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Material Hardship and Stress from COVID-19 in Immigrant Chinese American Families with Infants

Carol Duh-Leong¹ · H. Shonna Yin¹ · Stella S. Yi² · Sabrina L. Chen³ · Angel Mui⁴ · Eliana M. Perrin⁵ · Qiuqu Zhao⁶ · Rachel S. Gross¹

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Abstract

Material hardship and stress, associated with poor infant outcomes, increased during the Coronavirus Disease 2019 pandemic. Chinese American families were vulnerable to racism-driven disparities. Little is known about maternal perceptions of pandemic impacts on their infants, family, and community. Purposive sampling of low-income Chinese American mothers (n=25) with infants (1–15 months). Semi-structured qualitative interviews conducted in Mandarin, Cantonese, or English were audio-recorded, transcribed, and translated. Transcripts coded using applied thematic analysis in an iterative process of textual analysis until thematic saturation. Three themes emerged: (1) *Heightened family hardship* included financial strain, disruption of transnational childcare, experiences of racism; (2) *Altered infant routines/developmental consequences* included using protective equipment on infants, concerns about infant socio-emotional development; (3) *Coping strategies* included stockpiling essentials, adapting family diets. Strategies to mitigate disparities include expanding social needs screening, correcting misinformation, strengthening support networks, and including low-income Chinese Americans in these efforts.

Keywords Infant · COVID-19 · Asian Americans · Social determinants of health

Introduction

The economic and societal consequences of the Coronavirus Disease 2019 (COVID-19) pandemic led to material hardship [1] and increased psychosocial stress [2, 3] for families with children. Infancy represents a critical period

Carol Duh-Leong carol.duh-leong@nyulangone.org

> H. Shonna Yin hsiang.yin@nyulangone.org

Stella S. Yi stella.yi@nyulangone.org

Sabrina L. Chen sabrina.chen@nyulangone.org

Angel Mui angel.mui@nyulangone.org

Eliana M. Perrin eperrin@jhmi.edu

Qiuqu Zhao qiuqu.zhao@nyulangone.org

Rachel S. Gross rachel.gross@nyulangone.org of cognitive, socio-emotional, and behavioral development with lifelong consequences [4]. Previous studies have identified associations between material hardships, or a lack of essential resources, and poor outcomes in key infant domains such as cognitive development [5], obesogenic feeding behaviors [6], and decreased sleep duration

- ¹ Division of General Pediatrics, Department of Pediatrics, NYU Grossman School of Medicine, 462 First Avenue, New York, NY 10016, USA
- ² Department of Population Health, NYU Grossman School of Medicine, 180 Madison Avenue, New York, NY 10016, USA
- ³ NYU Grossman School of Medicine, 550 First Avenue, New York, NY 10016, USA
- ⁴ Department of Population Health, Center for the Study of Asian American Health, NYU Grossman School of Medicine, 180 Madison Avenue, New York, NY 10016, USA
- ⁵ Department of Pediatrics, Johns Hopkins School of Medicine and School of Nursing, 200 N. Wolfe Street, Baltimore, MD 21287, USA
- ⁶ Seventh Avenue Family Health Center, NYU Langone Health, 5008 7th Avenue, Brooklyn, NY 11220, USA

[7]. Psychosocial stress in parents, including depressive or anxious symptoms, is also associated with infant developmental delay [5] and poor nutritional outcomes [8]. Economic and societal COVID-19 impacts, such as unemployment and mistrust of public information, have compounded inequalities in resource and information access and exacerbated poverty-related social determinants of health [9, 10]. However, despite these quantitative assessments, there is a gap in understanding their broader context, as well as detailing reactive coping mechanisms in vulnerable families with infants, particularly in low-income Chinese Americans.

During the first eleven months of the pandemic, there were over 3,700 reports of discrimination targeting Asian Americans in the United States (US) [11], as well as increased calls for research to document potential racism [12, 13]. In addition to stress from direct discrimination, low-income Chinese American families quickly contended with specific damage to Chinatown-based small business economies [14, 15]. Despite research highlighting challenges for families and data suggesting that Chinese American communities reliant on immigrant-owned small businesses for subsistence may be vulnerable, little is known about how families with infants from this understudied population [16] experienced targeted impacts of the pandemic.

