

PSYCHOSOCIAL IMPACTS OF THE COVID-19 PANDEMIC: THE ROLE OF MEN'S GENDER-RELATED ATTITUDES, EMPLOYMENT AND HOUSEWORK, AND DEMOGRAPHIC CHARACTERISTICS

Erin A. Casey¹, Jill C. Hoxmeier², Claire Willey-Sthapit³, Juliana Carlson³

¹School of Social Work and Criminal Justice, University of Washington, Tacoma, WA, United States

²Department of Health Sciences, Central Washington University, Seattle, WA, United States

³School of Social Welfare, University of Kansas, Lawrence, KS, United States

Author for correspondence: Erin A. Casey: ercasey@uw.edu

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Abstract

Background and objective: Globally, men are at greater risk of mortality and serious physical consequences from COVID-19 infection than women, but are less impacted by the pandemic's impact on labor force participation and increased childcare responsibilities. Outside of gender identity, however, it is unclear whether men's beliefs about gender may be related to the kinds of COVID-19-related impacts they report. This study sought to describe the employment, income, and household responsibility-related impacts of the pandemic on a sample of young men in the U.S. and to examine relationships between the men's gender ideologies and attitudes toward gender equity with self-reported stress impacts of the pandemic.

Methods: The data are from an online survey of 481 young men from across the U.S. Measures included scales assessing masculinity ideology, modern sexism, support for traditional divisions of labor by gender, and attitudes toward gender equity. New items developed for this study assessed COVID-19-related changes in employment, household responsibilities, and childcare duties as well as levels of stress. Hierarchical regression examined the relative roles of demographic characteristics, changes in employment and household work, and gender-related attitudes on COVID-related stress.

Results: Descriptive findings showed that under 50% of the men in the sample experienced negative COVID-related impacts on employment, but that a majority of the men reported at least some COVID-related stress. Results of the hierarchical regression suggest that higher levels of stress were predicted by having a minoritized sexual identity, less religiosity, experiencing employment or household responsibility-related changes, and *not* endorsing modern sexism or a traditional, gendered division of labor.

Conclusions: Experiencing COVID-19-related stress was normative in this sample of young men. However, endorsing traditional notions of a gendered division of labor was slightly protective against higher levels of COVID-related stress. These findings add to existing evidence that gender analysis must be a central component of ongoing COVID-related policy and programming development.

Keywords: Covid-related stress; gender ideologies; modern sexism; Covid-related employment impact

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INTRODUCTION

The impact of the global COVID-19 pandemic is inextricably linked with gender. While men across the globe have been more likely than women to experience serious medical complications, hospitalizations, and death from COVID-19 infection,^{1,2} women have borne the disproportionate burden of resulting economic hardships, increased caregiving responsibilities during lockdowns, and increased exposure to intimate partner violence.³ Evidence also suggests that men are generally less concerned about COVID than women,⁴⁻⁶ while, paradoxically, being most at risk for severe health outcomes. It may be that beyond gender identity itself, individuals' and particularly men's, gender-related attitudes and ideologies are also connected to their perception of the COVID pandemic, the precautions they take, and the level of impact and stress the pandemic creates. So far, however, links between gender-related attitudes and the kinds of stress created by COVID-19 have not been extensively examined among men. The purpose of this exploratory analysis is, therefore, to describe perceptions of COVID-related impacts in a sample of young men from across the U.S. and to examine the extent to which men's demographic characteristics and gender-related attitudes are connected to the COVID-related stress they report.

Social locators and COVID-19

Recent morbidity reports from the U.S. Centers for Disease Control and Prevention show that 55% of COVID-related deaths in the U.S. are among males.⁷ Potential explanations for this disproportionality include a greater prevalence of underlying conditions among men (such as heart disease and diabetes) that place them at greater risk for poor COVID-related outcomes.⁸ Some research has also suggested that men, and particularly white men, are less likely than women to adhere to preventative precautions such as mask-wearing⁹ or social distancing,¹⁰ further exacerbating the risk of COVID exposure.⁶ Still, men in the U.S.,⁵ as well

as globally,⁴ report significantly less COVID-related fear and stress than women.

