistical differences between the average scores of the “We” and “I” students in the sample on the Culture

Identity Closeness factor scores ($F = 0.21, p > 0.10$) and on the Mental Health Awareness factors ($F = 0.40, p > 0.10$).

Discussion

Two ideas motivated this work -- hence the aim of this study. This study's aim was directed at the refinement of the measures used to gauge cultural identity and mental health awareness among a sample of college students. In fact, I did not believe that such measurement necessarily must be drawn upon standard testing. To respond to this point, I created a novel assessment based on a semi-structured interview to measure culture identity and mental health awareness of our participants. The second aim of this study was to validate the relationship between the novel assessment procedure for culture identity closeness and mental health awareness with the extant literature as well as the participants' background information, including their self-construal.

After carefully examining the dimensionality of this novel assessment, via an explorative factor analysis, I identified two factors. The first factor called "*Culture Identity Closeness (CIC)*" presented robust psychometric characteristics. Also, the second factor named "*Mental Health Awareness (MHA)*" had strong psychometric features. Both factors enabled us to test the hypothesis that higher Cultural Identity Closeness would influence Mental Health Awareness. First, this relationship was established with a correlation between factor scores. Specifically, those with a positive score on CIC had also high scores on MHA. This goes against my hypothesis considering previous literature (Abdullah & Brown, 2011) has found that collectivistic cultures have mental health stigma and this should be explored further.

A few more considerations could also be made regarding the relation between CIC and MHA on one side, and the standard mental health measures (MEIM) as well as culture identity (BMI) on the other side. There were no correlations for MEIM with CIC or MHA. This is mostly due to the fact in our sample the MEIM subscales achieved very low reliability. In fact, many researchers have called into question the validity of the MEIM scales. This could mean that either our newly developed scales do not share a construct with the MEIM scales, or that further research is necessary the newly developed scales construct validity. There were inverse correlations on the BMI (poor social skills). This is a proof for the construct validity of CIC and MHA.

While it is important to note that these factor scores correlated above 0.50 and explained a large portion of the original variance gathered through the open-ended survey questions -- in the future, it would be useful to further analyze their relationship. One component of this prospective analysis could be done via normative assessment procedure. For example, when more students will partake our survey it would be possible to compare a large set of interviews. One could locate how an individual would compare with respect to others, and if the individual's responses will vary from one question to another. This is in principle could also lead to an idiographic profile analysis, which has proven to be very effective when designing intervention procedures.

Perhaps to further the analysis of these two newly identified factors could be the implementation of a thematic analysis program (i.e. NVIVO) to further explore the patterns of CIC and MHA. This is promising to truly underscore some of the nuances of culture and mental health thematic analysis will go help to address these issues or patterns in the future. I could establish a more direct relationship between closeness to one's culture and awareness mental

health theory and practice, as well as the allowance for treatment of mental illness. Having a more open approach will help get to the rooted themes on this relationship. To further expand future research having specific cultures (i.e Black, Asian, Latinx) assessed can show differences of mental health awareness in these groups. Possibility of difference levels of mental health awareness comes in different collectivistic cultures.

Regarding the second aim and correlated set of hypotheses, I could not help but notice that the relationship between the two factors remained robust across all the various types of cultures, participants' gender and type of self-construal. Regarding mental health stigma there is previous research that shows college students have fewer stigmatizing views than those who are experiencing mental illness (Day et al., 2007). There are patterns to the awareness of college students compared to other groups that should be noted. Typically, in any college settings students have an opportunity to challenge ideals and values of their own while assimilating to the "other." A reason for this could be due the diversity of our college. Baruch College indeed boasts a large diversity while historical underrepresented minorities constitute most of the student body.

As shown in the results there is a positive correlation between CIC and MHA which contradicts my original hypothesis. However, after a secondary examination this positive correlation could make sense. One needs to consider that sample was coming from a college student population. Among college students there is often a more pronounced need for exploration. It is quintessentially the being in college phase of life.

This phase of life could explain our findings. What is more, due to the global pandemic all involved (i.e. media, college professor, college officials, college students, ordinary people at the proverbial dinner table, etc.) have started to talk about mental health. This heightened sense of awareness about mental health and its importance could have indirectly influenced my results

here. I used the word indirectly because as there is no cause-and-effect relationship that can be systematically traced from the aftermath of the COVID-19 pandemic and my thesis. It is true, however, that the pandemic contributed to depression and a less sense of efficacy overall (Ritchie et al., 2021).

