

# How Can Friends Protect Against Adolescent COVID-19 Related Stress? An Examination Among Ethnically Diverse U.S. Adolescents

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## ABSTRACT

The COVID-19 pandemic has presented challenges to youth. Adolescents may be especially vulnerable to negative changes resulting from the pandemic such as school closures, thus, affecting their well-being (Buzzi et al., 2020). Research has shown that friends can be protective against adolescent stress (Cavanaugh & Buehler, 2015). Friendship factors could lessen the stress resulting from the pandemic. This study examines the relationship between perceived negative changes from the pandemic and adolescent stress. Friend support and online friend communication are examined as protective factors in these associations.

Adolescents were recruited on social media sites to complete an online survey, and 992 ethnically diverse adolescents comprised the sample.

Hierarchical regressions showed that adolescents who perceived more negative changes due to COVID-19 also reported more stress. Additionally, a significant interaction showed that adolescents' perceived negative changes and stress increased at low levels of online friend communication. Adolescents' perceived negative changes and stress were not associated at high levels of online friend communication. An interaction between perceived negative changes and friend support also emerged.

Based on these findings, friendship factors may protect adolescents from stress resulting from the perceived negative changes from the pandemic. Thus, although parents may be concerned about the spike in time spent online during the pandemic, this study's results suggest that this time online with friends may be important for adolescents' mental health.

## INTRODUCTION

### COVID-19 Pandemic Among Adolescents

- Adolescents are worried about the COVID-19 pandemic, including how it impacts their schooling and time with friends (Magson et al., 2021; Ellis et al., 2020).
- Due to the heightened need to connect with peers during the adolescent years, they may be especially impacted by the pandemic (Ellis et al., 2020).

### Protective Role of Friends?

- In adolescence, friendships can serve a protective role against stress and pain in their lives (e.g., Espinoza, 2018; Tanigawa et al., 2011).
- Research is mixed regarding friendships and well-being during the pandemic, for example:
  - spending time virtually with friends during the pandemic led to more depression and less loneliness (Ellis et al., 2020)
  - teens with lower social support had higher depression (Qi et al., 2020)

### Research Aims

The current study is guided by two main aims:

1. Examine whether perceived negative changes resulting from the COVID-19 pandemic predicts adolescent stress.
2. Test if friend communication and friend support protects against stress from adolescents' perceived negative changes.

## METHOD

### Sample

- 993 adolescents (59% female) aged 14 to 18 across the United States (e.g., 15% California, 7% Florida, 6% Texas, 5% Virginia)

### Measures

Teens completed online surveys advertised via social media sites

- Friend support (3 items,  $\alpha = .90$ )
  - Adapted from the Social Anxiety Scale for Adolescents (La Greca & Lopez, 1998)
  - Sample item: "I can talk about my problems with my friends"
- Online Friend Communication (1 item)
  - Participants were asked: "Since your school has closed, how often do you talk/chat with friends online (including on your cell phone, on social media, or through online gaming)?"
- Stress (10 items,  $\alpha = .85$ )
  - Items from the Perceived Stress Scale (Cohen et al., 1983)
  - Sample item: "In the last month, how often have you been upset because of something that happened unexpectedly?"
- Perceived COVID-19 Negative Changes (1 item)
  - Item: "How much has the COVID-19 outbreak, and the resulting changes to daily life, affected your life in a negative way?"