A broader understanding of how the pandemic increased material hardships and psychosocial stressors, as well as identifying the strategies families used to cope with parenting challenges, will inform pediatric primary care delivery of support to vulnerable populations during crisis. To fill these gaps, we conducted semi-structured qualitative interviews with low-income Chinese American mothers to learn about maternal perceptions of how the pandemic impacted their infants, family, and community.

Methods

Study Design

We performed a qualitative study of mother-infant pairs at a federally qualified health center in Brooklyn, New York, which serves predominantly immigrant, low-income Chinese American families. The clinic is in Sunset Park, a neighborhood considered Brooklyn's Chinatown, with a large population of working-class immigrants from China's Fujian province [17]. In this clinic, there are ~ 30,000 visits a year, with 40% pediatric patients (newborn to 18 years), 92% Medicaid eligible, 92% Asian, and 86% best served in a language other than English.

Sampling and Recruitment

We purposively sampled mothers in the HealthySteps program [18] (universally offered at this clinic), to obtain

maximum variation across parenting experiences in early (1–7 months) and late infancy/early toddlerhood (8–15 months). HealthySteps integrates behavioral health specialists into pediatric primary care to support American Academy of Pediatrics recommendations [18]. A bilingual community health worker partnered with the HealthySteps specialist to recruit eligible mothers between June 2020 and September 2020 for a one-time interview. Inclusion criteria included mothers who were 18 years or older, of Chinese descent, were able to speak Mandarin, Cantonese, or English, and had a child between the ages of 1 and 15 months. Inclusion criteria did not include immigration status. Exclusion criteria excluded mothers with significant medical illness likely to impair their participation.

Due to social distancing restrictions during the COVID-19 pandemic, interviews were conducted remotely. Mothers were consented electronically for both the interview and telephone audiotaping. Participants were compensated with a \$20 gift card. This study was approved by the Institutional Review Board of NYU Grossman School of Medicine.

Interview Guide

Our interview guide (Table 1) was designed and iteratively revised by a multicultural interdisciplinary team, including pediatricians, a community health worker, and specialists in Asian American immigrant populations and early childhood. Interview questions were informed by the COVID-19 Exposure and Family Impact Survey [19], Medical Outcomes Study Social Support Scale [20], Food Security Module from the US Department of Agriculture [21], and Everyday Discrimination Scale [22]. Two trained interviewers (AM and SC) conducted interviews between 25 and 37 min long, the majority conducted by AM. Both interviewers have written and spoken native fluency in Mandarin and English while one (AM) had additional native fluency in Cantonese. Debriefs were conducted after every other interview to inform iterative changes in the interview guide, to allow emergent concepts to be tested with future participants, and for interviewers to reflect on and develop facilitation skills.

Codebook and Analysis Plan

All interviews were directly uploaded to a professional service using a HIPAA-secure transcription mobile app. The audio recordings were first transcribed and proofread verbatim in the source language, then translated and proofread by another professional interpreter. This transcript was then reviewed by the interviewer (AM/SC) to safeguard translation accuracy and semantic/conceptual equivalence.

Table 1 Interview domains, questions, and probes related to material hardship and stress around infant care during COVID-19

Domains	Questions	Probes
Perspectives on the Covid-19 pandemic	There is a virus that many people are worried about. Can you describe to me what this	How has daily living changed since before the virus?
	experience has been like for you and your family during this time? ^a	Tell me about who in your family has been impacted by this virus ^a
Stress and emotional social support	Many mothers feel stressed sometimes. Can you tell me about a time when you felt stressed?	Tell me about who you might count on to listen to you when you are stressed ^b
Changes in infant and family feeding routines	Tell me what it has been like to feed your baby during this time	Tell me what it has been like to feed your baby during this time
	How has this experience affected how you feed your family? ^a	What changes have you made to your baby's diet because of difficulty getting food? ^a
		Tell me what you are doing to prevent food from running out ^c
Facing discrimination	There have been reports of Chinese Americans facing discrimination. Tell me what you have	Tell me about a time where you may have felt you were treated with less courtesy ^d
	heard about Chinese Americans being treated with less respect than other people are ^d	Tell me about an instance when you felt as if people were afraid of you ^d

