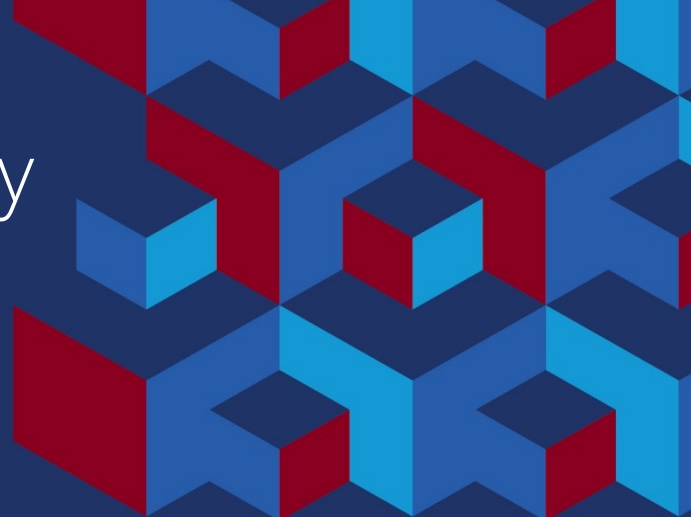


Promoting Health Equity for Latina/o Families



Evaluating the Role of Social Determinants of Health (SDOH) Innovations

This brief summarizes findings from an evaluation of an intervention focused on screening and referring families for social determinants of health, with a focus on the effects for Latina/o families.

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Introduction

Between 2010 and 2020, Latinas/os/Hispanics¹ drove just over half of the population growth in the U.S. (51.1%), which was overwhelmingly due to the birth of U.S. born Latina/o children (Jones et al., 2021; Mather & Lee, 2020). While Latina/o children and families are poised to shape America's future, this future faces challenges due to the pervasive socioeconomic barriers that they and their families face. Specifically, Latina/o families experience high levels of hardship meeting basic needs (Scherer & Mayol-Garcia, 2022), the highest rates of children being uninsured (Whitener & Corcoran, 2021), and the lowest levels of safety net program utilization compared to other racial/ethnic groups (Bitler et al., 2022).

The social and economic adversities faced by Latina/o families and children often accumulate from childhood through adulthood. They place children at risk of poor development and health outcomes in early childhood and beyond. These adversities directly and indirectly shape children's outcomes through parenting practices and behaviors and families' capacity to provide materially for their children (Sedlak et al., 2010; Shanahan et al., 2017). In addition, socioeconomic adversity contributes to family stress. This wears away caregivers' resilience, their capacity to mobilize emotional and social support for their families, and their own mental health (Gavidia-Payne et al., 2015; Huang et al., 2014). Addressing Latina/o disparities that emerge in early childhood is crucial; the first 5 years of life are a critical time period for a child's development (Heckman, 2006).

