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The Child Care Crisis: Through the Social Ecological Lens

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Abstract

Objective - Working mothers face mental strain when returning to work due to the challenges of the current child care system. It is unclear how the instability of the child care sector impacts the mental health of working mothers.

Methods - The systematic review of literature was conducted to identify existing evidence to determine the influence access to quality, dependable, and affordable child care has on maternal mental health outcomes in working mothers. Multiple databases were used including PubMed and Scopus.

Results - Subsidized programs help reduce the cost of child care, however, income eligibility criteria makes it difficult for working mothers to qualify. This often has detrimental effects on a mothers mental health. Further, child care arrangements become unstable due to child illness, unreliability of the provider, and the lack of availability of quality child care. The COVID-19 pandemic intensified the gaps in the child care system, resulting in mothers leaving the workforce to care for their children. Implementing local policies to assist working mothers in obtaining stable, quality and affordable child care, and institutional policies requiring employers to offer child care resources can reduce maternal mental stress.

Conclusion - The current child care system is overwhelming and underfunded. This compounded with the pandemic has increased responsibilities among women negatively impacting working mothers. Future research should focus on the detrimental effects the child care system imposes on working parents prompting new policy development to rebuild the current child care system.

Introduction

Maternal depression is the most common mental health illness that affects women during pregnancy and several years postpartum (Center for Disease Control and Prevention [CDC], 2022). This disease includes conditions such as prenatal depression, perinatal depression, the "baby blues," postpartum depression and postpartum psychosis (New York State Department of Health, 2015). According to the CDC, 1 in 8 women report feeling symptoms of depression after giving birth and Ornelas and authors (2009) support this finding by attesting that the women endure many social and biological changes with childbirth (CDC, 2022). Unfortunately, 1 in 5 women are not screened for depression during their prenatal visits resulting in 50% of women without treatment (CDC, 2022). If maternal depression is left untreated, it causes detrimental effects on both the mother and the child for years to come (Johnson & Padilla, 2019).

Almost 60% of working mothers return to work after 12 weeks postpartum, while studies indicate that women may need 1-2 years postpartum leave to fully recover from childbirth-related physical and emotional strain (Shepherd-Banigan et al., 2015). Researcher Chen (2001) found that engaging mothers in employment can have positive effects on maternal mental health. Contributing factors like access to financial resources, social support, and opportunities for personal development improve maternal mental health (Chen, 2001). However, working mothers who experience issues with r child care often report a decrease in mental health (Lowe & Weisner, 2004).

Despite the mounting evidence of the underlying factors of maternal mental health outcomes, empirical evidence is missing to determine the association between access to quality, dependable, and affordable child care and maternal mental health outcomes in working mothers. For this reason, the systematic review of literature will explore how the lack of accessibility and

availability of quality child care affects the mental health of working mothers with children. The review will highlight the importance of seeing lack of affordable child care as a risk factor to mental health for mothers. Ultimately, by proposing a shift in child care policy, we can achieve affordable infant and toddler child care programs available to all working mothers.

Literature Review

Maternal depression is a perinatal form of major depressive disorder which is the most common mental health illness mothers experience. Maternal depression includes other range of disorders such as prenatal depression, perinatal depression, the "baby blues," postpartum depression (PPD), and postpartum psychosis, and it can affect women during pregnancy and last for several years postpartum. (New York State Department of Health, 2015). Guintivano and authors (2018) found that PPD affects approximately 500,000 women in the US annually resulting in a prevalence of 10 – 15% nationwide. PPD is described as one of the most frequent complications of childbirth and is associated with many adverse outcomes for both mother and offspring including, maternal mortality and morbidity, increased risk for infanticide, poorer maternal-infant attachment and impaired parenting behaviors (Guintivano et al., 2018).

According to Ornelas et al., (2009) and the CDC (2022), 1 in 8 mothers experienced depressive symptoms within the first few months after giving birth due to social and biological changes (2009). Over the last ten years, depression rates among mothers have increased by 5-10% and this number has been exacerbated with the COVID-19 pandemic. A recent study on COVID-19 and maternal mental health found that rates of postpartum depression among American mothers nearly tripled during the pandemic (Davenport et al., 2020). The CDC (2020) highlights that 1 out of 10 women of reproductive age in the United States reported symptoms

that suggest they experienced an episode of major depression in the last year caused by stressful life events and/or low social support.

Research shows that it is detrimental for mothers to go undiagnosed and not receive treatment as mothers struggling with poor mental health tend to be less responsive and less present with their children than mothers with positive mental health (Beck et al., 2005). Beck and colleagues (2005) found that mothers who do not engage mentally and emotionally put their children at an increased risk for cognitive and social-emotional delays. For example, infants with mothers with PPD are less happy, less responsive to their mother, and have a smaller attention span compared to infants of non-PPD mothers (Righetti-Veltema et al., 2003). Similarly, toddlers with mothers with PPD avoided interaction with their mother, had trouble socializing, and exhibited aggressive behaviors (Righetti-Veltema et al., 2003). School-age children and adolescents are at a higher risk for developing hyperactivity disorder, learning difficulties, and mental and substance use disorder (Depression in pregnant women and mothers: How children are affected, 2004).

Studies examining risk factors show that socioeconomic status (SES) is an significant indicator for developing PPD (Guintivano et al., 2018). A study on 198 first time mothers assessed for depressive symptoms postpartum showed that women with low SES were 11 times more likely to develop PPD than women with high SES (Goyal et al., 2010). Another study of 223 mothers found that risk for PPD was twice as high in participants with less education and nearly twice as high in those who were unemployed (Kim & Dee, 2018). Lara et al. (2016) also found that women who were unemployed during the study period had 3.57 times higher odds of getting PPD compared to women who were employed (OR=2.14).

Maternal employment refers to the participation of mothers with children aged 0-18 years in the labor force, which can include full, part-time, contracting, and remote work (Lerner, 2001). Studies have found that engaging mothers in employment can have positive effects on maternal mental health since it improves access to financial resources, social support, and opportunities for personal development (Chen, 2001). Although multiple studies indicate that women may need 1-2 years of maternity leave to fully recover from childbirth-related physical and emotional strain, almost 60% of working mothers in the U.S. return to work after only 12 weeks postpartum (Shepherd-Banigan et al., 2015).

Mothers are often exposed to an increased maternal stress when returning to work due to the lack of coordination and arrangement for child care. This is due to the difficulty of establishing new family routines, work accommodations, and child care arrangements (Lowe & Weisner, 2004). These stressors compounded with lack of local and statewide policies addressing the availability, quality, and affordability of child care increase mental health among working mothers (Breunig et al., 2011). When no support is given to mothers in terms of child care it affects their mental and emotional wellbeing and heavily impacts the overall health of their children and family.

