

# Concerns about the COVID-19 Pandemic Among Justice-Involved and Low-Income Youth

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## ABSTRACT

The COVID-19 pandemic has caused immense change and stress among adolescents. Yet, little is known about youths' concerns related to the COVID-19 pandemic. This is particularly true among youth who have been highly impacted by the pandemic—namely, justice system-involved youth, low-income youth, and youth who consider themselves to be low status. Youth from the community, youth on probation, and incarcerated youth completed a survey describing their concerns related to COVID-19 across three concern domains: economic, social concerns, and COVID-19 itself. Results suggested that, with respect to economic concerns, incarcerated youth felt more concern about their ability to get a job if needed than youth on probation or community youth (accounting for gender and household income), and more concerned about food security (accounting for gender and subjective social status). With respect to social concerns, both incarcerated youth and youth on probation felt that the quality of their relationship with family members had decreased as a result of the pandemic, relative to community youth (accounting for gender and income), while incarcerated youth only felt that the quality of their friendships had decreased (accounting for gender and subjective social status). With respect to concerns about COVID-19, no group differences were observed about getting sick or dying from COVID-19, but low-income youth regardless of justice system status were more concerned about dying of COVID-19 than their affluent counterparts. Overall, the study gives voice to the concerns of the most vulnerable youth during the pandemic.

**Key words:** COVID-19, juvenile justice, public policy.

The COVID-19 pandemic has upended the global economy and severely restricted social interactions. A picture is emerging of the stress the pandemic has caused among adolescents. Yet, little is known about the types of concerns stemming from the

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pandemic that are most salient for adolescents. Moreover, for justice system-involved youths, pandemic-related concerns may be more acute, given their preexisting economic and social uncertainty. Due to disproportionate minority contact at every stage of the juvenile justice system, justice-involved youth are more likely to be non-White (Fader et al., 2014; Zane et al., 2020) and low income (see review by Ellis & McDonald, 2001)—the very communities which have been hardest hit by the pandemic. What is the impact of juvenile justice system involvement on concerns related to the COVID-19 pandemic among vulnerable youth? In the present study, youth from the community, youth on probation, and incarcerated youth described their concerns related to COVID-19 across three domains: economic concerns, social concerns, and concerns about COVID-19 itself, accounting for income and subjective social status, in order to understand the relation between justice system involvement and pandemic-related concerns.

## PANDEMIC-RELATED CONCERNS

### Economic Concerns

The economic impacts of the COVID-19 outbreak in the U.S. were felt by citizens—adults and youth alike—almost immediately. In April 2020, the U.S. unemployment rate rose from 4.4% to 14.7%—an unprecedented 10.3% increase from the previous month (U.S. Department of Labor, 2020). Further, 43% of adults lost a job or had taken a pay cut specifically due to the pandemic (Parker et al., 2020). Adolescents appear to be aware of COVID-19-related financial difficulties within their homes. One survey found that 40% of young people were very concerned about their family's financial situation during the pandemic (America's Promise Alliance, 2020). Indeed, parents of children under the age of 18 have particularly suffered from the negative economic impacts of the pandemic. Between April 23, 2020 and May 5, 2020, the U.S. Census Bureau found that 53.1 million parents of minors experienced job loss since the COVID-19 pandemic was declared a national emergency (U.S. Census Bureau, 2020a). In other words, 53.18% of parents experienced job loss since the onset of the pandemic, as compared to 42.40% of people without children.

As a result of parental job and/or income loss during the pandemic, adolescents may experience real or perceived pressure to get a job to help support their family. Although there are currently no reports of how many young people have gained employment specifically to support their families due to COVID-19, early research did suggest that over 80% of youth were worried about how COVID-19 was going to impact their family's income (UNICEF, 2020). Prior to the pandemic, unemployment among young people aged 16–19 was already higher than both older youths aged 20–24 and adults aged 25–54. These disparities increased at the onset of the pandemic, potentially as a result of youth-dominated industries being hardest hit by the pandemic (i.e., retail and hospitality; Inanc, 2020).

The COVID-19 pandemic has also impacted food (in)security, particularly among lower-income families. One study found a 32.3% increase in household food insecurity due to COVID-19, and 35.5% of those households were *newly* food insecure due to

COVID-19 (Niles et al., 2020). As a result of this increased food insecurity, food banks experienced unprecedented usage and their supply struggled to keep up with their demand. During the first month of the pandemic, 98% of Feeding America's 200 food banks had a greater demand for food assistance and 59% had less inventory to meet that demand (Feeding America, 2020a). Food banks in Texas—where data for the current study was collected—experienced a 60% increase in 2020 as compared to the previous year, and over half of those people were using a food bank for the first time (Feeding Texas, 2020). Disturbingly, Feeding America projected that the number of food-insecure youth in the U.S. could rise by 1.2 million to 6.8 million children due to the COVID-19 crisis (Feeding America, 2020b). People experiencing food insecurity during the pandemic are subsequently more likely to report losing their job or income—regardless of whether or not they actually got sick (Wolfson & Leung, 2020). Adolescents from lower-income households are already more likely to experience food insecurity, and research suggests that adolescents are aware when food insecurity exists within their homes (McLaughlin et al., 2012; Stella Fram et al., 2011). Adolescents' awareness of economic difficulties within their households could lead to greater feelings of concern about the COVID-19 pandemic.

### Social Concerns

The COVID-19 pandemic has also upended how we interact with others, shifting face-to-face interactions to an online environment. People are spending dramatically more time online than they were prior to the pandemic (Akulwar-Tajane et al., 2020; Qin et al. 2020). Children and adolescents are no exception; parents report that their children spend twice as much time online during the pandemic as compared to before the pandemic (Ozturk Eyimaya & Yalçin Irmak, 2021; ParentsTogether Foundation, 2020). Indeed, multiple studies comparing children before and during pandemic-related school closures found that children across the globe were engaging in less physical activity and more recreational screen time (Kovacs et al., 2021; Schmidt et al., 2020; ten Velde et al., 2021). One consequence of this changing social environment is that adolescents were spending dramatically more time with family members within their household than they did pre-pandemic.