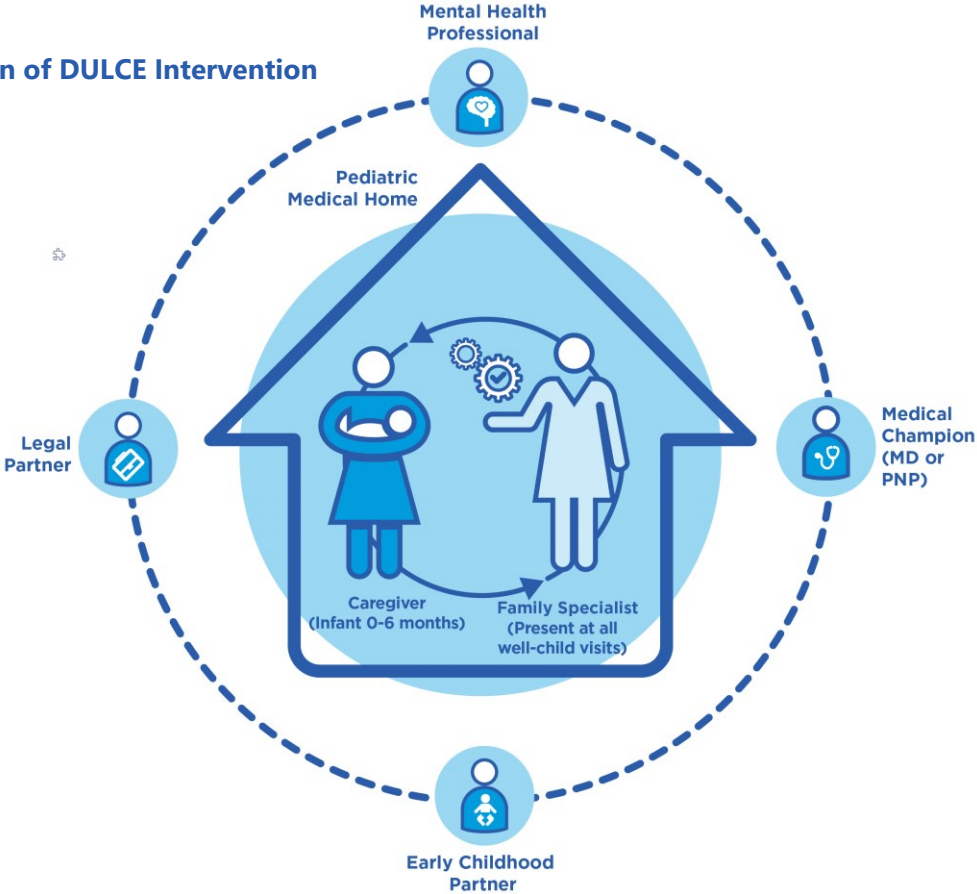
¹ In this brief, we use the term Latina/o to refer to individuals of Latin American descent in the United States. We consider this term interchangeable with Hispanic, Latinx, and Latine. We acknowledge that Latinx and Latine are regarded as more gender-neutral terms that originated from queer, nonbinary, and feminists spaces, and are often preferred in academic and organizing spaces. However, in the Latina/o community in which our research is conducted, most prefer the term Latina/o when referring to their panethnic group and the language in this brief aligns with this preference (Neo-Bustamante, Mora, & Lopez, 2020)

An emerging body of research points to social determinants of health (SDOH) screening and referral interventions as one promising strategy to address the social and economic hardships and health-related social needs faced by families in poverty (Garg et al., 2019; Garg et al., 2015). SDOH interventions are designed to screen vulnerable families for unmet need, connect families to material and community resources, and offer social support to caregivers to bolster positive parenting behaviors and well-being (Gottlieb, Wing, & Adler, 2017). For young Latina/o children, SDOH interventions embedded within pediatric clinics and connected to community support services may be a promising strategy to buffer the effects of socioeconomic adversity on Latina/o child health and well-being and strengthen Latina/o caregivers' resilience and ability to respond to adverse experiences.

Developmental Understanding and Legal Collaboration for Everyone (DULCE)

DULCE is a SDOH intervention designed to support families with newborn children (birth to 6 months old). DULCE involves a multidisciplinary team made up of a medical provider, behavioral health specialist, early childhood system representative, legal partner, and a dedicated Family Specialist based in the families' pediatric medical homes. The Family Specialist is present at most or all well-child visits, conducts all screening and referrals for social and material needs, and continually documents and follows up with families to identify if they are connecting to resources. The trusting relationship built between the Family Specialists and families is an important element of DULCE. DULCE has been proven effective at improving primary healthcare utilization and reducing emergency department visits (Sege et a., 2014). The present study aims to learn more about how DULCE works for Latina/o families specifically.

Figure 1: Design of DULCE Intervention



Study Methodology

This quasi-experimental methodology gave us a more robust understanding of the impact of DULCE participation on Latina caregiver outcomes.