^bQuestion informed by the Medical Outcomes Study Social Support Scale [20]

^cQuestion informed by Food Security Module [21]

^dQuestion informed by Everyday Discrimination Scale [22]

Researchers used applied thematic analysis to identify and iteratively refine codes that emerged from the interviews and devise a final code structure. The team derived structural codes from the research questions and expert understanding of the field as well as emergent codes from iterative review of the interviews. The team independently read transcripts in their entirety to label broad themes, then discussed individual observations and recurring themes. Interviews were conducted until thematic saturation was reached.

Interviews were independently coded by four team members using textual analysis, prioritizing in vivo, versus, and process coding. Consensus was reached on consistency, coherence, and distinctiveness before finalizing the codebook. Subsequent interviews were coded by 2 team members (CDL and SC) who met to discuss codes and resolve disagreements with 2 arbitrators (RG and SY). Consensus was reached regarding each representative quotation based on agreed upon themes. Findings were presented semi-monthly to the HealthySteps team and clinic providers to test credibility and potential research bias. Data organization, retrieval and stratification by child age was facilitated by Dedoose (version 8.3.35).

Sample Characteristics

Sociodemographic data collected during the interview included maternal and child age, parity, maternal country and province of origin, number of years in the US, employment information, and educational level.

Results

Sample Characteristics

We interviewed 25 mothers who were primarily first generation immigrants born in China (96%) and preferred interviews in Mandarin (80%; Table 2). About half (52%) of infants were in early infancy (1–7 months) and 48% in later infancy/early toddlerhood (8–15 months). Almost a third (32%) of mothers delivered their baby during the height of the pandemic in New York City (March–May 2020 [23]). The most common parent job descriptions were restaurant worker (e.g. cashier, food delivery person, server), manicurist, or home health aide. Forty percent of mothers mentioned unemployment impacting themselves or a partner, predominantly in the restaurant industry.

Table 2	Sample	characteristics ((n = 25))
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Sample characteristics	Result
Child characteristics	
Mean child age, months (SD)	7.2 (4.3)
Child assigned female gender, n (%)	10 (40.0)
Child is firstborn, n (%)	14 (56.0)
Pregnancy/Infant Stage during the Height of Covid-1 in New York City (March–May 2020), n (%)	9 Pandemic
Mother was in third trimester, n (%)	2 (8.0)
Mother delivered during this time, n (%)	8 (32.0)
Infancy (3 m to 11 m), n (%)	15 (60.0)
Maternal characteristics	
Mean maternal age, years (SD)	30.8 (4.6)
Mother born in China, n (%)	24 (96.0)
Mother from the Fujian province, n (%)	16 (64.0)
Maternal duration of US residence, years (SD)	8.9 (6.3)
Preferred language for interview, n (%)	
Mandarin, n (%)	20 (80.0)
Cantonese, n (%)	3 (12.0)
English, n (%)	2 (8.0)
High school education or less, n (%)	12 (48.0)
Mother currently working for pay, n (%)	10 (40.0)

Qualitative Analysis

Broadly, we found that although the COVID-19 pandemic heightened overall family hardship (Theme 1) and altered daily infant routines with developmental consequences (Theme 2), families developed coping mechanisms in response to material hardship and stress (Theme 3). Tables 3, 4, and 5 display example quotations (Q) by theme and are numbered consecutively.

Theme 1: Heightened Family Hardship; "I'm Having a Hard Time Finding a Job While also Being Worried About the Risks"

Mothers described increased household material hardship and resultant psychosocial stress (Table 3). Economic recession impacted families through job loss (Q1, Q2) and fluctuating prices of everyday goods (Q3, Q4), "*It was difficult to buy powdered milk, and the prices continued to fluctuate.*" One mother recounted how she used to discard old vegetables and expressed a stressful sentiment where she "*didn't dare to waste food anymore*" (Q4).