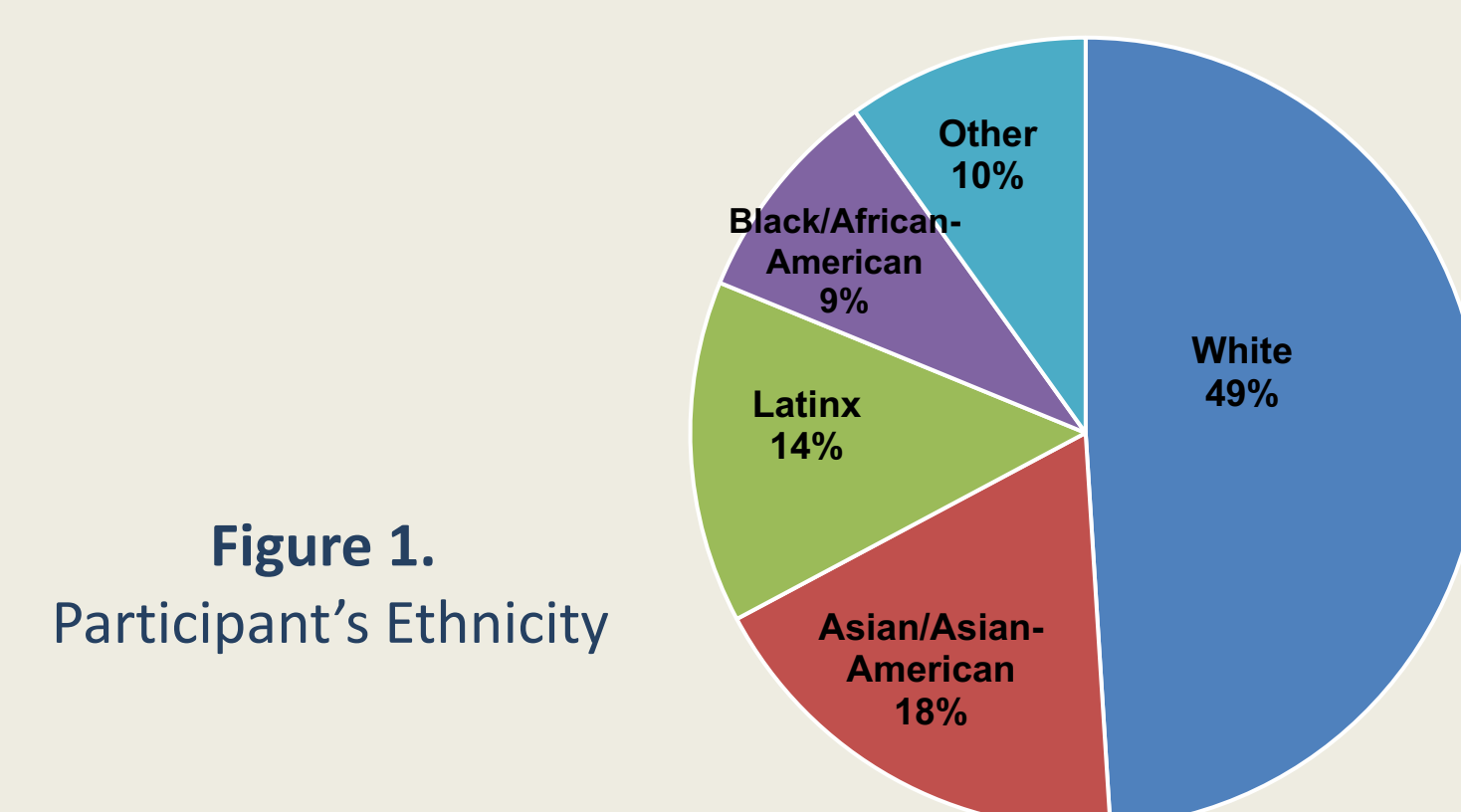


Figure 1.  
Participant's Ethnicity

## RESULTS

### Descriptive Findings

- Sex, grade or ethnicity differences among the key variables were tested with analyses of variance.
  - Perceived negative changes due to COVID were higher among females (compared to males) and 12<sup>th</sup> graders (compared to 9<sup>th</sup> and 10<sup>th</sup> graders)
  - For stress, female adolescents reported more stress than males.
- Bivariate correlations showed that as reports of social distancing increased, negative changes due to COVID-19 also increased.
  - More perceived negative changes correlated with more stress.
  - More friend support and communication correlated with less stress.

Table 1. Bivariate Correlations Among the Study Variables.

	1.	2.	3.	4.
1. COVID-19 Social Distancing				
2. Perceived Negative Changes	.09*			
3. Online Friend Communication	.06	.04		
4. Friend Support	.03	-.02	.31**	
5. Stress	.05	.35*	-.19**	-.19**

### Predicting Adolescent Stress

- A hierarchical regression model was run to test how perceived COVID-19 negative changes predicted stress.
  - Among the control variables, study phase and sex were significant (i.e., teens who completed the study in a later phase had more stress).
- Adolescents that perceived more negative changes resulting from COVID-19 reported more stress.
- At the final step, the two interactions between negative changes and the friend factors were significant.

Table 2. Hierarchical Linear Regression Predicting Adolescent Stress

Stress		
Variable	$\beta$	$t$
Step 1		
Study Phase	-.08	-2.52*
Sex	-.20	-6.15***
Grade	-.04	-1.26
Ethnicity	.06	1.82
Generational Status	-.04	-1.05
COVID-19 Social Distancing	-.01	-.29
Step 2		
Perceived Negative Changes	.36	2.82**
Online Friend	.29	2.82**
Friend Support	-.41	-4.10***
Step 3		
Neg. Changes X Online Friend	-.42	-2.75**
Neg. Changes X Friend Support	.35	2.39*