In this mixed-methods study, we draw on quantitative and qualitative data² to understand how DULCE impacted parent well-being outcomes among U.S.-born and immigrant Latina/o families. This study is an extension of the previous longitudinal study, “Evaluating Community Approaches to Preventing or Mitigating Toxic Stress” (hereafter, MTS). To learn more about the study design, see [Research Brief 1: Evaluating Community Approaches to Preventing or Mitigating Toxic Stress](#). To read more about other findings from this body of research, please visit [the study’s webpage](#).

Study Samples and Measures

Quantitative methods and sample. The quantitative study sample includes 393 Latina mothers whose infants received care at clinics that implemented DULCE in Palm Beach County, Florida, and Alameda, Orange, and Los Angeles Counties in California. The infants received care during their first 6 months of life between 2017 and 2019. Using survey data collected before and after the DULCE intervention, we examined changes in the impact of stress on parents’ functioning (Moreno et al., 2021), resilience (Connor & Davidson, 2003), and depressive feelings (Dubowitz et al., 2009). We also included information from families about age, language, income, insurance status, birth experiences, employment status, relationship status, and nativity. Specifically, quasi-experimental methods³ of entropy balancing and inverse probability weighting were used to create statistically comparable groups of families who received DULCE (treatment group) and families who did not receive DULCE (comparison group). The sample weighted to achieve statistical comparability was then used in regression analyses to identify the average treatment effect of DULCE. This quasi-experimental methodology gave us a more robust understanding of the impact of DULCE participation on Latina caregiver outcomes.

² Quantitative data refers to data sources that use numbers and statistics to quantify and analyze research questions. Quantitative data sources often include multiple observations and data collected from standardized survey data collection, administrative data, etc. Qualitative data refers to data sources used to describe experiences and phenomena in a more in-depth manner. It is most often collected through interviews, focus groups, or observation, and results typically appear in narrative form.

³ The ideal method of identifying the effects of an intervention or program is a Randomized Control Trial (RCT), where individuals are randomly assigned to a program and the families who receive the intervention are then compared to those who did not. When study designs do not include an RCT, quasi-experimental methods are used to create two groups (treatment and control) that are statistically similar given all of the known characteristics in the data that may affect an individual’s likelihood to be in the treatment or control group. This allows any findings to be more confidently attributed to participation in the intervention and not to other differences between the treatment and control group (such as income or age).

Fifty-six percent of the sample participated in DULCE ($n=221$) compared to 44% who did not participate in DULCE ($n=172$). The sample was entirely female and largely low-income. Almost 30% of families participating in DULCE were born in the United States, compared to 40% of comparison families. DULCE families were also less likely to speak English in the home (37% versus 49%). Finally, DULCE mothers were more likely to be partnered (39% vs 28%) and less likely to be employed (17% vs 26%).

Qualitative methods and sample. Based on the results of quantitative analyses (discussed below), recruitment for qualitative interviews focused on speaking with families who experienced increases and decreases in resilience after participation in DULCE. We further stratified the recruitment sample by U.S.-born and immigrant Latina mothers (see Figure 1). Ultimately, we spoke to 16 families in 45-minutes to 1-hour interviews. Semi-structured interviews were conducted by bilingual and bicultural field interviewers.

The interviews asked caregivers to describe their DULCE experience and their current strengths and resilience related to parenting and addressing economic and family challenges. Concept coding, a method of analytic coding that breaks the data into different concepts for identifying themes (Saldana, 2016), was used to analyze the interview data. We identified three key themes through this analysis. Then we integrated qualitative and quantitative findings to identify implications for promoting health equity and serving Latina/o families with SDOH interventions.

Figure 2. Study Sample and Analysis Design



Findings

DULCE Demonstrates a Positive Impact on Resilience for Latina/o Families

Quantitative analysis showed that participation in the DULCE intervention has a positive effect on families' resilience, suggesting that participation in DULCE is associated with a 4-point higher level of resilience. The resilience measure used in this study ranges from 0-100, so this is a 4% increase (see Figure 3). However, there is no evidence in this study to suggest DULCE has a meaningful effect on caregivers' depressive symptoms or the impact of stress.