Although men as a broad group report less COVID-related fear than women, emerging research suggests that the impacts of COVID-19 on men's distress vary based on social locators beyond gender. For example, a study of racial disparities on the impact of COVID-19 found that African American men were more likely than white men to have tested positive for COVID-19 at the time of the study, had a higher fear of contracting COVID-19, and had experienced more deaths among close friends and family members.¹¹ Both Asian and Asian-American U.S. college students^{5,15} and Black, Asian, and minority ethnic men in the U.K.¹² reported higher levels of COVID-related distress during the pandemic than Euro-American and white men. In addition to disparities based on racialized identities, evidence suggests that gay and bisexual men are also disproportionately impacted by the pandemic. For example, in a study of emerging adults in the U.S., sexual and gender minority young people reported higher levels of COVID-related stress and grief during the early stages of the pandemic than did straight or cis-gendered people.¹⁴ Researchers speculate that, in addition to the general impact of COVID, lockdowns have meant isolation from affirming spaces and communities for some LGBTQ+ individuals and/or being trapped in non-supportive homes.^{3,13} Collectively, this evidence points to the importance of situating any analysis of men's COVID-related distress in the context of multiple aspects of their identities.

Masculinity, health behaviors, and COVID-19

In addition to their gender identity, men's beliefs about, investment in, and performance of that identity may hold implications for their reaction to COVID-19. Decades of research have shown that the way men think about and perform their own masculine identity is related to their health behaviors, but the COVID pandemic is too recent for this line of literature to address it. As noted above, men are less likely than women to take a variety of

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precautions that could protect them from COVID, but the degree to which this is linked to gender performance is not yet clear. Generally speaking, health behaviors are one avenue through which men may perform or demonstrate their masculine identity.¹⁶ Adhering to more traditional, patriarchal notions of appropriate masculinity has also been linked to less recognition of or expressions of emotional distress.^{17,18} By extension, research has shown that endorsing traditional masculine norms is associated with decreased health-promoting behaviors among men, such as seat-belt wearing, seeing a doctor, and eating healthily,¹⁹ as well as help-seeking behaviors such as seeking or accepting psychological assistance.²⁰

Extending this to COVID, researchers have speculated that strongly adhering to traditional masculine norms, such as self-reliance, independence, and toughness, may lead men to view COVID-related precautions as appearing “weak” and to downplay the stress-related impacts of the pandemic.³ Scholars have further posited that some national leaders’ “masculinist” approach to handling the pandemic by initially dismissing the seriousness of the pandemic and flouting mask-wearing or other precautions both models and exacerbates the underestimation of the reality and the threat of the virus in service of appearing “tough.”³

Some limited emerging evidence supports this speculation. In a U.S. sample, men who identified as “completely masculine” and also reported placing high importance on their gender identity were less likely to support mask-wearing during COVID than men who placed less importance on gender ideology.²¹ In a different U.S. sample inclusive of all genders, individuals reporting more sexist beliefs were less likely to express concern about COVID or engage in protective behaviors and were more likely to contract the virus.²² Interestingly, a multi-country study showed that men who became unemployed during the pandemic and who had employed partners reported more “egalitarian gender-role attitudes” (p. S228) than men whose employment was not impacted.²³ While the direction of causality

is unclear, the authors speculated that notions of appropriate gender roles shifted in response to lived realities and the actual impact of the pandemic over time. Still, the body of research addressing interrelationships between gender ideologies, gender-equitable attitudes, and COVID-related impact is quite new and small.

This exploratory study, therefore, aims to add to the emerging literature regarding the interplay between social locators, gender-related attitudes, and COVID-related stress among men. Based on a national sample of young men in the U.S., we (1) describe the employment, household, and stress impacts of COVID reported by study participants; and (2) examine the relative contributions of demographic characteristics, employment and housework impacts, and gender-related attitudes to explain the variance in men’s reports of COVID-related stress.

METHODS

The data were from a parent study examining patterns of gender-equitable behaviors and attitudes among young men in the U.S. Recruitment was conducted through the global online research company Prolific, which maintains a large and diverse standing panel of potential research participants. Individuals are recruited into the Prolific panel through email solicitations, social media, word-of-mouth referrals, and advertising in higher education settings. Upon registering with Prolific, individuals provide demographic information, which is then used to tailor recruitment opportunities for specific studies. Several checks against duplicative or dishonest responses are built into recruitment. These include the requirement that participants have unique email addresses, IP addresses, and payment accounts upon registering with Prolific. All interaction with research participants was mediated through the company’s web platform; participation (including receipt of a \$12 incentive) thus maintains respondents’ anonymity. All research procedures were reviewed and approved by the University of Washington Institutional Review Board.

