

Young Women of Color: Flourishing Despite Discrimination and Depression

by
Kelsey Lois Fieldman

A THESIS

submitted to

Oregon State University

University Honors College

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degree of

Honors Baccalaureate of Science in Psychology
(Honors Scholar)

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Background. Flourishing is negatively related with depression, but has been proposed as a separate axis and an independent aspect of overall mental health. One factor that has been shown to affect both depression and flourishing is racial discrimination. This study hypothesizes that, in young undergraduate women of color, discrimination experiences will be negatively associated with flourishing, even after accounting for the known negative associations between discrimination experiences and depressive symptoms.

Method. Women (n = 109), few of whom identified as White non-Hispanic, completed baseline surveys regarding depressive symptoms, flourishing, discrimination experiences, and SES. **Results.** Discrimination was significantly associated with depressive symptoms but not flourishing. The relationship with socio-economic status was also explored, and SES was found to be a significant predictor of flourishing. Additionally, discrimination experiences and SES were related and were not independent predictors of depressive symptoms. **Discussion.** Despite no association being found between flourishing and discrimination, results still indicated that discrimination may be harmful to mental health

as it was positively correlated with depression. Also, it was found that SES may be associated with the ability to flourish, indicating that SES may affect mental health.

Key Words: Flourishing, Discrimination, Depression, Psychology

Corresponding e-mail address: fieldmak@oregonstate.edu

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Honors Baccalaureate of Science in Psychology project of Kelsey Lois Fieldman
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APPROVED:

David Kerr, Mentor, representing The School of Psychological Sciences

Kathryn Becker-Blease, Committee Member, representing The School of Psychological Sciences

Michele Ribeiro, Committee Member, representing Counseling and Psychological Services

Toni Doolen, Dean, University Honors College

I understand that my project will become part of the permanent collection of Oregon State University, University Honors College. My signature below authorizes release of my project to any reader upon request.

Kelsey Lois Fieldman, Author

Young Women of Color: Flourishing Despite Discrimination and Depression

Major depressive disorder affects a large proportion of the American public (Kessler, Berglund, Demier, Jin, Koretz, Merikangas, Rush, Walters, Wang, 2003). Approximately 16.2% of adults in the U.S. have experienced a major depressive episode at some point in their lives, impacting 32.6-35.1 million people (Kessler et al., 2003). Additionally, 6.6% of the American public has experienced a major depressive episode within the last 12 months--between 13.1 and 14.2 million adults (Kessler et al., 2003). A major depressive episode is defined as at least a two week period of depressed mood or lack of interest or pleasure and other symptoms such as changes in weight, sleep, or appetite, psychomotor alterations, feeling worthless, lack of ability to concentrate, and thoughts of death or suicide (APA, 2013). These symptoms must cause significant impairment, and cannot be better explained by a medical cause or other mental disorder (APA, 2013).

Not all people who experience symptoms of depression meet the criteria for major depressive disorder however. Commonly, depression is diagnosed categorically, such that depression is only diagnosed if symptoms reach a relatively arbitrary threshold of duration and severity (Lewinsohn, Solomon, Seeley, and Zeiss, 2000). Therefore, rates of depression reflect only those whose experiences meet the DSM-IV criteria of a major depressive episode, and do not include those who may be experiencing less severe, but still impairing depressive symptoms. However, Lewinsohn and his colleagues (2000) argue that depression is better explained as a continuum, such that clinically significant depression, or major depressive disorder, exhibits the same symptoms as subthreshold depression, but more severely. Conceptualizing depressive symptoms in terms of a

continuum may better represent these problems because subclinical depression follows patterns similar to clinical depression with regards to psychosocial dysfunction, treatment history, and substance abuse (Lewinsohn, 2000). Therefore, these symptoms can still be problematic and impairing, even if they are not present at a clinically diagnosable level.

Depressive symptoms have consistently been shown to be prevalent and impairing for college students. Ibrahim, Kelly, Adams, and Glazebrook (2010) conducted a meta-analysis of studies regarding depression among college students, and found the prevalence to be 30.6%. In addition, depression was shown to be significantly more prevalent among college women than men (Eisenberg, Hunt, and Speer, 2013; Ibrahim et al. 2010). These problems also have significant consequences for college students. For example, 20% of college students who had major depression reported having suicidal thoughts (Eisenberg, Gollust, Golberstein, and Hefner, 2007). Additionally, these mental health problems can be extremely debilitating to college students who are experiencing them. For instance, compared to students who do not suffer from depression, depressed students have grade point averages that are, on average, .49 points lower, and they miss more classes, exams, and assignments (Hysenbegasi, Hass, and Rowland, 2005).

Depression is clearly a problem for many college students, but is particularly prominent among students of color. Researchers have found that the prevalence of depression among racial and ethnic minority populations of college students differs from racial and ethnic minority adult populations and populations of white college students. For example, researchers have shown that adults who identify as Black have significantly lower rates of mental illness than adults who identify as White (Keyes, 2009). However, in college students, the prevalence of depression was shown to be significantly higher

among racial and ethnic minority populations (Eisenberg et al., 2013). Eisenberg and his colleagues (2013) found that 14.9% of White identifying college students across multiple campuses in the U.S., qualified as depressed. However, the prevalence rates of those who identified as Asian, Black, Hispanic, Multiracial, and “Other” were 22%, 19.7%, 22.2%, 21.8%, and 23.8% respectively (Eisenberg et al., 2013). This indicates that college students who identify as a race or ethnicity other than White non-Hispanic actually experience significantly higher rates of depression. Because of this, researchers are left questioning why racial or ethnic trends in rates of depression differ between college and other adult populations. As will be discussed, it is possible that these trends in depression are due to differences in discrimination experiences or flourishing between other adult populations and college students.

