

ABSTRACT

Socioeconomic Inequalities and Mothers' Mental Health: Current and Future Implications for Sociological Research

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In sociological research, numerous studies document strong associations between socioeconomic status and mental or physical health. At the same time, mothers represent a vulnerable and distinct population group, and research into how socioeconomic status is related to health among mothers is far more limited. Given this important knowledge gap, the current thesis aims to uncover and organize current research into socioeconomic health inequalities among mothers by conducting a systematic, query-driven review of the literature regarding socioeconomic status and mothers' mental health. Drawing on articles from six of the leading sociological journals, common frameworks, methodologies, and findings are identified and organized. Particular attention is given to the relationship between work-family conflict and health. After examining the quantity and nature of the existing research into socioeconomic disparities in health among mothers, the thesis considers key strengths and weaknesses of the most common sociological approaches. It concludes by drawing on selected examples of non-sociological research into mothers' mental health, specifically depression during and immediately following pregnancy, to help inspire some potential next steps for sociological science.

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SOCIOECONOMIC INEQUALITIES AND MOTHERS' MENTAL HEALTH:
CURRENT AND FUTURE IMPLICATIONS FOR SOCIOLOGICAL RESEARCH

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CHAPTER ONE

Introduction and Methods

Introduction

Sociological science has emphasized and documented the correlation between health and socioeconomic status (SES). In the *American Journal of Sociology* alone, a search of “health” and “socioeconomic status” yields 83 search results. However, there are various facets of both and socioeconomic status, thereby creating a myriad of complex relationships to be explored in this field. One such area is health and socioeconomic status among health mothers. The current thesis aims to identify and organize current and future implications for this topical area, by using a systematic, query-driven review of the relevant sociological literature.

Mothers are a particularly vulnerable population, making it likely that socioeconomic status would carry distinct meanings and consequences for mothers and their health. Women in general are vulnerable due to systematic disparities such as the gender wage gap and traditional household duties. Mothers, particularly mothers employed outside the home, face these disparities as well as additional challenges that come with raising a child (Budig and Hodges, 2010, p. 705). For example, mothers in the work force may face barriers to adequate breastfeeding such as lack of time or privacy (Hedberg, 2013, 245-246). This may raise the risk of maternal depression, as well as potentially give the baby a variety of negative health outcomes. Adequate breastfeeding presents a major potential source of stress and health issues, even while the mother baby

dyad is still in the hospital because not all hospitals are designated as baby friendly hospitals. Inadequate breastfeeding support may put mothers at risk issues with bonding with their baby and a myriad of health issues that follow that. For example, breastfeeding reduces risk of “respiratory tract infections, otitis media, sudden infant death syndrome...and breast and ovarian cancers” (Hedberg, 2013, p. 245). Furthermore, mothers in the US face high maternal mortality rates compared to other developed countries. In fact, studies find that “while maternal mortality ratios have decreased 48% in developed nations...maternal deaths in the United States have more than doubled...from 1990 to 2003” (Troiano & Witcher, 2018, p. 222). This can be attributed to various issues such as access to care, and medical complications (Troiano & Witcher, 2018, p. 224-227). Mothers may also face discrimination in hiring practices due to the idea that a mother will spend less time at work than a father or woman who is not a mother. Additionally, children present a time commitment, which may make a mother feel as if she has less autonomy over her schedule. All of these are risk factors for mental health problems, which is why I choose to focus on this connection. I also find that it is important to study mothers as a distinct population because of these potential stressors. Mothers are a vital part of our society because they shape future generations. Therefore, this field ought to have an understanding of barriers and challenges mothers face relating to their status as a mother.

Data and Methods

In order to know the current state of sociological research on motherhood, health, and SES, a thorough literature search was performed among leading journals in the

sociological sciences that publish work on SES and health. These journals were the *American Journal of Sociology* (AJS), the *American Sociological Review* (ASR), the *Journal of Marriage and Family* (JMF), the *Journal of Health and Social Behavior* (JHSB), *Society and Mental Health* (SMH), and *Social Forces* (SF). These six leading journals were chosen due to several factors such as high impact factor, reputation, and fair representation of current research.

Search queries used on these six journals can be found in Table 1. These search queries were chosen in order to maximize relevant results. All were utilized directly on the corresponding journal websites. The initial aim was to locate literature on socioeconomic correlates of mothers' mental health. However, after an initial search using queries one and two was conducted, the gap in the literature on this topic was increasingly evident. Therefore, search queries were broadened to include a generalized "health" in attempt to quantify and characterize existing literature on mothers' health. After a range of search queries using various combinations of "mother", "mental health", "socioeconomic status", "health", and "postpartum depression" was tested for hits in each of the journals, one pattern that appeared was a link of work-family conflict (WFC) as a mediator of the relationship between motherhood and health. Additionally, there were several articles on WFC as a mediator of the relationship between a more generalized "parenthood" and health. The prevalence of these articles indicated a primary means by which sociologists consider motherhood and health, so I decided to include this in our study as such. WFC may also be a measure of SES, as WFC is closely related to job flexibility and hours, which can differ across the socioeconomic gradient. Therefore, it seemed unnecessary to include an additional search term of "socioeconomic status" in the

fifth search query. The final search queries were devised to capture literature pertaining to mothers' mental health and socioeconomic status, both with and without attention to WFC. These were used to find relevant articles in all journals to maintain uniformity. These journals were not "and" or "+" exclusive.

Search Queries
1. "Mother mental health" + "Socioeconomic status"
2. "Mental health" + "mother"
3. "Socioeconomic status" + "mother" + "health"
4. "Parenthood" + "health"
5. "work family conflict" "health" "mother"

Table 1: Final Search Queries Used to Conduct Systematic Literature Review

Every search query produced significantly more hits than relevant articles. This may reflect lessened sensitivity to the queries or articles that focused on additional topics such as child's health. A total of 7,845 hits were garnered throughout the six journals. The abstracts for each hit were read to assess for pertinent information and those which investigated relevant correlations were saved. However, one caveat is that there were a few articles, particularly in the *American Journal of Sociology*, to which Baylor University did not have access. This presents a potential lack of information. However, this represents a relatively low number of articles. The number of hits per search query per journal is given in Table 2.

<u>Journal</u>	<u>Query 1</u>	<u>Query 2</u>	<u>Query 3</u>	<u>Query 4</u>	<u>Query 5</u>
	"Mother mental health" + "Socioeconomic status"	"Mental health" + "mother"	"Socioeconomic status" + "mother" + "health"	"Parenthood" + "health"	"work family conflict" "health" "mother"
AJS	127	373	144	521	169
ASR	54	82	97	219	90
JHSB	117	139	153	293	73
JMF	290	495	617	1256	641
SMH	20	36	20	69	26
SF	169	506	352	260	437
total	777	1631	1383	2618	1436

Key
AJS: American Journal of Sociology
ASR: American Sociological Review
JHSB: Journal of Health and Social Behavior
JMF: Journal of Marriage and Family
SF: Social Forces
SMH: Society and Mental Health

Table 2: Query Results by Leading Sociological Journal and Search Query Used

Variation in the number of hits per search query in each journal may be attributed to more specific focuses of *Society and Mental Health* and the *Journal of Marriage and Family*. Specifically, the markedly lower number of hits for all search queries in *Society and Mental Health* may be ascribed to the narrower focus of the journal. Furthermore, *Society and Mental Health* is a relatively new journal compared to the others, so the lower number of hits may be attributed in part to simply not having as many published articles. Despite this variation, some patterns can be identified. In all of the journals besides *Social Forces*, the search query "parenthood" + "health" had the most hits. This may be because it is the broadest of the queries, including both mothers and fathers as well as physical health and mental health. Furthermore, most journals demonstrate a rise in hits throughout the first four queries and a drop in hits on the fifth. This follows from the fact that the fifth query, "work family conflict" + "health" + "mother", is the most specific query.

After screening hits for topical relevance, a total of 69 relevant articles remained. They were distributed fairly evenly across the six journals. The *American Journal of Sociology* yielded 11 articles, the *American Sociological Review* yielded 8, The *Journal of Health and Social Behavior* yielded 13, the *Journal of Marriage and Family* yielded 13, *Society and Mental Health* yielded 14, and *Social Forces* yielded 10. The applicable articles were sorted by journal, and then organized by subject area. There were four main distinct subject areas: motherhood, health, SES, and work-family conflict, leading to seven various combinations of two or three of these topics. These are shown below in Table 3. An “other” category was introduced for articles that did not cleanly fit into one of the subject areas.

Motherhood and SES	5	AJS-2, ASR-1, SF-2
Motherhood and Mental Health	4	AJS-1, JHSB-1, SF-1, SMH-1
Motherhood, Mental Health, and SES	10	AJS-1, ASR-1, JHSB-4, JMF-2, SMH-2
Health and SES	14	AJS-3, JHSB-3, SF-2, SMH-6
Work-Family Conflict and Health	12	AJS-2, ASR-1, JHSB-1, JMF-4, SF-1, SMH-3
Work-Family Conflict and SES	4	ASR-2, JMF-1, SF-1
Work-Family Conflict, SES, and Health	13	ASR-1, JHSB-3, JMF-5, SF-2, SMH-2
Other	7	AJS-2, ASR-2, JHSB-1, JMF-1, SF-1
Key		
AJS: American Journal of Sociology		
ASR: American Sociological Review		
JHSB: Journal of Health and Social Behavior		
JMF: Journal of Marriage and Family		
SF: Social Forces		
SMH: Society and Mental Health		

Table 3: Relevant Query Results by General Subject Area

The current thesis focuses on two core subject areas—“Motherhood, Mental Health, and SES” and “Work-Family Conflict and Health”—because the intersections of the components of these areas is the most pertinent to the goals of this thesis. In other words, these two core areas come closest to capturing the intended subject of this thesis.

These core areas are indicated in bold font above in Table 3. All six leading journals are represented in these two core areas.

Overview of Thesis Chapters

For these core areas, a deeper analysis of the articles is performed in Chapter 2 (Motherhood, Mental Health, and SES) and Chapter 3 (Work-Family Conflict and Health). Each chapter begins with a diagrammed overview of how all articles in the core subject area are related conceptually. Then, each chapter proceeds along specific paths within the diagram, constructing the interrelationships among the articles piece-by-piece. Along the way, key measures and findings are indicated for each article. In addition, one exemplary article is chosen from “Motherhood, Mental Health, and SES” to summarize in depth, in order to provide a greater understanding of the state-of-the-art of current literature on this topic. With regards to “Work-Family Conflict and SES,” two exemplary articles were chosen to summarize because they are both exemplary in different ways. These two articles complement one another to provide a more holistic view of the current literature. Exemplary articles were chosen on the basis of clear organization, covering the intersection of all components well, and contribution to future research.

Across this introductory chapter and Chapters 2 and 3, this thesis aims to answer two questions: “How often is mothers’ mental health and socioeconomic status studied by sociologists, and in what ways?” (this chapter, Chapter 1) and “What are the methods used and findings obtained by sociologists, and what are the strengths and weaknesses of these research patterns?” (Chapters 2 and 3). Chapter 1 has provided a macro-level view of the nature and amount of literature on mothers’ mental health and SES in leading

sociology journals — which is relevant to the answering the first question. Building on the articles and subject areas obtained in this chapter, I now move forward to answer the second question concerning sociological research practices and findings in Chapters 2 and 3. The following chapters address the content of these core subareas in order to examine what we know about mothers' mental health and socioeconomic status and how we arrived at this information. Chapter 4 serves as a discussion and conclusion, by reviewing the main findings of the thesis and offering a detailed discussion of strengths, weaknesses, and next steps for each of the two core subject areas, as well as an overview of some limitations of the systematic, query-driven methodology of the present thesis. Drawing on recent research into postpartum depression and other current issues related to mothers' health, Chapter 4 also helps identify promising directions for new or groundbreaking research into the sociology of socioeconomic health disparities among mothers.

