



Hope for the Future Can Reduce Anxiety, Perfectionism, and Feelings of Imposter Syndrome

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Background

- Hope plays a significant role in reducing anxious and depressive symptoms, which are associated with feelings of imposter syndrome and perfectionism (3).
- Those with more feelings of hope often have less anxiety (10).
- Prior studies have shown that high levels of anxiety are associated with more severe imposter syndrome and perfectionism (2,13,11, 8).
- However, little is known about how hope may impact imposter syndrome or perfectionism, and no studies have examined whether anxiety mediates these relationships
- The current literature provides no information on how hope impacts the severity of an individual's imposter syndrome, and the findings on hope's relationship with perfectionism are mixed.
- Some studies have found that hope increases perfectionism (9); while others find the opposite (6,1).
- **Thus, the objectives of this study were to examine: 1) the relationship between hope and imposter syndrome; 2) the relationship between hope and perfectionism; and 3) whether trait anxiety, the trait of being anxious, mediates these relationships.**

Methods

Participants: The study included 272 17- to 57-year-old individuals; the mean age of the respondents was 20 (SD=2.85). Participants were from a predominantly female and non-Hispanic undergraduate population.

Procedures: Data were pre-collected through a self-report online questionnaire.

Herth Hope Index: The index assesses feelings of hope. Sample Statements:

- "I have a positive outlook toward life"
- "I feel my life has value worth"

Perfectionism Cognitions Inventory: The inventory probes perfectionistic behaviors and thoughts. Sample Statements:

- "I have to be the best"
- "I expect to be perfect"

Clance IP Scale: This scale examines the severity of an individual's imposter syndrome. Sample Statements:

- "I'm afraid people important to me may find out that I'm not as capable as they think I am"
- "Sometimes I'm afraid others will discover how much knowledge or ability I really lack"

State-Trait Anxiety Inventory's Trait Anxiety Scale: This scale assesses trait anxiety (how anxious a person generally feels). Sample Statements:

- "I feel nervous and restless"
- "I worry too much over something that really doesn't matter"

Analysis: All data were analyzed in IBM SPSS statistics software, version 26. First, the correlations between hope, imposter syndrome, and perfectionism were examined. Next, using multiple regression, we tested whether trait anxiety mediated hope's relationship with both imposter syndrome and perfectionism. In the mediation analyses, the indirect effect was tested using bootstrapping procedures, which make fewer assumptions about the sampling distribution (Preacher & Hayes, 2008). This procedure involves computing unstandardized indirect effects for each of 10,000 bootstrapped samples and calculating the 95% confidence interval (Shrout & Bolger, 2002).

Results

Table 1. Demographics of Sample

Race	Sample Size (N)	Percent
Race		
American Indian / Alaskan Native	1	0.4
Asian	75	27.3
Black or African American	25	9.1
White	144	52.4
More than One Race	24	8.7
Other	4	1.5
Ethnicity		
Hispanic or Latino	28	10.2
Not Hispanic or Latino	245	89.1

Gender	Sample Size (N)	Percent
Gender		
Male	59	21.5
Female	214	77.8
Education		
High school graduate or GED (General Education Diploma)	25	9.1
Less than 2 years of college	126	45.8
2 years of college or more/ including associate degree or equivalent	74	26.9
College graduate (4 or 5 year program)	45	16.4
Master's degree (or other post-graduate training)	3	1.1

Figure 1. Greater Hope is Associated with Less Imposter Syndrome. $r(273) = -.55, p < .001$.