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Potential participants were invited from within the Prolific platform to participate in a study examining their “ideas about men’s and women’s roles in society.” To receive notice of the study via email and be eligible for participation, participants needed to be between the ages of 18–40, reside in the U.S., and identify as cis or transgender men. Relatively equal numbers of four racial identity groups (Black/African American, Asian/Asian American, Latino, and White) were recruited to ensure a racially diverse sample and to guard against analyses being normed on a primarily white male perspective. Data collection occurred from July through September 2020, or approximately 4–6 months into the global COVID-19 pandemic and accompanying lockdowns. Out of the 494 participants who initiated the main survey, 13 were removed from analysis for this paper due to failed attention checks (3 participants), highly contradictory or nonsensical responses (nine participants), and significant missing data (one participant). This analysis is therefore based on 481 men.

Measures

COVID-related impacts

Four types of COVID impact were measured in the study. First, we asked respondents about the impact of the pandemic on their *employment* situation and/or experience. Responses were dichotomized to indicate whether 1) respondents had lost or been furloughed from a job or experienced reduced hours or salary since the pandemic began; or 2) experienced no impact, or were working more as a result of the pandemic. Please see the analysis section below for additional rationale regarding this dichotomization.

Second, we asked respondents to indicate how COVID-19 had changed the amount of time they spent doing *housework* and whether the advent of the pandemic had changed the amount of *childcare* they were providing. Participants responded to a single item for housework with response options ranging from 1 “I am doing a lot less of the housework than before” to 5 “I am doing a lot more of the

housework than before.” Similar response options were used to indicate how COVID-19 impacted the time they spent caring for children (See Table 1).

Finally, we measured *COVID-related stress* with a scale created specifically for this study. At the time, no validated scales specifically related to the impact of COVID were available. Six items were included in the survey to assess stress. One original item – “I have been more productive than usual since the pandemic began” – had somewhat marginal psychometric indicators, however (e.g. factor loading = .4), and was removed from the scale. The remaining five items are listed in Table 1 and carried response options that ranged from 1 “strongly disagree” to 5 “strongly agree.” Items were recoded so that higher scores signified more COVID-related distress. Internal consistency for the final five-item scale was Cronbach’s alpha = .70. Corrected inter-item correlations ranged from .33 to .55 and all items had factor loadings on the latent construct ranging from .52 to .76 with only one item’s loading falling below .6. Validity for this scale is yet to be established; assessment of convergent or concurrent validity is not possible given the lack of similar measures in this study.

Gender-related attitudes

In addition to the impacts of COVID-19, four dimensions of gender attitudes were assessed. Given multidimensionality in gender-related beliefs, we assessed attitudes regarding equity across gender, beliefs about the legitimacy of concerns regarding sex and gender-based discrimination, and men’s beliefs about appropriate masculinity. These included the Gender-Linked subscale of the *Social Roles Questionnaire* (SRQ),²⁴ a seven-item measure assessing attitudes regarding the gendered division of labor (e.g., “mothers should work only if necessary.”). Items included response options ranging from 1 “strongly disagree” to 4 “strongly agree,” with higher scores indicating support for a more traditional (less equitable) division of labor. Internal consistency for items in the scale was Cronbach’s alpha = .79.

