

# COVID-19 Stressors, Rumination and Social Support, with Depression Among Students

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## Introduction

- The COVID-19 pandemic and associated stressors are causing negative mental health outcomes for youth (Duan et al., 2020; Pedrosa et al., 2020). It is critical to understand the pathways by which stressors may lead to depression.
- One framework that highlights how a variety of factors predict depressive symptoms is the general elaborated cognitive vulnerability-transactional stress model of depression (Hankin & Abramson, 2001), which suggests that both vulnerabilities and protective factors interact to predict depression.
- In addition to stress, rumination (vulnerability factor) and social support (protective factor) have been identified as key predictors of depressive symptoms (Abela, Vanderbilt, & Rochon, 2004).
- Thus, rumination over the pandemic and social support (or lack thereof) may mediate the association between COVID-19 related stress and depressive symptoms.

## Research Question

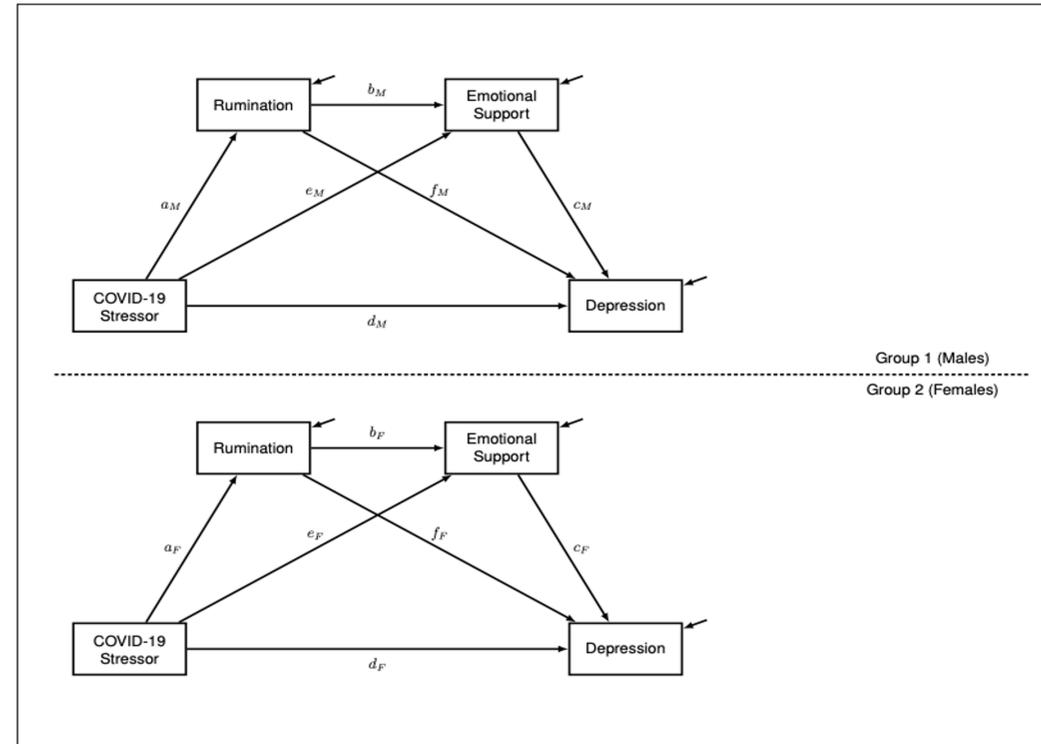
Does rumination and emotional social support from four sources (parents, teachers, classmates, close friends) serially mediate the association between COVID-19 stressors (schoolwork stress, social isolation, missing events, and fear of illness) and depressive symptoms for male and female high school students?

## Method

- 1,263 high school students in a Midwestern suburban school district were invited to participate in a school-wide evaluation during which the school was closed due to the COVID-19 pandemic.
- Participants completed questionnaires related to COVID stress (CASPE; Ladouceur, 2020), rumination (MRIS; Soo, Sherman, & Kangas, 2014), social support (CASSS; Malecki, Demaray, & Elliott, 2000), and depressive symptoms (CES-DC; Weissman, Orvaschel, & Padian, 1980).
- The electronic survey was sent to the students on April 24th, after remote learning had been occurring for just over one month and closed on May 21st.