Travel restrictions disrupted transnational (US-China) childcare arrangements that some lower-income families relied on to accommodate extended work hours incompatible with accessible childcare resources. One mother stated: "*Most of Chinese parents here are far from their parents. If they have a child, one of the couple has to stop working. My husband and*

I wanted to earn money, so we sent our baby back to China." Due to COVID-19 travel restrictions, families noted being delayed in bringing infants to China and subsequently delayed in obtaining employment (Q5, Q6). The emotional response to this delay was a tension between increased financial stress and relief at the opportunity to "raise our children by ourselves" (Q6). Relatedly, mothers spoke about delays in reuniting with older children currently in China (Q6, Q7). One mother communicated distress around her older toddler, a US citizen living in China with developmental delay, expressing urgency to "bring him back [to the US] as soon as possible." (Q7).

Families reported a diversity of responses to inconsistent COVID-19 information from conflicting sources. Some mothers expressed increased uncertainty. One stated: "*Her* grandparents in China were very anxious as they heard from the news that the epidemic was out of control in the US. It made us very nervous about hospital conditions when the baby came... We didn't know if there were Covid-19 patients, if they would be close to me, what protective measures to take, or how to safely take the baby home." Other families mentioned mistrust, with one mother relaying her family's resolve to use personal protective equipment despite "mixed messages" from national and local political leadership (Q8).

Experiences of racism in the community occurred while performing everyday activities. At an annual car inspection, one mother recounted an interaction where people "*immediately zipped their uniforms and covered their faces*" (Q9) upon seeing them. Leaving the house was "*a challenge*" because families felt they were treated differently and even shunned, as one mother recalled that people would rather "*stand in a long line rather than stand behind us*" (Q10).

Theme 2: Altered Infant Routines and Developmental Consequences; "Because He's Too Young to Wear a Mask"

Protective measures permeated everyday parenting experiences from birth to toddlerhood. The consequences of these protective measures triggered increased stress and feelings of loss. Throughout infancy, mothers outlined challenges in daily infant care tasks with the incorporation of personal protective equipment. When leaving the house, there was a delicate tension between adequate protection and infant comfort when selecting protective gear (Q11). Mothers mentioned older infants refusing masks, and some mothers purchased small hats with face shields and kept backup cleaning methods such as hand wipes (Q12). When bringing infants to clinic for routine vaccinations, mothers detailed anxiety about whether the clinic was "clean enough or if her [the baby's] resistance was strong enough" (Q14).

Mothers worried about the socio-emotional consequences of social distancing protective measures. For young infants, mothers quarantining at home felt bothered about the loss of outdoor experiences for their child and the dreariness of