Results also showed DULCE has a particularly strong effect on resilience for immigrant families. For immigrants, DULCE participation is associated with a 6-point higher level of resilience compared to their U.S.-born peers who also participated in DULCE. For U.S.-born caregivers, DULCE participation is associated with a 1-point decrease in resilience in comparison to immigrant peers who participated in DULCE (see Figure 4). So, while DULCE had a positive effect on resilience for the entire population of DULCE participants, digging deeper into the nuances of this association showed that DULCE had the strongest and most positive impact for immigrant participants.

The Near-peer Nature and Relatability of the Family Specialist was Key to DULCE's Success

Conversations with Latina caregivers about their DULCE experience revealed that the relatability of and trust developed with Family Specialists were a key component of DULCE for improving resilience, regardless of nativity status. All U.S.-born mothers, regardless of reporting an increase or decrease in resilience, described positive experiences with their Family Specialist. For the U.S.-born mothers with an increase in resilience, however, the trusted support of a Family Specialist who could relate to the mothers' experiences was invaluable. One mother said:

Figure 3: Effect of DULCE Participation on Resilience in Latina Caregivers

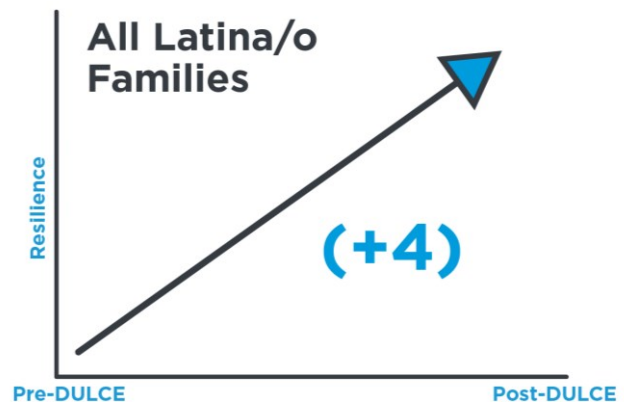


Figure 4: Differential Effects of DULCE Participation on Resilience in Immigrant and U.S.-born Latina Caregivers



At that time I was just—I just felt like—don’t know why I felt like I couldn’t care for someone else other than myself. But then when I went to her [Family Specialist], like, it was okay because she was a mother too. So it was, kind of like, what I was feeling was normal. It wasn’t like I was a bad mother.

As such, the Family Specialist provided critical support and relatability for U.S.-born mothers, all of whom also reported experiencing postpartum depression (PPD). The Family Specialist helped these mothers in a very difficult and vulnerable time. This highly impactful role of the Family Specialist was not described as clearly by U.S.-born mothers reporting a decrease in resilience.

Building Relational Trust and Feedback Loops are Important for Successful Connection to Resources

Another clear theme among interviewees experiencing an increase in resilience, regardless of nativity, was the **value of a person, like the Family Specialist, who takes time to have conversations with families and build a trusting relationship** during their pediatric appointments. One interviewee said, “She [Family Specialist] actually felt like a close friend to me, like she gave me that confidence in like speaking with her about everything.”

Mothers shared that Family Specialists focused on spending an adequate amount of time with families to discuss their feelings and concerns, understand their needs, connect them to services, and establish a feedback loop to follow-up on service connection and needs. Other’s shared that their Family Specialist would help them develop plans and specific strategies to weather the challenges of parenting, ensuring that mother’s care for themselves *and* their babies. Importantly, mothers discussed how the Family Specialist helped them learn how to ask questions and seek supports they would not typically feel comfortable or confident enough to ask on their own. One mother said:

[Family Specialist] would ask me, “Oh have you gotten a response from your case for this?” So she would remind me let’s say [but I would be] overwhelmed and I would forget. . . . She was like “Okay, we could call right now if you’d like, if you’re not in a rush.” . . . So then they hear someone else like “Hi my name is [Family Specialist], I’m part of the clinic,” so they’re like oh this is serious, it’s not just the person herself.

