

**Stress and Mental Health Experiences Among Single Mothers in the United States Since
2010: A Scoping Review**

by

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Abstract

The rate of single motherhood in the United States has increased substantially since the beginning of the 21st Century. The quality of mental health for single mothers is considered inadequate because access to necessary resources is often scarce as a result of limited financial capabilities. Emotional stress is reported more by single mothers compared to those who are married because of a disproportionate number of additional stressors present in their lives at significantly higher rates. These stressors are more than usual given the fact that single mothers have responsibilities greater than the normal amount.

Also, single mothers are the primary caregivers of their children as they are the only parent in the house. By being the solo parent and adult in the household, each task that is required to raise children and take care of other important domestic responsibilities is dependent upon her, which can bring forth additional stressors. With many responsibilities, it is common for single mothers to not have an efficient number of resources to assist her as she raises her children and takes care of a variety of other important responsibilities.

This essay explores many factors that describe the scope of emotional stress that single mothers in the United States struggle with daily. Although the current literature regarding emotional distress has been studied applying quantitative-based research methodologies with qualitative methods being included, there has not been specific studies conducted on the effectiveness of safety net programs designed to assist single mothers who are experiencing

significant emotional distress. Therefore, more systematic analyses on organizations and programs that address this public health issue must be conducted through an in-depth examination of the gaps in care for single mothers' emotional distress.

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Preface

I would like to thank my advisor, Dr. Mair, and Dr. Hershey for dedicating their time to be my readers for my master's essay. Throughout this writing process, I have gained a significant knowledge about writing professional papers, in which my writing skills have improved during my time as a graduate student at the University of Pittsburgh in the School of Public Health. I will always be grateful for the feedback I received, in which I have become a more well-rounded educated person about many avenues of writing about an important public health topic.

1.0 Introduction

Raising children brings forth many changes and demands. There are multiple milestones that children must acquire to move forward in their lifespan development that requires parents to ensure that they are participating in that essential role as their guardians. Single motherhood rates have been steadily increasing over the past 50 years. The number of families where a single mother oversees the household has increased from 9% in the year 1960 to 28% in the year 2014 (Berryhill & Durtschi, 2017). This is a particularly concerning trend given the correlations between single motherhood and poorer socioeconomic outcomes by almost every measure. According to US government data, single mother families are more likely to live in poverty (Shrider et al., 2021), have lower median income (Shrider et al., 2021), experience food insecurity (Coleman-Jensen et al., 2021), and receive food stamps (U.S. Census Bureau: Table C8, 2021) compared to families of married couples.

Single motherhood has also been associated with a number of psychological health outcomes. Single mothers have higher rates of anxiety disorders and depression compared to married mothers (Dlugonski et al., 2017). One study focusing primarily on low-income, single mothers found that 20.6% of mothers met criteria for a major depressive episode by the time their children reached 3 years of age, compared to 10.0% for mothers in general (McCloskey & Pei, 2019). Epidemiological studies on major depressive disorder have noted that being low-income, female, and widowed/separated/divorced increase 12-month and lifetime risks of depression. (Hasin et al., 2005) Single mothers often fit all of these categories.

The goal of this essay is to present a scoping review on the subject of stress in single mothers as well as its association with mental health and parenting. The background of this report

will review trends in the United States regarding the single mother population as we llas explore the relationships between single motherhood, stress, mental health disorders, and parenting. Peer-reviewed journal articles will then be analyzed with the goal of presenting key issues that underlie or pertain to stress among single mothers as well as identifying risk factors and protective factors for maternal psychological well-being. Potential interventions will be discussed at both micro and macro levels that could address of the issues faced by single mothers, and recommendations for further study will be made based on gaps identified in the current body of literature.

2.0 Background

2.1 Increasing Single Motherhood Rates in the United States

A single mother is a mother of a child whose biological father is absent from the home as a result of divorce, separation, or the mother becoming widowed. The increase in single motherhood rates in the United States is most likely a multifactorial phenomenon as a result of changing social and economic conditions as well as changing views on marriage, family, and other cultural issues.

Since the 1960s, a growing percentage of births have occurred out of wedlock. Among white Americans, the out of wedlock birth rate was 3.1 percent in 1965 and increased to 18 percent over the following 25 years. (Akerlof et al., 1996) In the African American community, this number increased from 24 percent to 64 percent over the same period of time. Theories that have been postulated to describe the dramatic increase of children born out of wedlock include changes in job availability, welfare incentives, and the disappearance of the phenomenon of “shotgun marriage.” (Akerlof). Statistically, childbirth out of wedlock is a major risk factor for single parenthood. Between 1990 and 1994, 71% of children born to unmarried cohabitating parents experienced parental separation by age 12, compared to 26% of children born to married parents (Kennedy & Bumpass, 2008).

