Supplemental Materials

to accompany

Social experiences and youth psychopathology during the COVID-19 pandemic:

A longitudinal study

Alexandra M. Rodman,Maya L. Rosen, Steven W. Kasparek, Makeda Mayes,

Liliana Lengua, Andrew N. Meltzoff & Katie A. McLaughlin

**Supplemental Materials**

**Supplemental Methods**

*Participants*

When comparing participants from the parent studies who completed the COVID study (N=224) to those who did not (N=93), we found no differences in pre-pandemic internalizing or externalizing symptoms (*β*=0.051, *p*=.369 and *β*=-0.005, *p*=.925, respectively), nor income-to-needs ratios (*β*=-0.001, *p*=0.989).

*SDQ Respondent Information*

|  |  |  |
| --- | --- | --- |
| ***SDQ Informant Information*** |  |  |
|  | Wave 1 | Wave 2 |
| *Internalizing Symptoms* |  |  |
| Youth report used | 46% | 47% |
| Parent report used | 42% | 42% |
| Equivalent scores | 12% | 11% |
| *Externalizing Symptoms* |  |  |
| Youth report used | 44% | 41% |
| Parent report used | 44% | 49% |
| Equivalent scores | 12% | 11% |

|  |  |
| --- | --- |
| ***SDQ Informant from Wave 1 to Wave 2*** | |
| *Internalizing Symptoms* |  |
| Child-child | 29% |
| Child-parent | 23% |
| Parent-child | 14% |
| Parent-parent | 14% |
| Equivalent scores | 11% |
| *Externalizing Symptoms* |  |
| Child-child | 23% |
| Child-parent | 28% |
| Parent-child | 16% |
| Parent-parent | 12% |
| Equivalent scores | 11% |

For internalizing symptoms, parent and child report were highly correlated at wave 1 and wave 2 of the pandemic (*r*=0.43, *p*<.001, *r*=0.61, *p*<.001, respectively). Similarly, parent and child report of externalizing symptoms were also highly correlated at wave 1 and 2 of the pandemic (*r=*0.60, *p*<.001, *r=*0.47, *p*<.001, respectively).

**Supplemental Analyses**

***Secondary Analyses***

As a secondary analysis, we examined *absolute levels socialization* and *parental support* during Wave 1 of the pandemic. As described in the main text, participants completed a novel survey and were asked to report the frequency and duration with which they socialized with friends in-person (*M*=6.945, *SD*=6.081, *range*: 1-30) and by digital means (i.e., phone call, text, messaging apps, and other platforms; *M*=12.192, *SD*=8.872, *range*: 1-36) during the initial stay-at-home orders of the pandemic.

Parental support was assessed using a validated measure of six items (Harter, 1985) that probed relationship quality and perceived emotional support from parents (*M*=3.285, *SD*=0.539, *range*: 1.33-4.00). Items included whether participants had parents who “understand them,” “want to hear about their problems,” “care about my feelings,” “treat them like they really matter,” “like them the way they are,” and “act like what they do is important” scored on a 1-4 Likert scale from “Strongly disagree” to “Strongly agree.” Items were summed and had moderately high reliability (*alpha*=0.80).

All analyses followed the same statistical approach as in the main text, examining socialization or parental support as both predictors of psychopathology and moderators of the relationship between pandemic-related stress and psychopathology. We again examined age-related differences to these models to test whether associations differed across age. Summary statistics and plots for these secondary models can be found in Table S3 and Figure S1.

*Absolute Levels of Socialization during the Pandemic*

We examined how in-person and digital socialization during the initial stay-at-home orders were associated with psychopathology, while controlling for pre-pandemic symptoms. Lower levels of in-person socialization during this time were associated with greater concurrent internalizing (*β*=-0.160, *p*=.012) but not externalizing (*β=*-0.005, *p*=.934) symptoms. Levels of in-person socialization were not prospectively associated with internalizing symptoms six months later (*β=*-0.137, *p*=.061). Meanwhile, lower levels of digital socialization during the pandemic were not significantly related to concurrent internalizing symptoms (*β*=-0.131, *p*=.065) or externalizing symptoms at either time-point (*p*s=.340-.888), but prospectively predicted greater internalizing symptoms six months later, after the initial stay-at-home orders were lifted (*β*=-0.193, *p*=.017). There were no age-related differences in the association between socialization and psychopathology (*p*s>.155). When examining levels of socialization as a moderator, we did not find a significant effect of absolute levels of socialization (in-person or digital) on the relationship between pandemic-related stress and psychopathology (*p*s>.090), nor any moderating effects by age (*p*s>.061).

*Parental Support during the Pandemic*

We also examined perceived support from parents during the pandemic and initial stay-at-home order period. Lower levels of parent support were concurrently and prospectively associated with greater internalizing symptoms (*β*=-0.304, *p*<.001 and *β*=-0.344, *p*<.001, respectively). Additionally, lower parent support was concurrently and prospectively associated with greater externalizing symptoms (*β*=-0.245, *p*<.001 and *β*=-0.263, *p*<.001, respectively). Children reported greater support from parents than adolescents (*β*=-0.252, *p*<.001). No other age interactions were found (*p*s>.334). Parental support did not interact with pandemic-related stressors to predict psychopathology (*p*s>.282), nor did we find a moderating effect by age (*p*s>.209).

**Supplemental Figures**

**Graphical user interface, chart, application

Description automatically generated**

Figure S1. Associations between absolute levels of in-person and digital socialization and parental support with psychopathology. Less in-person and digital socialization during the pandemic was associated with worsened internalizing symptoms at Wave 1 and Wave 2, respectively (A, B). Lower levels of parental support during the pandemic were associated with worsened internalizing and externalizing symptoms at Wave 1 and Wave 2 (C-F) Shaded region indicates SE.

**Supplemental Tables**

 

Table S6. Zero-order correlations between social factors