Recently, the pandemic sent women back 10 years due to women leaving the workforce to take care of children (Warrell, 2021). Women have experienced higher job losses, decrease in wages, and increased responsibilities due to juggling careers and children's care coordination, and as a result, about 865,000 women left the U.S. workforce in September of 2020 (Warrell, 2021). The ratio of women working today is nearing below 57%, a percentage that has not been seen since 1988, and for this reason, the pandemic is also referred to as the she-cessation (Warrell, 2021).

This decline in the labor force participation among mothers reflects pandemic-related job losses, a shift to distance learning for children, and the temporary closure of many child care facilities during the pandemic (Bureau of Labor Statistics, U.S. Department of Labor, 2020). For mothers, the pandemic served as a major barrier to social and economic mobility leading to loss of social security and potential retirement income (Delaney et al., 2021). The New York Times claims that about 70% of mothers expressed being worried and stressed from the pandemic referencing the inability to balance work and children (Grose, 2021). Data from the U.S. Census Bureau's Household Pulse Survey found that on average 10 percent of working mothers reported not being able to work each week because they were providing care to a child who was unable to be in school or child care (Kashen et al., 2020).

Evidently, a mother's mental health is the foundation of her and her children's overall health and wellbeing (Kamis, 2021). Failure to recognize how lack of accessibility and affordability in child care negatively impacts maternal mental health makes this issue a public health matter. Through the literature review several areas were identified as reasons as to why mothers experience poor mental health when there is a lack of affordable child care.

Subsidized Child Care Program and Maternal Mental Health

Ha and Miller (2015) have indicated that child care subsidies can reduce the cost of child-care for low income families, and tt can promote employment among mothers and help them become self-reliant. Research argues that child care subsidies positively impact mothers by increasing their income, hours available to work, ability to get promoted, and opportunities for higher paying jobs (Ha & Miller, 2015). However, to be eligible for subsidized care, the total household income is considered. If a mothers makes a little above the federal poverty lines she is automatically disqualified from receiving subsidies (First 5 Orange County [F5OC], 2020). The

eligibility criteria for subsidized child care varies based on county and state, but ultimately, a family's financial status is what determines qualification (The office of child care, n.d.)

In a secondary analysis studying subsidized care among mothers, Ha and Miller (2015) found that those who receive subsidies were strategic in maintaining their income within a level to then remain eligible for subsidy care. It appeared to be that child care subsidies outweigh an increase in pay (Ha & Miller, 2015). However, the study found that although the subsidize care was available, 11% of qualifying mothers (n=980) could not fully utilize the subsidies for child care due to unstable employment, unable to locate affordable and quality child care, thus, lack of child care providers, and administrative factors (Ha & Miller, 2015).

Another factor that negatively impacts a mothers ability to get subsidized care is the waitlist and availability. Many states have long waitlists or have frozen enrollment in subsidized programs, and some parents face language barriers that prevent them from applying or following through on applications (McCann, 2013). A 2018 report by University of San Diego researchers showed that despite there being thousands of families on waiting lists, lack of availability of licensed child care spots resulted in the county returning unused state child care subsidies aid (Taketa, 2019). There is no guarantee families will have a place to use a child care voucher after coming off the list (McCann, 2013). Not receiving guidance on where to find qualified child care becomes another burden for families, mainly for mothers (Taketa, 2019). Often working mothers have to learn how to navigate child care resources, but are unable to advance due lack of availability and quality of child care.

Choi and Moon (2017) conducted a longitudinal study of 1430 mothers to explore the effects of child care subsidies and maternal health. Results demonstrated that mothers who received subsidized care (n=283) were more likely to report less depressive symptoms than those

who did not receive subsidized care (n=1147). Those who received subsidized care were more likely to be employed, and depression was linked to lack of a supportive system, no child care, and income instability (Choi & Moon, 2017).

The price of child care in California (CA) breaks most families' budgets. The Orange County Health Care Agency created a report on child care needs among mothers in Orange County, CA. The report found that cost for licensed family child care homes and child care centers range from $210-$358 weekly, and the average out of pocket cost of child care in CA was estimated to be $11,817 per year, or $985 per month (Orange County Social Service Agency, 2021). The average annual cost of full-time care for two young children is about $26,150, which is more than the average annual CA in-state tuition at a 4-year college (F5OC, 2020 & CollegeCalc, 2020). If working families are slightly above the subsidized eligibility criteria, there is no alternative payment option than to pay out of pocket which can result in a major burden for families barely making enough to survive.

Instability and Availability of Child Care and Maternal Mental Health

Child care instability and the limited availability are factors contributing to an increase in mother's stress and depression (Johnson & Padilla, 2019). A longitudinal study investigating the relationship between child care instability and maternal health outcomes found that mothers whose child care options were limited were 22% more likely to report high depressive symptoms (Johnson & Padilla, 2019). Another report examining the factors influencing maternal employment found that two of the most common risk factors for leaving the labor force were the inability to ensure child care arrangements and the unreliable child care (Liu et al., 2014). The study revealed that in low-income neighborhoods center-based child care was limited and not within a close proximity to mother's home or job. This issue made it difficult for working

mothers to find a child care center who offered flexible hours to accommodate work commute (Liu et al., 2014).

Availability has become one of the major barriers to child care. The First 5 child care Landscape of Orange county report discovered that for every 21 infants and toddlers needing child care, there is only 1 spot available (F5OC, 2020). Some infants/toddlers may not need child care because they have at least one parent/caregiver at home or have an informal arrangement with a family member. Even if the number of infants and toddlers in Orange County who required child care lessened by two thirds, there would still be a huge deficit of licensed child care available (F5OC, 2020). Other counties, such as San Diego County share similar dynamics, where for the 148,439 children ages 0-5 whose both parents are in the workforce, there are only 83,061 estimated spaces available for child care (Tinkler et al., 2018)

According to data from the Bureau of Labor Statistics, California lost about 27,800 child care workers due to the pandemic, and only about 19,600 have come back (2020). There have been instances reported where child care programs had to close for a day and, possibly, a week due to being short staffed (Gedye, 2021). This deficit in turn ends up affecting working mothers' mental health at having to struggle with the instability and availability of child care .