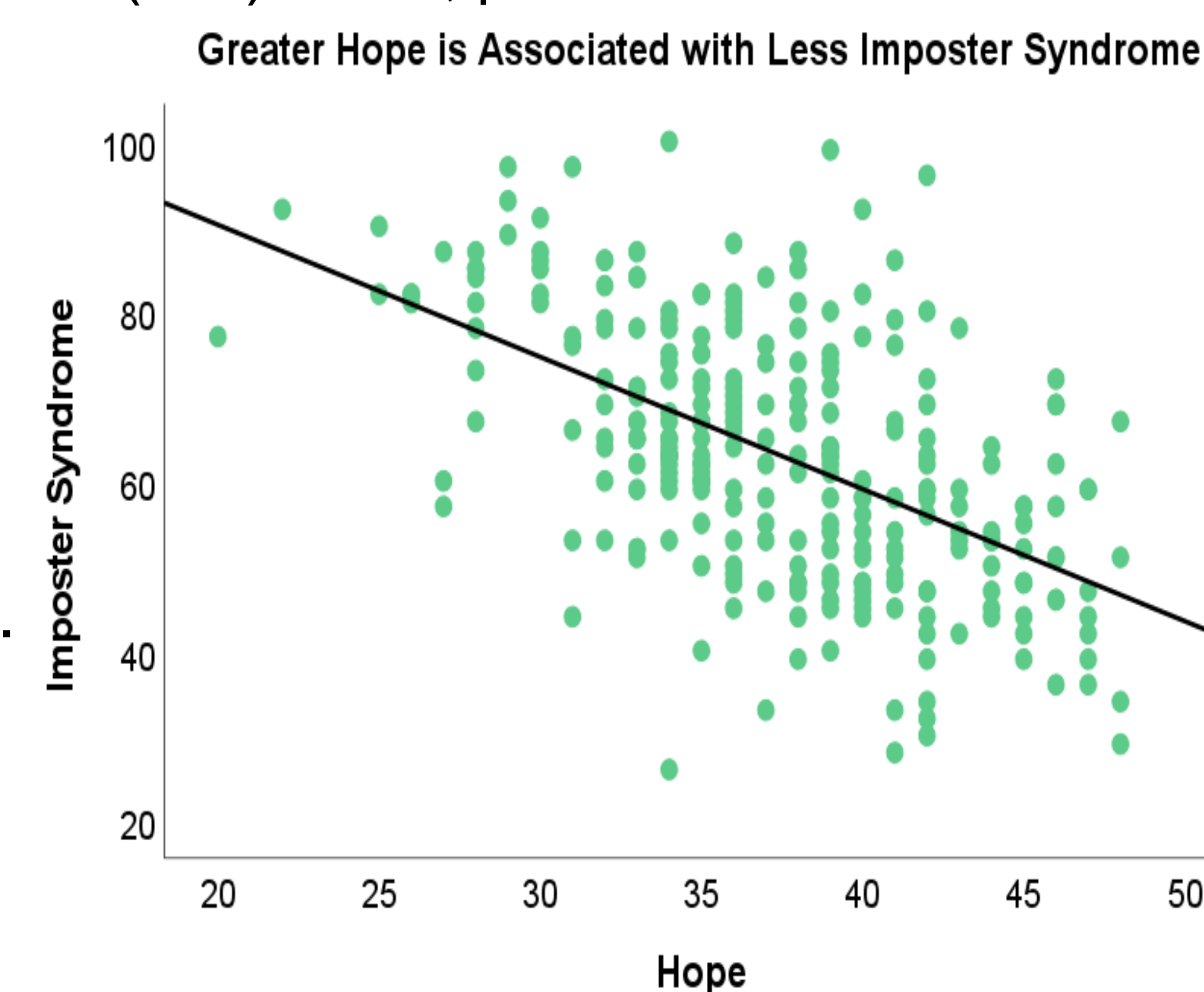
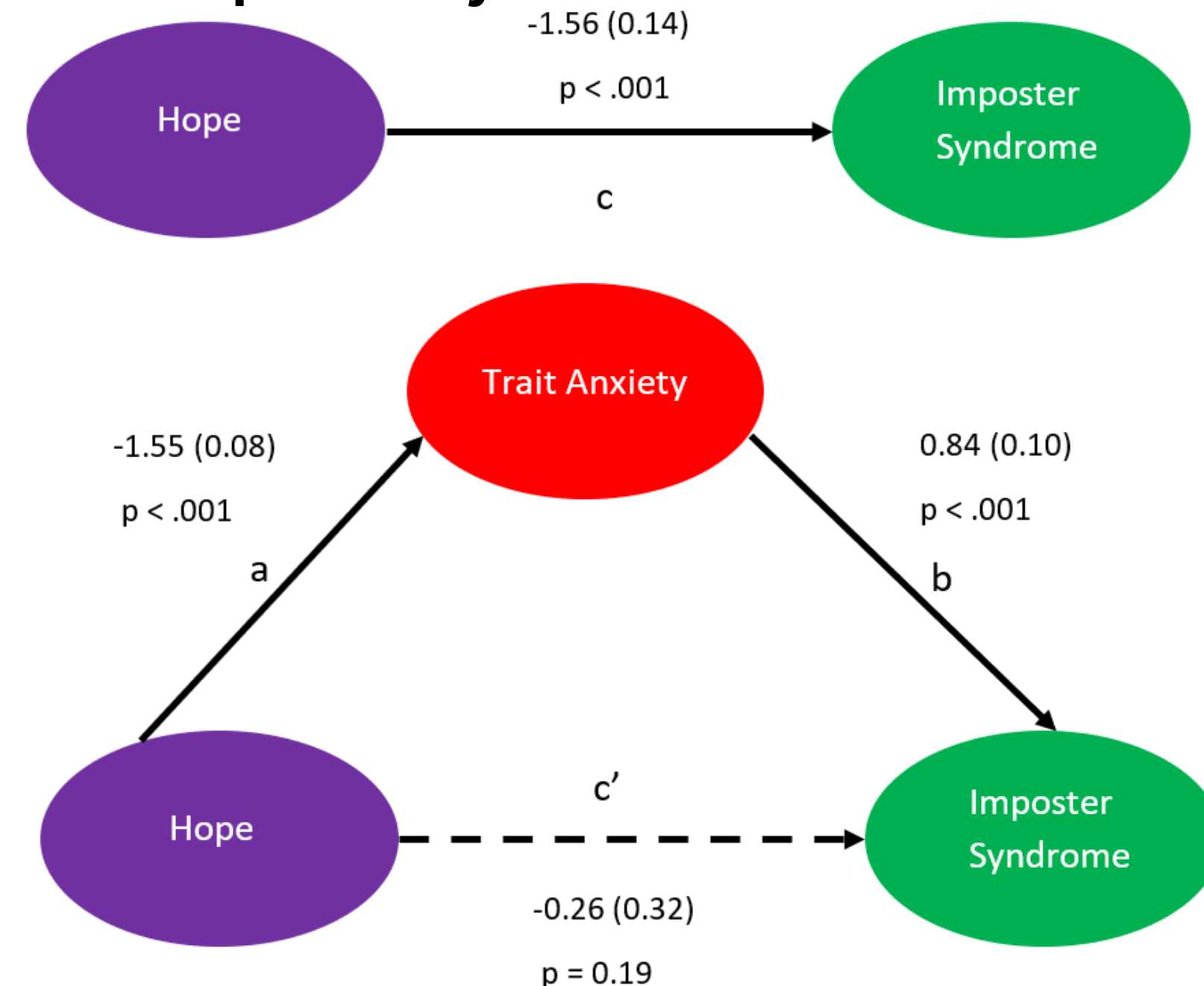