Table 3 Theme 1—heightened family hardship ("I'm having a	Table 3 Theme 1—heightened family hardship ("I'm having a hard time finding a job while also being worried about the risks")	
Subthemes	Quotations	
Financial and resource strain	Job loss	 He [father of baby] doesn't have a job currently, his restaurant can't open. Financially I'm worried. I'm having a hard time finding a job this year while also being worried about the risks of my hisband oxing out to work
	Fluctuating prices	3: Prices rose at the start of Covid-19. Prices are back to normal now. A box of masks used to cost \$40 or \$50. Now it is back to \$4 or \$5.
		4: The price of everything went up during the epidemic everything became very expensive and rare the epidemic corrected my habit of wasting things. I used to throw away vegetables that looked a little dry after 2–3 days. I didn't dare to waste these foods anymore.
Disruption of transnational child care plans	Loss of child care support	5: I was ready to travel to China in February. But I had to cancel my travel plans due to Covid-19. If the vaccine becomes widely available and the epidemic improves, I will take the children back to China. Then I will come back to the United States and look for a job to make money.
	Delays in reunification with child currently in China	6: Now because of the epidemic, we can't work anymore so we want to raise our children by ourselves and bring the older one back to us [from China].
		7: My older baby, who is already 3 years old, still can't speak. I'm anxious and want to bring him to the US as there are special schools here he went back to China such a long time ago, I wanted to bring him back as soon as possible but I can't take care of 2 children at the same time so I plan to send the younger one back then the epidemic has forced me postpone all my plans.
Uncertainty around protective measures due to media reports	8: There are just so many mixed messages our president mentioned not to wear a mask, not to wear PPE [personal protective equipment]. We made the decision to use PPE before the president, before the mayor, before the governor mentioned t it was something that we needed to do if we hadn't done what we felt was right for us we could have been a part of th hundreds of thousands who are affected.	: There are just so many mixed messages our president mentioned not to wear a mask, not to wear PPE [personal protec- tive equipment]. We made the decision to use PPE before the president, before the mayor, before the governor mentioned that it was something that we needed to do if we hadn't done what we felt was right for us we could have been a part of the hundreds of thousands who are affected.
Increased experiences of racism	9: Our car needed to have an annual inspection. We followed regular procedures to make an appointment and arrived at the inspection center. The inspectors were Americans. They were working normally before our arrival. But when they saw we were Chinese, they immediately zipped their uniforms and covered their faces. We could see that it was obviously because were Chinese.	. Our car needed to have an annual inspection. We followed regular procedures to make an appointment and arrived at the inspection center. The inspectors were Americans. They were working normally before our arrival. But when they saw we were Chinese, they immediately zipped their uniforms and covered their faces. We could see that it was obviously because we were Chinese.
	10: Since we were from China, we knew to take the virus seriously earlier than others so we took protective measures such as wearing masks before it was ordered by the government. However people looked at us in a different way they thought were weird to wear a mask which made us stressed. When we went shopping, people would stand in a long line rather tha standing after us. So going out was also a challenge for us at that time.	D: Since we were from China, we knew to take the virus seriously earlier than others so we took protective measures such as wearing masks before it was ordered by the government. However people looked at us in a different way they thought we were weird to wear a mask which made us stressed. When we went shopping, people would stand in a long line rather than standing after us. So going out was also a challenge for us at that time.

the family hardship ("T'm having a hard time finding a job while also being worried about the risks") haiaht -Tahla 3 Theme

Table 4	Theme 2-altered	d infant routines an	d developmental	consequences ("	because he's too y	oung to wear a mask")	

	Subthemes	Child age at time of inter- view	Quotations
Protective measures	Use of personal protective equipment	7 months	11: The epidemic has made it difficult to take the baby out. Because he's too young to wear a mask, we were worried that protecting him with a blanket would be too stuffy. We always struggle to figure out how to let him breathe freely when we take him to get vaccine. It's really troublesome that we have to wear two layers of masks, as well as gloves every time when we go out.
		15 months	12: I put a hat on him. He doesn't like to wear a mask. He pulls the mask off all the time. Then I give him a little hat to cover his face with. It has a transparent layer of plastic on it. Besides, I always keep wipes with me to keep his face and hands clean.
	Living apart to protect the baby	4 months	13: For two nights a week, I sleep at a place near where I work [in-law's house]. On Thursday night, I drive back home, change my clothes, and shower. I usually wear my mask when I am at home. My parents also want me to wear masks when I am with the baby.
	Avoidance of the health care system	4 months	14: She was born during the pandemic outbreak. A few days after she was born I was worried when we went to the see the doctor. I didn't know if the place was clean enough or if her resistance was strong enough. After the doctor's visit, we stayed at home.
Consequences of protective meas- ures	Concerns about infant socio-emo- tional development	2 months	15: There is light at home but it is different from light outside. The environment is different. It always remains the same at home. But if I took them out they can see more different things.
		9 months	16: I'm afraid staying at home all day long is not good for a little baby it may affect the baby's ability to interact with others, making them solitary. I'm also concerned that they form bad habits such as watching iPad or videos.
		11 months	17: When we see people walk by, she really wants to say hi to them and all they can do is to say hi back I know she wants to interact with other people. Like, when she hears other children playing in the neighborhood she wants to go to that direction, but we can't because of the pandemic.

home confinement (Q15). One mother described: "I would take my babies out to feel the breeze at dusk if there was no epidemic. Or I would take them out to feel the sunshine in the morning. But now we have no connection with the outside." Another mother worried that the social isolation would stunt a baby's "ability to interact with others, making them solitary" (Q16, 17). Families tried to protect infants by having parents who worked in high contact jobs live separately (Q13). In these situations, mothers would describe strained parent–child relationships, with one sharing: "His father cannot live with us since he works [in food service]... it's dangerous... It's been like this in the past 2 months because we are scared... He [the baby] doesn't recognize his father very well."