Multiplicity of Child Care and Maternal Mental health

Multiplicity is a term used to describe multiple concurrent child care arrangements (Tran & Weinraub, 2006). Liu and authors (2014) suggest that child care multiplicity affects mothers ability to meet work obligations which results in having to call off work more than those who do not have children. Mothers are often coordinating multiple arrangements on a weekly basis to cover care for children, utilizing unpaid family and relative care. Liu and authors (2014) argue that although the frequent use of multiple child care arrangements may allow mothers to work

more, it introduces maternal stress and endless worrying on the child's wellbeing. Researchers also found that mothers who were using multiple child care arrangements had an increase of stress due to the probability of losing their jobs brought on by child care-related disruptions (Liu et al., 2014). The study also added that mothers experienced constant miscommunication among multiple child care providers (Liu et al., 2014).

A qualitative study of 20 low income Mexican mothers found that financial obligations along with concerns about working or staying at home with their children contributed to high anxiety (Ornelas et al., 2009). The study identified barriers to child care such as affordability, accessibility, and a sense of uneasiness at having to leave their child with multiple providers they did not know personally nor followed their cultural practices and beliefs (Ornelas et al., 2009). A similar study of low income working mothers in India found that multiplicity of child care is associated with an increase of depression, stress and anxiety rates (Travasso et al., 2014). Overall, the researchers identified concerns of child's wellbeing and safety with multiple care arrangements, financial costs related to securing single quality care, and time constraints as significant indicators contributing to poor mental health among working mothers (Ornela et al, 2009; & Travasso et al., 2014).

A longitudinal study of 38 mothers experiencing child care instability found that 17 of them experienced very unstable and unreliable arrangements (Scott et al., 2005). It revealed that those experiencing greater instability often reported working multiple jobs with erratic schedules, a long commute home, and lack of resources all affecting their overall mental health (Scott et al, 2005).

COVID-19 Pandemic and Maternal Mental Health

Pandemic-related stressors affected mothers heavily in the postpartum period with the initial worry of managing child care without familial and outside support or financial resources to place their child in child care (Almeida et al., 2020). A narrative review on the impact of the COVID-19 pandemic on women's mental health found that parental stress on mothers increased with the additional bulk of child care (Almeida et al., 2020). Mothers reported feeling more anxious, agitated, fearful, or depressed due to limited financial and social resources, unemployment, and use of substances (Almeida et al., 2020).

A qualitative study of 3,738 women found that the pandemic led mothers to leave the workforce and/or reduce their hours at work to care for their children (Delaney et al., 2021). Working mothers were severely impacted since they had to take on multiple roles in their homes as full time caregivers, maintenance/household workers, teachers, partners, all while being working professionals (Grose, 2021). The study found an increased stress, anxiety, and depression among mothers (Grose, 2021). Travasso and authors (2014) found life stressors such as interruption of existing child care arrangements contributed to mothers' worry about losing employment. This resulted in severe depression and anxiety (Travasso et al., 2014). Yet, these mothers did not seek professional help due to the lack of time they had during the day to meet their own basic needs (Travasso et al., 2014). Evidence is being published now of the lasting impact the pandemic is going to have on mothers and their children's brain development, learning, and physical health (Delaney et al., 2021).

Analyzing child care and the effects on mental health among working mothers using

through social ecological model (SEM)

The SEM considers the complex interplay between individual, interpersonal, institutional, community, and policy factors (Poux, 2017). It allows the reader to understand the range of factors that put working mothers at risk for developing negative mental health outcomes due to child care stressors. The overlapping sectors in the model illustrate how factors at one level influence and interconnect with factors at other levels (Igras et al., 2019).

The application of the social ecological model can assist in understanding the complexities in the child care sector and provide insights into the range of influences and power dynamics operating within and across levels that affect maternal mental health outcomes (Igras et al., 2019).   A social ecological model provides a useful framework for understanding child care related factors influencing maternal mental health. It allows both human service-centered approaches be considered to explore how relationships, influences, gender, systematic power, and intergenerational dynamics reflect how affordable and quality child care services influence the mental health of working mothers.

Methods

Research Strategy

The systematic review of literature was conducted to identify existing evidence to determine the association between access to quality, dependable, and affordable child care and maternal mental health outcomes in working mothers of children ages 0.5. It serves to understand how instability and availability of child care, the use of multiple child cares, and how the pandemic heavily impacted the child care system and working mothers mental health. The review justifies how the child care system is overwhelmed and under-funded and there is a lack

of empirical evidence to address the importance of unaffordable and reliable child care for a mother's mental health. The review was also used to produce recommendations using the Social Ecological Model.

Databases and Keywords

Multiple databases were searched including PubMed, and Scopus to explore peer reviewed publications. Boolean search strings using AND and OR were used with the following keywords: (Mothers OR Women OR Caregivers) AND (Postpartum OR Perinatal) AND (Depression OR Mental health OR Mental illness) AND (Child care OR Day Care). In addition, data was extracted and analyzed from CDC reports, and trade resources such as the New York Times. Given the limited research available, the search was not limited to specific years to ensure enough information was gathered. The information retrieved was from the last 22 years.

Target Population

The target population consisted of women from all ethnic and racial backgrounds who are the primary caregiver for one or more infants and/or toddler ages 0-5, hold a full time employment position of at least 32 hours per week, and must have their child in a non-parental care arrangement while at work.

Setting

The foundation for this paper began during the Applied Practice Experience (APEX) internship with First 5 Orange County. First 5 is dedicated to making sure every child gets the best start in life by helping children reach their full potential and working towards creating and maintaining an early childhood system that families experience as a seamless network of care. First 5 released a child care landscape analysis in the year 2020 which found that for every 21 infants and toddlers needing child care, there is only 1 spot available. Even if the number of

infants and toddlers in Orange County who required child care lessened by two thirds, there would still be a huge deficit of licensed and affordable child care available. During the APEX commitment of seven months with First 5, a gaps analysis, as seen on Appendix A, was conducted to identify and review existing data in Orange County, CA by leveraging First 5 programs and partners (e.g. child care landscape analysis, children's home society, Head Start program, McKinney Vento liaison, individual homeless shelters, Orange County Department of Education liaison, CalWORKs data set, and 2019 Point in Time summary report). The overall commonalities identified through the gaps analysis were that 1) Orange County mainly refer to a single resource and referral program (Children's Home Society) for alternative payment, and 2) child care program referral and enrollment follow up on alternative resources and are not conducted in a timely manner or at all. These issues may be due to child care retention being scarce in the scope of work, staff shortage, or an overwhelming number of families needing child care. Additionally, affordability (outside subsidized programs/vouchers) is also a major concern. The findings in the systemic issues of child care within Orange County, CA inspired the topic from a local perspective to a statewide and nationwide perspective.

