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The COVID-19 pandemic and lay perceptions of poverty and neglect

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Abstract

Objectives. In cases of child neglect, intervention depends on accurate identification and reporting. Prior work has shown that individuals, especially those of high socioeconomic status (SES), conflate poverty and neglect when making identification and reporting decisions. The COVID-19 pandemic led to changes in people's experiences with poverty, likely influencing their ability to distinguish poverty in families and neglectful parenting. *Hypotheses*. Two studies tested the impact of COVID-19 on laypersons' perceptions of neglect, likelihood of reporting neglect, and attributions of blame for neglect. We hypothesized that laypersons would conflate poverty with neglect, that COVID-19 would be associated with a decreased likelihood of doing so, and that attributions of blame would mediate the latter tendency. *Method*. Adults read vignettes about a mother's care of her daughter and responded to questions about the mother's neglectfulness and their reporting likelihood. Study 1 (N = 676, $M_{age} = 38.80$, 48.08% women) compared responses collected before COVID-19 (August 2018) to responses from a separate set of adults collected during COVID-19 (November–December 2020). Study 2 (N = 704, $M_{age} =$ 43.88, 63.49% women) manipulated mention of COVID-19 to assess whether cuing the pandemic affected identification and reporting, and measured attributions of blame to assess whether they explained the relation between COVID-19 and perceptions of neglect. **Results**. Whereas most laypersons distinguished situations with versus without neglect, some conflated poverty with neglect when making identification and reporting decisions. However, COVID-19 did not have a direct impact on identification or reporting decisions. Attributions of blame partially explained laypersons' perceptions of situations as neglectful and as warranting reporting. Laypersons' current SES and perceptions of COVID-19 in 2020 were positively associated with identification and reporting. *Conclusions*. Laypersons in part mistake poverty for neglect, and COVID-19 had indirect effects on perceptions of neglect and reporting decisions.

Public education efforts may help improve identification of vulnerable children by laypersons.

Keywords (3-5): neglect, poverty, COVID-19, reporting decisions, child maltreatment

The COVID-19 Pandemic and Lay Perceptions of Poverty and Neglect

The COVID-19 pandemic, also known as the SARS-CoV-2 pandemic, led to significant and pervasive changes that upended the daily lives of families around the world. Mandates, including stay-at-home orders and social distancing requirements, were implemented to mitigate the spread of the virus (CDC COVID-19 Response Team et al., 2020; Lewnard & Lo, 2020). Though crucial to reducing the impact of the disease itself, those mandates also had serious economic and social implications. Unemployment rates, for example, rose to historic levels due to closures of nonessential businesses, decreased consumer spending, and massive reductions in vacation, travel, and entertainment (Béland et al., 2020; Dunn et al., 2020; McKibbin & Fernando, 2020; U.S. Bureau of Labor Statistics, 2021). Even individuals who remained employed experienced ongoing uncertainties about their economic future or the stability of family members' jobs. Because of school closures and stay-at-home orders, social interactions drastically changed, especially within households. Parents and children interacted with each other more frequently than ever before, navigating challenges that were virtually nonexistent before the pandemic (e.g., remote learning, restrictions on activities, sharing small spaces), all at a time when employed parents were supposed to be working productively from crowded home settings. These circumstances, in combination, fundamentally changed the experiences of children and parents in ways that affected parenting practices, parent-child relationships, and how families engage with and are perceived by entire communities.

Unfortunately, for many families, one change associated with these circumstances was a dramatic increase in their level of poverty. Some parents were simply unable to provide for their children in the way that they could in the past—for instance, with adequate food, shelter, supervision, or support. A traditional challenge associated with parents and poverty, and one that

existed before the pandemic, was that such parenting tendencies were often labeled as neglectful. That is, community members, who commonly report suspicions of maltreatment to social service agencies, tend to misidentify poverty as neglect and incorrectly believe that parents should be reported as a result (Dickerson et al., 2020). The COVID-19 pandemic may have changed community members' perceptions and reporting tendencies.

Although research efforts have begun to assess the impact of the COVID-19 pandemic on both the incidence and severity of neglect (Kovler et al., 2020; Lawson et al., 2020; Rodriguez et al., 2020), research has yet to consider how the pandemic has impacted perceptions of neglect, and, in turn, community members' likelihood of accurately identifying and reporting cases to social service agencies. The research described here, which capitalized on and extended work carried out before the pandemic, did just this.

Specifically, in two studies, we examined whether perceptions of neglect, as reflected in laypersons' ability to accurately identify and report legal neglect, shifted during the pandemic. Study 1 compared general perceptions between one set of laypersons who completed a survey before the COVID-19 pandemic began and a second set of laypersons who completed the same survey after the pandemic began. Study 2 then assessed how cues about the pandemic's effects on families' experiences with poverty influenced laypersons' perceptions of blame for a family's circumstances and, in turn, their ability to accurately identify and report cases of legal neglect.

Child Neglect

Neglect is the most prevalent form of child maltreatment in the United States, accounting for about 75% of substantiated cases (i.e., those deemed true by social services; U.S. Department of Health and Human Services et al., 2021), with population estimates suggesting that 7 per 1,000 children experience neglect. These rates, though, are widely believed to underestimate its

true occurrence (Sedlak et al., 2010; Stoltenborgh et al., 2013). Legally, neglect refers to a failure to meet a child's basic emotional, physical, or educational needs to a degree that the child's health, safety, and well-being are threatened (i.e., failure to provide) or a failure to protect a child from harm or potential harm (i.e., failure to supervise; Child Welfare Information Gateway, 2016, p. 98; Leeb et al., 2008). Thus, neglect occurs when there are deficiencies or omissions of behaviors (e.g., not seeking medical attention when warranted or not providing a safe home environment) rather than behavioral acts of commission (e.g., hitting a child), the latter of which are common in physical or sexual abuse (Leeb et al., 2008; Mennen et al., 2010). Neglect, nonetheless, is as harmful as maltreatment that involves acts of commission. Short- and longterm consequences of neglect are evident in outcomes spanning physical health, cognitive functioning, mental health, and psychosocial development (Cicchetti & Ng, 2014; Glaser, 2000; Maguire et al., 2015; Norman et al., 2012). Significant societal costs are also present, including tangible economic costs related to medical care, special education, case management, criminal iustice, and lost productivity, and intangible costs, such as pain and suffering (Fang et al., 2012; Florence et al., 2013; Peterson et al., 2018). Despite the high prevalence and significant consequences of neglect, it continues to receive comparatively little attention (described as "the neglect of neglect"; Gilbert et al., 2009; Stoltenborgh et al., 2013), likely in part because it is so challenging to identify.

Although social service professionals investigate neglect, they must be made aware of potentially neglectful situations to do so. Such awareness typically comes from adults with whom children interact on a regular basis (e.g., teachers, neighbors, or coaches; U.S. Department of Health and Human Services et al., 2021), who see indicators of risk and report their concerns. Some indicators are objective or visible (e.g., burns or bruises) and are more straightforward

motivators to report. With neglect, however, subjective interpretations of characteristics in children and families (e.g., dirty clothes, sleep deprivation) often drive decisions regarding whether to report.

Until recently, mandated reporters (e.g., teachers, doctors) comprised about two-thirds of the individuals who reported suspicions of child maltreatment, including neglect, to authorities (U.S. Department of Health and Human Services et al., 2021). Many such professionals receive education to help guide their reporting decisions (though the effectiveness of those programs varies; Baker et al., 2021). Yet laypersons also comprise a sizable percentage (i.e., one-third) of those who report their suspicions. These include neighbors, family members, or family friends who, although not formally trained or required to report, see behaviors or situations that raise concerns and respond by contacting authorities. The school closures and stay-at-home orders associated with COVID-19 resulted in mandated reporters having less contact with children and correspondingly fewer reports from these professionals about possible harm to children (Metcalf et al., 2022). Laypersons, who are unlikely to have had formal training, were then playing a more frequent role in identifying and reporting suspicions. Inaccuracies in their assessments were thus likely having a much greater impact.