Positive family relationships are important for adolescents' mental health, socioemotional adjustment, and overall well-being (Dmitrieva et al., 2004; Fosco et al., 2012; Steinberg, 2001). However, adolescence is also a time in which youth are spending more time with their peers—and, subsequently, less time with their parents (Brown, 2004; Larson & Richards, 1991; Larson et al., 1996). Early adolescence can be accompanied by an increase in parent–youth conflicts over everyday events (i.e., what to wear or what time to go to bed). The changing relationship dynamics brought on by the pandemic may increase the frequency of these conflicts as adolescents are suddenly spending much more time with their families and much less time with their peers (Steinberg, 1981). Many adolescents report that they find it hard to stay at home, there are more family quarrels in their home, and they are re-evaluating their parent–child relationship (Pigaiani et al., 2020). The

consequences of the pandemic on adolescent–parent relationships might depend on the quality of the relationship prior to the pandemic. One study found that although some teenagers complained about spending too much time with their family, other teenagers saw more time with family as a positive (Rogers et al., 2020). The pandemic might therefore be exacerbating adolescents' existing relationships with their family members—both good and bad.

Inevitably, adolescents' in-person connections with people outside of their immediate household also became limited, and youth are likely feeling disconnected from their friends as a result (Rogers et al., 2020). As youth begin spending more time with their peers relative to their parents during adolescence, they also become more dependent on their peers (Brown & Larson, 2009; Steinberg & Silverberg, 1986). As a result, friendship quality becomes increasingly important to adolescents' socioemotional adjustment (Gaertner et al., 2010; Lodder et al., 2017). Social isolation from these crucial relationships during the pandemic can therefore lead to greater mental health problems among adolescents (i.e., anxiety, depression, worry; see Loades et al., 2020 for a review). Younger adolescents may be particularly likely to experience problems with friends during the pandemic, as their friendships are less established and stable than that of older adolescents' friendships (Scott et al., 2021). However, adolescents with strong social connections and social support may be less likely to experience these problems than adolescents who feel less socially connected (Magson et al., 2021; Zysberg & Zisberg, 2020).

One way that adolescents foster relationships with their peers is through social media, which can be an effective source of connection for adolescents who already have strong social connections to friends (George & Odgers, 2015). During the pandemic, social media has become one of the only ways for adolescents to interact with their peers. One study found that 40–50% of the adolescents in their sample spent at least 1–2 hours per day interacting with friends via text message or video chat, and nearly 95% spent at least 30 minutes on social media each day (Ellis et al., 2020). However, adolescents who spend more time on social media during the pandemic may also be *more* likely to experience depression, indicating that connecting with friends on social media is not necessarily synonymous with actually feeling socially connected or supported (Ellis et al., 2020). Adolescents may therefore be rightfully concerned about how the pandemic is going to impact their existing friendships and friendship quality.

## COVID-19 Concerns

Beyond collateral economic and social concerns resulting from the pandemic, adolescents are also experiencing concerns about the COVID-19 disease itself. Studies are mixed regarding adolescents' fear of getting sick or dying from COVID-19. One study conducted with Australian adolescents in May 2020 found these concerns to be prevalent (Magson et al., 2021), whereas a study conducted with American adolescents in March 2020 reported relatively low levels of concern (Waselewski et al., 2021). Differences in adolescents' reported concern could potentially be due to the timing of these two studies—Australia's government imposed a nationwide shutdown 2 months prior

to May 2020, while the American government was just starting to impose shutdown orders in March 2020 on a state-by-state (not nationwide) basis.

Adolescents are certainly, however, experiencing concerns about COVID-19 beyond fears of personal illness or death. In the initial weeks of the pandemic, adolescents' general stress and worries about the pandemic increased daily (Ravi Rai et al., 2020; Waselewski et al., 2021). During this early period, 1 in 4 adolescents reported symptoms of poor emotional and cognitive health, such as loss of sleep due to worrying and feeling constantly under strain (America's Promise Alliance, 2020). Adolescents who had a friend or family member with mental illness, who had a relative who was diagnosed with COVID-19, or who were at risk for infection themselves appeared to be most concerned about the pandemic (Al Omari et al., 2020). Vulnerable youth (i.e., youth involved with the justice system or youth from low-income families) may be particularly concerned about COVID-19—including getting sick or dying—given that their communities are disparately impacted by COVID-19 infection, death, and other negative consequences of the pandemic.

## DISPARITIES AND THE PANDEMIC

Youth involved with the juvenile justice system are disproportionately more likely to be racial/ethnic minorities and from lower-income households (Ellis & McDonald, 2001; Fader et al., 2014; Rekker et al., 2015; Zane et al., 2020)—these are the very groups that are most impacted by the COVID-19 pandemic. People from minority and low-income communities are more likely to lose their job or income due to COVID-19 and face increased risk of getting sick from or dying from COVID-19 (Karaye & Horney, 2020; Parker et al., 2020; Khazanchi et al., 2020). Data for the current study was collected in El Paso, TX—a community situated on the U.S.-Mexico border that is at particularly high risk for experiencing the negative impacts of the pandemic due to its high percentage of Hispanic residents (82.9%) and residents below the poverty line (20.2%; U.S. Census Bureau, 2019).

### Juvenile Justice

Juvenile incarceration is physically enclosed and socially isolated by design. Adolescents are detained in close quarters without privacy from others and are unable to interact with family and peers. Physical enclosure and social isolation also put juveniles at greater risk for experiencing some of the adverse physical and emotional consequences of the COVID-19 pandemic. Detention centers are susceptible to the rapid spread of communicable diseases such as COVID-19, which puts incarcerated adolescents at a greater risk for contracting the virus (Bick, 2007; Dolan et al., 2016). Indeed, COVID-19 diagnoses among detained youth have been steadily increasing since March 2020. As of February 2021, a total of 3,753 detained youth had been diagnosed with COVID-19 (Rovner, 2021). However, these are likely underestimates, given that many juvenile facilities have been reticent to release their COVID-19 case numbers (Rovner, 2021).