Data also indicate that there are significant racial disparities when it comes to single motherhood in the United States. According to 2021 census data, 74.9 percent of white children under the age of 18 lived in two parent homes while just 42.6 percent of black children could say the same (U.S. Census Bureau: Table C3, 2021). A plurality of black children, 44.8 percent, were

living with only their mother in the home, while the remaining 12.6 percent were either living with fathers only or neither parent. Among black mothers under the age of 30, as many as 80 percent of births are to single mothers (Jackson et al., 2013). These disproportionate rates of single motherhood among African Americans may play a role in perpetuating racial inequality between generations as these children have more limited prospects of upward mobility due to reduced quality of physical surroundings and increased parental stress (McLanahan & Percheski, 2008).

2.2 Stress and its Association with Mental Disorders

For this discussion, stress will be defined as a feeling of emotional tension that is caused by either adverse or overwhelming circumstances. When studying stress, researchers typically measure or quantify stress by utilizing validated questionnaires such as the parenting stress index short form or computer-based systems such as the Stress and Adversity Inventory (STRAIN) to assess for the presence of stressors across various domains of functioning. (Rivas et al., 2021) (Sturmbauer et al., 2019) A growing body of research examining stress has indicated that a large number of physical and mental disorders are associated with experiencing stress. (Halbreich, 2021) Moreover, stress is also sometimes divided into two primary categories, acute and chronic forms.

The relationship between acute stress, usually referring to some kind of acute negative life event, and mental disorders, specifically major depressive disorder, is well-established in the literature. One study found that psychiatric inpatients with major depressive disorder had at least one “acute critical life event” within the proceeding 6 months of the onset of depression (Strauss et al., 2019). The extent to which there is a *causal* relationship between acute stress and major

depression has been questioned in the meantime. Indeed, one study has determined that the association is partially noncausal, and as a result of underlying genetic risks factors predisposing individuals to both depression and personality traits, they are more prone to self-select into situations where acutely stressful events are more likely to occur (Kendler et al., 1999).

Chronic stress and the relationship to mental disorders is less studied, and data that is available is conflicting. For instance, McGonagle & Kessler (1990) discovered that chronic stressors such as financial difficulty, chronic illness, along with chronic marital discord were more strongly predictive of depressive symptoms than acute stress, while also noting that the presence of chronic stress can alter the emotional impact of acute stress. On the contrary, one more recent study found that acute, severe life events were positively correlated with increased severity of depression, whereas chronic stress was not related to increased severity of depression (Muscatell et al., 2009). The authors of that study did emphasize, however, that chronic stress possibly has a role in producing subclinical depressive symptoms that do not meet the criteria for an MDD diagnosis.

In addition, one large study of Canadian single mothers conducted a multivariate analysis and concluded that lack of social support along with stress itself, can account for approximately 40 percent of the relationship between single-parent status and depression (Cairney et al., 2003). The study also reported an increased rate of major depression in single mothers that is more than double the rate compared to married mothers, while noting that single mothers had reported experiencing more chronic stress, recent negative events, and childhood adversity. Likewise, a study that examined stress in British single mothers arrived at similar findings (Targosz et al., 2003). Furthermore, increased rates of depressive conditions had disappeared when social

disadvantages, stress, and isolation were controlled for, which means that they essentially accounted for 100 percent of the relationship between single motherhood and increased depression.

Although more research needs to be conducted, these data suggest that the increased rate of emotional disorders in single mothers is mediated by a complex relationship between acute negative life events, chronic stressors, more remote stressors such as childhood trauma, and socioeconomic status. It makes intuitive sense that single mothers would be under increased stress. As previously discussed, single mothers have lower incomes on average and are at an increased risk of being impoverished, and financial instability can be the source of a large number of chronic stressors. In addition, the burden of being a sole caregiver can cause increased stress as single mothers may be the only financial providers and/or caretakers for their children. Finally, single mothers also tend to be disproportionately African American, so racial and gender discrimination are potential acute and chronic stressors.

2.3 Children of Single Mothers

It has been well known in the body of literature that single motherhood is associated with a number of substantial negative health outcomes for children. Children of single or unmarried parents also tend to fare worse in terms of educational outcomes, teen parenthood, and attachment to the workforce (Waldfoegel et al., 2010). Studies have also shown that children of single mothers are at an increased risk of mood disorders and other psychiatric conditions such as ADHD and oppositional defiant disorder (Daryanai et al., 2016).

One study demonstrated that exposure to childhood adverse events associated with maladaptive family functioning (e.g., abuse, divorce, inter-parental violence, parental mental

illness) was more highly associated with mental disorders than exposure to other childhood adverse events. (McLaughlin, 2012). This is significant because many children of single mothers will remember living through their parents' divorce or separation. Additionally, children of single mothers have a higher chance of being exposed to parental mental illness because, as previously discussed, single mothers are at an increased risk of developing mental disorders such as anxiety and depression compared to married couples.