Recommendations

The literature review findings are categorized into four major findings on child care and maternal mental health; 1) existing child care subsidized program, 2) instability and availability of child care, 3) the use of multiple child cares, and 4) how the pandemic heavily impacted the child care system and working mothers mental health. The SEM serves to dismantle specific barriers within the four categories. The SEM will be used to provide recommendations at all levels and improve the existing issues between underlying child care related factors influencing maternal mental health (Poux, 2017).

A slight modification to the SEM, as seen on Appendix B, has been incorporated to understand child care experiences and other recommendations. As such, the four modified categories emerged from the adapted model: (1) child care arrangement by family or in social network; (2) employer based and child care centers; (3) community and societal system of child care; and (4) the political aspect of the child care system (Khan et al., 2021 & Salm Ward & Doering, 2014)

Individual & Interpersonal - child care Arrangement by Family or in Social Network

The individual level of the SEM identifies individual traits and identities such as age, sex, education, and economic status as factors influencing health (Poux, 2017). Characteristics of the child and the mother are important to consider as it is connected to the mother's ability to obtain child care services. Often a mother's relationship with family, friends, and peers or what Fullilove (1996) calls "emotional ecosystem," impacts the ability to solidify child care arrangements. The emotional ecosystem has been the backbone of a mother's ability to continue working. These interconnections are needed to buffer the stress that mothers experience when returning to work.

As this literature review has demonstrated, child care services dictate a mother's decision to return to work, subsidies have the power to help mothers join the labor force, engage in job training, and, possibly, pursue higher education (Ha & Miller, 2015). Expanding the criteria on subsidies to compensate trusted relatives can increase the availability and quality of care (Bergmann, 2000). A subsidized payment to a relative can be an opportunity to arrange child care arrangements while getting them paid directly (Vorsange, 2005). This strategy can give more peace of mind to mothers wanting to go back to work and, in the long run, prevent more severe forms of mental health (Vorsange, 2005)

Currently, the closest program to a subsidized payment for a relative is the Temporary

Assistance for Needy Families (TANF). TANF criteria allows for relative caregivers to apply for

a "family grant," to provide assistance to families under the poverty level and part of their

program is to have children be cared for in their own homes or in the homes of relatives (U.S.

Government Accountability Office, 2011). The downside of this program is that there is a

60-month TANF usage time limit and strict income eligibility criteria on both the parents and

prospective relative caregivers (U.S. Government Accountability Office, 2011). Given the

pandemic has contributed to maternal health disparities, a more comprehensive assistance

program is needed now that can be inclusive of those mothers whose income might be a little

more than the poverty level.

Institutional - Employer and Child Care centers

At the institutional level, regulations, restrictions and quality control of child care centers

are needed to ameliorate many of the stressors mothers experience with child care (Poux, 2017) .

Researchers discovered that the indicators contributing to an increase in mental health stressors

in working mothers were ongoing concerns of child's wellbeing and safety with multiple care

arrangements related to securing quality care while at work (Ornela et al, 2009; Travasso et al.,

2014). Unfortunately, there is a lack of administrative data within child care centers to be able to

provide a better understanding of the center's quality of service and availability (Breunig et al.,

2011).

The closest data to measure quality of child care is the Quality Rating and Improvement

System (QRIS). QRIS is an accountability system that measures early childhood education

quality and provides support for improvement (Samuels, 2022). Though it is voluntary in most of

the United States, the state of Louisiana has made it mandatory since 2015, where the QRIS data

suggest that the quality of teacher-child interactions has increased by 50% during the years of 2015-2019 (Bassok & Markowitz, 2020). This is an avenue and framework for investments and fundings towards child care quality control. It is a strategic way to track progress so programs and communities have an idea of what to work towards in order to reach high-quality child care.

In addition, having employers provide child care for mothers influences their ability to seek employment and remain employed (Liu et al., 2014). Findings suggest that institutional based policies focusing on employer based child care can support working mothers (MacLellan & Timsit, 2019). Employers have the ability to create flexible schedules so child care arrangements can be secured (Delaney et al., 2021). For example, employers can incorporate flexible time schedules so mothers can work from home or during daycare hours. Employers have the ability to educate the workplace on strategies to decrease stressful working conditions and promote a supportive and flexible workplace culture for working mothers (Shepherd-Banigan et al., 2015). These elements may effectively support women who transition back to work shortly after birth and have important implications for mental well-being (Shepherd-Banigan et al., 2015 & Delaney et al., 2021).

Some employers have started creating employer based child care support. For example, tech companies such as Microsoft, Facebook, Apple, and Google offer flexible work schedules which include remote work and flexible work hours (MacLellan & Timsit, 2019 & Kemp, 2022). Additionally, Microsoft has been offering a full-funded backup child care benefit program for over a decade that has recently increased its subsidized child care expenses from 100 to 160 hours per year (Kemp, 2022). Microsoft also assists its employees with finding alternative child care options if their primary falls through (Kemp, 2022). Other tech companies like Google offer 10 subsidized days of backup child care per calendar year (Kemp, 2022). It has four on-site

child-care centers available to employees as a backup that has a small fee and full price if utilized as their primary child care provider (MacLellan & Timsit, 2019). Facebook and Apple offer employees 10-15 days of fully-subsidized care plan per calendar year, which they can access through Bright Horizons (MacLellan & Timsit, 2019). Bright Horizons is the largest operator of employer-sponsored child care centers as it provides discounted child care, backup care, and other services to company employees (MacLellan & Timsit, 2019).

Community and Societal System of child care

The community level of the SEM focuses on the networks between organizations and institutions that make up the greater community (Poux, 2017). This includes child care subsidized program referrals, community liaisons or community resources, and day care centers. Johnson and Padilla (2019) encourage more awareness be given to current child care availability and programs. Through this process, mothers' mental health can improve by becoming aware of what programs exist in their communities that can subsidize the cost of care

First 5 Orange County conducted a gap analysis, as shown on Appendix A, to identify and review existing data of child care resources. The gap analysis revealed that the current resources were not very useful to the public as it lacked guidance on navigating child care services. Additionally, the analysis found that existing centers struggled with staff shortages which affected the quality of services for the overwhelming number of families needing child care. While the gaps analysis was conducted solely in Orange County in CA, First 5 encourages all state child care lead agencies support working mothers when searching for qualified care centers and resources. Moreover, outreach programs should be able to coordinate services and provide child care support until the mother has been granted access.