## RESULTS, CONTINUED

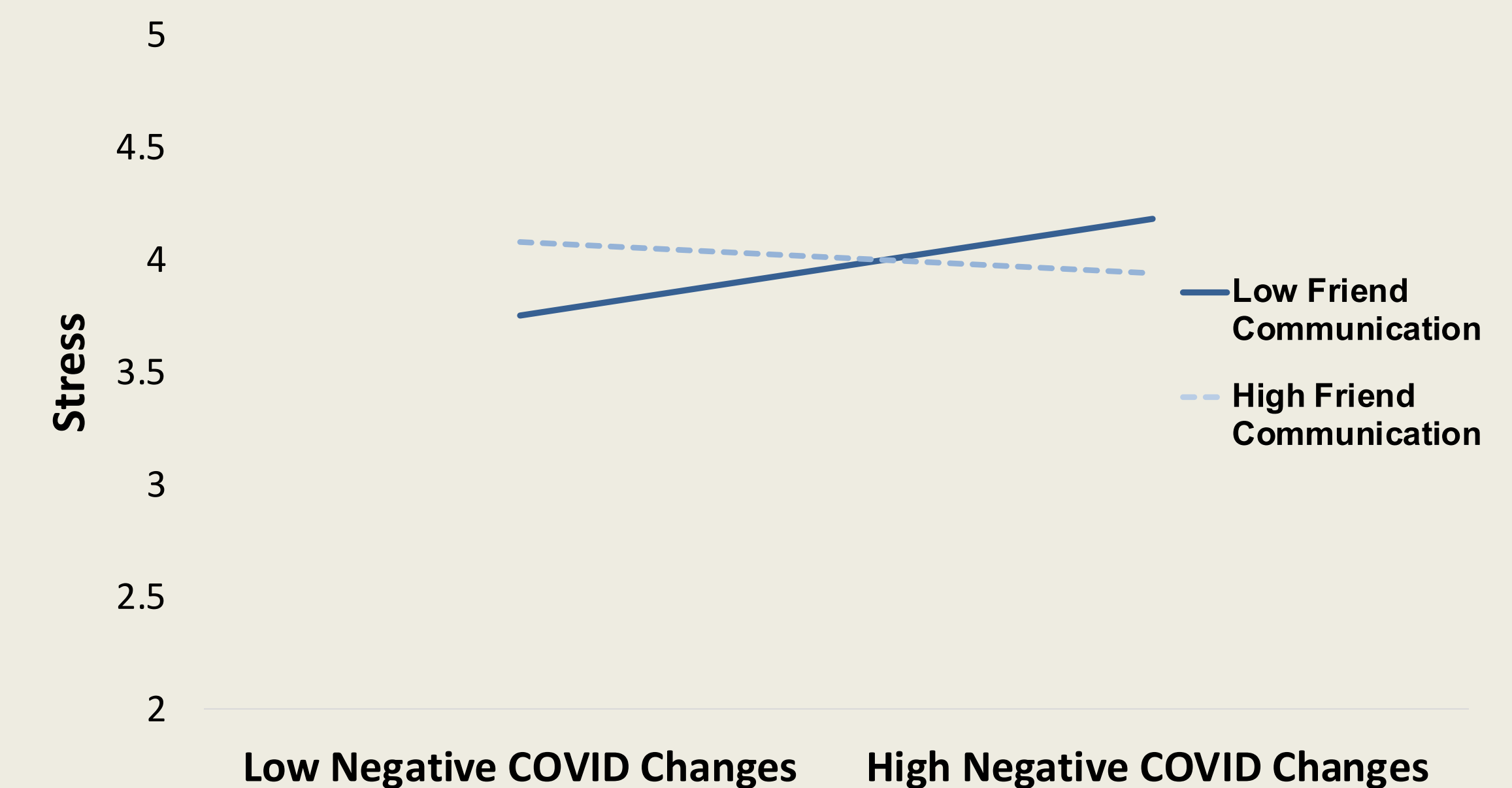


Figure 2. Interaction of Negative Changes and Online Friend Communication.

### The Protective Role of Friends

- The significant interaction of negative changes and online friend communication revealed that at low levels of communication, as negative changes increased, stress also increased.
  - However, at high levels of online friend communication, perceived negative changes and stress were not related.
- For friend support, stress and perceived negative changes of significantly related to low and high levels of friend support.
  - Lower levels of friend support led to more adolescent stress.

## DISCUSSION

### COVID-19, Stress, and Adolescent Friendships

- Perceived negative changes resulting from the pandemic predict greater adolescent stress, but friend support and online friend communication can protect against that stress.
  - Aligns with past research on friend communication improving negative emotions (Espinoza, 2018), and less time and support from friends leading to poorer mental health in the COVID-19 pandemic (Rogers et al., 2021).
- Thus, parents should not be concerned if they find that their adolescents are spending more time on their phones or social media – this may be what they need during this difficult time.

### Future Research

- Since adolescent girls perceived more negative changes, research can examine how the COVID-19 pandemic is affecting boys and girls in different ways.
  - Similarly, can examine differences across marginalized groups such as ethnic minorities and LGBTQ youth.
- Other sources of support could also be examined such as parent or sibling support during the pandemic.