Inaccuracies include two very different types. Underreporting—when neglect is present but not identified or reported—is perhaps the most obvious. Laypersons may simply not know what signs or behaviors should be considered concerning and hence reported. When situations involving neglect are not reported, children are left in unsafe environments that can harm their short- and long-term development (Jaffee & Maikovich-Fong, 2011; Manly et al., 2001; Manly et al., 1994; Wilson & Horner, 2005). Failure to identify neglect may also mean that parents do

not receive greatly needed services (e.g., treatment for drug additions) that, if provided, would benefit the entire family.

Yet overreporting—reporting neglect when none has occurred—may also happen. False reports could lead to families' unnecessary involvement in social service investigations or the dependency court system. Such experiences are distressing to parents and children (Cleveland & Quas, 2020; Quas et al, 2009) and could contribute to long-lasting effects on both. Overreporting also diverts child protective agencies' attention and encumbers workers' ability to effectively respond to children in real danger (Besharov, 2000, 2005). Because social service workers struggle with unmanageable caseloads, frequently working beyond their contracted hours (Baginsky et al., 2010), overreporting hinders their ability to investigate and provide services to families with clear need.

Poverty and Neglect

A recurring challenge in identifying neglect, and one that contributes to both over- and underreporting, involves disentangling legal neglect from poverty. Although the two often co-occur and share similar characteristics (Drake & Jonson-Reid, 2014; Sedlak et al., 2010), most poor families do not neglect their children. State laws generally recognize that poverty alone, even when extreme (e.g., homelessness), does not uniformly indicate neglect (Dubowitz et al., 1998). Instead, in circumstances of poverty, neglect is designated only when clearly available resources and support are not used by a family. Nonetheless, the legal distinction between poverty and neglect is still difficult to parse and varies across states. For example, Arkansas explicitly excludes behaviors or situations that are "caused primarily by the financial inability of the person legally responsible and no services of relief have been offered" (Arkansas Code § 12-18-103(13)(A)(ii)); but California is more ambiguous, stating that to be considered neglectful,

the behavior must be "willful or negligent" (California Welfare and Institutions Code § 300(b)(1)) or "without lawful excuse" (California Penal Code § 270, 2019). This variability makes distinguishing poverty from legal neglect complicated, especially for persons who do not have training around the distinction.

Poverty and neglect are also associated with one another (Drake & Jonson-Reid, 2014; Sedlak et al., 2010; Slack et al., 2004). Rates of neglect for children in low socioeconomic status (SES) households are nearly 7 times higher than for children in higher-income households (Sedlak et al., 2010). This may be due to shared risk factors, such as chronic stress, mental illness, criminal justice involvement, and substance abuse (Drake & Jonson-Reid, 2014; Slack et al., 2004; Stith et al., 2009; U.S. Department of Health and Human Services et al., 2004, p. 4). Moreover, poverty and neglect have similar presentations and characteristics in children, which likely leads to misidentification. Indicators common to neglect (e.g., inadequate clothing, hunger) are also common consequences or circumstances of extreme poverty. Without an understanding of how families experience poverty, others may incorrectly perceive poverty-driven situations as willful neglect of children by parents.

A potentially important underlying contributor to laypersons' incorrect interpretations of poverty as legal neglect stems from attributional processes about what causes poverty and who is responsible for being poor. Individuals' explanations tend toward one of two categories: those that attribute blame to the person who is experiencing poverty (i.e., internal attributions) and those that place blame on the situation occurring around the person who is experiencing poverty (i.e., external attributions; Malle, 2011). Observers, especially in situations of poverty, tend toward attribution errors (Jones, 1979; Ross, 1977), which involve overattributing states such as poverty to character flaws or lack of effort (i.e., internal) and underattributing those same states

to situations beyond the person's control, such as due to discrimination or government systems (i.e., external; Parsell & Parsell, 2012; Zucker & Weiner, 1993). In cases of extreme poverty, impoverished people have been described as lazy, deviant, and dangerous (Cozzarelli et al., 2001). When making judgments of families, individuals who attribute poverty to internal causes may incorrectly interpret parents' lack of provision of their child's basic needs as being willful and under the parents' control. In contrast, individuals who tend toward external attributions of blame may see parents' behavior as being due to their circumstances and outside of their control.

Dickerson and colleagues (2020) examined the extent to which laypersons conflated poverty and neglect when evaluating scenarios depicting potential neglect of a child by a parent. Of relevance here, not only did respondents often erroneously identify situations of poverty as neglect, but their perceptions were also influenced by their own experiences of financial hardship. Compared to those of higher SES, those of lower SES were less likely to identify situations as neglectful (Dickerson et al., 2020).

Though not directly addressed by Dickerson and colleagues (2020), attributional processes in laypersons may have shaped their responses. That is, attributions of blame both reflect experiences of financial hardship and impact perceptions of poverty (Cozzarelli et al., 2001; Nasser, 2007; Parsell & Parsell, 2012; Zucker & Weiner, 1993). Individuals who have personally experienced poverty tend to attribute poverty to external causes (e.g., single parenthood, bad luck) and are less likely to blame other poor people for their situation when compared to individuals who have not had personal experiences with poverty. Such individuals may therefore be less likely to perceive families' poverty as willful neglect on the part of parents (Cozzarelli et al., 2001; Nasser, 2007). Individuals of higher SES, on the other hand, are more likely to attribute poverty to internal causes (i.e., lack of effort, laziness; Cozzarelli et al., 2001;

Nasser, 2007) and may well do the same when evaluating parents' behavior in situations of poverty. As we turn to next, there are reasons to believe that the COVID-19 pandemic may have altered individuals' attributions of blame and, in turn, perceptions of poverty and neglect.

COVID-19, Neglect, and Layperson Perceptions

As a result of the pervasive and persistent economic changes that arose as the COVID-19 pandemic unfolded, many individuals' personal experiences with and indirect exposure to poverty were dramatically altered. First, COVID-19 led to significant changes in children's presentation. A greater number of families experienced or were highly concerned about housing instability, leading them to forgo clothing and amenity purchases, at the same time losing important resources upon which they may have been relying (e.g., free and reduced school lunch). Larger numbers of children, therefore, may have been presenting with characteristics due to poverty that appear like those linked to neglect, increasing the potential for misinterpretations of family situations as neglect.

Second, a greater proportion of people faced significant financial hardship or uncertainty as a result of the pandemic (Béland et al., 2020). Such experiences may have led to changes in individuals' perceptions of and explanations for poverty in ways that affected their perceptions of neglect. Even without personal experience of financial hardship, the pervasiveness of the economic crisis meant that individuals were indirectly affected by or exposed to financial hardship, which could have altered their perceptions of and attributions about poverty (i.e., internal vs. external) and, by extension, their perceptions of what behaviors do—and potentially do not—indicate neglect.

Thus, when poverty but not neglect is present, laypersons may be less likely to perceive the family's financial standing as willful neglect that warrants reporting during COVID-19

compared to before, thereby reducing overreporting. Yet at the same time, when neglect *is* present (especially when it appears characteristically similar to poverty), laypersons may still attribute behaviors to external causes and hence be more conservative in their reporting decisions (during COVID-19 compared to before), leading to an increase in underreporting of neglect. These trends, in combination, would influence identification by reducing overreporting when neglect *is* occurring.

It is important to note, however, perceptions of neglect do not necessarily translate into reporting neglect to authorities. Beliefs about parenting practices, feelings of fear or uncertainty in one's evaluation of a particular situation, and perceptions of the legal and social service systems all influence individuals' decisions to report neglect, possibly separate from their identification of neglect (Flaherty et al., 2006, 2008; Jones et al., 2008; Webster et al., 2005). Given this, it is important to consider whether individuals believe neglect is occurring separately from their willingness to report their concerns to authorities. The pandemic may not have reduced laypersons' tendency to conflate poverty with neglect but instead reduced their willingness to report such situations, a possibility that we examined here.