Quality of parenting is another area of important concern in single-mother households. One large longitudinal study followed 5,783 children and parents in the United States, assessing parenting quality using the HOME-SF (Home Observation for Measurement of the Environment – Short Form) scale at child aged 0-2 years, 3-5 years, and 10-15 years. They found that, overall, 20.85 percent of parents were categorized as “weakest” (scoring bottom 25% of parents on the HOME scale in at least two stages of their child's life) while 17.55 percent of parents were categorized as the “strongest”. (Top 25% on the HOME scale in at least two stages of their child's life) When looking at single mothers, 44 percent fell into the “weakest” parent category and only 3 percent fell into the strongest group. (Reeves & Howard, 2013) Other demographic groups more likely to fall into the weakest parenting category were low income, poorly educated, and African American mothers. Another study found that single mothers are more prone to engaging in psychologically controlling and more rejecting parenting styles, which may predispose the children to externalizing disorders like ADHD and oppositional defiant disorder (Daryanai et al., 2016).

It is important to recognize that data like this simply makes correlations between certain characteristics and parenting outcomes. Reeves & Howard (2013) points out that the association between being single and parenting quality drops sharply after controlling for other factors such

as income and education. Their data does not conclude that being a single mother somehow inherently causes inferior parenting, but rather single mothers are more likely to experience other circumstances (e.g., low income, less education, less support) that may have negative effects on parenting capacity.

3.0 Methods

3.1 Search Process

The literature search for this scoping review was conducted using the APA PsycInfo database to search for peer-reviewed journal articles discussing stress and mental disorders in single mothers. The search protocol used was developed in conjunction with a health sciences librarian with the last search conducted on May 9, 2022. Table 1 outlines specific keywords and parameters utilized to for conducting the search.

Table 1: Comprehensive List of Search Terms Used

1.	single mothers/ or unwed mothers/
2.	divorce/ or divorced persons/
3.	Human Females/
4.	2 or 3
5.	mothers/
6.	4 and 5
7.	((divorce or divorced or single or unmarried) adj4 (mother or mothers or motherhood)).ti,ab,id.
8.	1 or 6 or 7
9.	Acute Stress Disorder/ or anxiety/ or Chronic Stress/ or "depression (emotion)"/ or dissatisfaction/ or distress/ or emotional exhaustion/ or frustration/ or helplessness/ or hopelessness/ or Minority Stress/ or Occupational Stress/ or Perceived Stress/ or Posttraumatic Stress/ or Psychological Stress/ or sadness/ or shame/ or Stress Management/ or Stress Reactions/ or Stress/
10.	(anxiety or anxious or depressed or depression or dissatisfaction or distress or exhaustion or frustration or helplessness or hopelessness or sadness or shame or Stress).ti,ab,id.
11.	9 or 10
12.	8 and 11
13.	limit 12 to all journals
14.	13 not ((albanian or arabic or bulgarian or catalan or chinese or croatian or czech or danish or dutch or estonian or farsi iranian or finnish or french or georgian or german or greek or hebrew or hindi or hungarian or italian or japanese or korean or lithuanian or malaysian or nonenglish or norwegian or polish or portuguese or romanian or russian or serbian or serbo croatian or slovak or slovene or spanish or swedish or turkish or ukrainian or urdu) not English).lg.
15.	limit 14 to yr="2010 - 2023"

3.2 Selection Process (Eligibility Criteria)

Included studies examined one or a combination of the following: 1) factors affecting stress in single mothers, 2) relationship between stress and mental health disorders or symptomatology in single mothers, and 3) relationship between stress and parenting in single mothers. Exclusion criteria are outlined in the PRISMA flowchart in figure 1. A cutoff date of 2010 was chosen because the enactment of the Affordable Care Act that year represented a major overhaul of health and social services in the United States, and it was thought that single mothers likely have different

perspectives on sources of stress since this event. Of note, while this review does include articles that discuss single mother stress and parenting; child mental health studies were excluded as this review is primarily focused on single mothers, and studies that primarily focus on child mental health outcomes were considered beyond the scope of this review. Exclusion criteria are outlined in the PRISMA flowchart in figure 1. Articles were included if they did not meet any of the exclusion criteria, had a study population of single mothers, and reported outcomes of stress, mental health, or some combination of both in single mothers.