Depression and mental illness can be incredibly debilitating, especially for college students. However, an absence of depression or mental illness is not enough to be mentally healthy—in order to be completely mentally healthy, people need to be flourishing. Flourishing is a construct that is related to depression, and is a component of complete mental health (Keyes, 2002). Complete mental health is more than just an absence of mental illness—it is the presence of emotional, psychological, and social well-being (Keyes, 2002). Additionally, complete mental health involves flourishing and being free of psychopathology (Keyes, 2005). Keyes (2005) estimates that approximately 17% of the adult population can be considered completely mentally healthy—both flourishing and free of mental illness. Mental health and mental illness are conceptualized as correlated, but represent separate axes related to overall psychological well-being and complete mental health (see Figure 1) (Keyes, 2005); the mental illness axis ranges from

the presence to the absence of symptoms (Keyes, 2002). The mental health axis ranges from flourishing to languishing (Keyes, 2002).

Keyes (2002) operationalizes flourishing as a high level of emotional well-being and positive functioning. People who are flourishing are more mentally healthy, have fewer daily limitations, and miss less work than those who are not flourishing or are languishing (Keyes, 2002). Additionally, flourishing may provide a source of resiliency, reducing the psychological effects of stressful events (Keyes, 2002). Among college students, approximately 69.1% are considered flourishing (Low, 2011). Because flourishing and mental health are not equivalent to mental illness, it is possible for flourishing to occur alongside a mental illness, or for languishing (the opposite end of the spectrum from flourishing) to occur without mental illness (Keyes, 2007). However, those who have mental illnesses are unlikely to be flourishing (only 0.9% of adults are flourishing with depression, according to Keyes, 2005).

On the other end of the spectrum from flourishing, languishing is defined as low levels of emotional well-being and positive functioning (Keyes, 2002). Those who are languishing are emotionally unhealthy, have significant daily limitations, and miss more work than those who are moderately mentally healthy or flourishing (Keyes, 2002). Only about 2% of college students are languishing (Low, 2011). However, of this 2%, 75% are considered depressed (Low, 2011). Languishing has been shown to be as psychosocially impairing as depressive episodes (Keyes, 2002). In between flourishing and languishing on the axis of mental health is the state of moderate mental health (Keyes, 2002). Approximately 29% of college students are considered moderately mentally healthy (Low, 2011). Many of the percentages of depression and flourishing reported across

studies seem inconsistent; for example, if 30% of college students are depressed (Ibrahim et al., 2010), it seems unlikely that only 2% of college students would be languishing as Low (2011) reports. This is likely due to differing definitions and cut-off points that were used to define flourishing, languishing, and complete mental health. Additionally, different studies sample from different populations (i.e. sampling college students from a highly selective institution (Low 2011), using data from a large nationwide survey (Keyes, 2005), or conducting a meta-analysis of dozens of other studies (Ibrahim et al., 2010)). These disparities in populations yield different results as the populations vary in terms of education, socio-economic status (SES), and age range. These factors may help to explain some of the discrepancies that appear in the percentages of mental illness and mental health, and indicate that these population differences need to be accounted for in future research.

One of the known factors that influences depressive symptoms and may impact flourishing among racial and ethnic minorities, is discrimination. Experiences with discrimination can include either major events, such as being turned down from a job due to one's ethnicity, or more common, everyday events such as being called names due to one's race (Kessler, Mickleson, and Williams, 1999). These daily discrimination experiences—or microaggressions—are "verbal, behavioral, and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults to the target person or group" (Sue, Capodilupo, Torino, Bucceri, Holder, Nadal, and Esquilin, 2007, p. 273). Approximately one third of the American public reports facing a major discriminatory experience due to age, gender, or race/ethnicity or other characteristics that they felt impacted their lives; furthermore,

about 60% of adults report having experienced discriminatory microaggressions on a day-to-day basis (Kessler et al., 1999). However, people who identify as white, non-Hispanic report experiencing these daily discriminatory experiences far less frequently than people identifying as another racial or ethnic group (Kessler et al., 1999). For example, 44.4% of people who identify as White, Non-Hispanic report never having experienced microaggressions for any reason, compared to only 8.8% of people who identify as Non-Hispanic Black, and 19.5% of people who identify as another race (Kessler et al., 1999). Additionally, of those who reported experiencing discriminatory microaggressions, 21.1% of White Non-Hispanic people attributed it to their race or ethnicity, versus 89.7% of Non-Hispanic Black people, and 76.6% of people of any other race (Kessler et al., 1999). Thus, microaggressions are widely experienced by racial and ethnic minority populations, and are generally attributed to race or ethnicity rather than other characteristics.

People who experience these daily forms of discrimination more frequently report greater psychological distress and exhibit more depressive symptoms than those who experience less discrimination (Kessler et al., 1999). Kessler and his colleagues (1999) showed that both lifetime discrimination and microaggressions are associated with significantly higher odds of psychological distress and major depression, suggesting that both forms of discrimination influence or undermine mental health. Discrimination experiences are theorized to inhibit mental health because they prevent social (Keyes, 2009) and psychological processes that are necessary for flourishing (Ryff, Keyes, and Hughes, 2003). Discrimination prevents people of color, especially women, from achieving autonomy, environmental mastery, and self-acceptance—key elements of

psychological well-being (Ryff et al., 2003; Keyes, 2009). Discrimination also inhibits social integration and coherence, and perceiving contributions to society—essential facets of social well-being (Keyes, 2009).