The Present Studies

The purpose of this work was to assess the impact of the COVID-19 pandemic and related socioeconomic crisis on laypersons' ability to accurately identify and report cases of child neglect, particularly in terms of distinguishing such cases from situations of family poverty. After reading a short vignette about a single mother and her 7-year-old daughter, participants responded to a series of questions regarding their perceptions and interpretations of the situation described.

Study 1

Study 1 examined whether simply the occurrence of COVID-19 was related to a difference in how laypersons broadly perceive poverty and neglect, including their ability to distinguish poverty from legal neglect (i.e., neglectfulness) and their likelihood of reporting that neglect (i.e., reporting decision). To do this, we utilized data collected from laypersons before COVID-19 (Dickerson et al., 2020) and added a separate sample after the onset of COVID-19, allowing for comparisons of laypersons' perceptions before versus during the pandemic (i.e., group). Hypotheses were as follows:

- (1) Ratings of neglectfulness and reporting decisions will differ on the basis of vignette condition:
 - (1a) Participants will accurately identify neglect as such and as situations that warrant reporting to Child Protective Services (CPS).
 - (1b) Participants will incorrectly identify poverty as neglectful and as situations that warrant reporting to CPS.
 - (1c) A significant interaction will suggest that when poverty is present, the addition of neglect will not alter identification or reporting of neglect, but when poverty is not present, neglect will increase identification and reporting.
- (2) Group (pre- vs. COVID-19) will be related to ratings of neglectfulness and to reporting decisions:
 - (2a) COVID-19 participants will rate the situation as less neglectful and be less likely to report concerns to CPS, compared to pre-COVID-19 participants.
 - (2b) A significant three-way interaction between the manipulations and group will emerge, such that the pre-COVID-19 group will be more likely to conflate poverty with neglect compared to the COVID-19 group. Compared to the pre-

COVID-19 group, COVID-19 participants will be more likely to report the situation when neglect is present compared to when neglect is not present, showing an improved ability to distinguish between poverty and neglect.

Method

Participants

We recruited two groups of participants (pre-COVID-19 in 2018, COVID-19 in 2020) from Cloud Research (formerly TurkPrime), a web-based platform that provides interested individuals with compensation for completing tasks (Mason & Suri, 2012). The HIT approval rate was set to 51% to 100% and the number of HITs approved to 100 to 1,000,000. Inclusion criteria were as follows: Individuals had to be at least 18 years of age, reside in the United States, and be able to read and write in English. We embedded two attention check questions in the surveys to ensure that participants were engaging appropriately. The first asked participants to select a specific item, and the second asked participants to select from a list what the vignette was about. Participants who failed one or both were excluded.

The pre-COVID-19 data collection group included 365 individuals who completed the survey in August 2018. An additional 53 participants were excluded for failing one of two attention check items (see Dickerson et al., 2020). The COVID-19 data collection group included 311 participants who completed the survey between late November and early December 2020 (40 additional participants were excluded for failing one or more attention check items). In combination, the final sample was 676 participants, aged 20 to 75 years ($M_{age} = 38.80$, $SD_{age} = 12.58$), 48.08% identifying as women. The majority of the sample identified as White (73.52%), followed by 11.98% Black/African American, 6.51% Asian, 5.03% Latinx, and the remainder across other ethnicities (multiethnic, Indigenous, Arab, other, or prefer not to state).

Power analyses originally conducted in G*Power (Faul et al., 2007) and cross-referenced with Cohen's suggestions (Cohen, 1992) showed this sample size to be adequate to test the hypotheses and detect small- to medium-sized effects with power of .80 and an alpha of .05.

Because of recent concerns about the validity of G*Power for a priori power analyses and its potential to underestimate required sample sizes, additional power analyses using the Superpower package in R (Lakens & Caldwell, 2019) were conducted after Study 1 data were collected but not analyzed. We entered actual sample sizes, predicted means, and predicted standard deviations into the program, which then produced estimated power and effect sizes.

Results stated that the sample size provided 100% power to detect large-sized main effects, 99% power to detect medium-sized two-way interactions for two of the three possible interactions (Poverty × Neglect, Poverty × Group), 76% power to detect a small-sized three-way interaction effect (Poverty × Neglect × Group), but only 23% power to detect very small effects for the Neglect × Group interaction. Because this interaction was not hypothesized, we considered the sample size adequate and did not interpret any Neglect × Group interaction results.

Procedures

All procedures were approved by the University of California, Irvine, Institutional Review Board (#2018-4237), and all data and study materials are available on the Open Science Framework (https://osf.io/tskuj/). After providing consent, participants completed an anonymous online survey in which they were randomly assigned to one of four vignette conditions. After completing demographic-related questions, participants read a short vignette about a single mother and her 7-year-old daughter. Following the vignette, participants responded to a series of questions regarding their perceptions and interpretations of the situation described. Participants were then thanked for their involvement in the study.

Materials

Demographics. The survey began with questions assessing participants' age, gender identity, ethnicity, education, occupation, current household income, parental status, and childhood experiences (e.g., number of guardians, number of moves).

SES. A subjective measure of SES was used to assess SES at different periods in participants' lives (Hicks & Streeten, 1979). Specifically, participants rated on a 10-point Likert-type scale the extent to which their basic needs were met (a) as a child and (b) currently (1 = my basic life needs are/were not being met at all; 5 = my basic life needs are/were sometimes met, and sometimes not met; 10 = my basic life needs are/were definitely being met). The COVID-19 participants, in addition to being asking about their basic needs as a child and currently, were asked about their basic needs in 2019, right before the pandemic began. This index is preferred over basic income scales given that income is confounded by number of household members, community, and region (Howe et al., 2011; Operario et al., 2004; Posel & Rogan, 2016). Of primary interest was the subjective measure of current SES used by Dickerson et al. (2020).

Vignettes. Participants were randomly assigned to read one of four vignettes describing a single mother's care of her 7-year-old daughter, modeled after substantiated cases of neglect (Appendix A). The vignettes experimentally manipulated indicators of poverty and of neglect via a 2 (poverty vs. no poverty) × 2 (neglect vs. no neglect) between-subjects factorial design. In the poverty vignettes, the mother and child were homeless (i.e., slept in a car overnight), the mother worked part-time at a fast food restaurant, and the child received breakfast and lunch at school. In the neglect vignettes, the mother's phone was regularly turned off and not accepting calls, she often left her daughter unattended at a park until dark, and on at least one occasion, she failed to pick her daughter up.

After reading the vignette, participants were provided with an excerpt from the legal definition of neglect in the state of California:

The California State Penal Code Section 11164–11174.3 defines neglect as: "the negligent failure of a person having the care or custody of a child to provide adequate food, clothing, shelter, medical care, or supervision". (CA Penal Code Sections 11164–11174.3)

We selected California because it is the most populous U.S. state with one of the largest numbers of dependent children in the country (U.S. Department of Health and Human Services et al., 2021). Its definition is like that of several other states (e.g., Florida, Kansas, New York; Child Welfare Information Gateway, 2016).

Vignette Response Questions. Vignette response questions asked how responsible the mother, child, and government each were for the child's situation; how harmful the situation was for the child; how harmful, neglectful, and intentional the mother's behavior was; whether the participant felt they should contact CPS; and how likely the participant was to actually contact CPS. Participants responded on a 5-point Likert-type scale from 1 (not at all) to 5 (entirely). Participants also indicated (yes/no) whether the mother's behavior met the criteria for legal neglect; whether they felt they should report the situation to CPS; and whether the child should be removed from the mother's custody, placed in foster care, or sent to live with a relative. Finally, participants were given the opportunity via open-ended questions to explain their responses. Of primary interest were the neglectfulness (i.e., "How neglectful is [the mom's] behavior toward [the child]?") and reporting decision (i.e., "If [the child] was telling you this information, how likely would you be to actually report it to Child Protective Services?") ratings (both on 5-point scales).

Legal Involvement. Participants were asked about their mandated reporter status (*current, previous, never, unsure*), whether they had ever had contact with CPS (*as a child, as an adult, never, unsure*), and whether they had ever been convicted of a felony (*yes, no*). Because of low variability, mandated reporter status and CPS contact were dichotomized (*at some point, never/unsure*).