Figure 1

Multigroup Serial Mediation Model Predicting Depression from COVID-19 Stressors Through Rumination and Emotional Support



Notes. Subscripts  $M$  and  $F$  indicate paths for male and female students, respectively.

Table 4

Summary of Results for All Mediation Models

Model	Gender	COVID Stressor	Emotional Support Source	Direct Effect	Mediators		
					Serial Mediation	Rumination	Emotional Support
1	Females	Schoolwork Stress	Parent	Y	N	Y	Y
1	Males	Schoolwork Stress	Parent	Y	Y	Y	Y
2	Males	Schoolwork Stress	Teacher	Y	N	Y	Y
2	Females	Schoolwork Stress	Teacher	Y	Y	Y	Y
3	Males	Schoolwork Stress	Classmate	Y	N	Y	Y
3	Females	Schoolwork Stress	Classmate	Y	Y	Y	Y
4	Males	Schoolwork Stress	Close Friend	Y	N	Y	N
4	Females	Schoolwork Stress	Close Friend	Y	Y	Y	N
5	Females	Fear of COVID-19 Illness	Parent	N	N	Y	N*
5	Males	Fear of COVID-19 Illness	Parent	Y	Y	Y	Y*
6	Females	Fear of COVID-19 Illness	Teacher	N*	Y	Y	N
6	Males	Fear of COVID-19 Illness	Teacher	Y*	N	Y	N
7	Females	Fear of COVID-19 Illness	Classmate	N	Y	Y	N
7	Males	Fear of COVID-19 Illness	Classmate	Y	N	Y	Y
8	Females	Fear of COVID-19 Illness	Close Friend	N*	Y	Y	N
8	Males	Fear of COVID-19 Illness	Close Friend	Y*	N	Y	N
9	Males	Social Isolation	Parent	Y	N	Y	Y
9	Females	Social Isolation	Parent	Y	N	Y	N
10	Males	Social Isolation	Teacher	Y	N	Y	N
10	Females	Social Isolation	Teacher	Y	Y	Y	N
11	Males	Social Isolation	Classmate	Y	N	Y	N
11	Females	Social Isolation	Classmate	Y	Y	Y	N
12	Males	Social Isolation	Close Friend	Y	N	Y	Y
12	Females	Social Isolation	Close Friend	Y	Y	Y	N
13	Females	Missing Events	Parent	N	N	Y	N
13	Males	Missing Events	Parent	Y	Y	Y	Y
14	Females	Missing Events	Teacher	N	Y	Y	N
14	Males	Missing Events	Teacher	Y	N	Y	N
15	Females	Missing Events	Classmate	N	Y	Y	Y
15	Males	Missing Events	Classmate	Y	N	Y	N
16	Females	Missing Events	Close Friend	N	Y	Y	N
16	Males	Missing Events	Close Friend	Y	N	Y	Y

\*Indicates significant conditional indirect effects.

## Results

- The pathway between COVID-19 stress and depression worked differently for boys and girls.
- For boys, serial mediation through rumination and parent emotional support partially explained the association between COVID-19 stress and depression.
- For girls there was evidence of serial mediation via rumination and emotional support from teachers, classmates, and friends for each type of COVID-19 stressor.
- In examining the association between COVID-19 stressors and depression through either rumination or emotional support separately, rumination was a more consistent mediator of this association.

## Implications

- The current study helps clarify the pathway by which stress related to COVID-19 may lead to depressive symptoms.
- School psychologists can better advocate and implement mental health services for students who are experiencing difficulties related to COVID-19 stress. This may be especially important for students who experience intrusive ruminative thoughts about COVID-19 and those lacking social supports.
- Only parent emotional support was protective for boys. Thus, boys who experience low levels of emotional support may be at particular risk.

## Limitations

- The participating sample was limited regarding racial and socioeconomic diversity. Additionally, indirect effects were examined using data collected at one point in time and predicted a particular pattern. Although this particular pattern is consistent with prior research (Hankin & Abramson, 2001), it is plausible that there could be other patterns in the data.