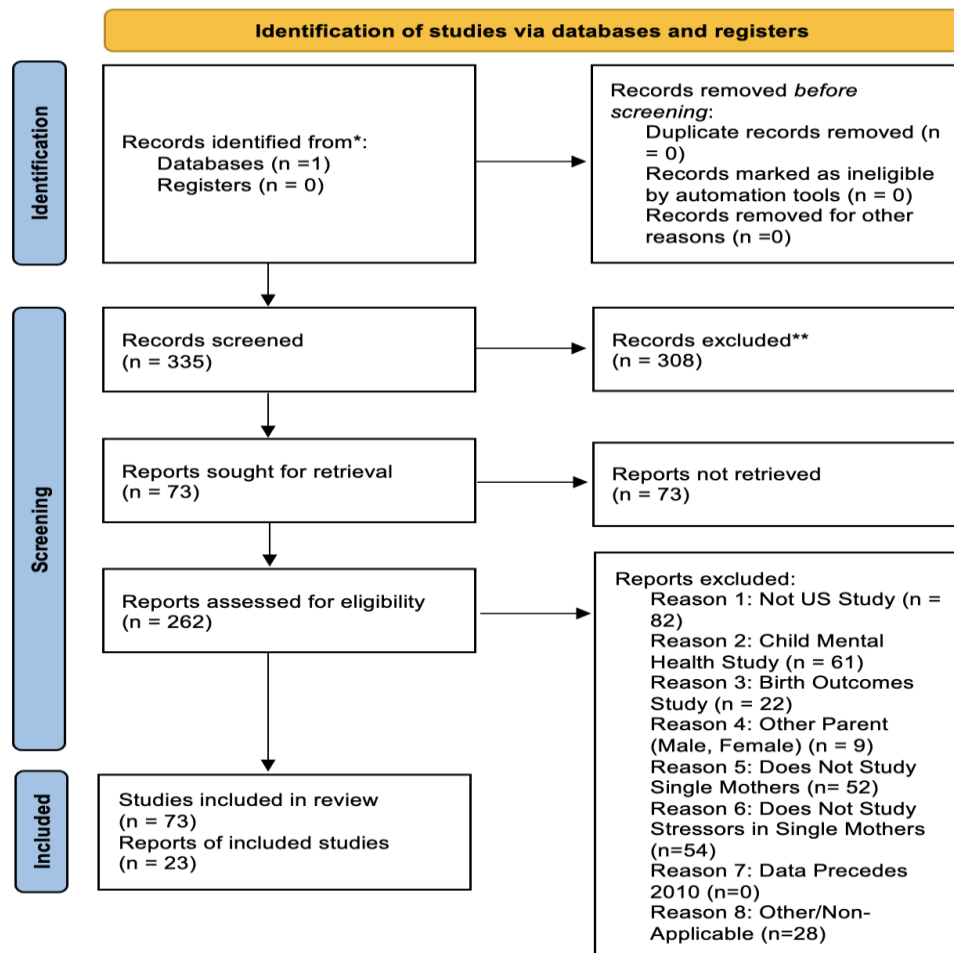


Figure 1: Identification of Studies via Databases and Registers

4.0 Results

A total of 24 articles were included for this results section. Of the 24 articles, 22 were observational studies using maternal stress and/or mental health as outcomes (table 2) and 2 described interventions in single mothers that used maternal mental health or parenting as outcomes. (table 3) Of the observational studies, study designs used in the included articles included longitudinal cohorts (N=13), cross-sectional (N=7), and case reports (N=2). Most of the studies examined single women only, while five studies also included married women as a comparison and one study also included several single grandmothers raising their grandchildren. 17 of the articles used some kind of measure for stress or mental health, each of them using tools taken or adapted from previous studies such as the Parenting Stress Index and CES-D. The remaining five articles used qualitative methods and reported results in narrative form. Studies that examined relationships between independent and dependent variables used methods such as regression analyses, structural equation modeling, and latent growth curve modeling to establish associations between variables.

Table 2: Observational Studies Included for Scoping Review (n=22)

Author, Year	Sample	Design	Stress or Mental Health Measure(s) Used	Key Findings
Adkins & Kamp-Dush, 2010	4,898 mothers, initially married but some becoming single	Cohort	Composite International Diagnostic Interview – Short Form (CIDI-SF)	Mothers who dissolved non-abusive unions had greater increases in depression over time than mothers who remained in non-abusive unions.
Atkins et al, 2020	210 black single mothers	Cross-Sectional	Qualitative	Financial stress, cognitive/mental stress, and parenting stress were the three most common answers given as contributors to depressed mood
Berryhill, 2018	528 single mothers	Cohort	Scale adapted from the Development Supplement of the Panel Study of Income Dynamics & Parenting Stress Index	Higher parenting stress at child aged 3 years decreased parental engagement at age 5 years. Higher parental engagement at age 5 years increased home-based school involvement at age 9 years
Berryhill & Durtschi, 2017	1,229 single mothers	Cohort	Parenting Stress Index	Initial parenting stress levels were predicted by initial levels of infants' negative emotionality. Work-family conflict and parental engagement were associated with parenting stress at child aged 1, 3, and 5 years.
Broussard et al, 2012	9 single mothers, 3 single grandmothers raising their grandchildren	Cross-sectional	Qualitative	Participants reported stress due to low-income status, poverty-related stigma, and lack of access to childcare. Social support, exercise, and volunteer work were identified as positive coping mechanisms
Dyches et al, 2016	122 single mothers of autistic children	Cross-sectional	Caregiver Burden Instrument, Hassles and Uplifts Scale	Respite care was associated with increased uplifts, but not decreased stress levels (as measured by caregiver burden and daily hassles)
Greenfield, 2011	1,118 single mothers	Cohort	Parenting Stress Scale adapted from the Child Development Supplement of the Panel Study of Income Dynamics	Intergenerational coresidency associated with decreasing parenting stress in Latina mothers, increasing parenting stress in black mothers, and no change in white mothers
Hardesty et al, 2019	135 divorcing mothers	Cohort	Quality of Coparental Communication scale, Harassment in Abusive Relationships: Self-report Scale	Postseparation stressors associated with more PTSD and depressive symptoms except in women whose relationships were characterized by coercive controlling violence. Social support did not diminish negative health effects of postseparation stressors.
Jackson et al, 2010	99 black single mothers	Cohort	Parenting Stress Index – Short Form	Higher parental stress, more frequent spanking, and less father-child contact were associated with increased teacher-reported behavior problems
Jackson et al, 2013	99 black single mothers	Cohort	Parenting Stress Index – Short Form	Nonresident fathers' presence had protective effects on maternal parenting stress and depressive symptoms. Greater availability of instrumental support from nonresident fathers was associated with more adequate parenting and fewer child behavioral problems.
Jackson et al, 2019	748 black single mothers	Cohort	Adapted Early Head Start Study Stress Scale	Maternal parenting stress and depressive symptoms were associated with harsh parenting. Father involvement was associated with reduced economic hardship, parenting stress, and harsh parenting. Harsh parenting was associated with behavior problems among sons of single mothers
Jaser et al, 2014	118 mothers, 25% of whom were single, of	Cross-sectional	Response to Stress Questionnaire	All mothers in the study reported some level of diabetes-related stress. Single mothers were more likely than married mothers to use