Theme 3: Coping Strategies: "We Care More About the Baby. We Can Just Eat Whatever Food, It's Okay"

To cope with material hardship and to manage resource scarcity, families stockpiled infant essentials, adapted family diets, and prioritized infant's dietary needs, "we can just eat whatever food, it's okay." Mothers discussed checking store inventory daily and stockpiling diapers in case of prolonged store closures (Q18). Families also stocked powdered milk over liquid due to its longer shelf life (Q19) and simplified their own diets to conserve resources, stating that "Our food lacked variety and our diet was quite simple."

To mitigate feelings of stress, mothers gathered information from friends in China to be prepared because it was "*just a matter of time that it was going to happen here*" (Q20). To sustain relationships, families used video calls to communicate with geographically separated family members (Q21, Q22). Mothers also made efforts to feel gratitude

Subtheme	Subtheme	Quotations
Coping with material hardship	Stockpiling baby essentials	18: We stored many diapers with different sizes as we didn't know how long the epidemic would last the baby was 8 pounds at birth so the newborn sized diapers could only be used for a couple of days and size 1 became too small just after one month it's difficult to control this so we did our best.
	Adapting diets due to food shortage	19: We used to buy liquid milk but it was too expensive and the baby needed one box per week. So we shifted to powdered milk.
Coping with increased stress	Gathering information in advance	20: There were news articles when this pandemic was happening in Wuhan. So it was just matter of time considering there's so many people that are traveling especially knowing friends and families telling us what's happening in China it was just matter of time that it was going to happen here.
	Using video calls to maintain social support networks	21: He [Baby's father] found a job in Maryland, which is a two-hour drive from home My husband puts him to sleep in the video every night. Every night he video-calls for half an hour.
		22: I don't live with my parents, I only live with my husband, so for verbal support, I would FaceTime them [my parents] and I feel like they're happy the baby is healthy.
	Staying positive	23: I try to think positively [to cope with stress]. Compared to those who are in a miserable or bad situation, I feel as if I am having a good life.

Table 5 Theme 3—coping strategies ("we care more about the baby. We can just eat whatever food, it's okay.")

(Q23) and maintain positive thoughts, with one stating: "*I'm* having a hard time finding a job... but it is what it is. There is no difficulty, which we cannot come over. Life goes on, anyway."

Discussion

In this sample of low-income Chinese American families with infants, we found persistent commentary about how COVID-19 economic and societal changes led to increased material hardships and stress. Incorporation of COVID-19 protective measures altered daily infant routines with developmental consequences. In response, families employed coping mechanisms to deal with material hardship and to mitigate stress. These findings: (1) inform health care delivery by emphasizing the need to address family hardships to prevent toxic stress during crisis; and (2) call attention to a particularly stressed population during this pandemic, one that is rarely researched.

In the first theme, our findings around economic and societal disruption reinforced prior work around widening disparities in poverty-related social determinants of health during the pandemic [1, 9]. The language captured in our interviews emphasized the high level of stress families experienced. Mothers used specific dollar prices of household items when describing their pandemic experiences, extending prior evidence that lower-income respondents are more likely to know the exact cost of small items due to the heavy consequence of each dollar spent [24]. Our findings also depicted pandemic impacts on a transnational (US-China) childcare arrangement that some lowerincome Chinese American families rely on financially. This is the first study to our knowledge to show that the pandemic has delayed both separation and reunification for these families, signaling needs for increased childcare, developmental, and mental health support [25] for children separated from their parents longer than anticipated. Overall, these findings support the expansion of social needs screening [26], particularly during crisis.