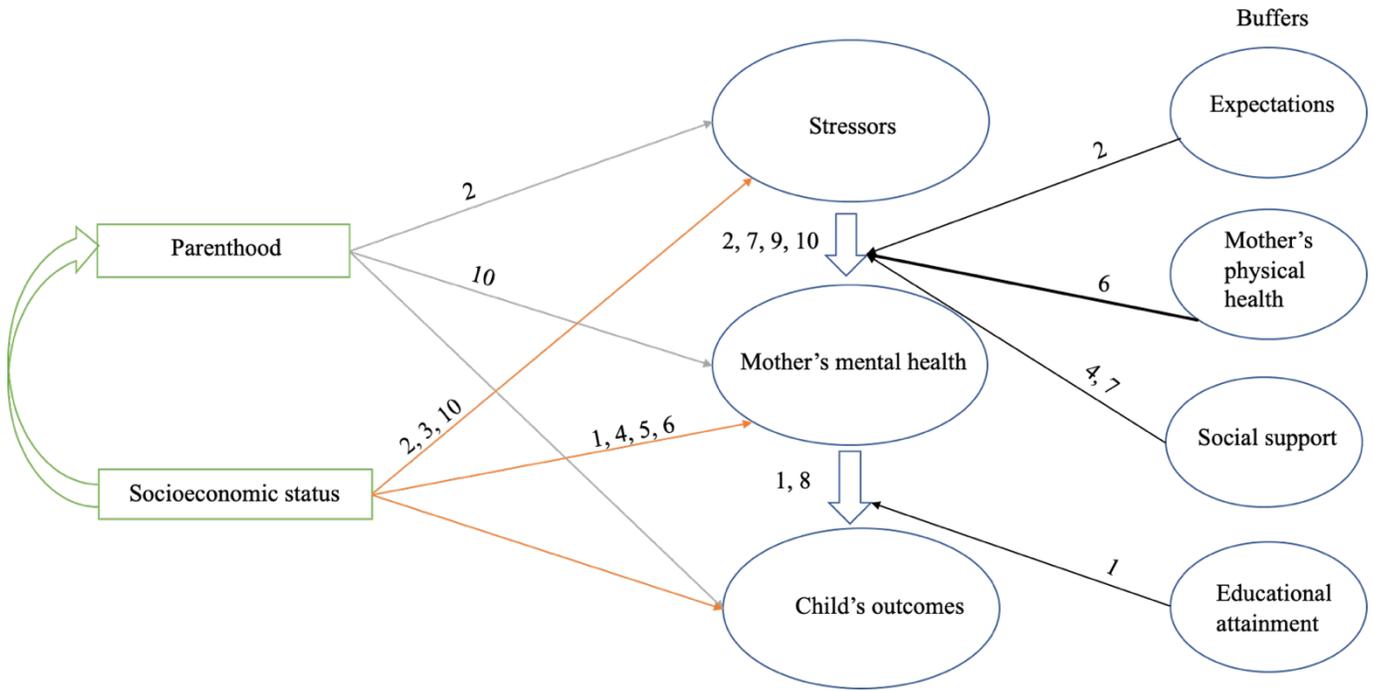
CHAPTER TWO

Motherhood, Mental Health, and Socioeconomic Status

As stated in Chapter 1, there were 10 articles regarding the relationship between motherhood, mental health, and SES. The 10 articles examine various relationships within this in different ways, which will be discussed in this chapter. Relationships addressed in each article are summarized in Figure 1, a diagram which illustrates different findings of relevant articles and how they relate to motherhood, mental health, and SES. Relationships were only included in the diagram if they were studied directly by the authors rather than simply mentioned or suggested.

As seen in the diagram, parenthood is assumed to have some correlation with SES. Both of these are related to stressors and mothers' mental health in some fashion. A relationship between stressors and mothers' mental health may be noted in some articles as well. In turn, mothers' mental health may be related to child's outcomes. Findings among these articles only discuss child's outcomes through mothers' mental health, but mothers' mental health may be discussed pertaining to stressors, parenthood, or SES. Finally, there are several buffers that moderate the relationship between stressors and mothers' mental health or mothers' mental health and child's outcomes.

Figure 1: Associations among Motherhood, Mental Health, and Socioeconomic Status



Note. Numbers on arrow paths refer to the enumerated articles covered in this chapter.

Table 4: Overview of Articles on Motherhood, Mental Health, and Socioeconomic Status

Author(s)	Title	Key Measures	Data and Methods	Key Findings
1. Augustine and Crosnoe (Journal of Health and Social Behavior)	Mothers' Depression and Educational Attainment and their Children's Academic Trajectories	<ul style="list-style-type: none"> ⊞ Academic achievement ⊞ Maternal depression ⊞ Maternal education 	<ul style="list-style-type: none"> ⊞ Data from the National Institute of Child Health and Human Development's Study of Early Child Care and Youth Development ⊞ 1,012 children followed from birth through high school in ten U.S. cities 	<ul style="list-style-type: none"> ⊞ Mother's education level moderates the association between maternal depression and children's achievement ⊞ lower maternal education levels associated with significantly higher levels of depression when children were 54 months old ⊞ the learning of children was only vulnerable to their mother's depression if the mother had a high school degree of less
2. Carlson and Williams (Society and Mental Health)	Parenthood, Life Course Expectations, and Mental Health	<ul style="list-style-type: none"> ⊞ Depressive symptoms ⊞ Expected age of marriage ⊞ Age at first birth ⊞ Premarital first birth ⊞ Expected premarital first birth 	<ul style="list-style-type: none"> ⊞ Used data from the National Longitudinal Survey of Youth 1979 ⊞ 4,468 individuals included in this study ⊞ Limited to African Americans, Hispanics, and non-Hispanic white parents 	<ul style="list-style-type: none"> ⊞ Deviating from expectations of birth timing is associated with increased distress at all birth ages ⊞ African Americans and Hispanics had an increased likelihood of both expecting and having a premarital first birth compared to non-Hispanic whites ⊞ Premarital first birth associated with higher levels of depression compared to post-marital first births ⊞ Negative consequences of premarital births on mental health at age 40 appear to be resolved if that premarital birth was expected
3. Nomaguchi and House (Journal of Health and Social Behavior)	Racial-Ethnic Disparities in Maternal Parenting Stress: The Role of structural Disadvantages and Parenting Values	<ul style="list-style-type: none"> ⊞ Self-rated parenting stress ⊞ Race-ethnicity ⊞ Nativity ⊞ Mother's age ⊞ Number of children in household ⊞ Single mother status ⊞ Family income ⊞ Mother's employment status ⊞ Mother's education ⊞ Self-rated parenting values 	<ul style="list-style-type: none"> ⊞ Data from the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 ⊞ Children followed through eighth grade 	<ul style="list-style-type: none"> ⊞ While non-white race tended to be associated with increased maternal parenting stress, American-Indian mothers were shown to have less parenting stress than U.S.-born white mothers ⊞ Foreign-born black mothers shown to generally face less structural barriers than U.S.-born black mothers ⊞ Greater parenting stress among black mothers than white mothers may be attributed to more authoritarian parenting values and structural factors ⊞ Black mothers tend to experience and increase in parenting stress from kindergarten to third grade; this increase is not seem among mothers in other racial-ethnic groups
4. Odom and Vernon-Feagans (Journal of Marriage and Family)	Buffers of Racial Discrimination: Links with Depression Among Rural African American Mothers	<ul style="list-style-type: none"> ⊞ Maternal education ⊞ Number of children in household under age 5 ⊞ Marital status ⊞ Employment status ⊞ Economic strain ⊞ Negative life events ⊞ Perceived racial discrimination ⊞ Optimism ⊞ Depression ⊞ Church-based social support 	<ul style="list-style-type: none"> ⊞ Data from the Family Life Project ⊞ Babies born to mothers in one of six low-wealth, rural counties in North Carolina and Pennsylvania between 2003 and 2004 ⊞ Mothers must be African American or Black 	<ul style="list-style-type: none"> ⊞ Maternal depression associated with economic strain, previous depression, higher number of negative life events, increased perceived racial discrimination, and being unmarried ⊞ Even with higher levels of perceived discrimination, optimism and church-based support buffer mothers from higher levels of depression
5. Samuels, Fowler, Ault-Brutus, Tang, & Marcal (American Journal of Sociology)	Time-Limited Case Management for Homeless Mothers With Mental Health Problems: Effects on Maternal Mental Health	<ul style="list-style-type: none"> ⊞ Homelessness ⊞ Mental illness 	<ul style="list-style-type: none"> ⊞ 223 families ⊞ Single mothers living with children ⊞ Meet Axis I criteria for diagnosis of mental illness ⊞ County outside New York City ⊞ November 2001-February 2004 with follow-up interviews at 3, 9, and 15 months past home placement 	<ul style="list-style-type: none"> ⊞ Family Critical Time Intervention did not significantly reduce mental health problems over time compared to the control group ⊞ Amount of time spent in a homeless shelter before connecting with affordable housing did not relate with maternal mental health status ⊞ Access to affordable housing is associated with significant improvements in mental health over time among mothers with high levels of distress

6. Spence, Adkins, & Dupre (Journal of Health and Social Behavior)	Racial Differences in Depression Trajectories among Older Women: Socioeconomic, Family, and Health Influences	<ul style="list-style-type: none"> ☞ Depressive symptoms ☞ Race ☞ Physical health ☞ Educational attainment ☞ Income ☞ Home ownership ☞ Family status 	<ul style="list-style-type: none"> ☞ Data from the National Longitudinal Survey of Mature Women ☞ Civilian, noninstitutionalized women aged 30-44 in 1967 and followed them until 2003 	<ul style="list-style-type: none"> ☞ In middle to late life, black women tended to report higher levels of depressive symptoms than white women ☞ Physical health shown to reduce racial differences in depression ☞ Racial differences in depression can be attributed to differences in socioeconomic status ☞ No difference in the effects of parental status by race
7. Turner, Sorenson, & Turner (Journal of Marriage and Family)	Social Contingencies in Mental Health: A Seven-Year Follow-Up Study of Teenage Mothers	<ul style="list-style-type: none"> ☞ Psychological adaptation in terms of depressive symptoms ☞ Social stress ☞ Personal resources ☞ Social support 	<ul style="list-style-type: none"> ☞ Pregnant adolescents in southwestern Ontario recruited between 1983 and 1986 ☞ Study conducted in-person interviews at three different times ☞ 213 mothers completed all three interviews 	<ul style="list-style-type: none"> ☞ Social stress and social and personal resources largely accounted for the observed differences in depression ☞ The teenage mothers in this study were found to be likely to have divorced parents and have experienced physical abuse by a parent compared to their age-matched peers ☞ Variability in depressive symptoms can be attributed to social stress to a much greater degree than previous research has suggested
8. Turney (Journal of Health and Social Behavior)	Maternal Depression and Childhood Health Inequalities	<ul style="list-style-type: none"> ☞ Family instability ☞ Maternal depression ☞ Educational attainment ☞ Income-to-poverty ratio ☞ Children's health insurance status ☞ Child's general health ☞ Health and health behaviors 	<ul style="list-style-type: none"> ☞ Data from the Fragile Families and Child Wellbeing Study ☞ Child's health rates by mother on a scale of 1-4 ☞ Maternal depression measured by the Composite International Diagnostic Interview Short Form 	<ul style="list-style-type: none"> ☞ Recurrent or chronic depression among mothers puts children at risk of having unfavorable health at age 5 ☞ Socioeconomic status linked to maternal depression and children's health ☞ Children with mothers suffering from depression are less likely to utilize preventative care and more likely to use acute care
9. Wildeman, Schnittker, & Turney (American Sociological Review)	Despair by Association? The Mental Health of Mothers with Children by Recently Incarcerated Fathers	<ul style="list-style-type: none"> ☞ Paternal incarceration ☞ Depression and life satisfaction to measure maternal mental health 	<ul style="list-style-type: none"> ☞ Data from the Fragile Families and Child Wellbeing Study ☞ N=3,826 ☞ Depression measured by logistic regression models and life dissatisfaction measured by ordinary least square models 	<ul style="list-style-type: none"> ☞ Paternal incarceration associated with increased risk of major depression and life dissatisfaction among mothers ☞ negative effects of paternal incarceration reflect detrimental effects of incarceration
10. Williams and Cheadle (Society and Mental Health)	Economic Hardship, Parents' Depression, and Relationship Distress among Couples With Young Children	<ul style="list-style-type: none"> ☞ Depression ☞ Economic hardship ☞ Relationship distress ☞ Financial support ☞ Marital status 	<ul style="list-style-type: none"> ☞ Used data from the Fragile Families and Child Well-being Study ☞ Limited to biological mother and father of the child who were living together at the one-year follow up ☞ Final sample of 1,493 couples who were together for all three survey years 	<ul style="list-style-type: none"> ☞ Cycle of economic hardship increasing depression, then depression increasing economic hardship ☞ Cohabitation associated with higher levels of depression than marriage among mothers ☞ No reciprocal effects between economic hardship and depression for fathers

Note. Nomaguchi and House, marked in gold, is covered in detail as an exemplary article.