Table 2: Observational Studies Included for Scoping Review (n=22) (continued)

	adolescents with type 1 diabetes			disengagement coping strategies which were associated with more symptoms of anxiety and depression
Langlais et al, 2016	319 divorcing or recently divorced mothers	Cohort	Anderson & Greene's life satisfaction and negative affect surveys	Mothers entering high quality relationships had improved well-being than single mothers or mothers entering low quality relationships
Mallette et al, 2020	1,623 single mothers	Cohort	CIDI-SF, single-item life satisfaction assessment	Mothers who reported the steepest decreases in coparenting support over time reported lower levels of life satisfaction and more depressive symptoms
McCloskey & Pei, 2019	3,876 single mothers	Cross-sectional	Adapted HOME parenting stress scale	Higher reported neighborhood social cohesion associated with lower parenting stress, which was associated with lower maternal anxiety and depression
Mendez et al, 2016	1	Case report	Qualitative	Stressors highlighted among the single mother in this case report included poverty, rural isolation, and sexual orientation stigma
Mowen, 2017	17 single mothers	Cross-sectional	Qualitative	Increasingly punitive school discipline was cited as a stressor among single mothers due to financial consequences, increased familial friction, and anticipated future negative consequences
Mullins et al, 2010	383 mothers of children with chronic health conditions, 75 of which were single	Cross-sectional	Parenting Stress Index - Short Form	Single mothers had higher levels of perceived vulnerability and parenting stress than married parents, but not higher parental overprotection. These differences disappeared after controlling for income
Nelson et al, 2020	1 terminally ill mother	Case report	Qualitative	A terminally ill metastatic cancer patient experienced significant end of life stress due to unresolved child custody issues
Newkirk et al, 2020	95 mothers, 38 of which were single	Cohort	CES-D	Schedule flexibility was associated with less depressive symptoms among single mothers but not partnered mothers
Piontak, 2016	2,970 mothers, 1,086 single, 943 unmarried cohabitating, 941 married	Cohort	CIDI-SF	Living in multigenerational homes was associated with lower probability of depression in white single mothers, higher probability of depression in Latina single mothers, and no significant difference in black single mothers
Taylor et al, 2022	200 single mothers	Cohort	Major Stressful Life Events Questionnaire, Crisis in Family Systems Scale, Economic Pressure Scale, 8-item Depression Short Form, 8-item Anxiety Short Form	Increased stressors contributed to poor mental health concurrently and across time. There was an association between gratitude at T1 and reduced internalizing problems at T2

Table 3: Intervention Studies Included in Scoping Review (n=2)

Author, Year	Sample	Intervention	Key Findings
Acker et al, 2020	1 African American single mother and her preschool-aged daughter	Strong Families Strong Forces Home Visitation Program	Increased sense of parental confidence, stronger parent-child relationship
Richey & Pointer, 2021	1 single mother	Abbreviated CBT	Depression and anxiety fell to subclinical levels, increased confidence to advocate for herself at work, improved skill in establishing boundaries

4.1 Analysis of Sources

4.1.1 Stress and Mental Health Among Single Mothers

Several of the articles discussed stressors that single mothers commonly face. Some of these studies used cross-sectional designs or were case reports, others were cohort studies.

Atkins et al. (2020) examined self-reported stressors causing depressive symptoms in black single mothers who completed survey packets. The responses were categorized by if they fell under social/environmental contributors, or psychological contributors. They reported that 56.07% of mothers reported that financial stressors (e.g., “no money”, “tired of working hard and always broke”) contributed to their depressed mood, while 30.06% reported cognitive/mental stressors (“stress”, “overwhelmed”). Parenting stress was third most common with 21.97% of mothers reporting these causes.