In the wake of global events, prior evidence has identified increased experiences of racism in Muslim American adolescents after 9/11[27] and already in Chinese American children during the COVID-19 pandemic [28]. Our findings broaden existing literature to illustrate the impact of community-level racism on families with infants. Efforts to combat the adverse impacts of racism on child health [29, 30] should include dynamic responses to triggering events that amplify racism against specific populations.

In our second theme around COVID-19 protective measures on daily infant parenting, our findings describe the consequences of these infant care adjustments. Mothers of younger infants described the emotional burdens of home confinement on themselves, and mothers of older infants worried about how social distancing might stunt the infant's development. While evidence has identified increased parenting stress during COVID-19 [3], our findings broaden this literature by identifying specific triggers of parenting stress. Pediatric primary care should tailor anticipatory guidance during this crisis by encouraging safe outdoor activities and strengthening family-level interactions to promote socioemotional development.

While national guidelines discourage face masks in children under 2 years old [31], mothers discussed attempts to protect infants from COVID-19 exposure, describing creative methods such as hats with face shield attachments. While prior articles have described personal protective equipment in health care settings [32], none to our knowledge describe personal protective equipment as part of infant daily routines. Families made extraordinary efforts to prevent COVID-19 transmission to their infants, including having parents working in high contact jobs live separately from their infants to reduce transmission risk. Prior evidence has emphasized the value of tactile bonding for parent–child interaction [33], and pediatric primary care can facilitate evidence-based planning to prioritize family cohesion when parent separation is necessary for infection prevention.

Our third theme found that families with infants processed crisis differently, with some describing resilient adaptations to accommodate crisis demands. Previous evidence has shown that low-income Hispanic immigrant families cope with food insecurity by prioritizing basics [34]. Our work broadens these findings to include other immigrant minority groups, as we found that our Chinese American families also described prioritizing infant essentials. Current literature from the pandemic has found that the ability to pay for fresh food is associated with higher incomes [35]. Our findings reinforce this quantitative evidence, with descriptions of how families avoided fresh vegetables with a shorter shelf life and switched from liquid to powdered milk. Finally, prior evidence has shown that household-level food insecurity does not correlate with child-level food insecurity [36]. Our study strengthens this work with depictions of parents shielding their infants from food insecurity by prioritizing their infant's dietary needs.

Families used video calls to sustain relationships with family members and friends separated by geography and social distancing. Our findings represent uses of screen time that may enhance relationships, contributing to the ongoing re-evaluation of screen time guidelines for young children [37]. In addition, as our vulnerable population expressed comfort with virtual resources, this may have implications for the continued development of telehealth capabilities [10], as well as classifying technology and internet access as a material hardship that screening programs could potentially mitigate.

Limitations of this study include sampling and generalizability. Due to social distancing guidelines, our interviews were limited to mothers with smart phone access and sufficient literacy (both general and digital) to complete electronic consent, excluding the most marginalized families. Our intention was to interview immigrant, low-income, Chinese American families with infants to describe universal stressors related to the pandemic, but findings describe experiences specific to Chinese American populations. Future research should explore the generalizable themes of vulnerable families in crisis and unique challenges of rarely studied Asian American immigrant families by investigating longitudinal associations between material hardships, psychosocial stress, and infant outcomes in diverse populations.

Conclusion

Low-income Chinese American mothers of infants described increased material hardships and stress in the setting of COVID-19 related economic and societal changes. The incorporation of COVID-19 protective measures permeated routines throughout infancy. Families of infants used coping strategies in response to material hardship and stress. Our results support: (1) expanding social needs screening during crisis; (2) including low-income Chinese Americans in efforts to achieve equitable allocation of support across diverse groups; and (3) tailoring anticipatory guidance to populations at risk, decreasing health disinformation, and strengthening support networks by leveraging virtual resources.

New Contribution to the Literature

Low-income immigrant Chinese-American families experienced material hardships and stress due to the economic and societal impacts of the COVID-19 pandemic. These findings support expanding social needs screening, correcting disinformation, and strengthening support networks particularly during crisis.

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Declarations

Conflict of interest The authors have no conflict of interest relevant to this article to disclose.

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