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TABLE 1. Pandemic-Related Impacts

Pandemic-related Variable	% (n)	Mean (SD) & Range
Pandemic-related impact on work		
No Impact	51.05 (244)	
Lost job or furloughed	13.39 (64)	
Reduced hours and/or salary	22.38 (107)	
Increased work	3.77 (18)	
Other impact	9.41 (45)	
Pandemic-related impact on housework		3.41 (0.87) 1–5
Doing a lot less	2.49 (12)	
Doing a little less	5.41 (26)	
Doing about the same	53.01 (255)	
Doing a little more	26.61 (128)	
Doing a lot more	12.47 (60)	
Pandemic-related impact on childcare+		3.61 (1.03) 1–5
Doing a lot less	3.48 (3)	
Doing a little less	4.65 (4)	
Doing about the same	44.19 (38)	
Doing a little more	22.09 (19)	
Doing a lot more	25.59 (22)	
Impacts of the pandemic on stress	A / SA	3.08 (0.78) 1–5
Hard time sleeping since the pandemic began	32.4% (156)	
I do not worry much about the pandemic*	22.6% (109)	
Feeling more down or sad since the pandemic began	48.3% (232)	
Afraid I or someone close to me will lose their life	58.7% (282)	
Managing stress in healthy ways since the pandemic*	50.3% (242)	

A = “agree,” SA = “strongly agree.” *Reverse coded item in scale.

+ Only respondents who reported having children received this question (n=88, 18.3%).

Attitudes related to gender equity in political and employment domains (e.g., “Men are better qualified to be political leaders than women”) were assessed via an *Attitudes Toward Gender Equity* (ATGE) index normed in a multi-national study.²⁵ The six items on this scale were measured with response options ranging from 1 “strongly disagree” to 4 “strongly agree.” Higher scores on the ATGE scale connote greater support for gender equity. Cronbach’s alpha for the ATGE scale was .83.

The *Male Role Attitudes Scale*²⁶ was used to measure masculinity ideology or beliefs about what men

are like or should be like. Sample items include “It is essential for a guy to get respect from others,” and were measured with response options ranging from 1 “disagree a lot” to 4 “agree a lot.” A mean overall score was computed across the eight items, with higher scores equating to more traditional, dominance-based notions of masculinity identity. Cronbach’s alpha for these items in this sample was .76.

Finally, contemporary sexist attitudes or beliefs about the legitimacy of women’s rights concerns and the continued existence of gender-based discrimination were measured using

the *Modern Sexism Scale*.²⁷ This eight-item scale includes items such as “Discrimination against women is no longer a problem in the U.S.” and was measured on a scale ranging from 1 “strongly disagree” to 4 “strongly agree.” Higher mean scores across items equated to a stronger endorsement of the belief that concern regarding gender discrimination is overblown; Cronbach’s alpha for these items was .87.

Demographics

Participants were asked to describe their racial or ethnic identities, age, sexual orientation, current annual income, and living situation (e.g., alone, with roommates or family members, or with a partner/children). Religiosity was also assessed via a single item asking about the importance of religion, with response options ranging from 1 “extremely important” to 5 “not at all important.”

Analysis strategy

The first aim of the study was to describe how the COVID-19 pandemic impacted men’s work/employment, housework, childcare, and pandemic-related stress. Proportions of participants endorsing each response option, along with a mean score, are reported. The percentage of men agreeing or strongly agreeing with each item in the COVID-related stress scale is also reported for descriptive purposes.

The second aim of the study was to explore demographic and attitudinal correlates of the stress-related impacts of COVID-19. Initial, exploratory bivariate analyses were used to identify demographic variables potentially related to COVID-related stress. For model parsimony, demographic characteristics significantly related to the stress-related impacts of COVID at $p < .10$ or lower were retained. A hierarchical regression analysis was used with three blocks to assess changes in explained variance: Block 1 included men’s sexual identity (0=straight/heterosexual, 1=minoritized sexual identity), religiosity (ordinal), and income (ordinal). For sexual identity, those in the

minoritized sexual identity group were those men reporting an identity other than straight or heterosexual, including those ($n = 2$, 0.42%) reporting “prefer to self-describe.” Participants ($n = 3$, 0.62%) reporting “prefer not to say” were excluded. Block 2 added men’s reported impacts of the pandemic on work/employment (0=no change/worked more, 1=lost job/furloughed or hours/salary) and housework (ordinal). The dichotomization of the impact on the employment variable was based on the aforementioned initial bivariate analyses. An ANOVA examining differential levels of COVID-related stress by employment impact type was significant ($F = 6.71$ (477) $p < .001$), with both those who lost jobs ($M = 3.41$, $SD = .69$) and those who had hours reduced ($M = 3.27$, $SD = .77$) reporting statistically significantly greater stress than men whose employment situation was unchanged ($M = 2.94$, $SD = .79$) in posthoc tests. Men who lost jobs or had hours reduced were not significantly different from one another in terms of COVID stress, however, and thus were collapsed into one group. Because only a small subset of the sample reported that they had children, the impact of the pandemic on childcare was excluded in this analysis. Block 3 added all four indicators of gender-equitable attitudes.