Figure 3. Trait Anxiety Mediates the Relationship Between Hope and Imposter Syndrome



Note. Greater levels of hope lead to less trait anxiety, which in turn, leads to lower endorsement of imposter syndrome (CI = -1.66, -.98). Of note, a secondary analysis with hope as the mediator between trait anxiety and imposter syndrome was not significant.

Figure 2. Greater Hope is Associated with Less Perfectionism. $r(273) = -.35, p < .001$.

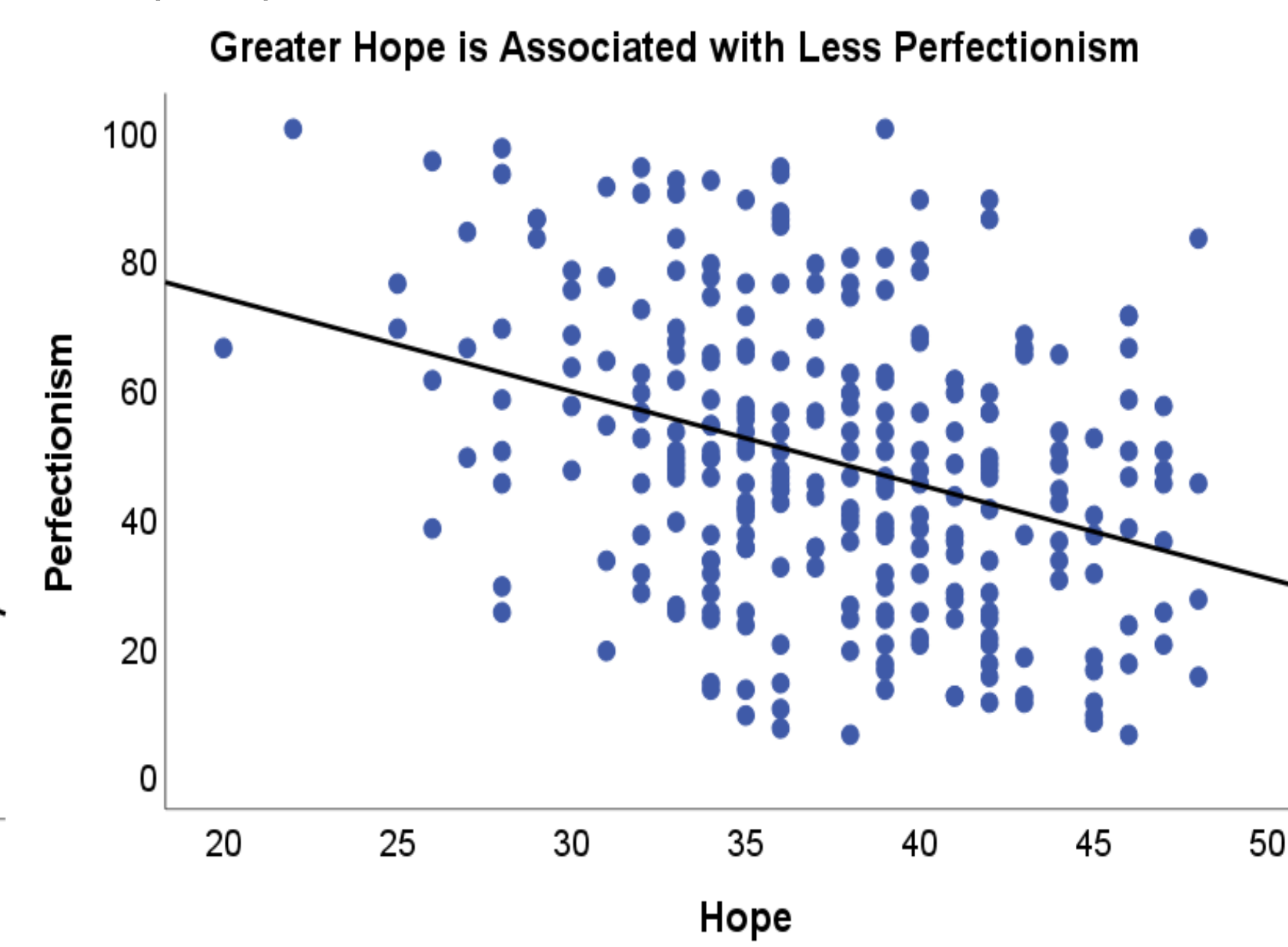
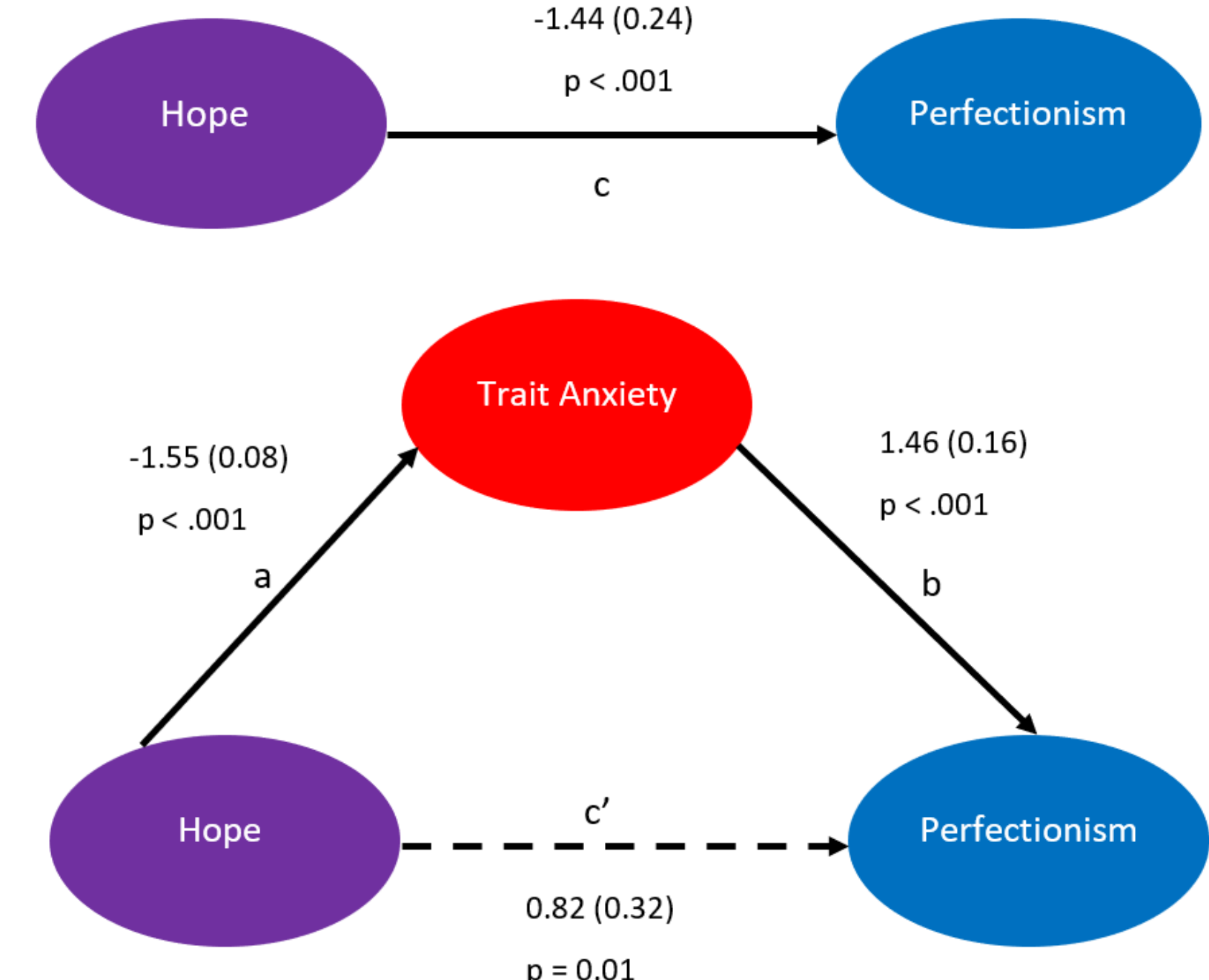