Broussard et al (2012) conducted interviews with impoverished single mothers and single grandmothers raising grandchildren. The mothers commonly reported stress due to physical and mental health concerns. Most of the mothers reported having “debilitating” depression and cited deteriorating housing a cause of stress, with one mother reporting four recent moves trying to find Section 8 housing to accommodate her daughter with cerebral palsy. Stigma due to poverty was also an issue, with mothers describing being looked down on for being poor as well as humiliating experiences with social service workers. Finally, childcare was a common problem, with mothers unable to afford daycare making it difficult to search for a job.

One of the studies discussing risk factors associated with increased stress used a cohort design and followed single mothers longitudinally to track stress trajectories when children were age 1, 3, and 5. They found that there was an association between negative emotionality and parenting stress. Parents who perceived their infants as being fussier and more upset at age 1 had higher levels of initial parenting stress. Next, the higher that single mothers scored on work-family conflict, the higher levels of parenting stress they experienced at all three time points. Finally, mothers who had higher parental engagement tended to have less parenting stress at all time points. (Berryhill & Durtschi, 2017)

Another longitudinal study tracked recently divorced mothers in 3-month intervals over the course of one year. As single mothers adjust to being the sole provider after a divorce, coparenting conflict increases the risk of experiencing emotional distress. They found an association between increased postseparation stressors measured by harassment and quality of Coparental communication and higher levels of depression, PTSD, and physical health symptoms. However, interestingly, mothers who had been in coercive, controlling, violent relationships had a negative association between postseparation conflict and mental/physical health symptoms. (Hardesty et al,

2019) Adkins & Kamp-Dush (2010) also examined the effects of violent relationships on depression symptoms. They conducted a longitudinal study where interviews with mothers were conducted at child age newborn, 1 year, 3 years, and 5 years. They found that depressive symptoms increased in all groups of mothers over time, but the greatest increase in depressive symptoms was seen in mothers who remained in violent relationships, followed by; mothers who left violent unions, mothers who left non-abusive unions, mothers who remained in non-abusive unions, and mothers who remained in unions that were controlling but not abusive.

Dyches et al (2016) looked at single mothers raising children with autism spectrum disorder focusing on the impact of respite care on stress and depressive symptoms. Their findings indicate that while the amount of respite care received was associated with more daily uplifts (positive experiences), it was not associated with decreased levels of stress or depressive symptoms.

Two longitudinal cohort studies examined the effects of living in intergenerational homes while also examining if racial status would play a factor. Greenfield (2011) studied single mothers at child age newborn, 1 year, and 3 years and reported an association between intergenerational coresidency and decreased parenting stress among Latina mothers, but in black mothers' intergenerational co-residence was associated with increased parenting stress. Piontak (2016) conducted a nearly identical analysis on a larger sample but from the same original study as Greenfield, this time looking at maternal depression as a dependent variable. Intergenerational co-residence was associated with decreased probability of maternal depression in white single mothers, increased probability of depression in Latina single mothers, and no change in black single mothers.

One cross-sectional study looked at psychological distress and coping strategies in parents of diabetic children and contained both single and married parents. They found that the single

mothers were more likely than married mothers to use disengagement coping strategies such as avoidance and wishful thinking rather than primary or secondary control coping strategies like problem solving and acceptance. Furthermore, disengagement coping was associated with greater maternal distress measured by depressive and anxious symptoms. (Jaser et al, 2014)

Langlais et al (2016) studied a cohort of divorcing or recently divorced single mothers to examine the consequences of post-divorce dating on well-being. Using monthly surveys over the course of 24 months, they found that divorced mothers who entered high quality relationships had improved well-being (measured by life satisfaction and negative affect) than mothers who remained single or entered low-quality relationships. In addition, there was an association between life satisfaction and transitioning from single to cohabitating/married.

Mallette et al (2020) conducted a cohort study on unmarried mothers with interviews at child aged 1, 3, 5, and 9. They found that steeper decreases in father involvement and coparenting support from child aged 1 to 5 was associated with increased maternal depression at age 9. In addition, mothers who had entered into new romantic relationships reported lower levels of father involvement and coparenting support at child aged 1.

McCloskey (2019) examined the relationship between neighborhood cohesion, parenting stress, and depression and anxiety. They reported an association between higher perceived neighborhood cohesion and reduced parenting stress, which was also associated with decreased anxiety and depression.

The effects of criminalized school punishment for single mothers and their children were explored in one included study. Mowen (2017) performed interviews with single mothers who explained that harsher discipline practices in school have led to increased parenting stress due to emotional strain between parent and child as well as financial consequences from parents missing

work and potentially requiring legal representation for their children. Parents also reported less hope for the future due to anticipating negative consequences for their children down the line as a result of school discipline.

Newkirk et al (2020) conducted a longitudinal study where mothers were interviewed at the third trimester of pregnancy, child aged 1 month, 1 month after mothers returned to work, child age 6 months, and child age 1 year. There was an association between schedule flexibility and less increase in postpartum depression symptoms in single mothers. By contrast, schedule flexibility increased negative work-to-family spillover in partnered mothers and there was no significant effect on depression.