Taking the time to build this trusted relationship with caregivers and offer hands-on assistance and follow-through with connecting to resources directly contrast efficiency and flow, which are often the focus of healthcare settings. However, this is the component of DULCE that was critical to strengthening caregiver resilience and connecting them to resources.

Family Specialists Offered Important Social Support for Latina Immigrant Mothers Experiencing Isolation

Finally, immigrant mothers whose resilience increased over time **described Family Specialists as a key source of social support**. Many participants revealed that they engaged in parenting and childrearing largely alone, or, oftentimes, with the limited support of their partner. In addition, immigrant mothers were less connected to other social welfare programs, such as WIC or home visiting programs. As a result, mothers who were able to form close relationships with the DULCE program and their Family Specialist remarked on the critical gap that the Family Specialist filled in their social and emotional support networks. One mother shared:

I had no experience and I was kind of scared. I was alone, I didn't have anyone. . . . That support was very helpful to me. I am very grateful to that program. That they also helped me with transportation to go and for things that sometimes I didn't understand. We asked her. . . . I think she was a good companion, *muy buena gente* (very good people) I think. . . . And it really helped me a lot because since I didn't have anybody then it was very helpful.

In contrast, immigrant mothers who reported a decrease in resilience over time reported more sources of social support, including parents and partners, than their immigrant peers reporting an increase in resilience after DULCE participation. Immigrant mothers showing a decrease in resilience, while reporting an overall positive experience with DULCE, did not describe the same close, trusted bond with their Family Specialist that immigrant mothers with an increase in resilience reported. This gives further evidence of the vital role of the relationships built between Family Specialists and caregivers in order to strengthen families and connect them to resources.

Conclusions

The findings support the value of DULCE and similar SDOH interventions for strengthening all Latina/o families, but especially immigrant families.

Results of quantitative analysis show DULCE had a positive and relatively large impact on resilience, particularly for immigrant families. Due to the statistical equivalence between treatment and comparison groups we were able to achieve with quasi-experimental methods, we can more confidently attribute this association between DULCE and resilience to the DULCE program itself. This effect is strongest for immigrant families, suggesting the design of the DULCE program is particularly advantageous for Latina caregivers born outside of the United States. Indeed, compared to their immigrant peers, nonimmigrant families who participated in DULCE

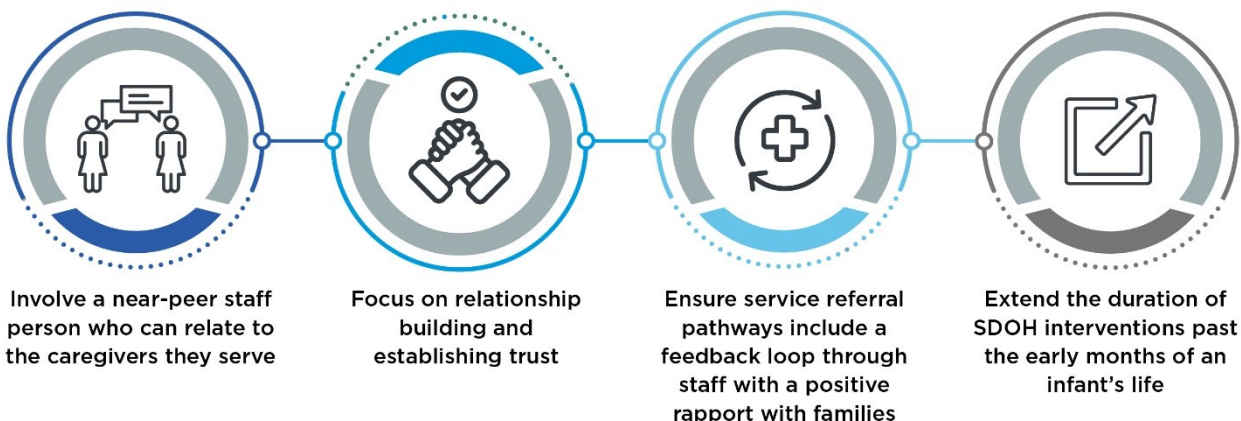
reported slightly lower resilience. These findings support the value of DULCE and similar SDOH interventions for all Latina/o families, but especially immigrant families.