COVID-19. For participants in the COVID-19 group, additional questions concerned their experiences and perceptions of the COVID-19 pandemic (adapted from the Understanding America Study by the University of Southern California Center for Economic and Social Research and from the Canadian Public Perceptions Study; Kapteyn et al., 2020; Leigh et al., 2020). Questions asked about the personal financial impact of the pandemic: whether participants lost their job, were given reduced hours, or applied for unemployment benefits or food stamps before or after the COVID-19 pandemic began. Finally, participants rated on a 5-point Likert-type scale from 1 (*not serious*) to 5 (*very serious*) how serious they believed the pandemic to be.

Results

Assumptions

No outliers, defined by scores exceeding 3 SD units from the group mean or according to tests of influence (DFBETAS and DFFITS), were evident in the main study variables (i.e., age, current SES, neglectfulness, and reporting decision). In addition, for all main study variables, skewness and kurtosis values were approximately normal (absolute values < 2 for skewness and < 7 for kurtosis). Finally, P–P plots (for separate regressions using neglectfulness and reporting decision) showed normality of residuals, and scatterplots confirmed homoscedasticity. Therefore, we did not remove any participants or alter any scores.

Preliminary Analyses

We conducted preliminary analyses (descriptive statistics, analyses of variance [ANOVAs], and chi-square tests) to characterize the data and test for differences in demographics between participants assigned to the four vignette conditions and between the pre-COVID-19 and COVID-19 groups (see Table 1). Participants in the four vignette conditions (Condition 1: poverty, neglect; Condition 2: poverty, no neglect; Condition 3: no poverty, no neglect; and Condition 4: no poverty, neglect) did not significantly differ on age, ethnicity (White vs. non-White), gender (man, woman), parental status, current SES, mandated reporter status, or CPS contact. The pre-COVID-19 and COVID-19 groups did not significantly differ on ethnicity (White vs. non-White), gender (man, woman), or current SES. The groups did significantly differ in age, parental status, mandated reporter status, and CPS contact: Compared to the COVID-19 group, the pre-COVID-19 group was younger on average and included proportionally fewer parents, fewer participants who had been a mandated reporter, and fewer participants who had had contact with CPS. Therefore, all main analyses covaried age, parental status, mandated reporter status, CPS contact, and current SES.

We also conducted correlations and descriptive statistics for the entire sample among key study variables, including participants' age, SES, neglectfulness, and reporting decision (Table 2). Reporting decision, neglectfulness, and current SES were all significantly and positively correlated with one another. Age was not significantly related to current SES, neglectfulness, or reporting decision.

Main Study Analyses

To test Hypotheses 1 and 2, we conducted two three-way analyses of covariance (ANCOVAs). The poverty manipulation (poverty, no poverty), neglect manipulation (neglect, no

neglect), and group (pre-COVID, during-COVID) were entered as the categorical predictors; current SES, age, parental status, mandated reporter status, and CPS contact as the covariates; and neglectfulness (i.e., "How neglectful is [the mom's] behavior toward [the child]?") and reporting decision (i.e., "If [the child] was telling you this information, how likely would you be to actually report it to Child Protective Services?") as separate outcomes. We describe results relevant to our hypotheses here (see also Table 3).

Neglectfulness. When neglectfulness ratings were considered, there were significant main effects of the neglect manipulation (H1a) and current SES, but not of the poverty manipulation (H1b). Current SES was positively associated with neglectfulness, such that those of a higher SES tended to perceive the situation as more neglectful. The significant main effect of neglect was qualified by a significant Neglect × Poverty interaction (H1c). We assessed simple main effects using the Dunn-Bonferroni correction. As shown in Figure 1A, for those who received the no-poverty vignettes, the presence of neglect (estimated marginal mean [EMM] = 3.21, SE = 0.09, 95% CI [3.03, 3.38]) was associated with significantly higher ratings of neglectfulness, compared to when neglect was not present (EMM = 2.16, SE = 0.09, 95% CI [1.99, 2.34], p < .001, $\eta^2 = .096$). The same pattern was true for those who received the poverty vignettes, though with a smaller difference in ratings of neglectfulness between the neglect (EMM = 3.04, SE = 0.10, 95% CI [2.85, 3.23]) and no-neglect (EMM = 2.39, SE = 0.09, 95% CI)[2.21, 2.58], p < .001, $\eta^2 = .035$) vignettes. When only poverty was present, participants still perceived those situations as a little or somewhat neglectful on average. Finally, the hypothesized main effect of group (H2a) was nonsignificant, suggesting that the pre- and COVID-19 groups did not differ in their perceptions of neglectfulness. Nor was the expected three-way interaction (Group × Neglect × Poverty; H2b) significant.

Reporting Decision. We next examined reporting decision. Significant main effects of the neglect manipulation (H1a), poverty manipulation (H1b), current SES, and mandated reporter status emerged. Increasing SES and having been a current or former mandated reporter were both related to participants' stating that they would be more likely to report the situation to CPS. The manipulation main effects were subsumed by a significant Neglect × Poverty interaction (H1c). Simple main effects (assessed using the Dunn–Bonferroni correction) are shown in Figure 1B. For those who received the no-poverty vignettes, the presence of neglect was associated with a much higher likelihood of reporting the situation to CPS (EMM = 2.72, SE = 0.10, 95% CI [2.52, 2.91]) compared to when neglect was not present (EMM = 1.75, SE = 0.10, 95% CI [1.55, 1.95], p < .001, $\eta^2 = .068$). The same pattern was true for those who received the poverty vignettes, though with a smaller difference between the neglect (EMM = 3.11, SE = 0.11, 95% CI [2.90, 3.31]) and no-neglect (EMM = 2.56, SE = 0.10, 95% CI [2.35, 2.76], p < .001, $\eta^2 = .021$) conditions. That is, when neglect was absent but poverty was present, participants still indicated that they were a little or somewhat likely to report the situation to CPS. Again, no significant effects of group (H2a) emerged; nor was the three-way interaction (Group × Neglect × Poverty; H2b) significant.

Study 2

Study 1 evaluated whether the COVID-19 pandemic was associated with a shift in perceptions of poverty and neglect by comparing responses before and after the start of the pandemic. Results failed to reveal group differences. On the one hand, this may indicate that the pandemic did not lead to a shift in participants' knowledge of or experiences with poverty that shaped their perceptions of possible neglect. On the other hand, it is possible that laypersons' experiences related to the COVID-19 pandemic were simply not salient enough to produce broad

changes in perceptions that would emerge in participants' responses after reading brief vignettes about a mother and daughter. Instead, perhaps explicit cuing to COVID-19-induced changes in poverty is needed. Study 2 used a new set of vignettes that held poverty constant but manipulated mention of neglect (both failure to provide and failure to supervise) and of COVID-19 (Appendix B). We also measured attributions of blame to assess their role in shaping perceptions of neglect and reporting decisions. Hypotheses were as follows:

- (1) Ratings of neglectfulness and reporting decisions will differ based upon vignette condition:
 - (1a) Participants will accurately identify the vignettes depicting neglect as neglectful and as situations that warrant reporting.
 - (1b) Participants who receive the COVID vignettes will be less likely to report the situation to CPS compared to participants who receive the no-COVID vignettes.

 This effect will be nonsignificant for ratings of neglectfulness.
 - (1c) The COVID manipulation will moderate the relation between neglect and reporting decisions but not between neglect and ratings of neglectfulness, such that those in the COVID condition will be less likely to conflate poverty and neglect when making reporting decisions compared to those in the no-COVID condition.
- (2) Attributions of blame will be related to laypersons' ratings of neglectfulness and reporting decisions:
 - (2a) Mediational effects will emerge, such that participants in the COVID condition will report higher external attributions of blame and, in turn, be less

likely to report the situation to CPS, compared to those in the no-COVID condition.

(2b) There will be an indirect moderating effect, via attributions of blame, of the COVID manipulation on the relation between neglect and reporting decisions.

That is, the moderating effect described in H1c will be explained by (or mediated by) attributions of blame.

