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# Mental Illness and Obesity Among Latinos in Inland Empire: Is there a relationship?

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## INTRODUCTION:

- Persons with diagnosed mental challenges have a higher prevalence of obesity<sup>1</sup>.
- In the US, among all the race/ethnicities, Latinos have the highest rates of obesity.
- Further, weight-loss intervention studies have shown that Hispanic participants<sup>2</sup> tend to lose less weight than non-Hispanic whites are more likely to regain weight at follow-up are less likely to enroll in and complete weight loss programs
- Also, lifestyle-intervention and behavioral-modification weight loss programs have been known to exclude patients with mental illnesses due to adherence.<sup>3</sup>
- Little research has been done to explore mental health as a barrier for Latinos to enroll, complete and show longer term success in lifestyle intervention programs.
- To inform this type of research, it is important to understand if there is a relationship between mental health and potential participant's weight.

**OBJECTIVES:** To evaluate the correlation between anxiety and depression and weight of Latino participants

**METHODS:** An IRB approved survey was developed and given to 50 Latino respondents. Mental health was assessed with

the PHQ9 (depression) and GAD7 (anxiety). Quantitative data analysis was conducted using SPSS v. 24. We used ANOVA with post hoc tests for significance to assess whether or not there was a correlation between anxiety, depression, intent to change and reported weight.

**RESULTS:** Among respondents with normal weight, 46% were found to have anxiety, compared to 73% in those who were obese. Among respondents with normal weight, 58% were found to have depression, compared to 73% in those who were obese or overweight. Among participants that reported being overweight or obese, there were higher rates of anxiety when compared to their normal weight counterparts. There were higher rates of depression when compared to their normal weight counterparts. Only 40% of participants were found having no anxiety while 60% were found to have some degree of anxiety. Only 34% were found to have no depression while 66% were found to have some degree of depression.

**CONCLUSIONS:** Our findings showed no significant correlation between mental health and readiness to change. However, results highlighted that those who reported higher weights scored higher on the anxiety ( $p=.06$ ) and depression ( $p=.02$ ) scales. This is consistent with prior findings. Luppino et al highlighted in a 2010 meta-analysis literature review of 15 studies that depression was found to be predictive of developing obesity

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and vice versa. Studies are still being conducted to answer the question on which factor influences the other but as of right now, what is known is that both depression and obesity are correlated to each other. Many lifestyle interventions fail to address the potential impact depression and anxiety may have on weight loss. Daumit et al. highlighted that behavioral weight -loss intervention program incorporating weight-management counseling and group exercise in obese individuals with mental illness, significantly reduced participant weight over a period of 18 months. Hispanics have the highest prevalence of obesity in the US and are more likely to regain weight at follow-up. Therefore, it is important to address and provide solutions for Latino participants who might suffer from depression and anxiety during their weight loss journey. Further studies need to be done to address behavioral mechanisms to help weight loss participants manage their mental health that can help participants cope with their anxiety and depression to achieve maximum health.

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