Given what is known about the rate of spread of COVID-19 in other congregate carceral institutions (i.e., adult prisons, jails, and migrant detention facilities, which have been labeled as superspreader contexts; see KhudaBukhsh et al., 2021; Tosh et al., 2021), it is likely that the COVID-19 case rate among detained youth is disproportionately higher than that among community adolescents.

Changes in detention center protocols and policies for safety resulted in many facilities being put on full lockdown during the pandemic to prevent the virus from entering or spreading through the facility, eliminating visitation or services for incarcerated youth (Buchanan et al., 2020). Many youth probationary programs have also moved to online service provision for youth on a supervised probation status—or have stopped these services entirely (Mooney & Bala, 2020). Indeed, in our sample of justice-involved youth, all visitations were halted and all face-to-face services (i.e., school and therapy) were moved to virtual delivery on March 16, 2020.

Although restricted access to services and visitation may reduce the risks of additional COVID-19-exposure for detained youth, it also prevents them from having contact with their support systems. Prior to the pandemic, youth within the facility of the current sample were allowed one hour of visitation with their parents per week, and this social interaction has since been delivered via video chat. Yet, these support systems that are denied to incarcerated youth may be instrumental in protecting adolescents from the negative socioemotional effects of a disaster (see review by Pfefferbaum et al., 2015). Family time during COVID-19 can help alleviate mental health concerns among community adolescents (Ellis et al., 2020). Further, parental visitation can protect against depressive symptoms in incarcerated youth (Monahan et al., 2011). This family time, which brings psychological benefits to both community and incarcerated adolescents, is no longer viable for incarcerated youth. These extreme changes to daily protocols could heighten the sense of concern and urgency related to the pandemic for justice-involved youth.

## Race and Ethnicity

El Paso's population is 82.9% Hispanic (U.S. Census Bureau, 2019)—a minority group particularly impacted by the economic, social, and health challenges caused by the COVID-19 pandemic. Hispanic youth are reporting worse emotional and cognitive health and are feeling less socially connected to their peers than either White or Black youth during the pandemic (America's Promise Alliance, 2020). Additionally, Hispanic people are at higher risk of dying from COVID-19—Hispanic mortality rates are nearly double that of White mortality rates (Gross et al., 2020).

## Income and Subjective Social Status

Poverty rates in El Paso are nearly double that of the U.S. average (20.2% and 12.3%, respectively), placing El Paso youth in an even more vulnerable position during the pandemic (U.S. Census Bureau, 2019, 2020b). A survey by the Pew Research Center in April 2020 found that a higher percentage of lower-income adults had lost a job or

taken a pay cut due to the pandemic as compared to all adults (52% and 43%, respectively; Parker et al., 2020). This percentage was even higher among Hispanic adults (61%), which highlights the increased vulnerability of Hispanic communities during the pandemic. Additionally, people from low-income counties are at higher risk for both COVID-19 diagnosis and death (Khazanchi et al., 2020).

Two measures of income are included as covariates in the current study: household income and subjective social status. Subjective social status taps into how adolescents are perceiving themselves relative to their peers and is associated with adolescent health outcomes above and beyond objective social status (Goodman et al., 2001). This distinction allowed us to examine how adolescents' concerns regarding COVID-19 are influenced by both their families' actual financial status as well as the way they believe their family is perceived by society. Examining adolescents' economic, social, and COVID-19-related concerns in this community was, therefore, particularly important, as it allowed us to examine how youth from high-risk communities are experiencing COVID-19.

## THE PRESENT STUDY

Currently, little is known about how vulnerable youth view the pandemic. Specifically, justice system involved youth from low-income families might find themselves in an especially challenging position as a result of the pandemic. As child-serving systems scramble to appropriately address the needs of these youth, it is important to understand what youths' concerns are, and how these concerns may differ based on juvenile justice system penetration. The present study answers the research question: *What is the impact of juvenile justice system involvement in concerns related to the COVID-19 pandemic?* Youth from the community, youth on probation, and incarcerated youth completed a survey describing their concerns related to COVID-19 across three domains: economic concerns, social concerns, and concerns about COVID-19 itself, accounting for income and subjective social status. We expect that deeper justice system penetration will be associated with greater concerns across domains, reflecting the precarious situation of justice-involved youth and their families during the pandemic.

## METHODS

### Participants

The present study used data from the Adolescent Sleep and Social Development (ASDS) Study, a prospective longitudinal study of 105 adolescents who were either incarcerated, on probation, or had never been arrested, and their parents, recruited from El Paso, TX. During the COVID-19 global pandemic, an ancillary interview was made available to participants to track how youth were coping with the pandemic. The present study concerns 67 youth who completed the COVID-19 interview (22.39% incarcerated, 14.93% on probation, and 62.69% non-justice-involved youth). Participants were

eligible for the present study if they had consented to participate in the ASDS Study before May 1, 2020, spoke fluent English or Spanish, were ages 13-17 upon ASDS study enrollment, were not diagnosed with a sleep disorder or any conditions that might affect their sleep, and a member of one of three groups: incarcerated in the local juvenile secure residential facility, on probation, or never arrested.

## PROCEDURES

Eligible youth participants were recruited for the Adolescent Sleep and Social Development Study using contact information provided by the Juvenile Probation Department for system-involved youth, and fliers posted in the community for non-system involved youth. Parental consent and youth assent were obtained for all participants.

During the COVID-19 pandemic (beginning in May 2020), participants were re-contacted to complete a brief ancillary survey about the impact of the pandemic on their lives. About 35.2% of youth refused to participate in the ancillary study or were unreachable during the recruitment window. Participants were informed that participation in the supplemental study was voluntary and their participation (or lack thereof) in the supplemental study would not impact their participation in the larger ongoing study. Data collection for the present study began after the El Paso Stay at Home order expired and before the public-school year concluded, between May 1, 2020 and May 29, 2020.