An outreach program can assist with the overwhelming tasks needed to process child care. For example, it can mitigate the high cost of copayments, prevent losing care due to high turnover among child care providers, and reduce difficulties brought upon administrative duties (e.g., preparing paperwork, visiting child care agencies) (Ha & Miller, 2015). Outreach programs can be used to continue disseminating information on child care centers, emergency child care opportunities, and assist in enrolling mothers/children into subsidized programs.

State child care lead agencies can also play an important role by assisting mothers in locating qualified care. Outreach programs, operated either by child care agencies or by local nonprofits, could be very valuable in this respect. State child care lead agencies and outreach programs have the ability and capacity to educate mothers about the centers available in the area and provide resources to emergency child care facilities. States have the ability to expand availability in child care centers and day care settings in case of emergencies and provide reimbursement to those entities that provided emergency care (Liu et al., 2014). Additionally, local community centers and churches can design initiatives to provide working mothers with low or free of cost drop-in child care services (Warner, 2006). These recommendations can incorporate longer term needs beyond pandemic or natural event experiences.

Another strategy that can be effective in decreasing mental health among mothers is in health care settings. Information on child care availability and cost share programs made available through postpartum health evaluation visits or during their child wellness check, will increase resource distribution and awareness (Chaudron et al, 2004). Engaging and encouraging mothers through their postpartum well visit can have positive effects as maternal mental health improves through access to financial resources, increase in social support resources, and opportunities for personal development (Chen, 2001).

A recent study assessing the feasibility of universal postpartum depression screening during the first year of well-baby visit, found that pediatricians can plays an active role in early detection and referral for PPD by conducting a standardized screening test to mothers during their well-baby visit (Chaudron et al., 2004). The American Academy of Pediatrics (AAP) recommends six well-baby visits in the child's first year of life, that is at 1, 2, 4, 6, 9, and 12 months of age (AAP, 2021). This framework gives mothers six additional opportunities to get screened for PPD, receive adequate services and potentially improve their lives and the lives of their children (Chaudron et al., 2004). Chaudron and colleagues (2004) found that out of the 90 mothers who completed a depression screening during their well child visits, 19 met the criteria for depression. This is 21% of mothers that were informed of their diagnosis and received the proper care. This is a crucial window of opportunity to screen mothers for mental health and offer additional resources like child care.

Policy level - Qualification of child care / maternity leave

Policies and legislations that are placed at local, national and global levels have the largest impact on working mothers' mental health (Poux, 2017). Existing policies such as income qualification for subsidized child care, center regulations to offer child care services, and policies for maternity/parental leave influence a mothers mental health.

For example, almost 60% of working mothers in the U.S. return to work after only 12 weeks postpartum due to financial necessity (Shepherd-Banigan et al., 2015). Maternity leave is crucial for mothers' mental health and infants development (Avendano et al., 2015). However, the California Family Rights Act provides eligible employees up to 12 weeks of unpaid, job-protected parental leave to care for a new child, and if eligible, one can receive benefit

payments of about 60 to 70 percent of their weekly wages (Employment Development Department, 2022).

Yet, other countries are more supportive of mothers' mental health needs. In the United Kingdom (UK), the parental leave policy grants mothers up to 39 weeks of paid leave with a maximum of 52 weeks with 90% of their average weekly earnings provided for at least six weeks, then 90% of their salary (GOV.UK, 2015). The UK's parental leave promotes mothers' bonding with their child and is considerate of mothers' childbirth-related physical and emotional strains. This policy allows for a mother to heal internally and externally while reducing maternal strain on child care arrangements.

The US could benefit from adopting a similar policy that can promote the mental, emotional, physical, and financial well being of a mother. Further, extending eligibility limits for child care services can be a major mental relief for mothers. For example, a family of three in California with a household income over 150 percent of poverty (yearly income of $29,000) will not be eligible for child care assistance and would be forced to cover child care costs out of pocket (McCann, 2013). Child care costs are estimated to be at least $11,817 per year, or $985 per month (Orange County Social Service Agency, 2021). More specifically, a family of four had to make at least $77,223 in 2017 to make ends meet in San Diego County, but does not qualify for a state child care subsidy (Taketa, 2019). This family would have had to make at least 24 percent less to qualify (Taketa, 2019).

Appendix C explains the current income consideration for federal and state subsidized child care for Orange county (F5OC, 2020). Since income eligibility limits have not changed despite increases in federal poverty, Ha & Miller (2015) suggest that revisiting federal child care subsidies policies will be beneficial for working mothers seeking employment. The income

eligibility should be reconsidered in order to give working mothers an opportunity out of poverty and get a chance to go up the socioeconomic ladder. A policy that is helping mitigate the effects of inaccessible child care is the H.R.5376-Build Back Better Act, also known as The Build Back Better Framework. This policy ensures that middle-class families spend no more than 7 percent of their income on child care and can help states expand access to high-quality and affordable child care to about 20 million children per year (The United States government, 2021). This proposed policy will cover 9 out of 10 families across the country with young children (Congress.Gov, 2021). Even a family of 4 making $300,000 per year will be eligible. This bill passed the house in November 2021. It is the largest child care investment in history directly and indirectly promoting the mental and emotional wellbeing of mothers by providing them with the resources to get back into the labor force, save on child care services while working towards a financially stable life for their families (Congress.Gov, 2021).

Implications and Discussion

Research has repeatedly shown that dealing with child care arrangements increases maternal mental health. To improve the mental health of working mothers, more supportive and comprehensive child care policies are needed in the United States that are mother/family friendly and cost-effective. Workplaces and community organizations can mediate and moderate child care accessibility, availability, and affordability. Employer based child care amenities can alleviate maternal mental health by providing financial incentives for child care and possibly provide on-site services. State child care lead agencies and outreach programs have the ability and capacity to help mothers navigate child care in their community, and provide additional resources if needed.

In order for all working mothers to benefit from child care subsidies, income eligibility needs to expand to include moderate income mothers. Providing this subsidy can be effective in promoting stable child care placements and improving mothers mental well-being (Scott et al., 2005). The pandemic exacerbated the mental and emotional health of working mothers as they work to balance child care, work, and household responsibilities with limited outside resources (Davenport et al., 2020). For this reason a more holistic and comprehensive approach is needed that can assist working mothers in obtaining child care in all sectors of our society (i.e., employment, health care, education, etc.). Failure to do so can impact the overall health and wellbeing of children and the entire family.

Limitations

There were several limitations and considerations when exploring the literature in child care related stressors on mothers' mental health. Mothers were considered the primary caregivers in the review; therefore, the mental effects of fathers, father figures, family members, or other caregivers were not considered. For that reason there was a limitation and bias on the impact child care imposes specifically on single fathers.