Parenthood and Stressors

Carlson and Williams (2011) investigate the relationship between parenthood, specifically the time when one becomes a parent, and depressive symptoms. This is examined using data from a nationally representative sample of thousands of U.S youths in 1979. It recorded interview responses annually from these youth until they turned 40 (Carlson and Williams, 2011, p. 24). Since they examine parenthood as a stressor, I categorized this article as examining the relationship between parenthood and stressors in addition to the relationship between stressors and mental health. Though Carlson and Williams (2011) do broadly state that they aim to examine mental health, depressive symptomology is the main usage of this. This was measured using a “seven-item version of the CES-D scale” (p. 24) at age 40. SES was measured by race and gender in this study. The primary goal of this study was to examine how expectations of the timing of a first birth impact mental health at parenthood. Timing was measured by age of first birth and premarital first birth. Additionally, questions regarding when the respondent would like to marry, give birth, and how many children the respondent would ideally have were asked. Carlson and Williams (2011) stratified their sample by race. They found that African Americans and Hispanics were both more likely to expect and have a premarital first birth than non-Hispanic whites (Carlson and Williams, 2011, p. 26). Furthermore, Carlson and Williams (2011) found that “those who have a premarital first birth exhibit more depressive symptoms than those who did not” (p. 26). However, further findings indicate that expectations of a premarital first birth may be protective against depressive symptoms that are associated with such a birth (Carlson and Williams, 2011, p 34). This study views parenthood as a source of stress, particularly when parenthood is associated

with young age and premarital status. Effects of this stressor may vary along racial and gender lines, in part due to differing expectations regarding first birth in these different groups. This study is important because it identifies a potential buffer for the relationship between parenthood and stress. It also incorporates SES by investigating how expectations and mental health outcomes may vary by race.

Parenthood and Mothers' Mental Health

One article examined the relationship between being a parent and mothers' mental health. However, it did not do this by comparing parents to non-parents. Rather, Williams and Cheadle (2015) examine the relationship between parenthood and depression by measuring depression one, three, and five years after the birth of a child (p. 73). In using the event of parenthood as a benchmark for mothers' mental health, the authors are able to observe changes in mental health related to motherhood. Though they measure depression in both mothers and fathers, they separate results by sex, allowing us to isolate the data pertaining to mothers. Data is taken from the Fragile Families and Child Well-being study (FFCW), which is a nationally representative sample. Depression was measured using the Composite International Diagnostic Interview—Short Form for Major Depression (Williams & Cheadle, 2015, p. 76-77). It is difficult to separate their findings regarding parenthood and depression from ones also including SES because they use SES as a factor that influences depression. However, they find that “increasing access to mental health treatment and services for mothers after birth may be valuable both for helping mothers' well-being and families' economic conditions over the critical early years of their children's lives” (Williams & Cheadle, 2015, p. 83). Williams and Cheadle

(2015) also find differences in levels of depression among mothers and fathers, which supports the theory that mothers are more vulnerable than fathers in certain respects, such as economic opportunity. They write that “for mothers, economic hardship and maternal depression are related in a reciprocal fashion that may lead to perpetual disadvantage” (Williams & Cheadle, 2015, p. 84).

Socioeconomic Status and Stressors

Three articles examined the relationship between SES and stressors. The authors measure SES and stressors in several different ways. Carlson and Williams (2016) measure SES by race and use the birth of a child as a stressor. Building on previous literature that claims that “having children prior to marriage and at a young age has significant costs for the mental health of the average adult”, Carlson and Williams (2016) find evidence that suggests that “for African Americans, any negative consequences of premarital parenthood for mental health at age 40 appear to be completely ameliorated by having expected a premarital first birth” (p. 34).

Secondly, Nomaguchi and House (2013) use race and ethnicity as a measure of SES and investigate how parenting stress differs among various racial-ethnic groups. Each of the racial ethnic groups is compared to white mothers. Nativity is also factored into their analysis as a measure of SES. Interestingly, factors such as mothers’ marital status, employment status, and educational attainment were measured as “structural conditions” rather than SES (Nomaguchi and House, 2013, p. 391). They find that there are racial disparities in stress levels, particularly between U.S.-born black mothers and U.S.-born white mothers, even when controlling to structural disadvantages (Nomaguchi and

House, 2013, p. 399). They also find that there are different race-nativity combinations for each minority group that face higher parenting stress than U.S.-born white mothers (Nomaguchi and House, 2013, p. 400). Details of these results are further examined in the next section of the thesis, where this article is analyzed as an exemplar of the current research.

Lastly, Williams and Cheadle (2015) measure SES as economic hardship, which they investigate specifically among parents living together in order to include both married and cohabiting couples (p. 76). Relationship distress and economic stress are used as the measure of stress in this study. The authors build on existing literature regarding the family stress theory, argues that “economic stress creates tension and frustration between intimate partners” (Williams & Cheadle, 2015, p. 75). Williams and Cheadle (2015) find that “parents who experience economic hardship after the birth of a child may be more vulnerable to economic stress” (p. 83) and “economic hardship increased relationship distress for both mothers and fathers” (p. 84). These findings increase support for family stress theory.

Socioeconomic Status and Mothers' Mental Health

Four articles investigate the relationship between SES and mothers' mental health. Augustine and Crosnoe (2010) use maternal educational attainment as a measure of SES and maternal depression as a measure of mothers' mental health. They measure maternal depression by having mothers complete the “my feelings” questionnaire at specific timepoints (Augustine & Crosnoe, 2010, p. 278). Maternal education is measured by highest level of degree attainment; however, the study did not factor potential degree

earning during the duration of the study (Augustine & Crosnoe, 2010, p. 278). In examining the relationship between educational attainment and depression, findings indicate that “greater levels of maternal education were associated with less depression among mothers” (Augustine & Crosnoe, 2010, p. 280). However, while Augustine and Crosnoe’s (2010) study makes this observation, the most critical points of this study relate this to child’s achievement, which will be discussed in a later section.

Second, Odom and Vernon-Feagans (2010) examine the depression among rural African American mothers. SES is measured as low-income status, residence in a rural county in the U.S., and African American race. This isolates a specific subset of the mother population known to be associated with low SES (Odom & Vernon-Feagans, 2010, p. 346). Mental health is measured as depressive symptoms. One important measure in this study is “perceived racial discrimination” (Odom & Vernon-Feagans, 2010, p. 351), which moderates the relationship between SES and depression. Odom and Vernon-Feagans (2010) find a significant positive relationship between SES and depression (p. 352). However, similar to the study by Augustine and Crosnoe (2010) this is not the primary finding and is simply used to provide a basis for further research findings, which will be discussed in another section of the thesis.

Samuels et al. (2015) measures SES by homelessness and mental health by mental illness. This study specifically investigated homeless mothers with mental health problems, again isolating a particularly vulnerable subset of mothers. This is an experimental study that researches the effects of a specific intervention, but also has general applications to the relationship between SES and mothers’ mental health. Findings indicate that “homeless mothers exhibiting elevated levels of distress upon entry

into the shelter system experienced significant improvements in mental health over time when provided access to affordable housing” (Samuels et al., 2015, p. 531).

Similar to the aforementioned articles, Spence et al. (2011) again use race as a measure of SES, but they compare various races and depression symptoms. This is the only study that included all women in its sample rather than just mothers. However, this article does investigate the how family status effects depression by race, and given that this study only sampled women, this means that conclusions regarding mothers may be drawn. I once again found that mothers’ mental health was measured by depression. Spence et al. (2011) find that “the effects of parental status characteristics do not differ significantly by race” (p. 452).

Stressors and Mothers’ Mental Health

Four articles document the relationship between stressors and mothers’ mental health. As previously mentioned, Carlson and Williams (2016) investigate first birth as a stressor and depressive symptoms as a measure of mental health. The main findings related to the relationship between this stressor and mothers’ mental health are that “those who had a premarital first birth exhibit more depressive symptoms than those who did not” (Carlson and Williams, 2016, p. 26) and “larger differences between expected age at first birth and actual age at first birth are associated with lower levels of mental health” (Carlson and Williams, 2016, p. 26). These findings lend support to the theory that first birth presents a particularly difficult stressor when at vulnerable times.

Turner et al. (2000) examine how the stressors affecting teenage motherhood relate to maternal depression. They examine stressors such as social stress and personal

resources. Relative to the urban community, they find an especially high lifetime exposure to adverse or traumatic events among teenage mothers, such as parental divorce, parental physical abuse, spousal infidelity or abuse, and loss or severe illness of own child. They find that such traumatic stress is an exceptionally important form of stress that contributes to depressive symptoms (Turner et al., 2000, p. 789).

Wildeman, Schnittker, and Turney (2012) use recent incarceration of fathers as a stressor on mothers. This study is important because this link is not well documented in sociological literature (Wildeman, Schnittker, & Turney, 2012, p. 216). This stressor is indicator of the larger stressor of family instability. Mothers' mental health is measured by depression and life dissatisfaction (Wildeman et al., 2012, p. 222). Wildeman et al. (2012) find that "recent paternal incarceration is significantly associated with a greater risk of depression" (p. 226). The authors attribute this association to selection and other paternal characteristics (Wildeman et al., 2012, p. 226).

As previously noted, Williams and Cheadle (2015) examine the stressor of economic hardship on parental depression. They find that economic hardship is associated with increased stress (Williams & Cheadle, 2015, p. 83-84). Additionally, "economic hardship and maternal depression are related in a reciprocal fashion that may lead to perpetual disadvantage" among mothers (Williams & Cheadle, 2015, p. 84). This conclusion is contrasted to findings for fathers, which suggest a less severe relationship between stress and mental health (Williams & Cheadle, 2015, p. 84).

Mothers' Mental Health and Child's Health

The last relationship examined is between mothers' mental health and child's outcomes. Given that child's health was not included in any of the search queries, it is surprising that two articles investigate this relationship.

One of the main goals of Augustine and Crosnoe's (2010) study was to explore how mothers' depression influences child's achievement. Child's achievement is measured by academic achievement in first, third, and fifth grades. Mathematics and language skills were tested at these time points (Augustine & Crosnoe, 2010, p. 277). Augustine and Crosnoe(2010) find that "maternal depression was only associated with child achievement for mothers with lower educational attainment" (p. 285). They also found evidence that the time when a child transitions to school is particularly vulnerable, as maternal depression affected child achievement among low SES mothers only during this time (Augustine & Crosnoe, 2016, p. 285). Furthermore, they find evidence that "the link between maternal depression and children's achievement was conditioned by maternal education" (Augustine & Crosnoe, 2016, p. 286).

As previously mentioned, Turney (2011) measured mothers' mental health by mothers' depression. Child outcomes are measured by childhood health inequalities. Child's general health is rated by mothers using a scale of one to four at one, three, and five year surveys (Turney, 2011, p. 317-318). Additionally, Turney (2011) measures child's health by asking about a history of asthma attacks, fever, or eczema in the past year (p. 318). Findings indicate that "maternal depression, particularly depression that is recurrent or chronic, puts children at risk of having unfavorable health when they are five years old" (Turney, 2011, p. 328).

Trends in Methodology

The search queries yielded ten articles spread throughout five journals pertaining specifically to motherhood, mental health, and socioeconomic status. Among these articles, there were several important trends in methodology that arose. Of the ten articles examined, only Samuels, Fowler, Ault-Brutus, Tang, and Marcal (2015) and Turner, Sorenson, and Turner (2000) utilized primary data collection to draw its conclusions. Samuels et al. (2015) randomized mothers entering homeless shelters with children less than 16 years old to a control group or to receive Family Critical Time Intervention (FCTI). Turner et al. (2000) conducted interviews with pregnant adolescents at three different timestamps. The remaining eight articles used existing data for their research. Of these, three studies utilized data from the Fragile Families and Child Wellbeing Study (FFCW), “a longitudinal survey of nearly 5,000 new and mostly unmarried parents in 20 U.S. cities that were stratified by labor market conditions, welfare generosity, and child support policies” (Turney, 2011, p. 317). All three of the studies chose to limit their sample from the FFCW based on the relationship(s) they aimed to investigate.