Figure 4. Trait Anxiety Mediates the Relationship Between Hope and Perfectionism



Note. Greater levels of hope lead to less trait anxiety, which in turn, leads to lower endorsement of perfectionism (CI = -2.93, -1.68). A secondary analysis with hope as the mediator was significant; however, the difference between the direct (c) and indirect (c') effects was minimal.

Discussion

- Analyses showed that as feelings of hope increase, feelings of imposter syndrome and perfectionism decrease ($p < .001$).
- Additionally, trait anxiety was found to mediate the relationship between hope and imposter syndrome, and between hope and perfectionism.
- In other words, greater levels of hope lead to less trait anxiety, which in turn, leads to lower endorsement of imposter syndrome or perfectionism.
- Together, these findings suggest that those with higher levels of hope tend to have lower levels of anxiety and as a result, they are less impacted by perfectionism and imposter syndrome.
- As in prior work, our results showed that high levels of anxiety worsen imposter syndrome and perfectionism.
- Consistent with previous findings, this study found that hope plays an important role in decreasing the severity of an individual's anxiety as well as the subsequent problems that may arise due to their anxiety.
- This work demonstrates that increasing hope is instrumental in reducing levels of anxiety, imposter syndrome and perfectionism, and suggests that interventions aimed at increasing hope may be useful in reducing these maladaptive symptoms and feelings.

Limitations of the study:

- Since the results were not collected over multiple time points, we cannot be sure that hope leads to trait anxiety which then leads to perfectionism and imposter syndrome. However, changing hope's and trait anxiety's positions in the mediation models yields either no or weak mediation. Due to the cross-sectional nature of our study, it is difficult to determine which variable came first.
- The current study also only examined one mediator (trait anxiety).

Future Directions:

- The current study should be replicated in younger and older samples. A longitudinal study could be conducted to determine which variable comes first. Other mediators could be tested as well as potential moderators. Future work could also test whether an individual's year in college influences these relationships. Finally, interventions aimed at increasing hope can be developed to reduce maladaptive behaviors and feelings, such as anxiety, imposter syndrome and perfectionism.

Conclusions

- In sum, the current study showed that hope has a negative relationship with imposter syndrome and perfectionism. Additionally, trait anxiety plays an important part in explaining the relationship between hope and both imposter syndrome and perfectionism.
- While this study was limited by a cross-sectional design, these results provide an important starting point for future work on the impact of hope.
- The strengths of this study include utilizing a large sample size in a sample of undergraduates at a top-tier college who endorse high levels of imposter syndrome and perfectionism.
- **Practical Use of Insights:** The results of this study suggest that hope is critical to reducing maladaptive feelings. Colleges may consider implementing interventions to increase hope, such as goal setting and progress tracking, early in students' college careers to mitigate the adverse consequences of low levels of hope.

Acknowledgements/References

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