Method

Study 2 largely replicated the procedures and measures used in Study 1 but contained new vignettes that (a) more rigorously varied neglect and (b) either mentioned or did not mention COVID-19. Study 2 also included additional questions, described below.

Participants

We conducted a priori power analyses to determine the sample size for Study 2. First, we used the Superpower package (Version 0.1.2) in R (Lakens & Caldwell, 2019) for the ANOVAs (H1). Results showed that a sample of 400 participants would be sufficient to detect large-sized main effects and two-way interaction effects with power greater than .95 and alpha of .05.

Second, for the indirect moderation model (H2), we used the power4SEM package in R (Jak et al., 2021) to conduct root mean square error of approximation (RMSEA)–based power calculations. We conducted a test of not-close fit according to specifications recommended by MacCallum et al. (1996). A priori power analyses showed that, with an alpha of .05, a sample size of 750 provided 80% power to reject the null hypothesis of not-close fit (H₀: RMSEA = 0.05) when in the population there is close fit (H₁: RMSEA = 0.01). However, because we identified an additional covariate in the preliminary analyses below, which changed the degrees of freedom, we conducted a sensitivity analysis with the new parameters. These results showed

that, with an alpha of .05, a sample size of 703 provided 80% power to reject the null hypothesis of not-close fit (H_0 : RMSEA = 0.05) when in the population there is close fit (H_1 : RMSEA = 0.01).

A total of 867 participants recruited from Cloud Research completed Study 2 in September 2021. We changed the HIT approval rate to 95% to 100% (Keith et al., 2017) to improve data quality, and the number of HITs approved remained consistent with Study 1 at 100 to 1,000,000. Participants who completed Study 1 were excluded from participating in Study 2. As in Study 1, two attention check questions were also included: The first asked participants whether they had traveled to or done business with a fictional location (*no; yes, more than 5 years ago; yes, in the last 5 years*), and the second asked participants to select from a list of four options what the vignette was about. A total of 163 participants who failed one or both questions were excluded from the analyses, producing an 18.80% exclusion rate. The final sample consisted of 704 participants, aged 19to 91 years ($M_{age} = 43.88$, $SD_{age} = 13.93$), 63.49% identifying as women. Most identified as White (76.70%), followed by 8.66% Black/African American, 5.54% Asian, 4.69% Latinx, and the remainder across American Indian/Alaska Native, Native Hawaiian/Pacific Islander, multiethnic, other, or prefer not to state.

Procedures

All procedures were approved by the University of California, Irvine, Institutional Review Board (#2018-4237), and all data and study materials are available on the Open Science Framework (https://osf.io/tskuj/). After providing consent, participants completed an anonymous online survey in which they were randomly assigned to one of four vignette conditions. After reading a short vignette, participants responded to questions regarding demographics, SES, vignette responses, experiences with the law, COVID-19, and attributions of blame.

Materials

Demographics. Measures regarding demographics largely mirrored those used in Study 1, with the addition of two new questions. The first asked whether participants live in an urban, suburban, or rural area (providing examples and descriptions of each). The second asked participants to report their political orientation on a scale from 1 (*very liberal*) to 7 (*very conservative*).

SES. Questions regarding SES were identical to those used for the COVID-19 group in Study 1. However, rather than using current SES as in Study 1, for Study 2 we created a change-in-SES variable by subtracting pre-COVID-19 SES (i.e., in 2019) from post-COVID-19 SES (i.e., since February 2020) for each participant.

Vignette Conditions. The survey system randomly assigned participants to one of four vignette conditions that described a single mother's care of her 7-year-old daughter, modeled after substantiated cases of neglect. Each began with a list of the location, date, and names of the mother and daughter in the story (Appendix B). Unlike in Study 1, the vignettes held poverty constant, which was present in all conditions, indicated by housing instability (i.e., living in a motel), the child picking up free lunch every day at school, and the mother working part-time at a grocery store. The vignettes experimentally manipulated indicators of neglect and the COVID-19 pandemic between subjects. For the neglect manipulation, presence of neglect was indicated by behaviors in the mother that were clearly intentional and included examples of both failure to provide (e.g., the child was hungry because of mother's choice to go out at night) and failure to supervise (e.g., the mother ignored the child's phone calls). For the COVID manipulation, in the COVID condition the date was August 2020 and in the no-COVID condition the date was August 2018. Moreover, the COVID vignettes also stated that the mother lost her full-time job

because of COVID-19 and began working as an "essential worker." The vignettes included additional wording indicating that the family had experienced significant changes related to COVID-19 (i.e., "now," "finally"), all of which were omitted in the no-COVID condition. A pilot study conducted in August 2021 showed that the manipulation was effective.

Vignette Response Questions. Vignette response questions were identical to those used in Study 1, with two additional manipulation check questions: Did the vignette take place during the COVID-19 pandemic (*yes, no, not indicated, I don't know*), and how much did participants think about the COVID-19 pandemic when reading the story (5-point Likert-type scale)? The manipulation was effective: Participants in the COVID conditions were more likely to state that the vignette took place during COVID-19, $\chi^2(2) = 561.39$, p < .001, and reported having thought about the pandemic more when reading the story, t(702) = -22.86, p < .001.

Attributions of Blame. Questions regarding attributions of blame followed the presentation of the vignettes and the legal definition of neglect. Participants rated on a 5-point Likert-type scale from 0 (*not at all to blame*) to 4 (*completely to blame*) "how much each of the following are to blame for the situation described." Eight items were listed, evenly split between those that aligned with internal and external attributions. Items were derived from other measures of attributions of blame (Nasser et al., 2002; Weiner et al., 2011). Items within the external (rs > .36, ps < .001) and internal (rs > .51, ps < .001) attribution subscales were significantly correlated in the expected directions. Reliability was acceptable for both the external ($\alpha = .74$) and internal ($\alpha = .86$) attribution subscales. Therefore, all items fit with the appropriate subscale, and no items were removed. We constructed a dimensional index by first summing the scores for each subscale (creating total external and internal attribution scores) and then subtracting the total external attribution score Participants' scores on the

attributions-of-blame index ranged from -16 to 16 (M = 0.43, SD = 6.74). A positive score indicates greater internal attributions, a negative score indicates greater external attributions, and a score of 0 indicates equal internal and external attributions of blame (see Delavega et al., 2017, for a similar approach).

Legal Involvement. The survey asked participants about their mandated reporter status, but because states' mandated reporting laws differ and participants have may been unclear about whether they were a mandated reporter, an additional question asked whether participants had received any formal training regarding maltreatment (i.e., maltreatment training).

COVID-19. Finally, participants responded to the COVID-19 questions used in Study 1, which assessed experiences with and perceptions of the COVID-19 pandemic.

Results

Assumptions

According to tests of influence (DFBETAS and DFFITS), no outliers were evident. For change in SES, seven participants had scores greater than 3 SD units from the mean and 16 participants had scores less than 3 SD units below the mean. Upon examination, these scores were considered accurate. Therefore, scores were winsorized to the next value that was not an outlier (3.91 or -4.49). Skewness and kurtosis values were considered approximately normal for all variables (absolute values < 2 for skewness and < 7 for kurtosis). Although change in SES was slightly leptokurtic (k = 8.41), after adjusting for outliers, change in SES was not (k = 3.61). Therefore, no transformations were conducted on change in SES. Finally, P–P plots (for separate regressions using neglectfulness and reporting decision) showed normality of residuals, and scatterplots confirmed homoscedasticity.

Preliminary Analyses

Participants assigned to each of the four vignette conditions (Condition 1: neglect, COVID; Condition 2: no neglect, COVID; Condition 3: neglect, no COVID; Condition 4: no neglect, no COVID) did not significantly differ on age, ethnicity (White vs. non-White), gender (man, woman, other), parental status, political orientation, change in SES, maltreatment training, CPS contact, or perceptions of COVID-19 in 2020 (see Table 4). However, participants in the four vignette conditions differed in their perception of COVID-19 in 2020 (at its peak). Follow-up tests with Dunn–Bonferroni multiple-comparison procedures were conducted to determine the groups responsible for the significant omnibus results. Participants in Condition 3 (neglect, no COVID; M = 4.26, SD = 1.20) perceived the COVID-19 pandemic in 2020 to be significantly less serious compared to participants in Condition 4 (no neglect, no COVID; M = 4.60, SD = 0.85, p = .01). Because of this difference, perception of the seriousness of COVID-19 in 2020 was included as a covariate in the main study analyses. Consistent with Study 1, and given SES's significant relation to perceptions of neglect, main analyses also covaried change in SES.