Given that discrimination is linked with higher rates of depression and lower levels of flourishing, an apparent paradox in the literature is that people of color experience more discrimination but may be more mentally healthy than White people. Keyes (2009) showed that, while discrimination experiences are prevalent in people of color, significantly more Black people are completely mentally healthy (flourishing and free of mental illness) than White people. This is counterintuitive because discrimination should prevent complete mental health, due to the negative effects it has on well-being. This contradiction has been explained by the theory that people of color appear to be partially protected from the harmful effects of discrimination, perhaps through cultural values and cultural identity (Mossakowski, 2003; Keyes, 2009). However, one might speculate that if it were not for these discrimination experiences, people of color would be even more mentally healthy (Ryff et al., 2003; Keyes, 2009). This relationship needs to be explored further to determine how discrimination impacts flourishing and depression to form this paradox, perhaps through studying flourishing and depression simultaneously to investigate how discrimination impacts complete mental health.

Few studies of flourishing, depression, and discrimination, have been conducted with college populations, and the constructs have rarely been investigated simultaneously. Studies of college students have consistently shown higher prevalence rates of depression than studies of general adult populations (Low, 2011; Ibrahim et al., 2010) Additionally, Low (2011) reported that the prevalence of flourishing and

languishing in college students may be different than in other adult populations (i.e., general population between age 18 and 70). Because of differences in flourishing and depression between populations, flourishing and depression should be studied more thoroughly in college students. College students are in a time of transition—they are entering the stage known as “emerging adulthood” (Arnett, 2007). This stage involves exploring identity and focusing on the self, but can be full of instability (Arnett, 2007). This can lead to extreme stress due to trouble finding a job, difficulty fulfilling career aspirations, and problems with social or romantic expectations (Arnett, 2007). Emerging adulthood is a vital time for identity development (Arnett, 2007), so it is possible that emerging adults may be more sensitive to factors that can harm identity, such as discrimination (Mossakowski, 2003). Because emerging adulthood is a time of extreme instability regarding mental health, emotional well-being, and identity (Arnett, 2007), it is possible that emerging adults may experience different rates and effects of mental health, mental illness, and discrimination experiences than general populations. In addition, mental health problems often surface during emerging adulthood (Arnett, 2007), so it is important to identify possible triggering events or experiences (including discrimination) that may contribute to mental illness and prevent flourishing. In the present study we investigate these phenomena in college women, as depression is more prevalent among women (Ibrahim et al., 2010; Eisenberg et al., 2013).

First, it is hypothesized that, in a racially and ethnically diverse sample of college women, discriminatory microaggressions will be associated with flourishing, even when the relationship between microaggressions and depressive symptoms is controlled. This would be consistent with the theory that discrimination experiences will negatively

impact overall flourishing, in addition to and independent of, their influence on depressive symptoms. Discrimination has been shown to be positively related to depressive symptoms (Mossakowski, 2003; Kessler et al., 1999), and negatively related to flourishing (or well-being) (Ryff et al., 2003; Keyes, 2009). This analysis, though, will help to indicate if the relationship between flourishing and discriminatory microaggressions is because of, or in addition to, the relationship between depression and discrimination. If the latter is supported, it may indicate that microaggressions both increase depressive symptoms and decrease the ability to flourish.

Second, the present study will help to further differentiate depressive symptoms and flourishing. Keyes (2002) concluded that they represent two separate constructs. Therefore, it is hypothesized that microaggressions will impact flourishing and depressive symptoms differently and separately, which would provide more evidence that depressive symptoms and flourishing are actually different constructs that together form mental health.

Finally, it is hypothesized that more frequent discrimination experiences will be associated with both higher depressive symptoms and lower flourishing in racially and ethnically diverse women in college, indicating that discrimination experiences may be harmful to complete mental health. Prior research has concluded that discrimination is harmful to mental health (Kessler et al., 1999; Keyes, 2009; Ryff et al., 2003). Additionally, Keyes (2009) asserts that, if it were not for discrimination, racial and ethnic minority populations would be flourishing significantly more. Because of the known negative impacts of discrimination, this analysis may provide further evidence for the

need to reduce microaggressions in order to decrease mental illness and promote flourishing in racial and ethnic minority women in college.

Method

Participants

Participants were 109 undergraduate women between the ages of 18 and 25 years, with a mean (SD) age of 20.41 (1.91) years. They were recruited from a large public university in the Pacific Northwest for either a longitudinal study or a cross-sectional study of women's health and adjustment. The majority of participants self-identified as a woman of color, which reflects the recruitment strategy (see below). For race/ethnicity descriptive statistics, see Table 1.

Procedure

Participants were recruited through the psychology department subject pool, and through advertisements passed out on campus, distributed to campus cultural centers, announced on listservs of various student cultural organizations, and posted on bulletin boards throughout campus. When flyers were given to women, all women were approached (i.e., women were not approached based on apparent race/ethnicity). Therefore, women self-screened in relation to enrollment criteria. Recruitment methods yielded an oversampling of women of color, as intended. In order to participate, women had to self-screen as: being between the ages of 18 and 25; not pregnant; weighing 110 pounds or more; and not currently using a tanning bed, light therapy, melatonin, sleep medication, antidepressant medication, or anticonvulsant medication. They also had to be willing to provide a blood spot and urine sample, and complete questionnaires online.

Participants were recruited on a rolling basis in the winter, spring, and summer terms of 2015 (n= 39, 57, and 13). Participants met with a research assistant at the time of the baseline questionnaire to review and confirm eligibility criteria described during recruitment. Those who were eligible were given informed consent documents outlining the time frame of the study, the risks possible, and the compensation they would earn. They were assigned a subject identification number and then completed the baseline survey on a private computer. The survey included questions regarding depressive symptoms, distressing events, lifestyle, flourishing, microaggressions, and demographics. Participants also contributed data not relevant to the present focus; for example, they provided blood and urine samples and a subset completed additional surveys longitudinally. Participants who completed all portions of the study were given \$50 if they were in the longitudinal study, or evidence of two hours of extra credit for those in the cross-sectional study through the subject pool. All procedures were approved by the university IRB.