RESULTS

Sample characteristics

Age, racial identity, sexual identity, income, and religiosity of participants are reported in Table 2. For additional context, approximately 31.8% of men in the sample reported living with an intimate partner and/or children, 13.9% were living alone, 11.0% resided with roommates, and (11.0%), and 43.2% were living with parents or other family members. Approximately 39.1% of participants reported being in school (a GED program, community college, 4-year degree program, or graduate program) at the time of the survey. Additionally, 12.7% had already obtained a graduate or professional degree, 35.8% had a 4-year degree, and 34.3% had some college education and/or a 2-year degree.

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TABLE 2. Sample Demographics and Pandemic-Related Descriptive Information (N = 481)

Demographic Characteristic	% (n)	Mean (SD) & Range
Age	26.79 (5.96)	18–40 years
Racial identity		
African American, Black, or African	22.04 (106)	
American Indian, Native American, or Alaska Native	0.21 (1)	
Asian, Asian-American, or Pacific Islander	24.74 (119)	
Hispanic/Latino	22.87 (110)	
Non-Hispanic White, Caucasian and European	27.44 (132)	
Multiracial	2.70 (13)	
Sexual identity		
Bisexual	9.36 (45)	
Gay	2.08 (10)	
Straight or heterosexual	87.53 (421)	
Another sexual identity	2 (0.42)	
Prefer not to say	3 (0.62)	
Income (collapsed)		Median = about 30,000
Less than \$10,000	30.6 (147)	
\$10,000 – \$29,000	20.1 (97)	
\$30,000 – \$49,000	17.3 (83)	
\$50,000 – \$69,000	14.3 (69)	
\$70,000 – \$89,000	8.3 (40)	
\$90,000 or higher	10.3 (45)	
Religiosity: my religion is...		
Extremely important	10.2 (49)	
Very important	9.8 (47)	
Moderately important	16.8 (81)	
Slightly important	15.0 (72)	
Not at all important	48.2 (232)	

Pandemic-related impact on men’s work, childcare, housework, and stress

The first aim of the study was to describe how the COVID-19 pandemic impacted men’s work/employment, housework, and childcare in addition to their reported stress. Related findings are summarized in Table 1. Although most men (51%) reported “no impact” on their work, 13% of men indicated they lost their job or were furloughed while roughly 22% experienced a reduction in hours and/or salary in the first several months of the pandemic. Regarding the impact

on housework, a substantial proportion of men (53%) reported they were “doing about the same” amount of housework as before the pandemic. However, over 26% and 12% reported they were “doing a little more” and “doing a lot more” of the housework, respectively. Similarly, of those respondents who reported having children (n=86), a substantial proportion (52.3%) reported they were “doing about the same” amount of childcare *or less* as before the pandemic; 22% and 25.6% reported they were “doing a little more” and “doing a lot more” of the childcare, respectively.

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In terms of stress-related impacts, the mean scores of all items indicate a trend toward adverse experiences ($M=3.08$, $SD=0.78$). On an item-by-item basis, only 22.6% of men reported *not* worrying about the pandemic on a reverse-coded item, suggesting that the vast majority of men in the sample were at least somewhat concerned about the impact of COVID. The next most common impact was worry about COVID-related mortality, with 58.7% of men agreeing or strongly agreeing that this was true for them. Approximately half of the sample reported feeling that they were coping with the pandemic in healthy ways, but a similar proportion reported feeling sadder or more down than usual as a result of the pandemic.