It is interesting to note that only three of the studies consider how mothers’ mental health moderates child’s mental health. Only two directly investigated this relationship, a third, article proposed a correlation between mothers’ mental health and child’s mental health. Turney (2011) and Augustine and Crosnoe (2010) used data from both mothers and their children, Turner et al. (2000) examines teenage mothers in light of their own status as a child to propose a correlation between teenage pregnancy and experiencing divorce or physical abuse during that time period. This reveals the diverse ways in which sociologists consider family structure and intergenerational socioeconomic inequalities.

The articles that examined socioeconomic disparities in mothers' mental health could also be organized by their samples and compared groups. The majority of the studies categorized under the topic of "Motherhood, Mental Health, and Socioeconomic Status" tend to only sample mothers and examine different correlations among mothers. Seven articles only sampled mothers, and five of those articles focused on identifying or determining the odds of a particular stressor or set of stressors. However, Carlson and Williams (2011) looked at both mothers and fathers. This allowed them to contrast differences in parenting stress by sex. They also examined the timing and expectations of parenthood. Similarly, Williams and Cheadle (2015) looked at mothers' and fathers' relationship distress. It is important to note that they did not limit the data to married couples, so cohabiting couples were included in this study. In both the Carlson and Williams study and the Williams and Cheadle study, the authors focus on potential stressors and how they influence mental health. Spence, Adkins, and Dupre (2011) take a different approach and further broaden their sample to include non-parents, therefore making parenthood a dependent rather than an independent variable. They used the National Longitudinal Survey of Mature Women to examine various relationships and correlations. This broad sample allowed them to compare parents and non-parents.

Trends in Key Measures

Trends may also be observed in the key measures of the studies. Five of the articles considered mothers' educational attainment as a measure of socioeconomic status. Additionally, it is interesting to note that maternal depression was a key measure in eight of the ten articles, despite the search queries not isolating depression as a

measure of mental health. This indicates that mental health is often thought about in terms of depression in sociological literature. Though Nomaguchi and House (2013) only measure stress, they do note that “parenting stress has negative consequences on mental health” (p. 386). Samuels et al. (2015) is the second study that does not measure depression specifically, but rather assesses mental health as several potential pathologies such as “somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism” (p. 524). While this focus on depression may be an accurate measure of mental health for many, it is important to note that this excludes other common mental illnesses that mothers may face, such as anxiety.

Buffering

One unique way to look at the relationship between motherhood, mental health, and socioeconomic status is through the lens of buffers. According to Lin, Woelfel, and Light (1985), “Buffering occurs when the direct relationship between stressors and illness varies as social support varies” (p. 251). There were three studies that identified buffers for the relationship between socioeconomic status and mothers’ mental health. Augustine and Crosnoe (2010) found that mothers’ education buffered the relationship between maternal mental health and child’s achievement. They term this a “double disadvantage” that negatively and disproportionately influences the children of less-educated mothers, thereby perpetuating intergenerational transmissions of inequality. Augustine and Crosnoe (2010) attribute this buffering effect to participation in activities such as home

learning games, which is seen to a higher degree in the children of more educated mothers (p. 286).

Carlson and Williams (2011) found that expectations of a child before marriage buffer the relationship between premarital parenthood and depressive symptoms. This follows from the social stress model, which posits that “the extent to which potentially stressful life events undermine mental health depends in part on whether the event is normative, scheduled, desired, and controllable” (Carlson & Williams, 2011, p. 22). They state that “expectations for premarital birth, in particular, likely determine preparedness for parenthood, satisfaction with the role, and the extent to which it threatens identity” (Carlson & Williams, 2011, p. 22). They specify that this buffer is especially prominent when investigating the mental health of African Americans. This buffer is paramount to consider due to the increasing number of premarital births and variability in the timing of births (Carlson & Williams, 2011, p. 33-34).

Furthermore, Odom and Vernon-Feagan (2010) examine buffers of racial discrimination in rural African American mothers, drawing from a sample of babies born to mothers in a low wealth, rural county in either North Carolina or Pennsylvania. Racial discrimination is an important stressor to consider when investigating the mental health of minority groups. According to Odom and Vernon-Feagan (2010), “the social isolation of rural contexts, scarcity of economic resources, limited availability of rural health care providers, and limited access to child care may place rural African American mothers at increased risk for depression relative to their urban counterparts” (p. 347). Using hierarchical regression analyses, they were able to conclude that church-based support and optimism significantly predicted depressive symptoms, even when mothers were

under higher levels of racial discrimination (Odom & Vernon-Feagan, 2010, p. 354). This lends support to the idea that coping mechanisms to deal with stress can have a protective effect on mental health.

Lastly, Spence et al. (2011) analyze the buffering effects of physical health on mental health. Using a growth curve model of depressive symptoms, they find that “physical health reduces black-white differences in depression” (p. 451). However, it is important to mention that even with this observed reduction, racial disparities in depressive symptoms remain statistically significant (Spence et al, 2011, p. 451). This aligns with the previous literature that asserts that physical health is associated with mental health.

Measures of and Findings Related to Socioeconomic Status

Measures of and findings related to socioeconomic status (SES) are an essential component of this group of articles. Within these articles, the main ways of measuring SES are educational attainment and race. Five articles measure mothers’ educational attainment, though only one, Augustine and Crosnoe (2010) draws conclusions regarding the relationship between educational attainment and mental health. This use of educational attainment as an indicator of socioeconomic status reflects the effects of education, such as maternal school involvement, social networks, and organizational skills (Augustine & Crosnoe, 2010, p. 276).

Race is used as a measure of SES in four articles. Nomaguchi and House (2013) even differentiate between race and ethnicity in their study, which analyzes disparities in maternal parenting stress by race and ethnicity. They associate higher parenting stress

with minority racial-ethnic groups that face structural disadvantages and/or more authoritarian parenting values (Nomaguchi & House, 2013, p. 388). Odom and Vernon-Feagans (2010) paid particular attention to racial discrimination among African American mothers as a measure of SES, though they also measured demographic data such as maternal education, number of children, and economic strain. They measured perceived racial discrimination using The Experiences of Racism Scale, which asks respondents to answer questions such as “How often has someone suspected you of doing something wrong just because you are African American?” using a scale from 1 (never) to 4 (several times) (Odom & Vernon-Feagans, 2010, p. 350). Lastly, Spence et al. (2011) use race to analyze racial disparities in depression among older women. The respondents self-identified as either black or white in their data set. Additional measures of SES employed by Spence et al. (2011) include educational attainment and income (p. 449).

All of the aforementioned studies drew conclusions regarding the racial disparities and mental health. Interestingly, though Carlson and Williams (2016) did not include race as a key measure in their study, they were able to draw conclusions regarding racial disparities in parenthood expectations. Using descriptive statistics, they found that African Americans and Hispanics were more likely to expect a premarital first birth compared to non-Hispanic Whites, among other findings related to race (Carlson & Williams, 2016, p. 26). It is necessary to understand that race is only one means by which to consider and evaluate SES; and it is in relationship with other measures of SES. Spence et al. (2011) mention that “disadvantages associated with race lead to lower educational attainment, income, and wealth accumulation” (p. 447). Therefore, race is a useful way to indicate and measure SES.

Exemplary Article

One article stands out for its cohesiveness and investigation of the relationship between motherhood, mental health, and socioeconomic status—Nomaguchi and House’s (2013) article, *Racial-Ethnic Disparities in Maternal Parenting Stress: The Role of Structural Disadvantages and Parenting Values*. This article stands out as excellent because it takes several races and ethnicities into consideration, rather than isolating Black and White populations, as other articles tend to do. It also examines how the various structural disadvantages that each racial-ethnic group encounters can impact stress. It is a very thorough article that examines numerous potential avenues correlations between SES and stress, which is why I chose to examine it in detail here.

Article 1

Background

In *Racial-Ethnic Disparities in Maternal Parenting Stress: The Role of structural Disadvantages and Parenting Values*, Nomaguchi and House (2013) begin by introducing the role strain perspective in light of parenting stress, which “defines parenting stress as a sense of difficulty experienced in the parenting role because the demands associated with the parenting role exceed the resources available to meet those demands” (p. 387). They characterize parenting stress as having two overarching sources, structural characteristics and parenting values. Parenting values are defined as “expectations for how children should behave and what mothers are supposed to do for their children” (Nomaguchi & House, 2013, p. 387). Parenting values are further broken down into “authoritarian” and

“authoritative”, with authoritarian parenting values being characterized by a hierarchical approach to the parent-child relationship and authoritative parenting values being characterized by treating children as equals. Authoritarian parenting values are associated with more conflict and parenting stress than authoritative parenting values (Nomaguchi & House, 2013, p. 387). The authors noted a gap in the literature regarding how parenting stress may differ across racial-ethnic groups and aimed to uncover this relationship in their research. They propose that these differences are important to sociological science because they reinforce structural inequalities and are related to racial-ethnic differences in parenting values (Nomaguchi and House, 2013, p. 387).

Data and Methods

Nomaguchi and House (2013) used data from the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 and followed the children through eighth grade. They specify that data were collected a total of seven times and questions regarding parenting stress were asking twice, during the spring kindergarten and spring third grade collections. They exclude children who reported being “multiracial” (Nomaguchi & House, 2013, p. 390).

As indicated in Table 4, the key measures for this study were self-rated parenting stress, race-ethnicity, nativity, structural conditions, and parenting values. Parenting values were measured by utilization of the “inquiry and praise” method and the frequency of spanking. The “inquiry and praise” method is indicative of authoritative parenting, whereas frequent spanking is a measure of

authoritarian parenting (Nomaguchi & House, 2013, p. 391). Nomaguchi and House (2013) pooled observations from the two time periods into one data set in order to analyze it. The total sample size was 22,648 person-years (p. 391). They examined six random effects models in the data analysis. However, since this data could not be used in an ordinary least squares regression, they utilized a generalized least squares solution.

Results

Nomaguchi and House (2013) found that U.S.-born black mothers and foreign-born Hispanic and Asian mothers had higher levels of parenting stress compared to U.S.-born white mothers. American Indian mothers demonstrated less parenting stress than U.S.-born white mothers. All other race-ethnicity and nativity combinations did not show significant difference in maternal parenting stress compared to U.S.-born white mothers.

With regards to structural characteristics, “both U.S.-born and foreign-born black mothers were more likely to be younger, have more children at home, be single, have less education, and have lower incomes than U.S.-born white mothers” (Nomaguchi & House, 2013, p. 392). Hispanic mothers also faced more structural disadvantages, and among Hispanic mothers, ones who were foreign-born encountered more disadvantages than U.S.-born mothers. Additionally, American Indian mothers showed significant structural disadvantages compared to U.S.-born white mothers (Nomaguchi & House, 2013, p. 392).

Furthermore, Nomaguchi and House (2013) use one of their models to demonstrate the association between structural characteristics and maternal parenting stress. Age, family income, and having more children in the house were negatively related to parenting stress. Conversely, single parenthood and part-time employment were associated with greater maternal parenting stress (p. 395). Though they found that more authoritarian parenting values partially contribute to elevated maternal parenting stress among U.S.-born black mothers, they conclude that structural factors explain the parenting stress gap between U.S.-born black mothers and U.S.-born white mothers better. They apply this same conclusion to the parenting stress gap between Hispanic mothers and U.S.-born white mothers as well. However, this attribution is flipped among Asian mothers, as Nomaguchi and House (2013) found that “parenting values appeared to play a greater role than structural factors in understanding foreign-born Asian mothers’ higher levels of parenting stress than that of white mothers (p. 395).

Lastly, Nomaguchi and House (2013) found that, unlike with other racial-ethnic nativity groups, the parenting stress of U.S.-born black mothers persisted even after controlling for structural and parenting factors (p. 399).