Measures

Participants completed a variety of questionnaires regarding demographics, depressive symptoms, flourishing, microaggressions, and financial situation. For this analysis only the baseline surveys were used.

Depressive symptoms. Participants completed the Center for Epidemiologic Studies Depression scale (CES-D) (Radloff, 1977). To complete this survey, participants indicated, on a scale of 0-3, how often in the past week each of 20 statements applied to them; items included “I felt that I was just as good as other people” and “I felt that everything I did was an effort” (Radloff, 1977). The scale ranges from ‘0’ being ‘rarely

or none of the time,' to '3' being 'all of the time'. Scores of 16 or greater are considered clinically significant (Radloff, 1977).

Flourishing. Flourishing was measured using Diener's Flourishing Scale (Diener, Wirtz, Tov, Kim-Prieto, Choi, Oishi, and Biswas-Diener, 2009). This scale gives participants eight statements regarding meaning and purpose in their life (such as "my social relationships are supportive and rewarding" and "I am competent and capable in the activities that are important to me"; Diener et al., 2009). Participants are asked to indicate how much they agree with the statement using a 1-7 scale ('1' being 'strongly disagree' and '7' being 'strongly agree') (Diener et al., 2009). Scores are determined by adding the responses from all of the statements, leading to scores between 8 and 56, with higher scores indicating higher levels of flourishing. One participant was excluded from the analysis of the flourishing variable because the score was considered an outlier as it was more than four standard deviations below the mean.

Microaggressions. Microaggressions were measured using the Racism and Life Experiences Scale (Harrell, 1997). This questionnaire asks participants how often 18 different discriminatory microaggressions have happened to them within the past year (Harrell, 1997). These discriminatory experiences include "being accused of something or treated suspiciously," "overhearing or being told an offensive joke" and "not being taken seriously" "because of your race or ethnicity" (Harrell, 1997). This scale was adapted from Harrell's original scale, which asked participants about microaggressions they faced because they were Black, rather than based on their race or ethnicity. Responses can range from '0' or 'never', to '5' or 'once a week or more' (Harrell, 1997). Those who indicated that they experienced the microaggression (did not answer '0') were

then asked how much it bothered them ('1' being not at all and '5' being extremely bothered) (Harrell, 1997). This part of the question was ignored so as not to be confounded with depression or flourishing. The original scale is an ordinal scale, but it was adapted into a ratio scale in order to make the scale more interpretable. The ratio scale allowed the responses to be quantified and compared, as it gave meaning to the intervals between the scale points and has a true zero point. The new score was formed by coding frequency options into a value that represented the number of times the microaggression happened annually. Choosing 'never' was recoded to '0 [times per year]' for the item, 'once' had a score of '1', 'a few times' a score of '3', 'about once a month' a score of '12', 'a few times a month' a score of '24', and 'once a week or more' a score of '52 [times per year]'. These scores were then added for every item on the questionnaire to determine a total number of microaggressions that were experienced in a year. The distribution was highly skewed. Thus, a log transformation was completed, and this variable was used in primary analyses.

Demographic Questions. Participants answered demographic questions, including age, race/ethnicity, financial status, and family education. Of these, financial situation and parent education were included in the analysis as possible influential variables. Parents' education was included to determine if the participant was the first person in her family to attend college. Two items were included—one asked about the highest education the participant's mother received, the other asked about her father's education (Eisenberg et al., 2007). The possible responses were: '1' or 'eighth grade or lower,' '2' or 'between 9th and 12th grade,' '3' or 'high school degree,' '4' or 'some college,' '5' or 'Associate's degree,' '6' or 'Bachelor's degree,' '7' or 'graduate degree,' and '8' or

'don't know' (Eisenberg et al., 2007). Mother and father education scores (ignoring scores of 8) correlated $r = .56, p < .01$. For an exploratory analysis, we also coded whether or not either parent had ever attended college (mother and father scores were both under 4).

Financial status was assessed by asking about the participant's current financial situation ("1" or "it's a financial struggle," "2" or "it's tight but I'm doing fine," and "3" or "finances aren't really a problem") (Eisenberg et al., 2007). It was also assessed by asking about the participant's family's financial situation growing up ("very poor, not enough to get by," "had enough to get by, but not many 'extras'," "comfortable," or "well to do") (Eisenberg et al., 2007). A socio-economic status variable was formed using the parent education and financial status questions. To put these variables (mother's education, father's education, childhood finances, current finances) on a common scale, each was z-transformed. The mean of the z-transformed scores of mother's education and father's education was used as a measure of family education. Then, the mean of the three standardized scores (which correlated $r = .23$ to $.46, p < .05$) was used as an aggregated measure of socio-economic status.

Planned Analyses.

First, correlations between all variables were run to determine whether or not there was a basis for continued analyses. Pearson correlations were used as all of the variables were relatively normally distributed or had been transformed to be relatively normally distributed (as was the case for the microaggressions variable that was log transformed).

For the variables that constituted further analyses, linear regressions were completed; all models controlled for SES. To test the first hypothesis regarding the relationship microaggressions has with flourishing after controlling for depressive symptoms, a linear regression with flourishing as the dependent variable, and microaggressions and SES as the independent variables was compared to the same regression but with depressive symptoms added as an additional independent variable.

In order to test the second hypothesis regarding the differentiation of depressive symptoms and flourishing, two linear regressions were compared. The first included depressive symptoms as the dependent variable and microaggressions and SES as the independent variables. This was compared to results of the previously described regression with flourishing as the dependent variable and microaggressions and SES as the independent variable. This allowed comparison of flourishing and depressive symptoms based on their relationships with discriminatory microaggressions.