Literature was limited in terms of the timeline of psychological impact on mothers. There is missing data on whether mental health issues had been present prior to the child care related stressors, or if mental health disorders originated due to the child care related factors. There was a lack of studies on child care instability and direct relationship to mother's employment.

Research was predominantly on low-income mothers, favoring results on how beneficial child care subsidies for low-income mothers were, but limited on the effects on middle-income mothers. The pandemic offered new research on child care instability and maternal stress repercussions due to the COVID-19 pandemic, but there was very limited research on

pre-pandemic child care instability and the effects on maternal stress. Studies were also limited

to the degree of reliance on observational data, which prohibits interpreting causality from the

results.

Next step

Future research should focus on exploring aspects of perceived and actual child care

availability (Johnson & Padilla, 2019). This will assist in comprehending how child care

experiences can support or undermine maternal mental health in working mothers of children

ongoing data collection about child care staff qualifications, length of waiting lists, cost of child

care, and number of places who accept subsidized payments would provide more objective

measures of quality and availability. This data can address child care availability, quality and cost

and the relationship to caregiver's decisions about working. This new data is anticipated to be of

interest to both academics and policy makers to significantly improve the understanding between

child care related stressors and employment in working mothers (Breunig et al., 2011).

Additional observational studies, both descriptive and exploratory research, will deliver

preliminary results on the potential effects of child care arrangements, various caregivers, and the

quality of care on maternal mental health (Choi & Moon, 2017). The results can influence a

more robust study design such as a cohort or case-control study to reflect the causal effects and

changes in the measures over time. This will establish an avenue through which public health

officials and pediatricians can enhance maternal mental health

Conclusion

Mothers face childbirth-related physical and emotional strain during their postpartum

period that makes them more susceptible to maternal depression and anxiety. Maternal

depression gets amplified with stressful life events, low social support, and lack of coordination

and arrangement for child care. Limited literature explains that the available subsidized

programs to help reduce the cost of child care have an income eligibility criteria that makes it

difficult for working mothers to qualify. This coupled with child illness, unreliability of the

provider, and the lack of availability of quality child care negatively impacts the mental health of

mothers. The COVID-19 pandemic intensified the gaps in the child care system, resulting in

mothers leaving the workforce to care for their children.

At this time, policies are needed to help mothers receive affordable child care options,

for employers to offer child care, and for state policies to reconsider the existing maternity leave

laws to reduce the need for non-parental child care. Future research should focus on how

unreliable child care is detrimental for working parents, single or married. This will prompt the

development of new programs to help cover the cost of child care and policies to rebuild the

current child care system.

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Appendix A: Gaps Analysis

Item	Current State	Desired State	Identified Issue/Gap	Gap due to Knowledge, Skill and/or practice	Methods used to Identify Gap
	What is currently happening?	What should be happening?	Difference between what is and what should be?	Why do you think the current state exists? What is the underlying or root cause?	What evidence used to validate the gap exists?

Practice Gap: Does not do in practice -> intervention -> translate knowledge and skills into practice

Skill Gap: Doesn't know how -> intervention -> apply knowledge and skills for the issue

Knowledge Gap: Doesn't know -> intervention -> knowledge about the issue

Overall Desired State: Strengthen connections between systems to connect clients and families experiencing housing insecurities to child care.

Item	Summary/ SOW/ Current State	Desired State	Identified Issue/Gap	Gap due to Knowledge, Skill and/or practice	Methods used to Identify Gap
1. Children's Home Society (CHS)	Resource and referral line (R&R) is for both families and CC providers. CCHS Provides alternative payment for child care, provides teacher training, CPR, and conducts a provider survey to inquire on specific needs. CHS offers an online option to fill out applications to be qualified for child care funding/care.	To be able to give families accurate updates on where they stand on CHS's waitlist whether an online database or live representative. To be able to expand the referral hotline hours given that there may be a barrier to call during only work hours. Ideally an online after hour chat with a live representative.	Resource and referral hotline representative only available from 9am-3:30pm. Cannot offer families an accurate and reliable waitlist update. Families placed on priority lists based on income and need, can change with employment. There is a misalignment of priority/ lack of information on families.	**Practice**: Staff shortage has impacted the ability for providers and families to get a hold of a representative outside normal business hours. **Practice:** State funding may be the reason there is a long waitlist to get families into alternative child care payment programs.	Information retrieved from CHS website and from parent(s) personal experience.

			Some groups of providers and parents do not have access to CHS. State regulation and requirements, not enough state funding/ alternative state funding. Lack of active communication with providers, community partners, parents.		
Item	**Summary/ SOW/ Current State**	**Desired State**	**Identified Issue/Gap**	**Gap due to Knowledge, Skill and/or practice**	**Methods used to Identify Gap**
2. Head Start (HS)	Head Start offers open slot placement for families under the federal poverty line (FLP). There is a priority for families who have no income versus families who have some income even if they both fall under the poverty guideline. HS can provide services to up to 10% of families who are above the FPL but have to have special circumstances (e.g. homeless, in foster care, have special needs, are on public assistance, whose family incomes are at	To be able to have constant communication with families despite being on a waiting list. To be able to expand facility space to increase the number of possible enrollees.	There have been issues with families unable to have direct contact and/or consistent follow up on waiting list status. If you're not a priority, it's extremely difficult to get into contact with them – e.g. family leaving 10-15 voicemails. Follow up with families not in the top of priority list more than likely to be lost. Cannot offer placement if the family is above	**Practice:** A shortage in staff working within the referral department might be the reason some families are unable to get in contact. **Practice**: Limited facility space lessens the number of children enrolled.	Information received through HS website, direct conversation with Cinda Muckenthaler and from parent(s) personal experience.