Discussion

The overarching finding in this study was that mothers identifying as a racial-ethnic minority report more parenting stress than white mothers. This finding is in line with the initial aim of the study, to “uncover racial-ethnic disparities in parenting stress” (Nomguchi and House, 2013, p. 399). The

exception to this generalization is Native American mothers, who reported less stress than white mothers. They find high variability in the responses of black mothers of differing nativity and child age; for example, U.S.-born black mothers have higher stress than foreign-born black mothers at both kindergarten and third grade. Interestingly, this gap disappears when structural disadvantages are controlled, lending support to the idea that structural characteristics affect maternal parenting stress among black mothers more than parenting values (Nomaguchi & House, 2013, p. 399).

Though Nomaguchi and House do not explain the relationship between stress and mental health, it is well-documented in sociological literature. Turner et al. (2000) find that “social stress...accounted for fully 42% of observed differences in depression” (p. 788) and “level of social stress is an important determinant of mental health status” (p. 789). Furthermore, Higgins et al. (2010) comment that anxiety, fatigue, burnout, and poorer mental and physical health are associated with stress (p. 847). Therefore, although Nomaguchi and House do not specifically connect mental health outcomes to their study, the connection between stress and mental health allows for the results to be extrapolated to conclusions regarding mental health.

CHAPTER THREE

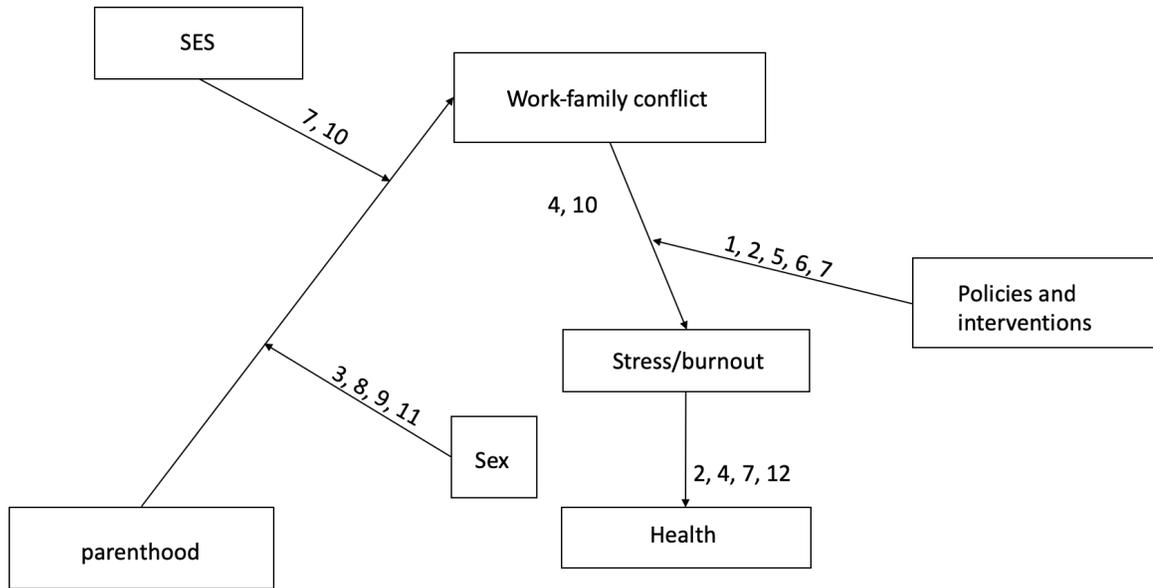
Work-Family Conflict and Health

As previously noted in chapter one of the current thesis, there are 12 articles examining the relationship between WFC and health. Diagram 2 illustrates some common topics that are mentioned in this selection of articles and the variety of relationships explored. I will first briefly overview how these are examined and the respective conclusions of each article, then note additional patterns of research and characterize two exemplary articles on this topic. WFC is defined as the challenges that face individuals juggling the demands of family duties and employment. It can occur as work interfering with family, or family interfering with work. Previous literature has suggested that WFC is associated with a number of social and economic costs such as reduced work productivity, high rates of employee turnover, and family relationship strain (Westrupp, Strazdins, Martin, Cooklin, Zubrick, & Nicholson, 2016, p. 107-108). For mothers, "...job demands have been shown to be related to negative interactions with their children" (Westrupp et al., 2016, p. 108). Search terms for this group of articles were widened to "health" as opposed to "mental health" in order to broaden the scope of findings.

From the diagram, it can be seen that one relationship examined in articles on this topic is between parenthood and WFC. The search queries used in the current thesis did specify for parents in examining WFC, so it makes sense that the searches produced articles examining WFC directly related to the experience of parenthood. The diagram

illustrates that this is done by investigating how sex and SES may influence this relationship. WFC is shown to affect stress and/or burnout, which in turn can have health effects. Stress and burnout can be intermediates in the relationship between WFC and health. There is also a documented effect of policies and interventions on the relationship between WFC and stress/burnout.

Figure 2: Associations among Work-Family Conflict and Health



Note. SES = Socioeconomic Status. Numbers on arrow paths refer to the enumerated articles covered in this chapter.

Table 5: Overview of Articles on Work-Family Conflict and Health

Author(s)	Title	Key Measures	Data and Methods	Key Findings
1. Glass, Simon, & Andersson (American Journal of Sociology)	Parenthood and Happiness: Effects of Work-Family Reconciliation Policies in 22 OECD Countries	<ul style="list-style-type: none"> ☞ Self-reported happiness ☞ Combined paid vacation and sick leave ☞ Paid leave for mothers and parental leaves ☞ Work flexibility ☞ Cost of child care ☞ Major leave eligibility restrictions ☞ Payment into social insurance ☞ Parental status ☞ Gender 	<ul style="list-style-type: none"> ☞ Data from the 2006 and 2008 European Social Surveys and the 2007 and 2008 International Social Survey Programme ☞ Created a comprehensive policy index to measure family policies ☞ Covered 22 European and English-speaking OECD countries 	<ul style="list-style-type: none"> ☞ More generous family policies can reduce disparities in happiness between parents and nonparents ☞ The happiness gap between parents and nonparents is largest in the United States ☞ The policies with the greatest impact focused on lowering average child-care costs and paid time off work
2. Grzywacz and Bass (Journal of Marriage and Family)	Work, Family, and Mental Health: Testing Different Models of Work-Family Fit	<ul style="list-style-type: none"> ☞ Depression ☞ Anxiety ☞ Alcohol dependence ☞ Work family conflict ☞ Work family facilitation ☞ Family work conflict ☞ Family work facilitation 	<ul style="list-style-type: none"> ☞ Data from the National Survey of Midlife Development in the United States ☞ 1,986 part-time and full-time employed individuals aged 25-74 	<ul style="list-style-type: none"> ☞ Work to family exchanges more problematic than family to work exchanges ☞ Increased family to work facilitation is associated with greater decreases in depression and problem drinking than in anxiety ☞ Work family facilitation is helpful in reducing work family conflict
3. Higgins, Duxbury, & Lyons (Journal of Marriage and Family)	Coping with Overload and Stress: Men and Women in Dual-Earner Families	<ul style="list-style-type: none"> ☞ Perceived role overload ☞ Perceived stress ☞ Coping strategies, such as support seeking, family role restructuring, and scaling back 	<ul style="list-style-type: none"> ☞ 1,404 men and 1,623 women in dual-earner families in Canada ☞ Individuals had to be married or living common law ☞ Both partners employed full-time ☞ Served as primary caregivers for home dependent children or elders living at home 	<ul style="list-style-type: none"> ☞ Women significantly more likely than men to use "seeking support" and "scaling back" as coping strategies ☞ Men and women are equally likely to cope by restructuring family role responsibilities ☞ Restructuring work roles helped reduce the overload-stress relationship for men but not for women
4. Milkie, Nomaguchi, and Schieman (Society and Mental Health)	Time Deficits with Children: The Link to Parents' Mental and Physical Health	<ul style="list-style-type: none"> ☞ Distress ☞ Anger ☞ Self-rated physical health ☞ Perceived time with children ☞ Work conditions ☞ Family conditions 	<ul style="list-style-type: none"> ☞ Data from the 2011 Canadian Work, Stress, and Health Study ☞ 2,007 cases ☞ Had to have children under 18 years of age living in the household 	<ul style="list-style-type: none"> ☞ Time shortfalls with children associated with negative impacts on physical and mental health ☞ Negative impacts on physical and mental health may be attributed to a combination of increased parenting expectations and rigid work demands ☞ Perceived time deficits associated with perceived unmet role obligations
5. Moen, Kelly, Fan, Lee, Almeida, Kossek, & Buxton (American Sociological Review)	Does a Flexibility/Support Organizational Initiative Improve High-Tech Employees' Well-Being? Evidence from the Work, Family, and Health Network	<ul style="list-style-type: none"> ☞ Burnout ☞ Job satisfaction ☞ Perceived stress ☞ Psychological distress ☞ STAR intervention 	<ul style="list-style-type: none"> ☞ Data from the IT division of a Fortune 500 company in two U.S. cities ☞ Described the effects of "Support. Transform. Achieve. Results. (STAR)" an initiative to promote well-being among employees by giving them greater control over work time and personal life support 	<ul style="list-style-type: none"> ☞ Organizational-level initiatives can promote employee well-being ☞ STAR shown to reduce work-family conflict and burnout
6. Moen, Kelly, Tranby, & Huang (Journal of Health and Social Behavior)	Changing Work, Changing Health: Can Real Work-Time Flexibility Promote Health Behaviors and Well-Being?	<ul style="list-style-type: none"> ☞ Schedule control ☞ Negative spillover from work to home life ☞ Hours of sleep per night ☞ Amount of exercise ☞ Health care management ☞ Psychological distress ☞ Personal mastery ☞ Emotional exhaustion 	<ul style="list-style-type: none"> ☞ Longitudinal survey of 659 employees at the corporate headquarters of Best Buy Co., Inc., 	<ul style="list-style-type: none"> ☞ Organization changes in time structuring associated with improved employee wellness ☞ Participation in "Results Only Work Environment" (ROWE) associated with positive changes in employees' health-related behaviors
7. Montez, Martikainen, Remes, & Avendano (Social Forces)	Work-Family Conflict and the Longevity Disadvantage of US women	<ul style="list-style-type: none"> ☞ Employment ☞ Number of children under 18 years of age in the household ☞ Marital status ☞ Educational attainment ☞ Mortality 	<ul style="list-style-type: none"> ☞ Data from the US National Health Interview Survey Linked Mortality File for 1988-2006 ☞ Women aged 30-60 years ☞ Data from Finnish national registers collected by Statistics Finland between 1988 and 2005 	<ul style="list-style-type: none"> ☞ Finnish women are more likely to combine employment and motherhood than U.S. women ☞ Low-educated mothers in the U.S. were less likely to be employed than Finnish mothers, regardless of marital status ☞ Longevity benefits for combining motherhood and work were comparable among U.S. and Finnish mothers
8. Ruppner, Perales, & Baxter (Journal of Marriage and Family)	Harried and Unhealthy? Parenthood, Time Pressure, and Mental Health	<ul style="list-style-type: none"> ☞ Time pressure ☞ Self-rated mental health ☞ Parenthood 	<ul style="list-style-type: none"> ☞ Data from the Household, Income, and Labour Dynamics in Australia Survey from 2001-2016 ☞ 20,009 individuals 	<ul style="list-style-type: none"> ☞ Improvements in both parents' mental health follow birth of a child ☞ Men and women report increased levels of time pressure each time they have a child ☞ Increases in time pressure following the birth of a child remain elevated even as the child ages ☞ The gender gap in mental health may be rooted in unequal time pressure experienced by men and women