We also conducted correlations and descriptive statistics for the entire sample among key study variables, including participants' age, change in SES, neglectfulness, reporting decision, and attributions of blame to characterize the main measures (Table 2). Neglectfulness, reporting decision, and attributions of blame were all significantly and positively correlated with one another. Age and change in SES were not significantly related to one another or to neglectfulness, reporting decision, or attributions of blame.

Main Study Analyses

H1: Vignette Conditions. We assessed the effect of condition on participants' perceptions of neglectfulness and reporting decisions via two 2 × 2 ANCOVAs with the two manipulations (neglect, COVID) as categorical predictors and change in SES and perceptions of

COVID-19 in 2020 as continuous covariates (Table 5). First, we entered neglectfulness as the outcome variable. As expected, the main effect of the neglect manipulation (H1a) was significant. Those who received the neglect vignettes perceived the situation as more neglectful (EMM = 4.03, SE = 0.05, 95% CI [3.93, 4.13]) than those who received the no-neglect vignettes (EMM = 2.37, SE = 0.05, 95% CI [2.27, 2.47]). No other significant effects emerged, which included hypothesized effects of the COVID manipulation (H1b) and the Neglect × COVID interaction (H1c).

With reporting decision as the outcome, the main effect of neglect (H1a) was again significant. Those who received the neglect vignettes were more likely to report the situation to CPS (EMM = 3.85, SE = 0.07, 95% CI [3.72, 3.98]) compared to those who received the noneglect vignettes (EMM = 2.08, SE = 0.07, 95% CI [1.95, 2.21]). The effect of perceptions of COVID-19 in 2020 was also significant: As perceptions of COVID-19's seriousness increased, participants were more likely to report the vignette situation to CPS. Finally, there were no significant effects of the COVID manipulation (H1b), the Neglect × COVID interaction (H1c), or change in SES on reporting decision.

H2: Attributions of Blame. To test H2, which concerned the role of attributions of blame in the relation between the experimental manipulations and the outcomes (see van Kollenburg & Croon, 2020, for a discussion on analysis of indirect moderation), we conducted two path analyses. Change in SES and perceptions of COVID-19 in 2020 were included as covariates in both models. We ran the models in MPlus 8.0 (Muthén & Muthén, 2017) using the maximum likelihood method of parameter estimation. To test the overall model fit before examining the predicted pathways, we used the chi-square goodness of fit test, RMSEA, and comparative fit index (CFI). We estimated effects using bootstrapping at 10,000 resamples to

control for Type I error and to obtain confidence limits and standard errors for the indirect effect test that are preferable to the Sobel test (Preacher & Hayes, 2008). When assessing indirect effects, we rejected the null hypothesis (i.e., no indirect effect) if the 95% confidence interval of an estimate did not include zero (Preacher & Hayes, 2008). We expected only the model for reporting decision to be significant but conducted analyses on neglectfulness as well. Model fit indices for both planned models (predicting neglectfulness and reporting decision) were poor, RMSEAs = 0.53, CFIs < .41, χ^2 s = 808.12, ps < .001 (Table 6). Thus, H2a and H2b were not supported.

Exploratory Models. Given the lack of indirect moderation (H2), we conducted two additional exploratory models testing alternative relations among the manipulations, attributions of blame, and the outcome variables. First, considering our findings that indicated no moderating effect of the COVID manipulation, we removed the interaction between the neglect and COVID manipulations from the model. Instead, we examined whether the main effects of the manipulations on the outcomes were explained by attributions of blame. Consistent with prior models, change in SES and perceptions of COVID-19 in 2020 were included as covariates. The models' fit approached acceptability across some but not all indices (Table 6). Second, we made a further modification that was (a) identified by modification indices provided by MPlus and (b) made logical sense to include. Specifically, we permitted perception of COVID-19 in 2020 to have a direct effect on attributions of blame. Those who perceived the COVID-19 pandemic as more serious may have been more likely to attribute the mom's behavior or the family's poverty to the pandemic (i.e., more external attributions of blame). In contrast, those who perceived the COVID-19 pandemic as less serious would have been less likely to attribute behaviors to the pandemic, and therefore less likely to report external attributions of blame. The revised models

provided excellent fit (Table 6; Figures 2 and 3) for both neglectfulness and reporting decision. Results were identical in terms of statistical significance of predictors, though the magnitudes of the relations slightly differed between the two outcomes. We describe the findings next, with full results presented in Table 7.

The models explained a significant proportion of variation in ratings of neglectfulness (53%) and reporting decision (45%). First, perceptions of COVID-19 in 2020, the neglect manipulation, and the COVID manipulation significantly predicted attributions of blame. Rating COVID-19 as more serious in 2020 was associated with more external attributions of blame. Likewise, receiving the COVID compared to the no-COVID vignette was associated with higher external attributions of blame, whereas receiving the neglect compared to the no-neglect vignette was associated with higher internal attributions of blame.

Second, perceptions of COVID-19 and the neglect manipulation separately predicted both neglectfulness and reporting decision. Viewing COVID-19 as more serious in 2020 was associated with higher ratings of neglectfulness and higher likelihood of reporting the situation to CPS. Also, participants who received the neglect versus no-neglect vignettes perceived the situation as more neglectful and were more likely to report it to CPS. The COVID vignette manipulation was unrelated to neglectfulness ratings or reporting decision.

Third and finally, there were statistically significant indirect effects of both the neglect and COVID manipulations on both outcomes via attributions of blame. Taken together, compared to those who received the no-COVID vignettes, those who received the COVID vignettes perceived the situation as less neglectful and were less likely to report the situation to CPS, due to more external attributions of blame. In addition, compared to those who received the no-neglect vignettes, those who received the neglect vignettes perceived the situation as more

neglectful and were more likely to report it, in part, due to more internal attributions of blame.

Thus, explicitly reminding participants of the COVID-19 pandemic in the vignette indeed seemed to push them toward viewing influences outside of the mother's control as leading to her situation, rather than her own intentional behavior causing possible neglect.

Discussion

These studies provided important new insight into laypersons' perceptions of poverty and neglect and how the COVID-19 pandemic may have impacted those perceptions. Although significant research is now unpacking the plethora of ways the pandemic has impacted maltreatment, including neglect, in children and families (Lawson et al., 2020; Metcalf et al., 2022; Rodriguez et al., 2020), research has yet to consider how it may have impacted perceptions of neglect and, in turn, laypersons' likelihood of accurately identifying and reporting cases to authorities. Our findings demonstrate that whereas many people recognize situations of neglect as such and indicate that they would report neglectful situations, others confuse poverty with neglect. Moreover, the pandemic itself had an influence on laypersons' identification and reporting decisions, though not in all the hypothesized ways. These findings begin to elaborate on how and why laypersons can accurately identify neglect and report it to authorities and provide valuable information for improving the over- and underreporting of neglect.

People have fairly consistent perceptions of neglect, as we expected and saw in both studies. Generally, people can accurately identify neglect and see neglect as warranting reporting. In Study 1, compared to situations where neglect was not present, laypersons perceived situations of neglect as more neglectful and indicated that they were more likely to report such situations, regardless of the presence or absence of poverty. Study 2 similarly revealed that participants were able to accurately distinguish situations of neglect when making

identification and reporting decisions. However, when poverty was present (as in Study 2 and part of Study 1), participants' ability to identify neglect was diminished. That is, some laypersons' perceptions and reporting decisions reflected a misunderstanding of what constitutes neglect, mistaking instances of poverty for actual neglect: In Study 2 (and Study 1), despite no legal form of neglect being presented in the poverty-only vignette, 17% (20%) laypersons stated that the mother's behavior was "very" or "entirely" neglectful, and 17% (28%) stated that they would be "very" or "entirely" likely to report it to CPS. These misconceptions suggest that overreporting occurs, which could lead to unnecessary investigations and distress to families. Public education campaigns about families' experiences of poverty and about specific indicators of neglect may be helpful to reduce overidentification and overreporting. Moreover, across studies and conditions, laypersons were slightly more conservative in their reporting decisions compared to their identification of neglect. Perhaps this was due to their own perceptions of the legal and social systems or uncertainty of their evaluation of the situation as neglectful. Although not the focus of this study, it would be valuable to more directly compare laypersons' perceptions and reporting decisions to gain a better understanding of how often and in what situations this misalignment occurs.