Correlates of pandemic-related impact on stress

The second aim of the study was to explore demographic and gender-related attitudinal correlates of men's COVID-related stress impacts, using Pearson's Correlation (see Table 3 for results) to initially explore the relationships, and then, using hierarchical regression analysis (see Table 4 for results). In bivariate analyses, three demographic variables (sexual identity, religiosity, and annual personal income), negative employment impact, household responsibility, and all four gender-related attitudinal scales were significantly correlated with COVID-related stress. These variables are therefore reflected in the correlation table (Table 3) and were retained for the regression analysis. The level of education ($r = .01$, $p = .81$), age ($r = -.03$, $p = .46$), and racial identity ($F = 4.43$ (4475) $p = .13$) were unrelated to reported impacts of COVID-19 on stress in preliminary bivariate analyses and were therefore not included in the demographics block of the model.

The first regression model included demographic variables, with only sexual identity and religiosity retaining significant associations with COVID-related stress. Men with a minority sexual identity and men who place less importance on religiosity reported higher levels of stress. In the second model, COVID's impact on employment and

housework were added, which both significantly increased men's reporting of stress. The addition of employment and household impacts increased the variance explained in COVID-related stress by 7%. Demographic characteristics significantly associated with COVID impacts in the first model retained their significance in the second. It should be noted that due to the relatively small number of fathers in the sample, power considerations prevented the inclusion of COVID-related childcare impacts in the model.

The third model added the indicators of men's attitudes toward gender equity, measured using the ATGE, SRQ-Traditional scale, and gender-related attitudes, measured using the MRAS and MSS scales. ATGE and MRAS were unrelated to men's COVID-related stress. However, higher SRQ-Traditional scores had a significant, negative impact on men's reporting of COVID-related stress, indicating that the more men endorse a "traditional" gendered division of labor, the less stress they reported. Higher MSS scores also had a significant, negative impact on men's reporting of stress impacts of COVID, indicating that the men in the sample who disbelieve women's concerns about discrimination also report less impact from COVID-related stress. In this third step, sexual identity, religiosity, and COVID-related impacts on employment and housework remained significantly related to stress.

DISCUSSION

The first aim of this study was to describe the impacts of the early period of the COVID-19 pandemic on employment, housework, childcare, and stress as reported by a diverse sample of young men in the U.S. On average, just under half the sample reported negative employment-related experiences. Simultaneously, 39% of men reported taking on more household responsibilities, and 47% of the fathers in the sample reported taking on additional childcare responsibilities. Thus, while the ripple effects of early shut-downs associated with the COVID pandemic reached a substantial proportion

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TABLE 3. Relationships between Study Variables, Pearson’s Correlation (N=481)

	Sexual Identity	Religiosity	Income	Impact on Work	Impact on Housework	ATGE	SRQ-Traditional	MRAS	MSS
Religiosity	0.014**	–	–	–	–	–	–	–	–
Annual Personal Income	–0.10*	–0.27***	–	–	–	–	–	–	–
Impact on Work	–0.01	0.02	–0.08	–	–	–	–	–	–
Impact on Housework	–0.06	–0.16**	0.08	0.15**	–	–	–	–	–
ATGE	0.11*	0.21***	–0.21***	–0.02	–0.06	–	–	–	–
SRQ-Traditional	–0.23***	–0.29***	0.19***	0.05	0.08†	–0.58***	–	–	–
MRAS	–0.15**	–0.33***	0.20***	0.04	0.09*	–0.55***	0.69***	–	–
MSS	–0.20***	–0.19***	0.18***	–0.01	0.07	–0.51***	0.56***	0.54***	–
COVID-Related Stress	0.23***	0.15**	–0.11*	0.23***	0.12**	0.17**	–0.21***	–0.12*	–0.22***

Sexual Identity (0 = straight/heterosexual, 1 = minoritized sexual identity); Annual Personal Income (1 = less than \$10,000 to 12 = more than \$150,000); Impact on Work (0 = no change/worked more, 1 = lost job/furloughed or hours/salary); ATGE = Attitudes Toward Gender Equity; SRQ-Traditional: Social Roles Questionnaire-Traditional; MRAS: Male Role Attitudes Scale; MSS: Modern Sexism Scale. †<0.01, *p < 0.05, **p < 0.01, ***p < 0.001.

of men in the sample, over half of the young men did not report appreciable impacts on their household or child-care-related duties. This is particularly notable with respect to childcare. Given that schools and daycares closed during the pandemic, and that most children became the full-time responsibility of family members who oversaw their care and coordination with teachers, a lack of change in childcare among over half of the fathers in the sample is somewhat surprising and suggests that, for these men, other family members or partners took on the brunt of this change.