9. Stolzenberg (American Journal of Sociology)	It's about Time and Gender: Spousal Employment and Health	<ul style="list-style-type: none"> ☞ Self-rated overall health ☞ Hours of work 	<ul style="list-style-type: none"> ☞ 1986 and 1989 Americans' Changing Lives survey ☞ National sample ☞ Responses from both one spouse and the husband-wife pair 	<ul style="list-style-type: none"> ☞ A husband's health penalty is greater than the health benefit from his wife's employment ☞ However, if a wife works 40 hours per week or less, it does not significantly affect her husband's health ☞ A husband's employment does not negatively affect his wife's health ☞ Employment is associated with higher self-rated health for husbands, but not for wives
10. Westrupp, Strazdins, Martin, Cooklik, Zubrick, & Nicholson (Journal of Marriage and Family)	Maternal Work-Family Conflict and Psychological Distress: Reciprocal Relationships Over 8 Years	<ul style="list-style-type: none"> ☞ Work-family conflict ☞ Maternal psychological distress ☞ Job quality 	<ul style="list-style-type: none"> ☞ Data from the Longitudinal Study of Australian Children ☞ Mothers had to report being in paid work ☞ Data following children from 0-1 years of age to 8-9 years of age 	<ul style="list-style-type: none"> ☞ Reciprocal influences of work-family conflict and psychological distress are continuous throughout a child's upbringing ☞ Distinction between work-family conflict and psychological distress ☞ Advanced maternal age and higher socioeconomic position associated with lower psychological distress, yet higher levels of work family conflict
11. Young, Schieman, and Milkie (Society and Mental Health)	Spouse's Work-to-family Conflict, Family Stressors, and Mental Health among Dual-earner Mothers and Fathers	<ul style="list-style-type: none"> ☞ Psychological distress ☞ Anger ☞ Perceived work family conflict of spouse ☞ Perceived work family conflict of self ☞ Spousal disputes ☞ Children's problems ☞ Marital dissatisfaction ☞ Perceived family to work conflict of self 	<ul style="list-style-type: none"> ☞ Data from the 2011 Canadian Work Stress and Health Study ☞ Participants must be employed full-time and have a spouse who is also employed full-time ☞ 1,348 dual-earning parents 	<ul style="list-style-type: none"> ☞ Mothers report higher family work conflict than fathers ☞ Significant positive association between perceived work family conflict of spouse and psychological distress ☞ Family stressors and work family conflict fully accounted for the association between spousal perceived work family conflict and psychological distress
12. Yucel (Society and Mental Health)	Work-family Balance and Marital Satisfaction: The Mediating Effects of Mental and Physical Health	<ul style="list-style-type: none"> ☞ Marital satisfaction ☞ Work family conflict ☞ Work family enrichment ☞ Family work conflict ☞ Family work enrichment ☞ Mental health ☞ Self-rated physical health 	<ul style="list-style-type: none"> ☞ Data from the 2008 National Study of the Changing Workforce ☞ 1,961 married participants ☞ Participants had to live in the contiguous 48 states, a non-institutional residence, and be employed 	<ul style="list-style-type: none"> ☞ Mental and physical health mediate effects of work family conflict, but do not mediate effects of family work conflict on marital satisfaction ☞ Work family conflict and work family enrichment have direct and significant effects on marital satisfaction

Note. Montez et al. and Westrupp et al., marked in gold, are covered in detail as exemplary articles.

Parenthood and WFC

Among the 12 articles, there were two main factors in seven articles that are documented to influence the relationship between parenthood and WFC. These are identified as sex and SES. While it may be predictable to conclude that sex and SES have some influence on the relationship between parenthood and WFC, articles examining this relationship offer valuable insight into the various dynamics and means by which they interact with each other.

Sex

Four of these articles investigate the role of sex in the relationship between parenthood and WFC, identifying differences between mothers and fathers. Higgins, Duxbury, and Lyons (2010) explore differences in coping mechanisms and find that women are more likely to seek support and scale back in order to cope with WFC, while both men and women are equally likely to cope by restricting family role responsibilities (p. 847). Ruppanner, Perales, and Baxter (2019) considered time pressure and changes in mental health in mothers and fathers. Findings demonstrate that, while both mothers and fathers experience an increase in time pressure when a child is born, mothers experience a greater increase than fathers (Ruppanner et al., 2019, p. 321). Ruppanner et al. (2019) also found that mothers experienced improvements in mental health after both a first child and a second child, whereas fathers experience improved mental health after a first child, but no effect after a second child (p. 322). Stolzenberg (2001) examined the effect of husbands' and wives' work hours on each other's health, finding that long work hours of wives negatively affects the health of their

husbands, but the inverse is not true (p. 61). Further findings indicate that husbands' employment has statistically significant positive effects on their own health, but wives' employment does not affect their own health (Stolzenberg, 2001, p. 88). Lastly, Young, Schieman, and Milkie (2014) find no gender differences in measures of WFC, family stressors, and mental health outcomes. This finding is inconsistent with previous literature, and Young et al. (2014) suggest that this reflects "growing equality in gender behaviors across work and family spheres" (p. 14).

SES

Two articles examine how SES affects the relationship between parenthood and WFC. Montez et al. (2015) measure SES by educational attainment and employment in order to compare women from Finland and the United States with similar levels of education. They also create several work and family combinations in order to characterize WFC, as described in greater depth in the exemplar analysis section of this chapter (Montez et al. (2015, p. 1574-1575). They find that "when alternative sources of material well-being were available, US women were less likely than Finnish women to combine employment with childrearing" (Montez et al., 2015, p. 1589). This means that women of higher SES were more likely to reduce WFC by not pursuing employment outside of the home. The authors also find that structural factors such as a lack of policies in the US may contribute to increased WFC among US mothers (Montez et al., 2015, p. 1590). This finding is important because it

reveals a means by which lower SES mothers and families are especially vulnerable.

Westrupp et al. (2016) use socioeconomic position (SEP) instead of SES in their study. Measures such as work hours, number of children, and job quality factor into SEP. However, their main focus is how SEP can affect the relationship between WFC and maternal psychological distress (Westrupp et al., 2016, p. 111), therefore this relationship could be diagrammed as affecting the relationship between parenthood and WFC and the relationship between WFC and stress. I chose to group it with the study by Montez et al. (2015) in order to avoid duplication on the diagram but note that it could apply to both relationships. Westrupp et al. (2016) measure WFC using “a four-item adaptation of the measure developed by Marshall and Barnett” (p. 112). Findings indicate that “low SEP, single-parent or stepfamily structure, and longer maternal work hours were the strongest correlates of WFC over time” (Westrupp et al. 2016, p. 120). They relate this finding to stress and health, but these will be detailed in a following section of the current thesis.

WFC and stress/burnout

Two articles explore the relationship between WFC and stress or burnout. It is important to note that while stress or burnout may serve as an intermediate between WFC and health problems, not all articles specifically mention or measure stress and rather examine the relationship directly from WFC to health. Therefore, though the stress process may be implicated in some articles, they are not diagrammed in this relationship

because stress is not explicitly mentioned. As recently mentioned, Westrupp et al. (2016) examine the relationship between WFC and SEP. They further extend this to draw conclusions regarding WFC and stress. Stress is measured by psychological distress. Findings indicate that “maternal WFC and psychological distress affect each other consistently” (Westrupp et al., 2016, p. 120). This provides evidence for a cyclical relationship between WFC and stress rather than a linear one. Westrupp et al. (2016) also argue that the relationship between WFC and psychological distress is complex and involves numerous factors, which is why this article was difficult to diagram. The authors further find “a persistent disconnect between the demands of parenting and the broader workplace and societal supports” (Westrupp et al., 2016, p. 120), since higher WFC is associated with higher psychological distress.

Milkie et al. (2018) measure WFC as time deficits with children. They find support for the pernicious stressor perspective, which states that “time shortfalls are a unique stressor for today’s parents” (Milkie et al., 2018, p. 15). They further claim that this stress is linked to detrimental mental and physical health outcomes (Milkie et al., 2018, p. 15). Given their finding that time deficits are a distinct stressor among parents, Milkie et al. (2016) propose that this be included in studies on parenting stress. Their research supports previous literature finding that higher WFC is associated with feelings of time deficits, which is associated with increased stress (Milkie et al., 2016, p. 16). The authors propose that one way in which perceived time deficits may act as a stressor is feelings of “missing out on important and enjoyable parental experiences with children” (Milkie et al., 2016, p. 16). They find that this stressor is applicable to both mothers and fathers (Milkie et al., 2016, p. 16-17).

Policies and Interventions

There were four articles that investigated policies and interventions that could mediate the relationship between WFC and stress or burnout. Glass et al. (2016) explore how factors such as paid vacation and sick leave, parental leave, work flexibility, and the cost of childcare influences levels of happiness in parents (p. 897-898). These factors may be used to alleviate WFC. They find that “countries offering the strongest family policies exhibit a net positive effect of parenthood on happiness, while those offering the weakest policies continue to show a parental happiness deficit compared to nonparents” (Glass et al. 2016, p. 910). Grzywacz and Bass (2003) find that high levels of work-family facilitation can counteract stressors from WFC, thereby alleviating the health consequences that may arise (p. 255). Montez et al. (2015) briefly draw policy implications for the US from their findings, which examine the effect of work-family reconciliation policies among Finnish women (p. 1590-1591). There were two studies that examined the effects of specific interventions in reducing WFC. Moen et al.’s (2011) study found that a workplace initiative called *Support. Transform. Achieve. Results.* (STAR) reduced burnout, WFC, and perceived stress while increasing job satisfaction (Moen et al., 2011, p. 146). STAR did this by increasing employee schedule control and increasing perceptions of supervisor support regarding employees’ family lives (Moen et al., 2011, p. 138). These results are generalized to the working population as a whole in the conclusion that organizational interventions can improve subjective well-being (Moen et al., 2011, p. 158). Moen et al.’s (2016) study bears similar conclusions with a different initiative called *Results Only Work Environment* (ROWE). ROWE aims to promote healthy behaviors among employees, thereby promoting their well-being. It specifically

does this by loosening guidelines for when or where work is completed, which should theoretically allow for increased schedule control. In turn, this ought to relieve time pressure and time conflicts that employees may experience. (Moen et al., 2016, p. 405). The study finds that ROWE indeed does increase employees' schedule control and decrease negative work-home spillover (Moen et al., 2016, p. 423). These interventions and policies exemplify how sociologists think of WFC and its various causes. They both relate to the concept of role strain as previously mentioned in this chapter of the thesis. Additionally. They demonstrate the range of inventions that have been examined, from organizational level to policy level.

Stress/Burnout and Health

Furthermore, articles in this subject emphasize the relationship between stress or burnout and health, similar to articles about motherhood, mental health and SES. Four articles find support for this relationship. This exemplifies how sociologists view stress and burnout as an intermediate of the detrimental health outcomes associated with WFC. Montez et al. (2015) use longevity as an indicator of health. Findings suggest that WFC in the United States is exacerbated by a lack of institutional support, which increases stress of working mothers (Montez et al., 2015, p. 1569-1570). Montez et al. (2015) also found that combining employment and childrearing negatively and significantly affects mothers' health (p. 1590). Yucel's (2017) study utilizes the stress-divorce model to investigate external and internal stress, both of which are associated with higher risk for physical and psychological consequences (p. 177). Yucel (2017) finds that "mental health and physical health both fully mediated the effect of work-to-family conflict" (p. 189).

Grzywacz and Bass (2003) find stressors resulting from high levels of WFC are associated with depression, problem drinking, and anxiety (p. 254-255). Finally, Milkie et al.'s (2018) findings support the pernicious stressor perspective, which predicts that time deficits with children among employed parents is associated with decreased mental and physical health (p. 4). This may manifest as distress, anger, and sleep disturbances (Milkie et al., 2018, p. 15) This means that “feeling “enough” time with children is quite important to the well-being of employed parents” (Milkie et al., 2018, p. 15). Milkie et. al attribute this to increased parental pressure and expectations due to more frequent perceptions of time deficits when children have problems (p. 16).

Trends in Methodology

One notable trend in the methodology of the twelve articles pertaining to WFC and health is the choice to restrict the sample parents or to consider all married couples when examining WFC. For example, the article by Glass, Simon, and Andersson (2016) utilized data from the European Social Survey (ESS) and International Social Survey Programme (ISSP), which sample both parents and nonparents (p. 894-895). Montez, Martikainen, Remes, and Avendano (2015) also include both parents and nonparents in their sample. Four studies specified that their sample only included parents, whereas three articles only used married couples to examine WFC. This difference is important to note for the purposes of the current thesis because the focus of this thesis is to characterize and analyze research pertaining specifically to mothers. It also reveals that there are various ways in which sociologists think about “family”, potentially providing space for further refinement and specificity for research in this field. The remaining three studies did not

specify conditions for parenthood or marital status. They did not say if respondents need to be married or have children when defining “family” in “work-family conflict”.