Taylor et al (2022) studies 200 single mothers and examined relationships between life stressors, internalizing problems, and gratitude as a personality trait. Mothers were interviewed in Fall 2019 (T1) and Summer 2020 (T2). They reported that life stressors at T1 were associated with internalizing problems (measured by anxiety and depression) at T2. Increased levels of gratitude at T1 were associated with reduced internalizing problems at T2. In addition, the researchers conducted a qualitative study on 22 of the study participants to gain a better grasp of specific stressors that were affecting these mothers during the COVID-19 pandemic. The four most common stressors cited were isolation, home-schooling, work stress, and worry about contracting COVID.

Two included articles consisted of case reports detailing single mothers and the stress that they experience. One single mother, who was described as a low-income sexual minority living in a rural area, reported socioeconomic difficulties, inability to afford childcare, and stigma at home and in the community due to her sexual orientation. (Mendez et al, 2016) A second case report described a terminally ill cancer patient who experienced significant end of life distress due to

unresolved custody issues with her daughter and spent the last days of her life filming video testimonials from her hospital bed attesting that her ex-husband was unfit to act as a parent. (Nelson et al, 2020)

Five articles discussed single mothers using parenting outcomes such as parenting quality scales, parental engagement, and rates of child problem behaviors. Mullins et al (2010) examined single-parent status and its association with multiple variables assessing parenting capacity. There was a comparison group of married parents. The results indicated an association between single motherhood and parenting stress as well as perceived child vulnerability, but no association between single parenthood and overprotection. Another study followed families longitudinally to examine relationships between parenting stress, parental engagement, and home-based school involvement among single mothers at child ages of 3, 5, and 9. There was a negative association between parenting stress at age 3 and parental engagement at age 5. There was a positive association between parental engagement at age 5 and home-based school involvement at age 9, as measured by activities such as helping their children with homework, reading books with them, and talking about current events. (Berryhill, 2018) Three longitudinal cohort studies with Jackson as the lead author examined a number of parenting outcomes in single mothers. Jackson (2010) assessed 99 single black mothers and the children at child aged 3, and then again 1-1.5 years later when the child was in Kindergarten. There was an association between parenting stress, more frequent spanking, and less frequent father-child contact at age 3 and behavioral problems at age 5 as reported by kindergarten teachers. Additionally, high father-child contact was a protective factor that muted the negative effect on spanking. Jackson (2013) assessed the effects of nonresidents fathers' involvement on maternal parenting stress and depression using data from the 2010 study. Increased paternal presence and instrumental support (as measured by mothers'

subjective assessment of having financial and childcare support available to them) were associated with decreased maternal parenting stress and increased maternal parenting quality at time 1, as well as decreased child behavioral problems at time 2. In a more extensive study, Jackson (2019) evaluated a different population of 748 black single mothers examining the relationships between maternal parenting stress, economic hardship, harsh parenting, paternal involvement, and child behavioral problems with encounters at child age newborn, 1, 3, 5, and 9. Economic hardship was associated with maternal parenting stress and depressive symptoms, which were associated with harsh parenting. Harsh parenting was associated with child behavioral problems at age 9. Paternal involvement was associated with decreased economic hardship and maternal parenting stress at child aged 3 and 5 as well as reduced harsh parenting and child behavioral problems at age 9.

4.1.2 Intervention Studies

Two articles discussed interventions in single mothers using maternal health or parenting outcomes. Acker et al (2020) is a pilot study describing the application of Strong Families Strong Forces, a home-based reintegration program designed to strength parent-child relationships and mitigate negative impacts associated with deployment separation and war exposure among servicemember parents. One single mother with symptoms of depression and PTSD after deployment reported increased sense of competence in parenting and improved parent-child relationship after completing the intervention.

Richey & Pointer (2021) is another pilot study which described the application of an abbreviated CBT course with a focus on gender-based equity and social justice. The subject described in the case was a healthcare worker and a single mother with significant depression and

anxiety symptoms. After the course of CBT, she demonstrated improvement in her depression and anxiety symptoms evidenced by lower scores on the PHQ-9 and GAD-7 assessments.

5.0 Discussion

One of the stated goals of this review was to identify common themes as it pertains to maternal stress and mental health problems in the literature. Commonly cited stressors include financial difficulties (Atkins et al, 2020) (Broussard et al, 2012) (Mowen 2017), parenting stress (Atkins et al, 2020) (Mullins, 2010), and stigma related to poverty or minority status. (Broussard et al, 2012) (Mendez et al, 2016)

Several studies attempted to identify potential protective factors. The factor that was most clearly and consistently associated with improved mental health outcomes in the reviewed articles was paternal involvement. Increased paternal involvement was associated with reduced maternal parenting stress and reduced behavioral problems in children of single mothers (Jackson et al 2010, 2013, & 2019) while decreased paternal involvement was associated with increased child behavioral problems and maternal depressive symptoms. (Jackson et al, 2010) (Mallette et al, 2020) Other factors found to be beneficial to single mothers in at least one study included perceived neighborhood social cohesion (McCloskey & Pei, 2019), transitioning from single motherhood to a high-quality relationship, (Langlais et al, 2016), and workplace schedule flexibility. (Newkirk et al, 2022)

Results were conflicting on the impact of intergenerational co-residence on maternal stress and mental health. Piontak et al (2016) reported that intergenerational coresidency reduced depression symptoms on the whole but racial status of the mothers affected these results, with lower probability of depression in white mothers and higher probability in Latina mothers. When Greenfield et al (2011) studied the same population of single mothers using a different measure (parenting stress rather than depression), the racial breakdown changed and Latina mothers in

intergenerational homes reported less parenting stress while black mothers reported more. These findings suggest that maternal racial status can play a complex modifying role in parenting stress and mental health symptomatology.