Results

Descriptive Statistics

Table 1 presents descriptive statistics for all variables. The sample was ethnically diverse, with the majority of participants identifying as a race or ethnicity other than White. Of the 40.4% of participants who identified as White, many were multiracial—only 16.5% of the sample identified solely as White, non-Hispanic. Participants scored an average of 46.05 on the flourishing scale, which is relatively high as the possible scores range from 8 to 56. This means that the average answer for each of the items on the questionnaire was a ‘6’ or ‘agree,’ indicating that participants generally agreed with the

positive statements about their lives. Despite the high scores on the flourishing questionnaire, participants also scored highly on the depressive symptoms index, with 45.9% of participants meeting or exceeding the cutoff score indicating clinically significant symptoms. Rates of discrimination experiences were varied; many participants reported few or no microaggressions, while others experienced hundreds over the course of a year. There was a range of SES scores; almost a quarter of women were the first in their families to attend college.

Correlations

Bivariate correlations are shown in Table 2. Depressive symptoms and flourishing were negatively correlated; 32% of the variability in one variable was explained by the other. Contrary to the hypothesis, the correlation between flourishing and microaggressions was not significant. However, consistent with the hypothesis, the correlation between microaggressions and depressive symptoms was significant—more frequently experiencing microaggressions was associated with more depressive symptoms. Having clinically significant depressive symptoms was negatively correlated with flourishing, but, surprisingly, not microaggressions; clinically significant symptoms also were not related to SES or being the first to attend college. Flourishing and SES were significantly and positively correlated, meaning that higher SES was associated with greater flourishing. SES was negatively correlated with microaggressions and depressive symptoms, indicating that a higher SES was associated with fewer microaggressions and depressive symptoms. Given that the SES measure included parental education, it was not surprising that it was negatively related to being the first in the family to attend college. Being the first to attend college was correlated positively with microaggressions, so those

who were the first to attend college were more likely to experience microaggressions.

Finally, as expected, endorsing only White non-Hispanic ethnicity was significantly, and negatively, associated with experiencing microaggressions.

Regression Analysis

Results of linear regression models are reported in Table 3. Given that the initial hypothesis was not supported due to the lack of correlation between flourishing and discriminatory microaggressions, regression analyses were completed to investigate the relationships among socio-economic status, microaggressions, depression, and flourishing. Model 1 tested the extent to which microaggression experiences were related to depressive symptoms, after accounting for confounded effects of socio-economic status (SES). The regression showed that neither variable was independently associated with depressive symptoms, as shown by the non-significant p-values. However, the overall model was significant ($F(1,107)=3.98, p=.02$). This indicates that, whereas microaggressions and SES were not shown to be individually associated with depressive symptoms, together they did explain a significant amount of the variance in the model.

In Model 2 we examined the potential association between microaggressions and flourishing that were independent of socio-economic status. In this model, SES was a significant predictor of flourishing, such that higher SES was associated with higher flourishing. However, microaggressions were not a significant predictor of SES in this model. Additionally, the overall model was not significant ($F(1,106)=2.31, p=.10$). Therefore, SES was a predictor of flourishing, but microaggressions and SES did not explain a significant amount of the variation in flourishing.

In Model 3 we examined how depressive symptoms, microaggressions, and socioeconomic status are related to flourishing. The linear regression showed that depressive symptoms was the only variable that significantly predicted flourishing; whereas microaggressions and SES did not do so. This means that SES was no longer a significant predictor of flourishing after we accounted for the variability in flourishing that was explained by depressive symptoms. This may be because the association SES had with flourishing was better explained by the association it had with depressive symptoms. The overall model was significant ($F(2,105)=18.63, p<.001$), indicating that SES, microaggressions, and depressive symptoms did explain a significant amount of the variation in flourishing.

Discussion

In this racially and ethnically diverse sample of undergraduate women, we found that microaggressions were associated with depressive symptoms. More frequent microaggressions were related to higher depressive symptoms. This is consistent with Kessler and his colleagues' (1999) findings that people who experience more frequent discrimination, including microaggressions, were more likely to experience psychological distress and depression. These findings indicate that discriminatory microaggressions may be harmful to mental health as they have been found repeatedly to be correlated with depressive symptoms. However, as these associations are correlational, we cannot rule out other explanations; for example, it remains possible that people with more depressive symptoms are more likely to perceive microaggressions than those with fewer depressive

symptoms—in other words, that depressive symptoms influence the perception of microaggressions.

Findings of this study did not support the theory that microaggressions undermine flourishing, before or after accounting for the impact of depressive symptoms. These results differ from findings of other studies that investigate the relationship between flourishing and discrimination. For example, Keyes (2009) found that people of color were continually flourishing more than White people despite reporting significantly more discrimination experiences. But, Keyes (2009) also concluded that people of color would flourish more if they didn't experience discrimination, indicating that discrimination inhibits flourishing. This is contradictory to the present findings that failed to find an association between flourishing and discriminatory microaggressions.

Although the present study cannot directly address it, it is possible that people of color are able to flourish despite experiencing microaggressions due to resilience factors that may be present within the racial and ethnic minority population. For example, this notion has been explained by the theory that cultural values and cultural identity may partially protect people of color from the harmful effects of discrimination, (Mossakowski, 2003; Keyes, 2009). This cultural identity and value system may provide some protection from microaggressions and increase flourishing, due to connections with the racial or ethnic community. It is possible that, within college student populations, these kind of connections may be formed or improved through programs, such as cultural centers and culture based clubs, which are available on campus. Further research should be done to indicate how on-campus programs, such as cultural centers and clubs, work to

increase these connections, and how the programs can be improved in order to further increase resilience against discrimination.