Therefore, it is difficult to draw conclusions regarding mothers from their results.

Role Strain (Measure of WFC)

One specific trend in methodology that was noted among these articles is the use of role strain in measuring WFC. According to Ruppner et al. (2019), “Role strain theory posits that individuals shoulder multiple roles with different demands that are embedded within social institutions” (p. 309). When these roles include familial duties and employee duties, work-family conflict occurs (Grzywacz and Bass, 2003, p. 249). This strain “has been shown to have numerous stress-related outcomes, including anxiety, fatigue, burnout, and decreased satisfaction with family and work” (Higgins et al., 2010, p. 847). According to Moen, Kelly, Fan, Lee, Almeida, Kossek, and Buxton (2016), role strain can be a chronic stressor (p. 406). This stressor can lead to lower self-reported mental and physical health, as it is marked by psychological distress and minor physical complaints such as sleep disruptions, unhealthy eating habits, and lack of exercise (Moen et al., 2016, p. 406). Milkie et al. (2018) measures this role strain as time deficits with children, while Moen, Kelly, Tranby, and Huang (2011) measures it as schedule control. Regardless of the varying ways it can be measured, sociologists evidently see role strain as an integral part of WFC because it is mentioned and integrated into almost every article on WFC and health. Spillover, which is defined as “the transmission of strain in one domain of

an individual's life to another" (Yucel, 2017, p. 176), is another approach to considering WFC.

Related to role strain, Moen et al. (2011) examine the job strain model, which proposes that "people with the greatest strain—workers in highly demanding jobs with low job control and low support—are the most at risk of occupational hazards tied to poor health" (p. 136). These hazards may include both physical and mental responses, such as depression, hypertension, alcohol use, and heart disease (Moen et al., 2011, p. 136).

Exemplary Articles

Since this thesis aims to describe research particularly on motherhood, the exemplary articles on work-family conflict focus on mothers. There are two exceptional articles—Montez et al.'s (2015) *Work-Family Conflict and the Longevity Disadvantage of U.S. Women* and Westrupp et al.'s (2016) *Maternal Work-Family Conflict and Psychological Distress: Reciprocal Relationships Over 8 Years*. Montez et al.'s (2015) article stands out because it measures physical health as longevity. It also has a clear control group by which to compare U.S. women. This control group, Finnish women, is similar to the U.S. in all respects except that Finnish women have more generous institutional support (Montez et al. 2015, p. 1568). This allows Montez et al. to draw conclusions regarding the effects of institutional support on WFC and longevity. Therefore, they are able to examine a factor that may set mothers in the US apart from other countries. The authors are also able to draw conclusions about US women as a whole rather than only a subset of the population of US women, putting the US in a

different perspective. This is valuable because it has implications that may apply more broadly to all US women.

The article by Westrupp et al. looks specifically at psychological distress as a measure of mothers' mental health. This broader definition implies a more holistic view of mental health, contributing to the exemplary nature of this article. It is a longitudinal study that challenges the concept of a purely linear relationship between maternal WFC and psychological distress. Given that Westrupp et al. contribute a new way of thinking to the literature, I think this article serves as an example of how sociological science may evolve and constantly re-examines previous ideas. Though there are a few articles that examine effects on both mental and physical health, this thesis chooses not to summarize them in detail because they do not specifically isolate the mother population.

Article 1

Background

Montez et al. (2015) begin by noting the fact that, over the past few decades, gains in women's life expectancy in the United States have not kept up with gains in high-income European countries, presenting a longevity disadvantage for US women. This remains across several causes of death and age groups (Montez et al., 2015, p. 1568). The relationship between work and women's longevity is complex, partly due to the fast-paced rise of women in working roles with little institutional support. It is noted that women often retain the same household and family duties, despite increased labor-force participation. This may cause role strain, particularly because women are more likely than men to work inflexible jobs. This role strain is associated with cardiovascular disease

and depressive symptoms (Montez et al., 2015, p. 1569-1570), which may be the physiological means by which WFC influences health.

Montez et al. (2015) also explain the importance of considering educational attainment in this relationship. Reasons for this include a larger longevity disadvantage for lower education women than higher educated women, education as a predictor for work and family roles, and differential consequences of work-family role strain by educational attainment (Montez et al. 2015, p. 1570).

The authors choose to compare the US to Finland because Finland is similar to the US in employment trends and fertility rates. However, Finnish women are more likely to hold full-time employment than US women and Finland's work-family policies are far more extensive than the US's. For example, the Finnish government offers a universal child benefit, a right to childcare, paid maternity leave, and paid parental leave (Montez et al., 2015, p. 1571-1572). These policies are means by which Finnish women are offered greater institutional support than US women, so they make for a good standard by which to compare US women.

Aims and Hypotheses

The aim of this study was to “examine the extent to which the higher mortality of US women compared with Finnish women may be explained by differences in work-family context” (Montez et al., 2015, p. 1572). Montez et al. hypothesized that “US women are less likely than Finnish women to combine employment with childrearing, especially if unmarried” and “US women garner

fewer longevity benefits than do Finnish women from combining employment with childrearing, especially if unmarried” (p. 1573).

Data and Methods

Data for this study is taken from two sources. Data on Finnish women is from population registries combined with data on mortality. Data on US women is from the National Health Interview Survey Linked Mortality File (NHIS-LMF) (Montez et al., 2015, p. 1573). Montez et al. (2015) limited their sample to women aged 30-60 years between 1998 and 2006 who were also born inside their respective countries.

Work was categorized as current employed or not employed, so both full-time and part-time employment were grouped together. Additional family data regarding the number of children under 18 years of age in the household and marital status was considered to create eight work-family combinations. Educational attainment for both Finnish and US women was categorized as low, mid, or high, but the years of education for each level differs between the two countries (Montez et al., 2015, p. 1574-1575). Lastly, mortality was observed each year by length of exposure to the risk of death and vital status (Montez et al., 2015, p. 1575).

Montez et al. (2015) used multivariate analyses and Poisson regression models to “estimate the natural logarithm of the death rate as a linear function of the work-family predictors and covariates” (p. 1575). The models were weighted and replicated by educational attainment. The authors also simulated the mortality risk of US women if they had the same structural support as Finnish women in

order to visualize the effects of differences in work-family context between the countries (Montez et al., 2015, p. 1575-1576)

Results

Montez et al. (2015) found that Finnish women and US women differ in prevalence of employment and marriage; however, they are similar in prevalence of children at home. As hypothesized, US women were less likely to be employed than Finnish women. The most noteworthy gaps are seen in comparisons between the countries among women of the same educational attainment, where Montez et al. (2015) found a large gap between Finland and the US in the percentage of women who were married, employed, and had children at home (p. 1576). Importantly, there was an overall 36.3 percent higher mortality rate for US women than Finnish women. This mortality disparity is particularly evident and largest among women who are not married and not employed.

Montez et al. (2015) find modest support for the hypothesis that US women are less likely to combine employment and motherhood, but stronger associations are seen when employment levels are compared among mothers. Based on their analysis, Montez et al. (2015) find that “Finnish married mothers were more likely to be employed than US married mothers within every education level” (p. 1581). Regarding their second hypothesis, Montez et al. (2015) find that “while employment and motherhood are each associated with lower mortality, combining these roles reduces the mortality benefits of each role...this pattern applies to both countries” (p. 1583). Interestingly, findings indicate a difference in

mortality risk between US and Finnish women when employment is combined with motherhood among low-educated women.

Furthermore, Montez et al. (2015) examined the role of policy differences in the mortality disadvantage of US women. Mortality rates of US women, which are measured by age-standardized death rates (ASDR) are found to decrease when the employment levels of all US women are increased to Finnish rates (Montez et al., 2015, p. 1586).

Discussion

Montez et al.'s (2015) findings support other literature that asserts that marriage and employment are negatively related in the US but positively related in Finland. This finding leads them to conclude that “structural obstacles to combining employment and childrearing did not deter US women from the labor force any more than they did for Finnish women, when women did not have alternative sources of material well-being” (Montez et al., 2015, p. 1589). Montez et al. (2015) hypothesize that this is due to the fact that health insurance is largely obtained through employment in the US, whereas Finland provides universal health coverage, regardless of employment (p. 1589).

However, Montez et al. (2015) found no difference between US women and Finnish women in suppression of longevity benefits of combining employment and motherhood. They attribute this to complicating factors such as health outcome and selection. Selection is an important consideration because US women combining motherhood and employment may be specifically and

positively “selected on characteristics that lower mortality and buffer any health repercussion of combining the roles” (Montez et al., 2015, p. 1590).

Montez et al. (2015) conclude by suggesting a two-pronged approach to reduce disparities seen in the longevity disadvantage between Finnish and US women. This would involve policies facilitating integration of work and family roles as well as equipping US mothers with more social and economic supports (p. 1590). Specific suggestions include increasing availability and quality of employment, increasing benefits of part-time employment, increasing family leave, and improving public transportation (Montez et al. 2015, p. 1590-1591).

Article 2

Background

Westrupp et al. (2016) begin by stating that although previous literature has noted that psychological distress of a consequence of WFC, there remains a gap in literature regarding the precise nature of the relationship between WFC and psychological distress. The authors seek to classify this relationship among mothers from the postpartum period up through the first eight or nine years of their child’s life (Westrupp et al., 2016, p. 107-108). After explaining the difference in family roles that individuals of different genders bear, the authors conduct a literature review. Westrupp et al. (2016) seek to address the gap in literature using a systems framework. They investigate three questions—“Are there reciprocal effects between maternal WFC and psychological distress over time?”, “Is the relationship between WFC and maternal psychological distress

explained by other factors related to mothers' family, work, and individual context?" and "Is the relationship between WFC and psychological distress different for mothers experiencing low to moderate job quality?" (Westrupp et al., 2016, p. 110-111).

Data and Methods

This study used data from the Longitudinal Study of Australian Children (LSAC), which measured mothers' WFC and psychological distress biennially from when the child was 0-1 years of age to 8-9 years of age (Westrupp et al., 2016, p. 110). The sample for this study was restricted to mothers who ever reported being in paid work and defined samples of mothers "according to the timing of their reentry into paid work following the birth of their reference child in LSAC" (Westrupp et al., 2016, 112).

Westrupp et al. (2016) measured respondent's WFC using a four-item measure based on a similar one established by Marshall and Barnett. Maternal psychological distress was measured using the Kessler-6, which is a six-item tool that measures symptoms of psychological distress over the previous four weeks (Westrupp et al., 2016, p. 112-113). Another important measure was the child's health, which was rated by the mother on a 5-point Likert scale. Lastly, Westrupp et al. (2016) utilized the Job Quality Index to measure job quality, with specific questions related to WFC such as flexible hours and job control (p. 113).

Data was analyzed using a SEM framework. Multiple steps were taken to account for sample attrition. Westrupp et al. (2016) also used the robust weighted

least squares (WLSMV) estimation method, the root-mean-square error of approximation (RMSEA), the comparative fit index (CFT), the Tucker-Lewis index (TLI), and the weighted root-mean-square residual (WRMR) (p. 114). The authors tested four different models to determine which was the best fit (Westrupp et al., 2016, p. 114).

Results

Westrupp et al. (2015) found that “the reciprocal cross-lagged models were thus accepted as the best fitting and most parsimonious models for all samples” (p. 116). As hypothesized, findings indicated a reciprocal relationship between WFC and psychological distress Westrupp et al., 2016, p. 116).

Westrupp et al. (2016) found several sociodemographic characteristics associated with WFC. Older maternal age was associated with greater WFC in all samples but lower psychological distress in two samples, higher SEP was associated with higher WFC, and single mothers demonstrated higher WFC and psychological distress (Westrupp et al., 2016, p. 117-118). Furthermore, higher job quality was associated with lower psychological distress (Westrupp et al., 2016, p. 118).