At the same time, during the early months of the pandemic, over three-quarters of the men reported COVID-related stress, a slight majority of men were concerned about COVID-related mortality for themselves or a loved one, and nearly half reported feeling more down or sad than usual since the pandemic began. The significant proportion of men in the sample who were willing to report

these concerns signals the magnitude and reach of the pandemic, as well as the existential nature of the fears and concerns it created. Given that more men reported stress than impacts such as tangible changes to employment or household duties, these results suggest that COVID-related stress was normative during this period and extended beyond those experiencing concrete material losses.

The second aim of this study was to examine the relative contributions of demographic characteristics, employment and housework impacts, and gender-related attitudes to understand the variance in men’s reported stress related to COVID-19. Interestingly, neither income level nor racial identity was related to self-reported stress. It may be that tangible COVID-related changes to income and employment were much stronger and more proximal influences on stress than sheer income level or broad racialized identity categories. It is also possible that, among this relatively young sample,

TABLE 4. Correlates of Pandemic-Related Impacts on Psychosocial Well-being, Hierarchical Regression (*n* = 481)

	Model 1	Model 2	Model 3
Sexual identity	0.55 (0.12)***	0.54 (0.12)***	0.43 (0.12)***
Religiosity	0.07 (0.03)*	0.08 (0.03)**	0.07 (0.03)*
Annual personal income	-0.02 (0.01)	-0.02 (0.01)	-0.01 (0.01)
Impact on work		0.36 (0.08)***	0.35 (0.08)***
Impact on housework		0.15 (0.05)**	0.16 (0.04)***
ATGE			0.08 (0.10)
SRQ-Traditional			-0.21 (0.10)*
MRAS			0.19 (0.10)
MSS			-0.21 (0.08)*
F (df), p-value	12.10 (3, 474), p<0.001	14.46 (6, 424), p<0.001	10.84 (7, 420), p<0.001
R ²	0.07	0.15	0.19
Adjusted R ²	0.07	0.14	0.18
Δ in R ²		0.08***	0.04***

*Parentetical numbers are standard errors; Sexual Identity (0 = straight/heterosexual, 1= minoritized sexual identity); Annual Personal Income (1 = less than \$10,000 to 12 = more than \$150,000); Impact on Work (0 = no change/worked more, 1 = lost job/furloughed or hours/salary); ATGE = Attitudes Toward Gender Equity; SRQ-Traditional: Social Roles Questionnaire-Traditional; MRAS: Male Role Attitudes Scale; MSS: Modern Sexism Scale.
p* < 0.05, *p* < 0.01, ****p* < 0.001.*

some of whom still depend on some level of support from their parents, income is not a good predictor of financial security. In contrast, and consistent with previous research,¹⁴ men with a minoritized sexual identity reported higher levels of COVID-related stress. Although the study cannot identify the more specific stressors that gay, bisexual, and queer men in the sample experienced with the onset of the pandemic, previous research has noted that the isolation and potential safety concerns associated with the pandemic were particularly acute for young LGBTQ people.¹³ Finally, men in the sample reporting lower levels of religiosity also reported higher levels of adverse impacts related to COVID-19. The limited existing research about religiosity and COVID-19 has produced somewhat nuanced findings, suggesting alternatively that religious strategies for coping can serve as a buffer to COVID-related stress among

US residents,²⁸ or that high levels of COVID-related distress increase pre-existing commitment to religiosity among individuals in the U.S. and U.K.²⁹ For some of the young men in this sample, it may be that religiosity provided beliefs, coping strategies, and or relationships and belongingness that protected against the negative impacts of the pandemic.

Beyond demographics, the constructs that had the most significant association with men’s stress were concrete changes to employment and housework. Specifically, and not surprisingly, employment changes such as job loss, furlough, and reduced hours and/or salary were significantly associated with increased stress impacts of the COVID-19 pandemic. Increased household responsibilities also exacerbated COVID-related stress, independent of employment-related changes. Thus, while most men in the sample reported some level

of COVID-related stress, the degree of this impact was most strongly related to the concrete impacts of the pandemic on men's work, financial stability, and home responsibilities.