Another focus of this study was to explore the extent to which flourishing and depression were related but distinct constructs, and whether microaggressions had distinct or differential associations with them. Indeed, this study found some evidence to further support the claim that depression and flourishing are separate but correlated axes of mental health. Flourishing and depressive symptoms were highly correlated in this analysis, but were not correlated strongly enough to indicate that they represented the same variable. This supports Keyes' (2002) study that determined that flourishing and depression were separate variables, but were significantly correlated as they together form mental health. Further evidence that flourishing and depression are separate constructs came from the differential associations flourishing and depression had with discriminatory microaggressions. Microaggressions were significantly related to depression, but no relationship was found with flourishing. This indicates that microaggressions are related to mental health, but the relationship was only found through depression. On the other hand, the other variables—SES, being the first to attend college, and identifying as White non-Hispanic—showed associations with flourishing and depressive symptoms that were similar in magnitude. Therefore, further research is needed to determine how depression and flourishing differ in terms of causes and mental health consequences.

Whereas this study intended to quantify the associations between microaggressions and mental health, socio-economic status was found to be a possible influential variable. Socio-economic status was found to be significantly correlated with

depression, microaggressions, and flourishing. The correlation between socio-economic status and flourishing was positive, meaning that having a higher socio-economic status was associated with more flourishing. Additionally, regression analyses showed that higher socio-economic status was associated with higher levels of flourishing, and that, when combined with discrimination and depression, socio-economic status helped to explain a significant amount of the variance in flourishing. Therefore, this study found that socio-economic status may have a significant impact on flourishing. However, one interpretation is that the majority of the relationship between socio-economic status and flourishing comes through the relationship between socio-economic status and depressive symptoms. This suggests that socio-economic status may be related with depressive symptoms negatively and directly, which in turn negatively affects flourishing and overall mental health. Other studies have also found that socio-economic status may have a negative effect on psychological health. Power and Manor (1992) discovered that, while socio-economic status is not the sole predictor of mental health, it may influence it. Young adults within lower socio-economic classes have significantly lower rates of psychological health due to both mental illness and psychological distress (Power and Manor, 1992). Additionally, lower socio-economic status is associated with decreased psychological well-being and fewer health behaviors in adolescence through adulthood (Huurre, Aro, and Rahkonen, 2003). While these studies did not directly compare socio-economic status and flourishing, they did find a positive relationship between psychological well-being and socio-economic status. Because psychological well-being is a component of flourishing, these prior studies support the findings that coming from a

family with fewer resources and experience with higher education may be a risk factor for decreased flourishing.

Implications

Whereas microaggressions were not shown to be associated with flourishing in our study, they were shown to be negatively associated with depression. This indicates that microaggressions may be harmful to mental health, and, in order to further improve mental health in racial and ethnic minority populations, microaggressions need to be limited. Awareness of the dangers of microaggressions is likely the first step to a healthier population. Microaggressions are often inadvertent (Sue et al., 2007), so making the public aware of the insulting actions that many people are currently unaware of, could decrease the microaggressions that racial and ethnic minority populations experience.

Additionally, socio-economic status was shown to be negatively associated with depressive symptoms and positively associated with flourishing. This indicates that coming from a family with fewer economic resources may increase the risk for mental health problems. College students who have fewer financial resources may be extremely vulnerable to depressive symptoms and a lack of flourishing, as emerging adulthood (Arnett, 2007) and less economic resources may be risk factors for poor mental health. Therefore, colleges should work with students to decrease the burden of low socio-economic status, perhaps through more support systems to decrease the psychological impacts, such as advisors who are trained to work with students who come from economically diverse backgrounds, or more resources for financial aid to reduce financial problems.

In addition, socio-economic status and being the first person in the family to attend college were highly correlated with discriminatory microaggressions. Having fewer financial resources and being the first to attend college were both associated with experiencing microaggressions more frequently. One possible conclusion is that those whose families have a lower income and less education experience more microaggressions due to their socio-economic status. Because the association between microaggressions and financial background is so powerful, it is possible that some class-related discrimination is misattributed to race. It is also possible that class-based stereotypes activate in perpetrators other stereotypes and forms of discrimination, including those based on race and ethnicity. However, the literature regarding discrimination and socio-economic status is lacking and inconclusive. For example, Kwate and Goodman (2015) found that discrimination has a positive relationship with education level, but a negative relationship with social status, which was defined as past, present, and expected future socio-economic status. They speculated that these associations might be because those with higher education are more connected to their cultural identity and therefore acknowledge more discrimination, which would explain the positive relationship between education level and discrimination (Kwate and Goodman, 2015). But, they also speculated that discrimination may lead people of color to assume that they are of low social status, explaining the negative relationship between perceived social status and discrimination (Kwate and Goodman, 2015). This indicates that the relationship between discrimination and socio-economic status is likely complex and dependent on a number of personal factors, including cultural identity and perception of social classes.

Strengths and Limitations

This study had many strengths. First, the microaggressions scale was formed as to leave out the feelings that the microaggressions elicited. Because this study concerned the associations between discriminatory microaggressions and mental health and well-being, a less subjective measure of discrimination that did not factor in effects on mood (i.e., “how much did it bother you?”) was important to eliminate overlap between the variables. Second, the control for socio-economic status was important because it is a risk factor for increased discrimination (Keyes, 2009) and decreased psychological well-being (Power and Manor, 1992). Finally, oversampling women of color led to a more racially and ethnically diverse sample than would be possible with a representative sampling approach (only 16.5% of the sample identified as only White non-Hispanic). Because this study was focusing on racial and ethnic microaggressions, the diverse sample yields information that is more representative of the microaggressions that minority populations face than a less diverse sample would.

However, this study also had several limitations. First, although the sample size was relatively large (n=109), many of the racial and ethnic categories were too small to complete subgroup analyses. This limits the study because the rates and the effects of microaggressions may differ by racial and ethnic minority subgroup. Additionally, the measures were all based on self-report data, which is easily skewed by social desirability bias, participant memory while completing the survey, and the participant’s mood at the time. Also, the analyses did not include any measures about larger discrimination experiences (such as losing a job due to race or ethnicity). Although microaggressions

have been found to be as debilitating as these larger experiences (Kessler et al., 1999), they could have been included to better represent how discrimination impacts flourishing and depression. Finally, this study was correlational, meaning that no causal inferences can be drawn (such as whether the relationship between discrimination and depression reflects that increased discrimination led to increased depressive symptoms).