A Certificate of Confidentiality issued by the Department of Justice was obtained to protect participants' confidentiality and exempt participants' identity and responses from court orders, subpoenas, and other types of involuntary disclosures. All participants were informed of the Certificate of Confidentiality prior to the interview and reminded of the confidential nature of the interview during questions about sensitive topics. Interviews lasted approximately 30 minutes and were conducted over the telephone in the participant's preferred language (English or Spanish). Interview responses were recorded using a secure computer-administered program. Youth received \$15 as compensation for completing the interview via their choice of check or electronic gift card. The Institutional Review Board (IRB) of the University of Texas, El Paso approved all study procedures.

## MEASURES

### Justice System Involvement

Official records were obtained from the El Paso Juvenile Probation Department to determine whether each youth participant was incarcerated or on probation at the time of the interview. Participants were categorized as currently incarcerated (22.39%), currently on probation (14.93%), or never arrested (62.69%).



## Gender

Youth were asked to report whether they identified as male or female during the interview. Gender was observed to be related to several constructs of interest at the bivariate level and was included as a covariate in the regression models.

## Household Income

Pre-COVID-19 household income was assessed as part of the parent interview conducted through the Adolescent Sleep and Social Development Study. Parents reported their total annual household income, including contributions from all family members and federal assistance. Notably, because El Paso is a border community, a few parents reported their household annual income in Mexican Pesos. An exchange rate of 1 Peso = 0.05 United States Dollars was used to convert these responses to US Dollars. Income was used as a covariate in the models, to account for the role that financial insecurity may play in youths' concerns.

## SUBJECTIVE SOCIAL STATUS

In addition to an objective measure of income, we included a subjective measure of social status (MacArthur Scale of Subjective Social Status–Youth Version; Adler & Stewart, 2007). As part of the main Adolescent Sleep and Social Development Study, youth reported their subjective social status. The MacArthur Scale of Subjective Social Status uses an image of a symbolic ladder, to assess subjective social status in American society. It is well validated for use with adolescents (Goodman et al., 2001). Participants identified where on this ladder their families fell, relative to other Americans, such that the top of the ladder (10) represents the people with the most money, schooling, and well-respected jobs, and the bottom of the ladder (1) represents the people with the least money, education, or respected jobs.

## Economic Concerns

Economic concerns were measured through two individual items (adapted from: Epidemic Pandemic Impacts Inventory; Grasso, Briggs-Gowan, Ford, & Carter, 2020). In the first, participants were asked, "As a result of COVID-19, how concerned are you that you will not be able to find a job if you need to?" Response choices ranged from 1 (*Not at all*) to 5 (*Very much*), with higher scores indicating more concern. Second, participants were asked, "As a result of the pandemic, how concerned are you that you will not have enough food?" Again, response choices ranged from 1 (*Not at all*) to 5 (*Very much*), with higher scores indicating more concern. Importantly, the items were worded to ensure that participants reported economic concerns that stemmed from the pandemic, rather than reporting existing pre-pandemic concerns. Youth were also asked to report

whether they had lost a job due to the pandemic and whether they had enough food, so that we could better understand the financial situation of participants.

### Social Concerns

Changes in the quality of participants' social relationships was measured through two items. First, participants were asked, "How has the quality of your relationships between you and members of your family changed since the COVID-19 pandemic?" Then, participants were asked, "How has the quality of your relationships with friends changed since the COVID-19 pandemic?" Both questions had response choices ranging from 1 (*Much more negative*) to 7 (*Much more positive*). Both items were Z-scored, such that positive values indicated a higher quality relationship than before the pandemic and negative values indicated a lower quality relationship than before the pandemic. Again, items were worded to prompt participants to report social concerns that resulted from the pandemic, to avoid capturing pre-pandemic social concerns.

### COVID-19 Concerns

Participants were asked about their concerns directly related to the COVID-19 pandemic through two items (adapted from: Epidemic Pandemic Impacts Inventory; Grasso, Briggs-Gowan, Ford, & Carter, 2020). Participants were asked, "As a result of COVID-19, how concerned have you felt about getting sick from COVID-19?" and, "As a result of COVID-19, how concerned have you felt about dying from COVID-19?" Response choices for these two items ranged from 1 (*Not at all*) to 5 (*Very much*), where higher scores indicated more concern.

## ANALYTIC PLAN

To address the study research questions, a series of 14 OLS regressions were conducted, with level of system contact as the dependent variable and gender and markers of SES (household income and subjective social status, respectively) as covariates. All analyses were performed using Stata version 14.0 (StataCorp, College Station, TX, United States).

## RESULTS

Descriptive and bivariate analyses were conducted to better understand the associations between all study variables. Youth who were juvenile justice system-involved (e.g., incarcerated or on probation at the time of the interview) comprised 37.31% of the sample. The majority of participants (63.64%) were male, with an average age of 15.92 years old. Household income varied widely, from \$1,500 (converted from Mexican Pesos to

US Dollars) to \$240,000 ( $M = \$51,397.27$ ), with a median income of \$28,240. Table 1 displays all sample descriptive statistics.

## ECONOMIC CONCERNS

First, we tested the association between economic concerns and justice system involvement, where gender and household income were covariates, in two OLS regression models. In Model 1a, results suggested that incarcerated youth felt more concern about their ability to get a job if needed than youth on probation [ $\beta = .36, p = .03$ ] or community youth [ $\beta = .40, p = .02$ ]. Overall, this model explained a significant proportion of variance in concern over ability to get a job [ $F(4, 38) = 3.15, r^2 = .25, p = .03$ ]. In Model 2a, no differences were observed in concern over food security between youth of different levels of justice involvement (all  $p > .05$ ).