Item	Summary/ SOW/ Current State	Desired State	Identified Issue/Gap	Gap due to Knowledge, Skill and/or practice	Methods used to Identify Gap
	or below the federal poverty line, and/or have other special circumstances).		the [federal poverty line,](#) some circumstances like homelessness will receive placement. OC Head start has slots available but not enough facility space.		
3. McKinney Vento (MV) Liaison	Scope of work now, is to ensure students with housing insecurities have access to education and other services they need to meet academic standards. child care sector: Needs assessment for MV families includes a spot for Child Care to be indicated as a need. Depending on the age of the child, HOPES collaborative refers family to Head Start, Children's Home Society or Orange County Department of Education (OCDE).	To be able to refer families to a coordinator to help during the process of obtaining child care.	COVID-19 results in difficulty identifying students experiencing housing insecurities. child care resources are shared with family but follow up to ensure family obtained the services needed is not performed. About 661 children aged 3 have been identified as homeless. No known data for age 0-2.	**Knowledge**- Staff is unaware of the process of obtaining child care once referred to CHS, HS or OCDE. **Practice**- Out of their scope of work to follow up with families being referred.	Unofficial data gathered by OCDE shared by Jeanney Awery and email conversation with NMUSD Mckinney Vento Social Worker Stacey Balliet.
Item	Summary/ SOW/ Current State	Desired State	Identified Issue/Gap	Gap due to Knowledge, Skill and/or practice	Methods used to Identify Gap

4. F5's child care Landscape Analysis	2021 Analysis to understand the child care system in the county for children 0-5, with a focus on infants and toddlers aged 0-2.	child care cost to be lower for families not qualified for subsidized care. To have a comprehensive, ongoing, enrollment and wait lists would help better understand demand and maximize enrollment.	The cost of providing quality infant/toddler care is high. Reimbursement rates (under subsidized care) do not cover cost for providers and increased teacher requirements. Unable to retrieve/access an ongoing to up-to-date, comprehensive data and data sharing on enrollment capacity and waitlist from all providers.	**Practice:** Out of pocket (Families who are not eligible or are currently waiting for subsidized care) child care providers rates are at high cost where despite availability, parents are not able to afford care. **Knowledge:** It is difficult to align all child care providers in Orange County and have active communication on availability for families.	Information received through First 5 Orange County website. Page 21. Page 32.
Item	**Summary/ SOW/ Current State**	**Desired State**	**Identified Issue/Gap**	**Gap due to Knowledge, Skill and/or practice**	**Methods used to Identify Gap**
5. Individual Shelters*	Family Solutions Collaborative A Coalition of Homeless Services Providers in Orange County, California and functions as the "system" supporting direct service providers.	To have a dedicated staff member/ liaison with both knowledge of homeless shelters and current child care information. To have a care coordinator in homeless shelters to be able to guide and assist families through searching and enrolling in child care.	The only known shelters to have a form of child care assistance/ agreement within facility or outside facility (i.e Church), are maternity based shelters such as Precious Life Shelter and Casa Teresa. Shelters participating in the Family Coordinated Entry System (FCES) include an intake question of needing child care, unknown if	**Practice:** Lack of availability and affordability of child care in Orange County. **Practice:** Agency capacity and short staff to be able to keep updated information regarding availability and funding assistance.	Information received and direct conversation with Anila Neumeister.

Item	Summary/ SOW/ Current State	Desired State	Identified Issue/Gap	Gap due to Knowledge, Skill and/or practice	Methods used to Identify Gap
			shelters outside FCES ask about the need of child care.		
6. OCDE Liaison	Early Learning Liaison for OCDE scope of work entails meeting families with home visitors. It collaborates with the Children's Bureau and Priority Center. Provides additional support for families focused on early learning. child care is one of many resources she can refer families to. Main scope of work was <u>initially</u> entailed to give families in the program access to child care and to help during the process until families are enrolled. ***No longer the case*** **<u>When did it change?*</u>**	To be able to give families in the program access to child care and to help during the process until families are effectively enrolled. To be able to have more than one encounter of communication with families. **Consider shifting OCDE liaison's scope of work from First 5 perspective.**	Liaison cannot see a family more than once due to the high number of intakes. *Language barrier to have ongoing communication with families.* If not receiving CalWORKs child care assistance, liaison is unaware of the outcome because it is up to the family to find an alternative route from resources given such as Children's Home Society or Priority Center. COVID-19 results in a lot of providers not enrolling due to student-teacher ratio and classroom capacity.	**Practice-** Does not have time/access to follow up with individuals referred to outside child care resources. It can be related to staff and family ratio, or time management. **Knowledge-** Liaison does not have other resources and ability to be able to help families find child care outside of CHS or priority centers.	Direct conversation with OCDE's Liaison Kimmie Le, Dalia Castaneda, and Elida Garcia.
Item	Summary/ SOW/ Current State	Desired State	Identified Issue/Gap	Gap due to Knowledge, Skill and/or practice	Methods used to Identify Gap
7. CalWORKs Data Set	2021 Data received regarding home visiting and early learning	To create/implement a better data collection system to be able to	Not enough available data to determine the need of child care	**Practice:** Follow up with families are not	Data gathered by CalWORKs home

| Item	Summary/ SOW/ Current State	Desired State	Identified Issue/Gap	Gap due to Knowledge, Skill and/or practice	Methods used to Identify Gap
	services provided to families experiencing challenges with housing insecurities. Data includes 546 "homeless" data fields empty.	identify families who are homeless and in need of child care. To be able to disseminate accurate child care referral information and continue to follow up with families on placement.	among homeless families in the HV program. Statistics show a total of 119 homeless families, 10 child care referrals with a 50% confirmed utilization. No known information for the other 50%.	conducted effectively and are lost. **Practice:** Need to ensure families have been directed to OCDE liaison for coordination of care for child care and have effective documentation.	visiting program and shared by Susan Carter.
8. 2019 Point in Time (PIT) Summary	A count of sheltered and unsheltered homeless persons on a single night during the last 10 days of January which must occur on an annual basis.	To be able to include statistics on children ages 0-5 who are homeless and need child care. - This can aid with a proposal of obtaining more child care funding and or accessibility to quality and affordable child care.	PIT does not specify the percentage of families with children ages 0-3 and in need of child care.	**Practice**: PIT is not stating statistics and details of the age in children who are homeless and/or families needing child care.	Data retrieved through 2019's Point in Time Summary infographic, 2020 and 2021's Sheltered Point In time one-pager Overview. Link

Overall Summary: First 5 OC

Overall Commonalities in Gaps: Orange County services mainly refer to Children's Home Society for alternative payment program enrollment. Follow up after referring or providing alternative resources and support are not conducted in a timely manner or at all. This may be due to follow up being out of their scope of work, staff shortage, or overwhelming number of cases. Affordability (outside subsidized programs/vouchers) is also a major concern.

First 5 Next step: Seek information on other communities who have been tackling their local issue on accessibility of quality infant and toddler care. Inquire on methods being used and best practice to implement to address the challenge of affordable child care.