In closing, I would also like to point out that our study sample was indeed very diverse, and willing to talk about both their culture while expressing own nurtured ideas around a host of mental health themes. This study shows supports that all cultures would foster good awareness of the importance of mental health. Perhaps the notion is that students coming from a culture in which mental health is not viewed favorably have processed where they stand with respect for their cultural values and own sense of meaning. This could mean that diverse students have done their cultural work while assimilating to the university worldview of mental health – This is a step in the right direction.

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APPENDIX

Quantitative Scale

The Multi-group Ethnic Identity Measure

Please fill in:

In terms of ethnic group, I consider myself to be

Use the numbers given below to indicate how much you agree or disagree with each statement

1. I have spent time trying to find out more about my own ethnic group, such as its history, traditions and customs
2. I am active in organizations or social groups that include mostly members of my own ethnic group
3. I have a clear sense of my ethnic background and what it means for me
4. I like meeting and getting to know people from ethnic groups other than my own.
5. I think a lot about how my life will be affected by my ethnic group membership
6. I am happy that I am a member of the group I belong to
7. I sometimes feel it would be better if different ethnic groups didn't try to mix together
8. I am not very clear about the role of my ethnicity in my life
9. I often spend time with people from ethnic groups other than my own
10. I really have not spent much time trying to learn more about the culture and history of my ethnic group
11. I have a strong sense of belonging to my own ethnic group
12. I understand pretty well what my ethnic group membership means to me, in terms of how to relate to my own ethnic group and other groups
13. In order to learn more about my ethnic background, I have often talked to other people about my ethnic group
14. I have a lot of pride in my ethnic group and its accomplishments
15. I don't try to become friends with people from other ethnic groups
16. I participate in cultural practices of my own group, such as special food, music, or

customs

17. I am involved in activities with people from other ethnic groups

18. I feel a strong attachment towards my own ethnic group

19. I enjoy being around other people from ethnic groups other than my own

20. I feel good about my cultural or ethnic background

21. My Ethnicity is

1. Asian, Asian American or Oriental

2. Black or African American

3. Hispanic or Latino

4. White, Caucasian, European, not Hispanic

5. American Indian

6. Mixed; parents are from two different groups

7. Other (Write in)

22. My father's ethnicity is (Use numbers above)

23. My mother's ethnicity is (Use numbers above)

Belief Towards Mental Illness Scale

Factor 1: Dangerousness

1. A mentally ill person is more likely to harm others than a normal person.
2. Mental disorder would require a much longer period of time to be cured than would other general diseases.
3. It may be a good idea to stay away from people who have psychological disorder because their behavior is dangerous.
6. Mentally-ill people are more likely to be criminals.
13. I am afraid of people who are suffering from psychological disorder because they may harm me.

Factor 2: Poor interpersonal and social skills. 26.3

4. . The term “Psychological disorder” makes me feel embarrassed.
5. A person with psychological disorder should have a job with minor responsibilities.
8. I am afraid of what my boss, friends, and others would think if I were diagnosed as having a psychological dis- order.
11. It might be difficult for mentally-ill people to follow social rules such as being punctual or keeping promises.
12. I would be embarrassed if people knew that I dated a person who once received psychological treatment.
14. A person with psychological disorder is less likely to function well as a parent.
15. I would be embarrassed if a person in my family became mentally ill.

8. Mentally-ill people are unlikely to be able to live by themselves because they are unable to assume responsibilities.
9. Most people would not knowingly be friends with a mentally-ill person.
10. I would not trust the work of a mentally-ill person assigned to my work team.

Factor 3: Incurability 13.9

7. Psychological disorder is recurrent.
9. Individuals diagnosed as mentally ill will suffer from its symptoms throughout their life.
10. People who have once received psychological treatment are likely to need further treatment in the future.
4. I do not believe that psychological disorder is ever completely cured.
5. The behavior of people who have psychological disorders is unpredictable.
6. Psychological disorder is unlikely to be cured regardless of treatment.

Self-Construal Scale

Interdependent Items

1. I have respect for the authority figures with whom I interact.
2. It is important for me to maintain harmony within my group.
3. My happiness depends on the happiness of those around me.
4. I would offer my seat in a bus to my professor.
5. I respect people who are modest about themselves.
6. I will sacrifice my self-interest for the benefit of the group I am in.
7. I often have the feeling that my relationships with others are more important than my own accomplishments.
8. I should take into consideration my parents' advice when making education/ career plans.
9. It is important to me to respect decisions made by the group.
10. I will stay in a group if they need me , even when I'm not happy with the group.
11. If my brother or sister fails, I feel responsible.
12. Even when I strongly disagree with group members, I avoid an argument.