Next, household income was replaced by subjective social status as a covariate in order to differentiate between objective measures of income and subjective understanding of social standing, and both models were tested again. In Model 1b, incarcerated youth were more concerned about their ability to find a job if needed than community youth [ $\beta = .34, p = .01$ ], but no differences were observed between incarcerated youth and youth on probation. Overall, similar to Model 1a, Model 1b explained a significant proportion of variance [ $F(4, 61) = 4.61, r^2 = .23, p = .01$ ]. In Model 2b, incarcerated youth were more concerned about food security than youth on probation [ $\beta = .30, p = .04$ ]. This model explained a significant proportion of the variance in concern about food security [ $F(4, 61) = 1.87, r^2 = .11, p = .04$ ]. However, no differences were observed between community youth and incarcerated youth nor youth on probation. Table 2 displays the results for Models 1a, 1b, 2a, and 2b.

## SOCIAL CONCERNS

A second series of OLS regression models were tested, in which justice system involvement was regressed on social concerns, controlling for gender and household income. In Model 3a, results suggested that both incarcerated youth [ $\beta = -.37, p = .03$ ] and youth on probation [ $\beta = -.47, p = .01$ ] felt that the quality of their relationship with family members had decreased as a result of the pandemic, relative to community youth. This model explained a significant proportion of the variance in quality of family relationships [ $F(4, 38) = 2.65, r^2 = .22, p = .03$ ]. No differences in relationship quality with family were observed between incarcerated youth and youth on probation, suggesting that this effect may generalize across different types of justice-involved youth. In Model 4a, no differences were observed with respect to quality of relationships with friends among youth of different levels of justice involvement (all  $p > .05$ ).

We again replaced household income with subjective social status as a covariate, and both models were tested again. In Model 3b, youth on probation expressed more negative relationships with family as a result of the pandemic than community youth

TABLE 1  
Sample Descriptive Statistics

	Descriptive Statistics		Bivariate Correlations								
	Percent		1 (p)	2 (p)	3 (p)	4 (p)	5 (p)	6 (p)	7 (p)	8 (p)	9 (p)
1 Juvenile justice system involvement											
Incarcerated	22.39%										
On probation	14.93%										
Community	62.69%										
2 Gender (Male)	63.64%										
			-29								
			(.02)								
	<i>M(SD)</i>	<i>Range</i>									
3 Household income	\$51,397 (51,313)	\$1,500 - \$240,000	-.47 (.001)	.04 (.80)							
4 Subjective social status	4.92 (1.40)	1 - 8	.20 (.11)	-.16 (.19)	-.15 (.32)						
5 Concern about finding a job	2.16 (1.49)	1 - 5	.38 (.001)	-.32 (.01)	-.17 (.28)	.21 (.09)					
6 Concern about food security	1.81 (1.25)	1 - 5	.20 (.10)	-.17 (.18)	-.16 (.30)	-.08 (.53)	.32 (.01)				

TABLE 1  
*Continued*

	<i>Descriptive Statistics</i>		<i>Bivariate Correlations</i>								
		<i>Percent</i>	1 (p)	2 (p)	3 (p)	4 (p)	5 (p)	6 (p)	7 (p)	8 (p)	9 (p)
7	Quality of relationship with family (z-scored)	0 (1)	-1.98 – 1.66	.09 (.49)	-.01 (.96)	-.04 (.74)	.10 (.41)	.18 (.14)			
8	Quality of relationship with friends (z-scored)	0 (1)	-.87 – 2.14	.02 (.87)	.05 (.73)	-.07 (.55)	.13 (.31)	.20 (.11)	.30 (.01)		
9	Concern about getting sick from COVID-19	2.70 (1.54)	1 - 5	-.04 (.74)	-.19 (.21)	-.06 (.62)	.17 (.18)	.42 (.001)	.18 (.14)	.14 (.25)	
10	Concern about dying from COVID-19	2.24 (1.52)	1 - 5	-.10 (.42)	-.27 (.07)	-.07 (.59)	.32 (.01)	.44 (.001)	.12 (.34)	.16 (.19)	.81 (.001)

**TABLE 2**  
**Level of Justice System Contact Regressed on Economic Concerns**

Model 1a Ability to get a job						Model 2a Food security					
Variables	B	SE	$\beta$	95% CI	p	B	SE	$\beta$	95% CI	p	
Constant	2.07*					2.28*					
Genders <sup>a</sup>	-.71	.41	-.25	[-1.5, .13]	.10	-.26	.43	-.100	[-1.13, .60]	.54	
Household income	-1.07	4.17	-.04	[-9.51, 7.38]	.80	-5.12	4.30	-.21	[-.01, 3.59]	.24	
Justice system involvement											
Community vs. Incarcerated	1.26*	.51	.40	[.24, 2.29]	.02	-.12	.52	-.04	[-1.18, .94]	.82	
Community vs. Probation	-.24	.65	-.06	[-1.57, 1.08]	.71	-.78	.67	-.20	[-2.14, .59]	.26	
Incarcerated vs. Probation	-1.51*	.68	-.36	[-2.89, -.13]	.03	-.66	.70	-.17	[-2.08, .77]	.36	
R <sup>2</sup>			.25					.06			

Model 1b Ability to get a job						Model 2b Food security					
Variables	B	SE	$\beta$	95% CI	p	B	SE	$\beta$	95% CI	p	
Constant	2.07*					3.05*					
Gender <sup>a</sup>	-.66	.36	-.22	[-1.39, .06]	.07	-.45	.33	-.18	[-1.12, .21]	.18	
Subjective social status	.12	.12	.11	[-.12, .36]	.33	-.11	.11	-.12	[-.33, .12]	.35	
Justice system involvement											
Community vs. Incarcerated	1.19*	.42	.34	[.36, 2.02]	.01	.62	.38	.21	[-.14, 1.39]	.11	
Community vs. Probation	.37	.49	.09	[-.61, 1.36]	.45	-.41	.45	-.12	[-1.32, .50]	.37	
Incarcerated vs. Probation	-.82	.54	-.20	[-1.90, .27]	.14	-1.03*	.50	-.30	[-2.03, -.03]	.04	
R <sup>2</sup>			.25					.11			

<sup>a</sup>Male is the reference group.