A relatively small, but still significant amount of variance in men's COVID-related stress was related to men's beliefs about the gendered division of labor and endorsement of the belief that gender discrimination is no longer a problem. Consistent with the limited available literature,²³ men who held these more "modern" sexist attitudes and a relatively traditional view of the appropriate division of labor were less likely to report stress-related impacts of COVID. This was true even after changes to household responsibilities (or lack thereof) were accounted for, suggesting that regardless of the tangible impacts of the pandemic on men's household work, endorsing a more traditional, gendered view of household tasks was a cushion to COVID-related stress. It may be that men who endorsed this more traditional, and sexist, arrangement of labor indeed had household arrangements in which other family members buffered the emotional, psychological, and physical labor associated with the pandemic in ways beyond those captured solely through our household responsibilities item. It also may be that expressing, admitting to, or reporting COVID-related stress is not compatible with a stance of supporting traditional gender roles. It should be noted that our measures of hegemonic, dominance-based notions of masculinity and general gender equitable attitudes were, unexpectedly, *not* associated with COVID-related stress in the full regression model (although they did have significant bivariate associations with COVID stress). This could be due to a suppressor effect, given moderate correlations between these variables and our measures of modern sexism and attitudes toward the division of labor. Or, it may be that given the COVID pandemic's immediate impact on so many people's employment, men's beliefs about the gendered division of labor were more proximal and relevant factors in terms of how the COVID crisis was interpreted and responded to. It also bears repeating that the relationships between

material circumstances (such as employment or housework) and men's COVID-related stress were found to be more powerful than men's gender-related attitudes.

This study has some important limitations. First, because a relatively small number of men in the sample reported having children in the home, we were not able to assess the impacts of changes in childcare on stress resulting from the COVID-19 pandemic. As the loss of childcare and schooling in the first year of the pandemic resulted in increased parental responsibility, which disproportionately impacted women,³ examining this experience would have told us more about the impacts of traditional gender roles on COVID-19. In a more general sense, there are also limits to the generalizability of the sample; in particular, this sample reported higher levels of education than the general U.S. population for this age range. The measure of COVID-related stress used in these analyses was new, and although it demonstrated acceptable psychometric properties for a new scale, further refinement of tools for measuring COVID-related impact is needed. Another measure, the MRAS, had a marginally acceptable reliability estimate; additional COVID-related impact research across a range of approaches to conceptualizing masculinity ideology is needed. Finally, the range of household and living arrangements present among the men in the sample renders drawing definitive conclusions about their engagement in unpaid care work at home somewhat difficult.

IMPLICATIONS AND CONCLUSION

This analysis found that a majority of the young men in this national U.S. sample reported some level of pandemic-related stress in the first six months after the onset of COVID-19. Men with minoritized sexual identities were particularly vulnerable to this stress. Certainly, the collective trauma and mental health impacts of the COVID-pandemic have been widely noted. And, providing support specifically to men, particularly queer men, requires pinpointing the particular ways that the COVID crisis engenders

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stress and material impact. In this sample, men were concerned about their own and others' potential mortality and felt more feelings of sadness during this time – issues worth surfacing, normalizing, and addressing in both public messaging about the impacts of COVID-19, as well as in mental and behavioral health interventions. Regularizing the discussion of these issues may provide social normative permission for more men to acknowledge how COVID-19 has impacted their lives. Further, the fact that distress was most strongly paired with changes in employment (and, therefore, potential changes in access to health insurance and care), highlights the ever-present need for expanded, low-cost access to mechanisms of psychological support.

At the same time, men who held a more traditional notion of how household labor should be distributed (and, concurrently, who experienced fewer impacts on household responsibilities) were slightly more protected against COVID-related impacts on stress. We can speculate that for some of these men, and particularly for the fathers who reported no increases in childcare responsibilities during the early days of the pandemic, this protection potentially came at the expense of other household members. Thus, in the context of COVID, gender inequity and endorsing a gendered division of labor may exacerbate not only the disproportionate impacts on women's labor participation,³ but also the disproportionate protection from the stress associated with COVID for a subset of men. As the COVID-19 pandemic moves to an endemic, permanent fixture in our collective lives, these findings add to mounting evidence that it is important that our collective response to this new reality be undertaken with a gender analysis at the forefront.

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