Independent Items:

13. I'd rather say "No" directly, than risk being misunderstood.
14. Speaking up during a class is not a problem for me.
15. Having a lively imagination is important to me.
16. I am comfortable with being singled out for praise or rewards.

17. I am the same person at home that I am at school.
18. Being able to take care of myself is a primary concern for me.
19. I act the same way no matter who I am with.
20. I fell comfortable using someone’s first name soon after I meet them, even when they are much older than I am.
21. I prefer to be direct and forthright when dealing with people I’ve just met.
22. I enjoy being unique and different from others in many respects.
23. My personal identity independent of others, is very important to me.
24. I value being in good health above everything.

Qualitative Scales

Cultural Identity Assessment	Mental Health Assessment
<p>1. How close do you feel to your culture? Why?</p>	<p>1. When you hear the phrase mental health what thoughts , images, and/ or people come to mind? Why do you think those specific thoughts, images and / or people come to mind?</p>
<p>2. How did you learn about your culture? (I.e through institutions, practices)</p>	<p>2. When you think about your culture what kind of stories do people tell about mental health?</p>

<p>3. What kind of values, beliefs and practices are a part of your culture?</p> <p>3a. Which of these values, practices, do you accept? Why?</p> <p>3b. Which do you reject or have a different perspective of from your culture? Why?</p>	<p>3. What kind of stories do you have about mental health?</p>
<p>4. How do you feel that your culture impacts your day to day life decisions (work related decisions, what major you choose)</p>	<p>4. How does your family talk about mental health? Why do you think that is?</p>
<p>5. How do you feel your culture impacts your relationship with other people?</p>	<p>5. How has your circle of friends talk about mental health? Why do you think that is?</p>
<p>6. How do you feel having similar of different cultural values in others impact your relationship?</p>	

INTERCOLLEATIONS AMONG ITEMS FOR MENTAL HEALTH

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
q1	elaboration	1										

Cultural Identity and Mental Health Awareness

	openness	.53**		1																		
q1a	elaboration	.56**		.39**		1																
	openness	.39**		.64**		.70**		1														
q2	elaboration	.61**		.51**		.54**		.45**		1												
	openness	.58**		.63**		.43**		.43**		.71**		1										
q3	elaboration	.46**		.26*		.014		.02		.38**		.25*		1								
	openness	.38**		.26*		.012		.017		.38**		.37**		.73**		1						
q4	elaboration	.58**		.33**		.36**		.23*		.45**		.44**		.35**		.25*		1				
	openness	.48**		.37**		.23*		.26*		.50**		.47**		.27*		.41**		.40**		1		
q5	elaboration	.43**		.27*		.35**		.02		.32**		.30**		.44**		.42**		.50**		.22*	1	
	openness	.23*		.26*		.33**		.22*		.34**		.01		.30**		.34**		.24*		.018	.53**	1

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

INTERCORRELATIONS AMONG ITEMS FOR CULTURE

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	
q1	Elaboration	1.0															
	Clarity	.51**	1.0														
q2a	Elaboration	.46**	.44**	1.0													
	Clarity	.46**	.58**	.73**	1.0												
q2b	Elaboration	.40**	.02	.41**	.42**	1.0											
	Clarity	.36**	.32**	.44**	.49**	.83**	1.0										
q3a	Elaboration	.35**	.02	.46**	.41**	.56**	.52**	1.0									
	Clarity	.34**	.32**	.41**	.52**	.52**	.53**	.74**	1.0								
q3b	Elaboration	.25*	.01	.30**	.32**	.51**	.57**	.48**	.36**	1.0							
	Clarity	.30**	.33**	.27**	.39**	.020	.26*	.32**	.59**	.01	1.0						
q4	Elaboration	.31**	.21*	.36**	.41**	.45**	.55**	.44**	.46**	.49**	.24*	1.0					
	Clarity	.020	.27**	.22*	.26*	.40**	.45**	.33**	.34**	.41**	.020	.62**	1.0				
q5	Elaboration	.31**	.27**	.40**	.38**	.45**	.55**	.43**	.44**	.48**	.020	.67**	.53**	1.0			
	Clarity	.020	.34**	.24*	.32**	.38**	.46**	.29**	.38**	.31**	.020	.48**	.52**	.74**	1.0		
q5a	Elaboration	.28**	.02	.33**	.30**	.39**	.41**	.34**	.26*	.49**	.010	.61**	.42**	.59**	.34**	1.0	
	Clarity	.24*	.33**	.27**	.33**	.020	.33**	.31**	.28**	.40**	.010	.54**	.40**	.51**	.39**	.77**	1.0

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