\**p* < 0.05.

$[\beta = -.40, p = .003]$ . As with Model 3a, this model also explained a significant proportion of the variance in family relationships [ $F(4, 61) = 2.78, r^2 = .15, p = .003$ ]. However, there were no differences in change in family relationship quality between incarcerated youth and youth on probation, nor incarcerated youth and community youth. In Model 4b, as with Model 4a, no differences were observed with respect to quality of relationships with friends among youth of different levels of justice involvement (all  $p > .05$ ). Table 3 displays the results for Models 3a, 3b, 4a, and 4b.

## COVID-19 CONCERNS

Finally, a third series of OLS regression models were tested, in which justice system involvement was regressed on COVID-19 concerns, controlling for gender and household income. In Model 5a, there were no differences in concern over getting sick from COVID-19 among the levels of justice system contact (all  $p > .05$ ). Likewise, Model 6a revealed no differences with respect to concern about dying from COVID-19 among youth of different levels of justice involvement (all  $p > .05$ ). However, income was significantly associated with concern over dying [ $\beta = -.41, p = .02$ ], and the overall model explained a significant proportion of the variance in concern over dying [ $F(4, 38) = 1.91, r^2 = .17, p = .02$ ]. This suggests that, above and beyond justice system contacts, youth from impoverished families are more concerned about dying from COVID-19 than their well-off counterparts.

As before, we replaced household income with subjective social status as a covariate, and both models were tested again. In both Model 5b and Model 6b, there were no differences in fear of getting sick or dying from COVID-19 by level of justice system involvement. Subjective social status was also not associated with fear of getting sick or dying, suggesting that actual household income is more relevant to fear of dying from COVID-19 than one's subjective social status. Table 4 displays the results for Models 5a, 5b, 6a, and 6b.

## DISCUSSION

The present study examined justice-involved (including both incarcerated youth and youth on probation) and community youths' concerns about COVID-19 during the initial months of a global pandemic. Specifically, this study focused on amplifying the concerns of youth from a largely Hispanic, low-SES population, as this population faced greater risks of contracting COVID-19 and experiencing complications from the virus (Rozenfeld et al., 2020). Although youth were likely to have a variety of concerns during this time, we opted to focus on economic, social, and COVID-19 health concerns, as we believed these were likely to be the most prevalent concerns for youth. Given the fact that our sample resides in a location with high levels of community poverty (as more than 1/5 of residents live below the poverty level; U.S. Census Bureau, 2019, 2020b), we controlled for participants' socioeconomic status in two ways: 1) accounting for

TABLE 3  
Level of Justice System Contact Regressed on Social Concerns

Model 3a Relationships with family						Model 4a Relationships with friends					
Variables	B	SE	$\beta$	95% CI	p	B	SE	$\beta$	95% CI	p	
Constant	-.15					.27					
Gender <sup>a</sup>	-.07	.34	-.03	[-.77, .62]	.84	-.31	.36	-.14	[-1.05, .42]	.39	
Household income	-5.30	3.46	-.25	[-.01, 1.71]	.13	-6.89	3.65	-.03	[-8.07, 6.69]	.85	
Justice system involvement											
Community vs. Incarcerated	-.93*	.42	-.37	[-1.78, -.08]	.03	-.33	.44	-.14	[-1.22, .56]	.46	
Community vs. Probation	-1.57*	.54	-.47	[-2.66, -.47]	.01	-.52	.57	-.16	[-1.68, .63]	.37	
Incarcerated vs. Probation	-.63	.57	-.19	[-1.78, .51]	.27	-.19	.60	-.06	[-1.40, 1.02]	.75	
R <sup>2</sup>			.22					.10			
Model 3b Relationships with family						Model 4b Relationships with friends					
Variables	B	SE	$\beta$	95% CI	p	B	SE	$\beta$	95% CI	p	
Constant	.17					.32					
Gender <sup>a</sup>	-.08	.26	-.04	[-.60, .44]	.75	-.10	.27	-.05	[-.65, .45]	.70	
Subjective social status	.03	.09	.04	[-.15, .20]	.75	-.03	.09	-.04	[-.21, .16]	.76	
Justice system involvement											
Community vs. Incarcerated	-.52	.30	-.22	[-1.12, .08]	.09	-.48	.32	-.20	[-1.12, .15]	.13	
Community vs. Probation	-1.11*	.35	-.40	[-1.82, -.40]	.003	-.32	.37	-.12	[-1.07, .43]	.40	
Incarcerated vs. Probation	-.59	.39	-.21	[-1.37, .19]	.14	.16	.41	.06	[-.66, .98]	.70	
R <sup>2</sup>			.15					.04			

<sup>a</sup>Male is the reference group.  
\**p* < 0.05.



**TABLE 4**  
**Level of Justice System Contact Regressed on COVID-19 Concerns**

Model 5a Concern about getting sick						Model 6a Concern about dying					
Variables	B	SE	$\beta$	95% CI	p	B	SE	$\beta$	95% CI	p	
Constant	3.42*					3.03*					
Gender <sup>a</sup>	-.14	.51	-.04	[-1.16, .89]	.79	-.27	.47	-.09	[-1.22, .68]	.57	
Household income	-9.92	5.09	-.34	[-.001, 3.84]	.06	-.001*	4.74	-.41	[-.001, -1.73]	.02	
Justice system involvement											
Community vs. Incarcerated	-.82	.62	-.23	[-2.07, .43]	.19	-.37	.57	-.11	[-1.54, .79]	.52	
Community vs. Probation	-1.02	.80	-.22	[-2.63, .59]	.21	-1.41	.74	-.31	[-2.91, .10]	.07	
Incarcerated vs. Probation	-.20	.83	-.04	[-1.88, 1.49]	.81	-1.03	.78	-.23	[-2.60, .54]	.20	
R <sup>2</sup>			.10					.17			