Future research should address the differences in discrimination experiences and mental health between the racial and ethnic minority populations. Additionally, studies should include all forms of discrimination, rather than just microaggressions, to determine how discrimination experiences as a whole impact mental health. Finally, research is needed to determine how socio-economic status relates to racial discrimination and impacts flourishing. Upcoming studies should include a socio-economic status scale that is more comprehensive and thorough than the one included in this analysis, with stronger items (e.g., explicit questions about personal and family education, employment status, and income). Subsequent studies also should investigate whether flourishing is impaired due to discrimination based on socio-economic status, or due to the logistics of coming from a lower socio-economic background (such as having to work full time while being a student).

Conclusions

Racial and ethnic based microaggressions may not be associated with flourishing as was hypothesized. However, that does not mean that discrimination is not harmful to mental health. Racial and ethnic based discrimination may still influence depressive symptoms negatively. Discrimination based on socio-economic status may also contribute negatively to mental health, based on the findings that lower socio-economic

status was linked to higher depressive symptoms and decreased flourishing due to increased depressive symptoms. Therefore, coming from a background of a lower socio-economic status may be harmful to mental health. Other unmeasured risks associated with low socio-economic status may further inhibit mental health, such as a lack of healthcare and poor nutrition. So, universities, advisors, professors, and peers need to be aware of and work to understand this, in order to improve the mental health of racial and ethnic minority students in college. This may come through a cultural sensitivity to the struggles that students coming from low-income families and communities face. People working with students of lower socio-economic classes need to become aware of the unique communication styles, expectations, and perspectives that their experiences have caused. It is important to take these experiences and work from the strengths that they have produced, in order to help low-income and racial and ethnic minority populations achieve success and optimize mental health.

References

- Arnett, J. (2007). Emerging Adulthood: What Is It, and What Is It Good For? *Child Development Perspectives, 1*(2), 68-73.
- Diagnostic and statistical manual of mental disorders: DSM-5.* (5th ed.). (2013).
Washington, D.C.: American Psychiatric Association.
- Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2009). Flourishing Scale. doi:10.1037/t03126-000
- Eisenberg, D., Gollust, S., Golberstein, E., & Hefner, J. (2007). Prevalence and correlates of depression, anxiety, and suicidality among university students. *American Journal of Orthopsychiatry, 77*(4), 534-542. doi:10.1037/0002-9432.77.4.534
- Eisenberg, D., Hunt, J., & Speer, N. (2013). Mental Health in American Colleges and Universities. *The Journal of Nervous and Mental Disease, 201*(1), 60-67.
- Harrell, S. P. (1997). The Racism and Life Experience Scales. Unpublished instrument.
Los Angeles, CA: Pepperdine University Graduate School of Education and Psychology.
- Huurre, T., Aro, H., & Rahkonen, O. (2003). Well-being and health behaviour by parental socioeconomic status. *Social Psychiatry and Psychiatric Epidemiology, 38*, 249-255. doi:10.1007/s00127-003-0630-7
- Hysenbegasi, A., Hass, S., & Rowland, C. (2005). The Impact of Depression on the Academic Productivity of University Students. *The Journal of Mental Health Policy and Economics, 8*, 145-151.

- Ibrahim, A., Kelly, S., Adams, C., & Glazebrook, C. (2013). A systematic review of studies of depression prevalence in university students. *Journal of Psychiatric Research, 47*, 391-400.
- Kessler, R., Berglund, P., Demler, O., Jin, R., Koretz, D., Merikangas, K., . . . Wang, P. (2003). The Epidemiology of Major Depressive Disorder: Results from the National Comorbidity Survey Replication. *Journal of the American Medical Association, 289*(23), 3095-3105. doi:10.1001/jama.289.23.3095
- Kessler, R., Mickelson, K., & Williams, D. (1999). The Prevalence, Distribution, and Mental Health Correlates of Perceived Discrimination in the United States. *Journal of Health and Social Behavior, 40*(3), 208-230.
- Keyes, C. (2002). The Mental Health Continuum: From Languishing to Flourishing in Life. *Journal of Health and Social Behavior, 43*(2), 207-222.
- Keyes, C. (2005). Mental Illness and/or Mental Health? Investigating Axioms of the Complete State Model of Health. *Journal of Consulting and Clinical Psychology, 73*(3), 539-548. doi:10.1037/0022-006X.73.3.539
- Keyes, C. (2007). Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *American Psychologist, 62*(2), 95-108. doi:10.1037/0003-066X.62.2.95
- Keyes, C. (2009). The Black-White Paradox in Health: Flourishing in the Face of Social Inequality and Discrimination. *Journal of Personality, 77*(6), 1677-1706. doi:10.1111/j.1467-6494.2009.00597.x