Results from qualitative analysis showed the critical role of the Family Specialist in strengthening families and bolstering resilience. The relationships built between mothers and the Family Specialist offered needed social support for immigrant families and important near-peer commonalities for U.S.-born mothers experiencing PPD. Family Specialists spent significant time with mothers in conversations focused on understanding their needs and ensuring their connection to resources. Across the interviewed sample, this time was crucial for building mothers' confidence and ability to navigate service systems. Notably, DULCE families often regarded the clinical staff and providers as supportive, but Family Specialists, who were bilingual and bicultural, served a unique role that was distinct and essential to the success of the program.

This study is limited by its nonrandomized design, but the quasi-experimental methods successfully created statistically similar treatment and comparison groups. This enhances our confidence that DULCE participation is the reason for the changes found in resilience. Our data sources also lacked sufficient DULCE program variables that would have allowed us to quantitatively examine *what* aspects of the DULCE program enhanced caregiver resilience. However, we were able to dig into the *what* and *how* questions with the qualitative interviews. A third limitation is that the study team had some difficulty recruiting families to qualitative interviews, particularly families with decreased resilience. This suggests that there might be some bias in the qualitative data since they reflect the stories of families able to be reached and who were willing to participate. Regardless, the qualitative interviews provided valuable insight into the Family Specialist position in DULCE. The role might be leveraged as part of broader efforts seeking to strengthen resilience for Latina/o and immigrant families. Finally, our study centers on one type of SDOH intervention in health care. It is unable to weigh the costs and benefits of DULCE compared to other strategies.

Recommendations

Given the findings from this study, it is clear that SDOH interventions—particularly ones focused on relationship building and service connection—have significant value for Latina/o families. Programs serving Latina/o and immigrant families should consider the following:



1. The Family Specialists' focus on relationship building, resource connection, and integration into the family's medical home was crucial for DULCE's success. Rather than solely relying on clinicians or clinical staff to implement SDOH interventions, these initiatives would benefit from a near-peer staff position who can relate to the caregivers they serve. Importantly, for immigrant families who often reported parenting alone, a role like the Family Specialist can act as a source of needed social and emotional support.
2. Focus on relationship building and establishing trust. DULCE participants showed an improvement in their perceived strengths and resilience over time, and families spoke of the confidence gained from their participation in the DULCE program. This demonstrates the value of creating a program that leads with establishing trusted relationships and focuses on building families' adaptability and ability to access resources.
3. Ensure service referral pathways include a feedback loop through staff with a positive rapport with families, particularly when working with immigrant families. Immigrant families have a particularly difficult time accessing resources. Clinics implementing SDOH interventions already face challenges coordinating and connecting families to a complex service system (Spain, Korfmacher, & McCrae, 2023). Including a feedback loop for service referrals, like the one in place through the Family Specialist, can help ensure access to resources and bolster the resilience of a population of caregivers that face significant barriers and fears regarding system and program engagement.
4. DULCE is already demonstrating an impact beyond its 6-month program length, and families spoke of continuing to reach out to their Family Specialist even after the program ends. This suggests families are still in need of the supports and relationships created through programs like DULCE well past 6 months. As such, the duration of SDOH interventions like DULCE should extend past the early months of an infant's life and build on the relationships established. A consistent and trusted support for families through their child's first 5 to 10 years of life could have a large impact in reducing health disparities for Latina/o families and ensuring families have access to needed services throughout children's early years.

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