Model 5b Concern about getting sick						Model 6b Concern about dying					
Variables	B	SE	$\beta$	95% CI	p	B	SE	$\beta$	95% CI	p	
Constant	3.21*					2.77*					
Gender <sup>a</sup>	-.33	.42	-.10	[-1.17, .51]	.44	-.37	.41	-.12	[-1.20, .45]	.37	
Subjective social status	-.05	.14	-.04	[-.33, .24]	.75	-.09	.14	-.08	[-.37, .19]	.52	
Justice system involvement											
Community vs. Incarcerated	-.43	.49	-.12	[-1.41, .54]	.38	.24	.48	.07	[-.71, 1.19]	.62	
Community vs. Probation	-.62	.58	-.15	[-1.78, .53]	.28	-.35	.56	-.09	[-1.48, .78]	.54	
Incarcerated vs. Probation	-.19	.63	-.05	[-1.46, 1.07]	.76	-.59	.62	-.14	[-1.83, .65]	.34	
R <sup>2</sup>			.03					.03			

<sup>a</sup>Male is the reference group.  
\**p* < 0.05.

participants' perceived sociometric status (i.e., how they see their social standing compared to others their age, in terms of money, education, and occupational respect), and 2) accounting for participants' actual family income.

## JUSTICE INVOLVEMENT AND YOUTH CONCERNS

Although all youth were likely to have at least some concerns during COVID-19, we were particularly interested in the concerns held by incarcerated youth and youth on probation (as compared to non-arrested community youth), given the unique conditions they experienced during the early months of the COVID-19 pandemic. Overall, there were three important distinctions between the concerns among justice-involved youth and community youth who had no history of arrest. First, incarcerated youth reported greater concern over their ability to secure employment if needed, as compared to community youth. Given the high rate of poverty within the sample region (U.S. Census Bureau, 2019, 2020b; for reference, the median annual household income for the sample was \$28,240) and the high rate of unemployment experienced within the county during the initial months of COVID-19 (which was 14.9% at the time of this study, higher than the national average of 13%; U.S. Bureau of Labor Statistics, 2021), youth in the study—just like youth across the US, according to national reporting (see Cardona-Maguigad, 2020; CBS news, 2021)—may have felt called to help with family expenses during the early months of the pandemic. Among the 67 youth in the present sample, 5 had lost a job themselves and 5 had their hours reduced due to COVID-19, 20 had a family member lose a job, and 29 had a family member's hours reduced due to COVID-19. Thus, a substantial portion of the present sample experienced economic change during this time. Incarcerated youth were physically detained during this time and therefore, unable to work to provide additional income for their families. The pronounced concerns felt by incarcerated youth, compared to community youth, may have also stemmed from concern about how their criminal record may hinder their employment opportunities, as a systematic review of the research suggests greater difficulty in securing a job for individuals with a criminal record (Griffith, Rade, & Anazodo, 2019). However, participants' reasons for their concern were not explicitly evaluated in the present study.

Second, when controlling for subjective social status, incarcerated youth were more likely to report concern about access to food than youth on probation. Interestingly, this difference became non-significant once income was accounted for, suggesting the difference in concern about food access likely stems from differences in family income between these groups, and that incarcerated youths' food concerns may have stemmed from their perceived position in the "pecking order" within the institution rather than a genuine need. On average, this sample had only mild concerns about food access ( $M=1.87$  out of 5). However, some participants expressed high levels of concern in this domain: 7.5% of the sample rated concern over food as a 5 out of 5 concern, and 11.9% indicated that either they or someone in their home was unable to access enough food during the pandemic.

Third, when controlling for income, both incarcerated youth and youth on probation reported greater concern over declines in relationship quality with their families due to COVID-19, relative to community youth. When perceived social status was controlled for (rather than income), this effect was especially pronounced for youth on probation, who for the most part lived at home with their families during COVID-19. Although the reasons for this increased concern for family relationships among youth on probation were not explicitly tested in the present study, we speculate that justice involvement and requirements of probation may place additional burdens on parents to enforce, which may increase tension in the family relationship. According to Cumulative Stress Theory (Rutter, 1979/81), the number of stressors that an individual experiences is a better predictor for negative outcomes than any one particular stressor. That is, children who experience a single risk factor may fare better than those who experience multiple stressors – even if the single stressor is something particularly meaningful (Evans et al., 2013). Indeed, according to a 20-year longitudinal study, the number of adverse outcomes one experiences has been found to increase with every additional risk factor that person experiences (Atkinson et al., 2015). Therefore, it is likely that for justice-involved families, the stress of the youth's justice involvement and accompanying legal consequences may act as an additional stressor during a time of already high stress due to the pandemic. Additional research is needed to test this, however.

Surprisingly, there were no differences found between the three groups in terms of their concern over their relationships with peers, despite the fact that adolescents' peer relationships seemed to have been disrupted due to social distancing requirements. It appears that most youth, regardless of justice status, felt their relationships with peers were negatively affected by COVID-19. On average, youth rated their perceptions of the change in their peer relationships as more negative (the mean score for all youth was 2.87 on a scale ranging from 1 = "much more negative" to 7 = "much more positive"). Youth in the community were socially restricted due to social distancing requirements (and were quickly transitioned from in-person to online school in the middle of the academic year), while justice-involved youth were socially restricted by the terms of their adjudication. Thus, it is likely that all three groups had minimal contact with peers (if they were following the restrictions put in place), which may explain the lack of group-level differences here.