- Kwate, N., & Goodman, M. (2015). Racism at the intersections: Gender and socioeconomic differences in the experience of racism among African Americans. *American Journal of Orthopsychiatry*, 85(5), 397-408. doi:10.1037/ort0000086
- Lewinsohn, P., Solomon, A., Seeley, J., & Zeiss, A. (2000). Clinical implications of "subthreshold" depressive symptoms. *Journal of Abnormal Psychology*, 109(2), 345-351. doi:10.1037//0021-843X.109.2.345
- Low, K. (2011). Flourishing, Substance Use, and Engagement in Students Entering College: A Preliminary Study. *Journal of American College Health*, 59(6), 555-561. doi:10.1080/07448481.2011.563432
- Mossakowski, K. (2003). Coping with Perceived Discrimination: Does Ethnic Identity Protect Mental Health? *Journal of Health and Social Behavior*, 44(3), 318-331.
- Power, C., & Manor, O. (1992). Explaining social class differences in psychological health among young adults: A longitudinal perspective. *Social Psychiatry and Psychiatric Epidemiology*, 27, 284-291.
- Radloff, L. S. (1977). The CES-D scale a self-report depression scale for research in the general population. *Applied psychological measurement*, 1(3), 385-401.
- Ryff, C., Keyes, C., & Hughes, D. (2003). Status Inequalities, Perceived Discrimination, and Eudaimonic Well-Being: Do the Challenges of Minority Life Hone Purpose and Growth? *Journal of Health and Social Behavior*, 44(3), 275-291.
- Sue, D., Capodilupo, C., Torino, G., Bucceri, J., Holder, A., Nadal, K., & Esquilin, M. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American Psychologist*, 62(4), 271-286. doi:10.1037/0003-066X.62.4.271

Figure 1

Axes of Mental Health and Mental Illness

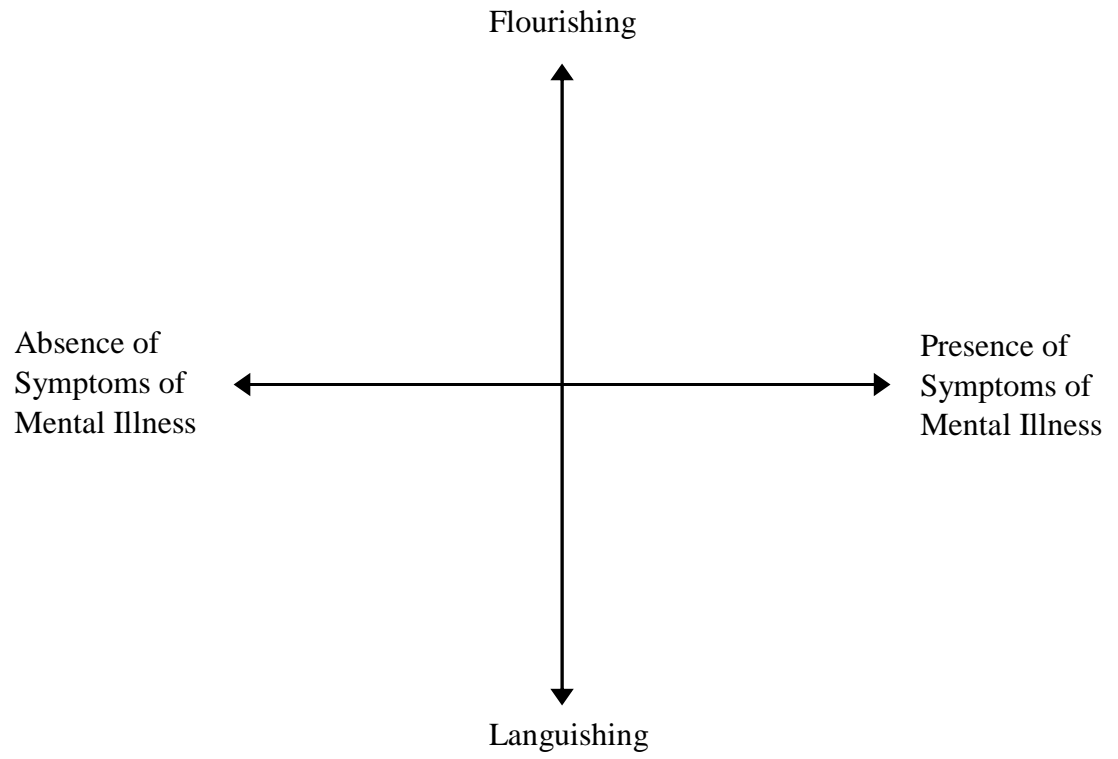


Table 1

Descriptive Statistics

Variable	Mean(SD)
Flourishing	46.05 (6.14)
Microaggressions	56.32 (93.3)
Microaggressions (log transformed)	1.35 (.64)
Depressive Symptoms	16.56 (8.80)
Clinically Significant Depressive Symptoms	45.9%
Aggregated SES	.00 (.77)
First to Attend College	22.9%
Race/Ethnicity	
White	40.4%
African American/Black	12.8%
Hispanic/Latino	33.0%
Native American/Alaskan Native	5.5%
Arab/Middle Eastern	4.6%
Asian American	31.2%
Pacific Islander	1.8%
Other	1.8%

Values represent Mean (Standard Deviation) unless otherwise indicated

Table 2

Correlations Table

	1.	2.	3.	4.	5.	6.	7.
1. Flourishing	-	-.06	-.58***	-.46***	-.05	.20*	.01
2. Microaggressions		-	.22*	.14	.26**	-.38***	-.34***
3. Depressive Symptoms			-	.82***	.09	-.22*	-.03
4. Clinically Sign. Depressive Symptoms				-	.07	-.18 [†]	-.01
5. First to Attend College					-	-.54***	-.18 [†]
6. SES						-	.09
7. Endorses only White non-Hispanic Ethnicity							-

[†] p < .10, * p < .05, ** p < .01, *** p < .001 (two-tailed Pearson)

Table 3

Linear Regressions

Predictor	B(SE)	β	p-value
Model 1 Outcome: Depressive Symptoms			
SES	-1.8(1.2)	-.16	N.S.
Microaggressions (Log Transformed)	2.2(1.4)	.16	N.S.
Model 2 Outcome: Flourishing			
SES	1.7(.82)	.21	.04
Microaggressions (Log Transformed)	0.22(.98)	.02	N.S.
Model 3 Outcome: Flourishing			
SES	0.98(.70)	.12	.16
Microaggressions (Log Transformed)	1.16(.83)	.12	.16
Depressive Symptoms	-0.4(.06)	-.576	.000