Overall Recommendation: Establish a community child care liaison

Appendix B: Social Ecological Model (Modified)
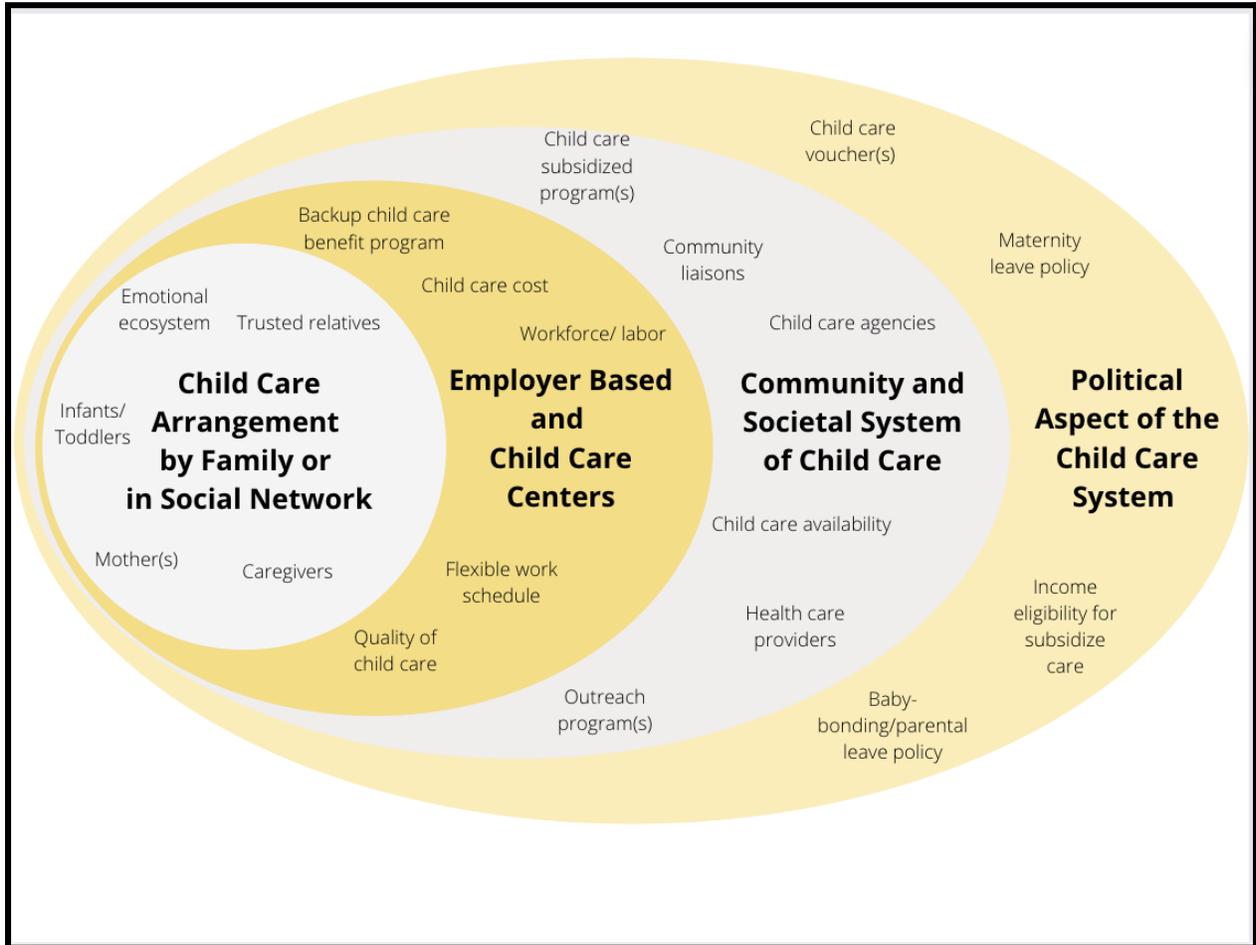
This perception of the SEM for child care and maternal mental health was adapted from Khan et al., (2021) socio-ecological approach to understanding perinatal care experiences and Salm Ward & Doering (2014) application of a socio-ecological model to mother–infant bed-sharing.

Appendix C: Income Consideration for Subsidized Programs

Source: First 5 Orange County Child Care Landscape Analysis

Appendix D: MPH Competencies

CEPH Foundational Competencies

Competency	Choose at least 2 foundational competencies and briefly note why you feel it is relevant to your ILEX paper or presentation. (Note: all students can choose Competency #19, and mention your specific audience)
Evidence-based Approaches to Public Health	
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software as appropriate	
4. Interpret results of data analysis for public health research, policy and practice	Based on APEX Create diagrams and/or workflow demonstrating how liaisons perform complementary roles and will perform enhanced coordination with child care resources to serve families.
Public Health & Health Care Systems	
5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings	
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels	
Planning & Management to Promote Health	
7. Assess population needs, assets and capacities that affect communities' health	Based on APEX Work in collaboration with home visiting agencies Conduct interviews and/or focus group with families in home visiting program who utilize child care resources; Summarize input from families; identify implications for future practice and assessment
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs	

9. Design a population-based policy, program, project or intervention	
10. Explain basic principles and tools of budget and resource management	
11. Select methods to evaluate public health programs	
Policy in Public Health	
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence	
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes	
14. Advocate for political, social and economic policies and programs that will improve health in diverse populations	
15. Evaluate policies for their impact on public health and health equity	
Leadership	
16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making	Based on APEX Work in collaboration with OCDE Early Learning liaisons; Coordinate child care providers and networks for CoP presentations and/or problem-solving dialogues, information sharing, and relationship building.
17. Apply negotiation and mediation skills to address organizational or community challenges	
Communication	
18. Select communication strategies for different audiences and sectors	
19. Communicate audience-appropriate public health content, both in writing and through oral presentation	
20. Describe the importance of cultural competence in communicating public health content	

Interprofessional Practice*	
21. Perform effectively on interprofessional teams	
Systems Thinking	
22. Apply systems thinking tools to a public health issue	

MPH - Community and Public Health Practice Competencies

Competency	If CPHC is your program concentration, choose at least 2 competencies you plan to draw on and mention how it is relevant.
1. Apply qualitative methods to assess community assets for addressing public health and environmental issues	
2. Analyze how issues of power, race and ethnicity, sex and gender identify, and socioeconomic factors affect the development, implementation, and evaluation of community-based projects	Summarize gaps and opportunities for improvement based on work/participation across groups; Suggest next steps to expand system effort Identify required resources (infrastructure, etc.)
3. Develop a research project proposal using mixed methods to address a public health problem	Brainstorm strategies for application of systems approach to meeting early learning/childcare needs, enhancing parenting skills, and enabling access to resources among families experiencing homelessness Capture recommendations, action items
4. Apply project management strategies to improve the quality of programs and services in public health settings	
5. Identify environmental health risks in vulnerable communities and examine strategies to reduce exposures	