Remarkably, our findings did not support our hypothesis that incarcerated youth would have greater concerns about contracting or dying from COVID-19, despite the objectively greater risks faced by incarcerated individuals (due to their close physical proximity with other incarcerated individuals in which social distancing strategies are more difficult to implement) compared to their counterparts in the community (World Health Organization, 2020). In fact, the UCLA Covid-19 Behind Bars Data Project finds that in July 2020, incarcerated individuals contracted COVID-19 at almost 4 times the rate of individuals from the general community (Gunter, 2020). Furthermore, the state of Texas (where the present study took place) led the U.S. in the number of COVID-19 infections among incarcerated people in state facilities from the months of May through July 2020 (Gunter, 2020). Yet, despite these additional vulnerabilities faced by persons who are incarcerated, we find no differences in concerns about COVID-19 contraction or

mortality across our three samples of youth. Youth generally reported only minimal concern about contracting COVID-19 or dying from COVID-19 (on average, participants' concerns rated only 2.7 out of 5 for contracting COVID-19 and 2.24 out of 5 for concern over dying from COVID-19). This may be due to the fact that the risk of young people experiencing severe COVID-19 symptoms was often downplayed in the media. Although elderly populations and those with underlying health conditions are at greatest risk for COVID-19 complications, young people are not immune (Zaveri & Chouhan, 2020). Alternatively, some adolescents may have had limited concern because they were taking necessary precautions and their actual risk of exposure was quite low. Indeed, 91.04% of adolescents in the sample reported staying home except for essential activities at the time of the assessment. Finally, data for the present study were collected relatively early on in the pandemic when contraction rates in the U.S. were relatively low (compared to rates in later months). This may also have contributed to participants' mild concerns about contracting or dying from COVID-19. As we did not specifically follow up with participants about the reason for their concerns or lack thereof, it would be important for future research to explore this more explicitly.

## INCOME AND COVID-19 CONCERNS

Although youth did not differ in their COVID-19 concerns due to their justice-involvement, it appears that family income may be an important factor in youths' concerns. Specifically, youth from poorer families expressed greater concern about dying from COVID-19 compared to youth from families who had more money. Indeed, this may be a valid concern, as research suggests low-income individuals face greater risks of COVID-19 exposure (Baena-Díez et al., 2020) and those from low-income communities experience higher rates of mortality (Chen & Krieger, 2021). Research by Oronce and colleagues (2020) underscores the role of social factors, like income, in understanding COVID-19 as they find states with greater income inequality had more COVID-19-related deaths. This may have been particularly salient to youth in the present sample, given that hospitals in El Paso quickly become overwhelmed during the pandemic (Hernández & Hinojosa, 2020). While affluent families may have other options to treat healthcare needs (i.e., a primary healthcare provider), lower income families may rely exclusively on the flooded emergency rooms for all health concerns.

## STRENGTHS AND LIMITATIONS

One of the strengths of the present study was the unique sample. This study focused on a population of justice-involved and community adolescents from a predominantly low-SES, Hispanic border region. Research suggests individuals from these backgrounds are particularly vulnerable to negative COVID-19 outcomes (Rozenfeld et al., 2020). An additional strength of the study was that it was conducted fairly early on in the pandemic, allowing for an examination of youths' initial concerns during a time

when there was still a lot of confusion and uncertainty regarding the pandemic. Future research efforts should evaluate how youths' concerns may have changed across the pandemic, particularly during times when case rates and mortality rates increased, as well as when schools began to re-open for in-person learning.

While this study had notable strengths, it was not without limitations. First, the sample size is small, although a power analysis indicated that we met the minimum criteria to detect large effects with our analyses. The relatively small sample precluded our ability to include additional control variables in our statistical model (such as age) due to limited statistical power. However, when additional demographic controls were examined independently, they were not associated with the outcome variables of interest, so it is unlikely that their exclusion affected the model in a significant way. Likewise, we were underpowered to include both family income and social status as controls in a single model and, therefore, had to test these covariates in separate models. However, doing so allowed us to examine the unique ways in which these factors affected our models. Interestingly, these two distinct measures yielded largely similar findings in terms of youths' concerns, with a few important exceptions (i.e., access to food, family relationship quality, and fear of dying from COVID-19). Finally, data were collected in a single city in Texas. While it is not unusual for social science studies to focus on a single location—and indeed, we feel that the demographics of the study site (Latinx/Hispanic, low-income) allow us to give voice to the populations most affected by COVID-19 in the country—we caution against generalizing the findings of this study to other populations of justice-involved youth.

## CONCLUSION

In summary, this study evaluated the COVID-19 concerns of U.S. adolescents across three groups (i.e., incarcerated, on probation, and non-arrested community youth) during the initial months of the pandemic. Concerns varied between these three groups, with justice-involved youth reporting greater economic concerns and concerns about their family relationships than their community-youth counterparts, underscoring the need for additional services for justice-involved youth. This is particularly urgent during a time of heightened stress, such as the pandemic. Surprisingly, we found no differences between groups in their concern over contracting or dying from COVID-19, suggesting incarcerated youth may have limited awareness of the increased risks they face while in residential placement. Additional research on youths' knowledge of COVID-19 risks and realities is needed. Finally, poor youth reported the greatest concern about dying from COVID-19, reflecting their awareness of the actual increase in risk for COVID-19 mortality faced by low-income individuals.

Taken together, these results suggest that justice-involved and low income youth face unique concerns during the COVID-19 pandemic, and are in need of targeted support from the child-serving system in which they are involved. Given the importance of social support during adolescence generally (see meta-analysis by Chu et al., 2010), and the pandemic specifically (Cardenas et al., 2020), family therapy or skill building

interventions tailored to justice-involved families (Liddle, 2010) may be helpful. Additionally, it is clear that financial programs (i.e., food assistance programs, job training programs) are needed among justice-involved families in times of crisis more than ever.

COVID-19 not only highlighted existing hardships for these youth, but also generated new anxieties and inequalities. With limited resources to address community needs during a national crisis such as a pandemic, child-serving systems (especially the juvenile justice system) should be a vehicle through which youths' concerns can be remediated. It is clear that the most disadvantaged youth have concerns meriting dedicated financial and social intervention to reduce the risk of furthering the opportunity gaps between justice-involved youths and their community counterparts.

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