More novel and pertinent were our findings regarding the effects of the COVID-19 pandemic on perceptions of poverty and neglect. Across both studies, the pandemic itself did not directly impact perceptions of neglect or reporting decisions, nor did it influence laypersons' tendency to conflate poverty with neglect. When we cued people to COVID-19, the manipulation was indeed successful: Participants who received the COVID vignettes were more likely to state that the vignette took place during COVID-19 and thought about the pandemic more when reading the story. In contrast to our hypotheses, though, the manipulation did not directly affect

laypersons' perceptions of neglectfulness, decisions to report the situation to CPS, or perceptions of poverty as neglect. It could be that the pandemic-related economic crisis was not salient enough to produce effects akin to those of overall socioeconomic status. Or the financial hardship caused by the pandemic may be characteristically different from poverty caused by structural factors (e.g., race, education). For example, pandemic-related economic hardships may be perceived as more temporary compared to hardship caused by other factors. Alternatively, it may take time for experiences of economic hardship (regardless of the cause) to influence perceptions of poverty, in which case the short-term effects of the pandemic measured in this study would not be sufficient to produce such changes.

In addition to general tendencies to conflate poverty with neglect, which did not change as a result of the COVID-19 pandemic, participants' current experiences of poverty were related to their perceptions and reporting decisions. In Study 1, lower SES was associated with lower ratings of neglectfulness and decreased likelihood of reporting. Those who have experienced poverty may be more sensitive to the challenges associated with such experiences and more reluctant to report individuals who experience hardships. In contrast, COVID-19-related changes in SES did not impact responses to the vignettes. Perhaps the time period—2019 to after February 2020—was not sufficient to produce significant changes in laypersons' understanding of poverty. Or maybe it is not the change in one's financial status but rather the extent to which one has ever experienced financial hardship that influences perceptions of situations of poverty. Future work should parse these potential explanations more directly.

Another exciting and novel focus of our study concerned whether attributions of blame explain, at least in part, why the COVID-19 pandemic impacted perceptions of poverty and neglect. Our hypothesized model was unsuccessful, likely because the foundation on which it

was based (the moderating effect of the COVID manipulation) was not supported. As a result, we explored other models that helped explain differences in laypersons' perceptions and reporting tendencies. Our final model revealed that both manipulations (neglect, COVID) predicted individuals' attributions of blame, which, in turn, predicted perceptions of neglectfulness and reporting decisions (Figures 2 and 3).

Attributions of blame explained some of the relation between the neglect manipulation and the outcome variables (neglectfulness and reporting decision). Compared to those who received the vignettes without neglect, laypersons' who received the vignettes depicting neglect were more likely to blame the mother for the situation (i.e., more internal attributions of blame e.g., laziness or poor planning) and, in turn, perceive the situation as more neglectful and report it to CPS. Given that some legal definitions of neglect dictate that the act must be "willful or negligent" to be considered neglectful (e.g., as in California), it is unsurprising that situations depicting neglect were associated with internal attributions. Because poverty was held constant throughout the vignettes, these findings also mean that laypersons were at least somewhat, though not universally, able to accurately identify situations of poverty as due to more external reasons, as less neglectful, and as not warranting reporting to CPS. The impact of the neglect manipulation on perceptions and reporting decisions, however, was not entirely explained by attributions of blame. Other factors important to consider in future research would include knowledge of and experience with CPS, the legal system, child maltreatment, and resources available to families (low variability in the first three, which were measured in some capacity, did not allow for meaningful interpretation of these factors).

Regarding the COVID-19 pandemic, attributions of blame fully mediated the relation between the COVID manipulation and the outcome variables: Compared to when COVID-19

was not present in the vignette, the presence of COVID-19 was related to perceptions of the situation as due to forces outside of the mother's control (i.e., more external attributions of blame—e.g., bad luck, societal factors), which in turn was related to laypersons saying the situation was less neglectful and that they would be less likely to report it to CPS. Perhaps the COVID-19 pandemic produced changes in laypersons' perceptions of blame for familial hardships, as they themselves or others around them faced hardship during the pandemic. Or perhaps participants in the COVID conditions directly attributed the situation to COVID-19 itself, leading to more conservative perceptions and decisions, as reflected in a reduced likelihood of labeling the mother's behavior as neglect.

It is possible, however, that the effect of the COVID manipulation was not specific to the pandemic itself. For example, it could be that this effect would appear if some other disaster or event (e.g., earthquake, death in the family) were mentioned in its place. Rather than the pandemic having a unique effect on individuals' perceptions of poverty and neglect, it may be that providing more contextual information regarding the family's situation influenced laypersons toward attributing such situations to external forces. Future research should compare other external factors to assess this potential confound.

Finally, laypersons' experiences with the pandemic influenced their perceptions of neglectfulness and reporting decisions separate from effects of our manipulations. Perceiving the COVID-19 pandemic in 2020 (at its peak) as more serious was *indirectly* related to lower ratings of neglectfulness and a decreased likelihood of reporting the situation to CPS, via more external attributions of blame, following the same pattern as the manipulations. However, direct effects were unexpectedly in the opposing direction. For some, perceiving the COVID-19 pandemic in 2020 as more serious was *directly* related to higher ratings of neglectfulness and an increased

likelihood of reporting the situation to CPS. Perhaps the seriousness of the pandemic made these participants more aware of potential harms and more willing to report potential risk to authorities. Further work is needed to determine why laypersons fall into one pattern or the other, but both indicate that the pandemic has indeed impacted laypersons' identification and reporting decisions. Moreover, the pandemic's influence was due to factors beyond economic conditions, given that this measure was unrelated to change in SES (r = -.01, p = .84). Instead, laypersons may have felt the repercussions of the pandemic more intensely because of mask mandates, stay-at-home-orders, or beliefs about the virus itself. Research could examine these findings further, assessing the factors underlying laypersons' concerns about the COVID-19 pandemic and how they relate to identification and reporting decisions.

Limitations

Despite the novelty and significance of the findings, including both the hypothesized and exploratory effects, the studies were not without limitations. First, Study 1 was limited by the available size of the pre-COVID sample. Our COVID-19 sample size was chosen to match the pre-COVID-19 sample (Dickerson et al., 2020) to reduce statistical biases associated with unequal sample sizes. However, given the increased complexity of analyses (i.e., three-way interactions), larger samples for both groups would have been preferable and would have enabled us to interpret and draw conclusions from results that lacked sufficient power. Second, the vignettes used in Study 1 may or may not have been interpreted by participants as intended, given that the vignettes were less explicit in stating that the mother's actions were intentional in the neglect condition. Although the ability to make this distinction was precisely what our study aimed to test, the Study 2 vignettes used clearer indicators of poverty and neglect. Third, although online recruitment methods lead to samples that tend to be more diverse than student

samples, such methods do not typically lead to nationally representative samples (Buhrmester et al., 2011). We included language in the CloudResearch description for Study 2 (i.e., that we were interested in "a diverse set of perceptions and experiences") to encourage a wide range of individuals to complete the study. However, the ethnic makeup of our samples differed from that of the general U.S. population and even more so from that of people who most commonly interact with the child welfare system. Therefore, generalizing our findings must be done with caution, and other recruitment methods should be considered to complement our sample. Data quality can also be an issue with online surveys. We excluded bots and blatantly inattentive participants who failed attention checks. However, some participants may still have failed to fully comprehend the scenarios or questions posed. This could have led to bias in their responses. Conducting research in this way, however, is common and can be interpreted by recognizing the potential for this to occur. Finally, some of our analyses were exploratory, developed after viewing the data and results of our planned analyses. Because these models were driven in part by the data itself, statistically significant results should be considered with a higher degree of skepticism, and replication would be beneficial.