Several studies led to unexpected results when studying potential protective factors. Dyches et al (2016) found that increased respite care was not associated with decreased stress levels in single mothers of autistic children. Given that childcare issues and parenting stress were commonly-cited reasons for negative symptomatology in other studies, it would be expected that higher levels of respite care would be associated with decreased general stress levels. One possible explanation is that Dyches studied exclusively mothers of autistic children and so stressors reported in other studies involving mothers of non-disabled children may not be applicable to this study population. Similarly, Hardesty et al (2019) found that increased social support did not decrease depressive symptoms in single mothers with postseparation stressors.

Coping mechanisms also seem to play an important role. Mothers who engaged in positive coping mechanisms such as volunteer work (Broussard et al, 2012) and displaying higher levels of gratitude (Taylor et al, 2022) had beneficial effects on mental health while disengagement coping mechanisms were associated with more anxious and depressive symptoms. (Jaser et al, 2014)

Several studies examined the relationship of single mother mental health with parenting and child outcomes. There were consistent associations between higher maternal stress and harsh parenting, which in turn was associated with more child behavioral problems. (Jackson et al, 2010 & 2019) Berryhill (2018) also demonstrated that higher parenting stress early in a child's life led to single mothers being less engaged in their children's lives down the line.

Only two articles describing interventions were outlined in this review. Abbreviated CBT was associated with decreased depressive and anxious symptoms (Richey & Pointer, 2021), while the Strong Families home intervention program was reportedly associated with benefits although the authors did not mention using and pre- and post- treatment measures to substantiate that observation. (Acker et al, 2020)

5.1 Limitations

The scoping review was limited by a number of factors. The articles included in this review used correlation-based models without making attempts to conduct causal analysis, limiting the conclusions that can be made about these associations. The studies do not use experimental designs and it is possible that other confounding variables may be responsible for some of the correlations identified. There were several case reports and cross-sectional studies with small sample sizes. Finally, Berryhill (2018), Berryhill & Durtschi (2017), Greenfield (2011), Mallette et al (2020), McCloskey & Pei (2019), and Piontak (2016) all used study data from the Fragile Families and Child Wellbeing study. With many of the articles in this review using data from the same group of patients there are questions as to the generalizability of the conclusions made.

5.2 Future Directions

5.2.1 Interventions for Single Mothers

There is a dearth of literature on the subject of interventions for single mothers. This literature search identified only two articles, both pilot studies with a sample size of 1. Seeing as how a significant amount of the research identified and outlined in this review focuses on the negative consequences of parenting stress, it would be helpful to see how interventions such as cognitive behavioral therapy and mindfulness exercises might affect levels of parenting stress as well as parental depression/anxiety symptomatology.

5.2.2 Racial Background as a Modifying Factor

Greenfield (2011) and Piontak (2013) found that differences in race between single mothers affected the direction of the association between intergenerational coresidency and parenting stress as well as maternal depression. This indicates a potential relationship between social and cultural backgrounds and positive/negative perception of life circumstances. Future research should further explore this dynamic as it may have implications for how potential interventions may be perceived differently by mothers of different race.

6.0 Conclusion & Future Directions

In conclusion, this scoping review discussed 24 articles pertaining to stress and mental health among single mothers. By analyzing a combination of studies, this review provides insight into some of the common stressors that single mothers face and the consequences of those issues on a generation of children largely being raised in single-parent homes.

More studies need to be done on interventions for improving stress and mental health outcomes in single mothers. Only two articles describing interventions were identified in this review. These pilot studies could and should be expanded upon in more robust study designs such as randomized controlled trials.

On a societal level, improving conditions for single mothers and children is a huge challenge that will require concerted action on many fronts, both in terms of public policy and beyond. Social programs should be reformed to help address the common problems that single mothers face, such as providing childcare vouchers so that mothers are able to look for a job without wondering who is going to watch their child.

In order to improve parenting capacity in single mothers, funding should be increased for home visiting programs that have been shown to increase parenting capabilities. The U.S. Department of Health & Human Services has identified 20 evidence-based home visiting programs that are eligible for federal funding under the Maternal, Infant, and Early Childhood Home Visiting program (MIECHV) established under the Affordable Care Act. These programs provide services to families that are low-income or otherwise high risk and have been shown to improve the capacities of caregivers and families (Condon, 2019). However, as of 2018, only 4 of these programs are being utilized in the majority of states (Condon). These programs represent an

opportunity to expand services available to low-income families and states should begin developing infrastructure to support new home visiting services that are not currently being utilized.

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