Conclusions

Our research provides new insight into factors that influence laypersons' ability to accurately identify and report cases of neglect and, in doing so, offers valuable information relevant to reducing over- and underreporting of neglect. Although many laypersons were able to distinguish between situations with and without neglect, some continued to view situations of poverty as neglectful and as warranting a report to authorities. The tendency towards internal versus external attributions of blame helped to explain why laypersons perceive situations of poverty or neglect as neglectful and as situations that warrant reporting to CPS. Moreover, the

COVID-19 pandemic had a significant, indirect impact on laypersons' identification and reporting decisions via attributions of blame. Understanding when and why individuals both recognize and report neglect is crucial for targeted education and intervention campaigns, especially when communities and society change in ways that alter how individuals encounter and evaluate potential victims and their situations.

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Appendix A

Study 1 Vignettes

Condition 1: Yes Poverty, Yes Neglect

7-year-old Destiny and her mom, Tina, live in a large city. Tina is Destiny's only caregiver. Tina works part-time at a fast-food restaurant, and Destiny attends a local school. After school, Destiny typically walks to a park where she waits for her mom to pick her up by car. Tina picks Destiny up at the park around 7pm, and they then sleep in the car overnight. In the morning, Destiny walks to school and gets breakfast and lunch at school. She says that her mom always finds something for them to eat in the evening and that she gets enough to eat every day. Destiny attends school regularly. Sometimes Destiny can get ahold of her mom on her mom's cell by using a friend's phone when she needs to, and sometimes her mom's number is out of service and not accepting calls. Destiny says that she has felt scared waiting for her mom, and that yesterday her mom did not come pick her up at all, so she walked to a friend's house for the night. Destiny and her mom, Tina, both agree that they are the most important people in each other's lives.

Condition 2: Yes Poverty, No Neglect

7-year-old Destiny and her mother, Tina, live in a large city. Tina is Destiny's only caregiver. Tina works part-time at a fast-food restaurant, and Destiny attends a local school. After school, Destiny typically walks to a park where she waits for her mom to pick her up by car. Destiny and Tina then sleep in the car overnight. In the morning, Destiny walks to school and gets breakfast and lunch at school. She says that her mother always finds something for them to eat in the evening and that she gets enough to eat every day. Destiny attends school regularly. Sometimes Destiny can get ahold of her mom on her mom's cell by using a friend's phone when she needs to, and sometimes Tina's number is turned off and not accepting calls. Tina tells Destiny that when she can't get ahold of her mom, she should go to her best friend's house to wait for her mom. Destiny and Tina both agree that they are the most important people in each other's lives.

Condition 3: No Poverty, No Neglect

7-year-old Destiny and her mother, Tina, live in a large city. Tina is Destiny's only caregiver. Tina is a high-level executive at a large firm in the city, and Destiny attends a local private school. After school, Destiny typically walks to a park where she waits for her mom to pick her up by car. Destiny eats breakfast at home, brings a lunch to school, and says that her mother always finds something for them to eat in the evening. She says she always gets enough to eat every day. Destiny attends school regularly. Sometimes Destiny can get ahold of her Mom on her mom's cell by using her own cell phone, and sometimes her mom's phone is turned off and not accepting calls. Tina tells Destiny that when she can't get ahold of her mom, she should go to

her best friend's house to wait for her mom. Destiny and Tina both agree that they are the most important people in each other's lives.

Condition 4: No Poverty, Yes Neglect

7-year-old Destiny and her mother, Tina, live in a large city. Tina is Destiny's only caregiver. Tina is a high-level executive at a large firm in the city, and Destiny attends a local private school. After school, Destiny typically walks to a park where she waits for her mom to pick her up by car. Tina picks Destiny up after she is done with work around 7pm. Destiny eats breakfast at home, brings a lunch to school, and says that her mother always finds something for them to eat in the evening. She says she always gets enough to eat every day. Destiny attends school regularly. Sometimes Destiny can get ahold of her mom on her mom's cell by using a friend's phone when she needs to, and sometimes her mom's number is out of service and not accepting calls. Destiny says that she has felt scared waiting for her mom, and that yesterday her mom did not come pick her up at all, so she walked to a friend's house for the night. Destiny and Tina both agree that they are the most important people in each other's lives.

Appendix B

Study 2 Vignettes

Condition 1: Poverty, Neglect, COVID

Please read the following story carefully.

Location: A large urban city in the United States

Time: August 2020 Mother: Tina Daughter: Destiny

7-year-old Destiny and her mom, Tina, moved into a motel in a large city. Tina is Destiny's only caregiver. Tina lost her full-time job due to COVID-19 and was unable to pay rent. She finally started working again as an essential worker at a grocery store, although only part-time. While Tina is at work, Destiny stays alone during the day and walks to pick up free lunch every day at her school. Tina is sometimes home by dark, but sometimes chooses to go out at night and does not come home until very late. Sometimes Destiny can get ahold of her mom on her mom's cell, but other times her mom ignores her phone calls. Destiny says that she has felt scared waiting for her mom at night and is sometimes hungry. Yesterday her mom did not come home at all, so she slept in the closet. Destiny and Tina, both agree that they are the most important people in each other's lives.

Condition 2: Poverty, No Neglect, COVID

Please read the following story carefully.

Location: A large urban city in the United States

Time: August 2020 Mother: Tina Daughter: Destiny

7-year-old Destiny and her mom, Tina, moved into a motel in a large city. Tina is Destiny's only caregiver. Tina lost her full-time job due to COVID-19 and was unable to pay rent. She finally started working again as an essential worker at a grocery store, although only part-time. While Tina is at work, Destiny stays alone during the day and walks to pick up free lunch every day at her school. Tina is sometimes home by dark, but sometimes has to work late into the night and does not get home until very late. Sometimes Destiny can get ahold of her mom on her mom's cell, but other times her mom cannot answer the phone. Destiny says that she has felt different but always has enough to eat. Tina tells Destiny that when she can't get ahold of her mom, she should go to her best friend's house to wait for her mom. Destiny and Tina, both agree that they are the most important people in each other's lives.

Condition 3: Poverty, Neglect, No COVID

Please read the following story carefully.

Location: A large urban city in the United States

Time: August 2018 Mother: Tina Daughter: Destiny

7-year-old Destiny and her mom, Tina, live in a motel in a large city. Tina is Destiny's only caregiver. Tina finally started working at a grocery store, although only part-time. While Tina is at work, Destiny stays alone during the day and walks to pick up free lunch every day at her school. Tina is sometimes home by dark, but sometimes chooses to go out at night and does not come home until very late. Sometimes Destiny can get ahold of her mom on her mom's cell, but other times her mom ignores her phone calls. Destiny says that she has felt scared waiting for her mom at night and is sometimes hungry. Yesterday her mom did not come home at all,, so she slept in the closet. Destiny and Tina, both agree that they are the most important people in each other's lives.

Condition 4: Poverty, No Neglect, No COVID

Please read the following story carefully.

Location: A large urban city in the United States

Time: August 2018 Mother: Tina Daughter: Destiny

7-year-old Destiny and her mom, Tina, live in a motel in a large city. Tina is Destiny's only caregiver. Tina finally started working at a grocery store, although only part-time. While Tina is at work, Destiny stays alone during the day and walks to pick up free lunch every day at her school. Tina is sometimes home by dark, but sometimes has to work late into the night and does not get home until very late. Sometimes Destiny can get ahold of her mom on her mom's cell, but other times her mom cannot answer the phone. Destiny says that she has felt different but always has enough to eat. Tina tells Destiny that when she can't get ahold of her mom, she should go to her best friend's house to wait for her mom. Destiny and Tina, both agree that they are the most important people in each other's lives.