Discussion

Westrupp et al. (2015) found that “conflicting work and family roles showed a similarly adverse impact on mothers’ subsequent well-being when their children were toddlers, preschools, and school age” (p. 119). This suggests that the relationship between WFC and psychological distress is not mediated by

the timing of mothers reentering employment. Other important contributions of this article include the distinction between WFC and psychological distress, and documentations of a reciprocal relationship between WFC and psychological distress. Together, these findings “strengthen the case that there is no simple, unidirectional relationship between WFC and distress (p. 120). The factors most strongly associated with WFC over time were low SEP, single parent or stepfamily structure, and longer maternal work hours. Factors most strongly associated with psychological distress over time were single-parent or stepfamily structure, poor child health, and lower maternal job quality (Westrupp et al., 2016, p. 120).

Regarding the finding that “older maternal age and higher SEP were associated with lower psychological distress but greater WFC” (Westrupp et al., 2016, p. 120), the authors suggest that this occurs due to the higher-level jobs older women tend to hold, which comes with increases in responsibility and complexity. Overall, findings suggest that WFC and psychological distress mutually influence one another and are also influenced by family and sociodemographic influences (Westrupp et al., 2016, p. 122). Together, these findings demonstrate that the article was successful in achieving its initial goals and answering the questions it set out to answer, which are detailed in the background section.

CHAPTER FOUR

Conclusion

This thesis has undertaken a systematic literature review on socioeconomic disparities in mothers' mental health, focusing on organizing and analyzing key perspectives from leading academic journals in sociology. The study contributes pertinent information to the field of SES and health by focusing on a distinct and vulnerable population that remains relatively understudied. Mothers may be especially vulnerable to problems with mental health due to the stressors that accompany raising a child and work-life balance.

I utilized a systematic, query-driven literature review to acquire the relevant articles, applying the same five search queries to each of six leading sociology journals. Queries were chosen to maximize appropriate articles and articles were sorted by general topic. The two topics I chose to closely investigate were "Motherhood, Mental Health, and SES" and "Work-Family Conflict (WFC) and Health" because they most clearly represent an intersection of all pertinent components. Guided by empirically-informed diagrams illustrating relationships among these concepts, I examined the relationships that were investigated in each article, as well as the various key methods, measures, and findings. Within the core subject area of motherhood, mental health, and SES, the most frequently studied relationships were SES and stressors, SES and mothers' mental health, and stressors and mothers' mental health. Buffers of the relationship between stressors and mothers' mental health and mothers' mental health and child's health were also analyzed. Within WFC and health, the most frequently studied associations were the

influence of sex on the relationship between parenthood and WFC, the effect of policies or interventions on the relationships between WFC and stress or burnout, and the relationship between stress or burnout and health. From these, it is clear that WFC, motherhood, and SES do not exist in isolation, but rather are connected through a myriad of associations and mediators.

I turn now to discussing strengths and weaknesses of the leading sociological research into each of these two core subject areas. In doing so, I identify potential next steps that may be fruitful for sociological science — and especially for sociologists who study socioeconomic status, gender, and health, as they seek to chart paths for novel or groundbreaking research in these areas. I then succinctly overview some limitations of the systematic, query-driven methodology used here before offering some concluding remarks.

Motherhood, Mental Health, and SES

Strengths

The diversity in research methods and relationships examined is one strength within the topic of motherhood, mental health, and SES. I found articles for every association besides direct relationships between parenthood and child's health and SES and child's health. However, this is may be attributed to the fact that I was not searching for articles pertaining directly to child's health. It may be reasonable to assume that literature studying this association is available but was not found since it was not included in the search queries. There is strong documentation of the relationship between SES and stressors. Similarly, there was

a good amount of literature documenting the relationship between SES and mothers' mental health. This may have strong policy implications, or at least contribute to the literature on SES and health. Furthermore, four of the studies documented the relationship between stressors and mothers' mental health, thereby further associating SES and health.

Another strength of the current research on this topic is the diversity in ways to measure SES. Race is commonly used, but other measures such as educational attainment, employment status, and paternal incarceration are also used. Together, these account for various ways in which individuals of various SES may be affected by motherhood and stress.

Weaknesses

One weakness of the collection of articles on motherhood, mental health, and SES is the lack of other measures of mental health outside of depressive symptoms. This limits the scope of mental health outcomes because although depressive is a common issue in mental health, it is not the only problem a mother may face. Additionally, I find that the article by Nomaguchi and House does not link the stress it identifies with mental health problems. This may be useful for information regarding the relationship between race and mothers' mental health. I also find that the article by Wildeman, Schnittker, and Turney does not directly examine the relationship between paternal incarceration and SES, which may be a useful measure to more fully examine the three components of this topic. Interestingly, no articles directly address motherhood, mental health, and SES all

together in one study. Rather, they often rely on implications from previous literature in order to apply their findings to SES or mental health outcomes. This presents a shortcoming in the current research because a study directly linking all three would reinforce this connection in the literature.

Next Steps

Though depression is often used as a measure of mental health in these studies, there remains a gap in literature specifically pertaining to postpartum depression (PPD). This form of depression has a high prevalence, potentially upwards of 20% (Ukatu, Clare, & Brulja, 2018, p. 211) and is very closely related to the experience of motherhood. Distinct symptoms of PPD include “transient mood lability, insomnia, disorganizes behavior, irritability, and agitation” (Shorey, Chee, Ng, Chan, Tam, & Chong, 2018, p. 236). PPD is associated with various health outcomes such as decreased bonding between mom and baby (Ukatu, Clare, & Brulja, 2018, p. 211) and decreased breastfeeding (Shorey et al., 2018, p. 235). For the child, PPD is associated with cognitive, behavioral, and social impairment (Shoery et al., 2018, p. 235). These negative outcomes vary across the socioeconomic gradient (Sherman & Ali, 2018, p. 525) thereby connecting this area of psychology and health with sociology. Groups at particularly high risk include women “with limited partner support... adolescent mothers, immigrant women, and racial and ethnic minorities” (Ukatu, Clare, & Brulja, 2018, p. 211). It is important, however, for sociologists to differentiate between PPD and what is known as the “baby blues”. The “baby blues” are

characterized by feelings of sadness in the days following birth, whereas PPD is characterized by more intense feelings of despair, anxiety, and sadness that interferes with daily functioning (Sherman & Ali, 2018, p. 525). There seems to be a literature and research gap here in both sociological science and public health, so this is an important area for future research. PPD is an example of a health problem that specifically contributes to the vulnerability of mothers, increasing the urgency of the need for research in this area.

Furthermore, research regarding other types of mental illnesses and disorders, such as anxiety and bipolar disorder, seems to be lacking within published sociological research. This conclusion is drawn from the fact that only one of the studies in the *Motherhood, Mental Health, and SES* category measured general mental health and the rest specifically measured depression to evaluate mental health status. Stressors associated with motherhood and WFC may manifest as different mental illnesses and symptoms. Moreover, while these articles identify four factors that may buffer the relationship between stressors and mothers' mental health and mothers' mental health and child's health, there is room for further study of these buffers or study of other buffers. In particular, research into additional buffers for the relationship between mothers' mental health and child's health should be a priority because only one article mentioned a buffer for this relationship.

Work-Family Conflict and Health

Strengths

One strength of the literature on WFC and health is that the effects of policy implementation and interventions are well-documented. Effects of nationwide policies are mainly documented through comparison with other countries, providing a basis for policy implementation in the United States that aims to help parents, particularly mothers, balance work and family duties. This is particularly compelling because the literature finds that family policies are always associated with improvements in health. Such policies include paid parental leave and increased work flexibility. Similar findings are associated with interventions at the workplace level.

Another strength are the measures of “perceived role overload” and “perceived stress” in the article by Higgins et al. (2010). It makes an important distinction between experienced role overload/stress and perceived role overload/stress, thereby acknowledging that stress and role overload may be influenced by indirect factors. This distinction integrates psychology and sociology, demonstrating the interdisciplinary nature of the relationship between WFC and health. It might also be useful if applied to other sociological research on this topic.

Furthermore, the literature on WFC and health often differentiates between WFC in men and women. This is important, particularly since the aim of the current thesis is to examine health specifically in mothers. The research demonstrates that women and mothers are at a unique disadvantage regarding the

stress/burnout and potential health complications that arise due to WFC. For example, Ruppner et al. (2019) find differences between men and women in health outcomes associated with having a child, even if both the husband and wife are employed. This type of data presents further evidence of gender disparities in health.

Lastly, the literature that this thesis examines on WFC and health focuses both on families with children and just the husband-wife relationship. This means that while mothers were studied, women in general were studied as well. This broad definition of the word “family” is beneficial because it demonstrates that women in the work force are at a disadvantage from more than just their status as a mother. This is a commonly cited reason for the gender wage gap, and yet this literature demonstrates that it is likely not the only reason for the gender wage gap.

Weaknesses

One potential weakness in the current literature and research on WFC and health is a direct comparison between parents and non-parents in the literature. While the current thesis found articles examining WFC among one or the other, it would be beneficial to have research directly comparing WFC between both groups. This would allow for researchers to draw conclusions about the ways in which motherhood affects WFC.

Additionally, this thesis finds a noticeable lack of documentation of the relationship between WFC and physical health, despite the fact that the search

query pertaining to WFC did not specify for mental or physical health. While health ought to be analyzed and measured holistically, the thesis initially sought to focus on mental health since it is an important yet understudied facet of health. Interestingly, I found that this trend did not apply to the research on WFC and health. The studies by Moen et al. (2011), Milkie et al. (2018), and Yucel (2017) measured both mental and physical health, and Stolzenberg (2001) measured overall health, but none of the studies measured just physical health. Furthermore, health tends to be self-rated in the studies on WFC and health. This introduces potential bias on the part of the interviewees in the study.

Lastly, there seems to be disagreement on the definition of the term “work-family conflict”. Some authors distinguish between “work-family conflict” and “family-work conflict”, while others do not. This is a potential area of further development and conversation among sociologists.

Next Steps

Potential next steps for research on this topic include studying the moderating effects of breastfeeding support programs on the relationship between WFC, stress or burnout, and health. Public health literature finds strong benefits of such programs, which could supplement sociological research. It may also be beneficial for sociological research to investigate attitudes regarding parental leave in the United States. As the only OECD country without paid maternity or parental leave, significant policy changes may be influenced by such a study or studies. Other next steps may include taking workplace-based initiatives such as

STAR and ROWE and modifying them to fit a variety of workplaces. For example, though the STAR intervention was only tested in one Fortune 500 company's IT department (Moen et al, 2016, p.139), the components of STAR, namely the supervisor training, could be applied to other work settings. This may be a particularly useful intervention for mothers because Moen et al. (2016) found that STAR reduced psychological distress more for women than for men" (p. 153). Similarly, Moen et al. (2011) found that "women (with and without children at home) participating in ROWE experience greater changes in sleep and exercise than do fathers" (p. 423); however, they note that the sample size limited their ability to identify statistically significant difference between male and female participants (p. 423). This indicates that it may be an ideal place for further research.

Furthermore, applying the STAR and ROWE interventions to additional work environments would allow for further observations and applications to parents of both genders. Additionally, studies on the effects of WFC on physical health may be an interesting area for further research. While physical health and mental health are related, taking a holistic approach to health and WFC could reveal additional areas where interventions might be appropriate. While there is strong research and documentation on policies and interventions that may mediate the relationship between WFC and stress or burnout, I find a lack of this research applied to the relationship between stress or burnout and health. One potential reason for this is because policies and interventions may be more effective in preventing stress and burnout than alleviating the effects of stress and burnout.

However, I did not find any articles specifically mentioning this, so it may be useful to have such research in sociological science.

Limitations of Thesis Methodology

One evident limitation of the methodology utilized in this thesis is that only six sociological journals were used as data sources. It is reasonable to assume that there may exist a variety of literature on this topic published outside the six journals examined in this study. While there are journals covering sociological research of all topics and journals on more specific branches of sociology, such as the *Journal of Marriage and Family*, other specific journals such as *Gender and Society* may publish pertinent articles. The thesis also limited literature to journals published in the United States. Journals published in other countries were not analyzed or recorded. The topics of *Motherhood*, *Mental Health*, and *SES* and *WFC and Health* may be more thoroughly researched and documented in other countries. Furthermore, a query-driven systematic review is limited by the number and variety of queries chosen. I attempted to choose queries that would maximize search results, but it is possible that some were too broad while others were too narrow, eliminating articles that were potentially relevant. Several articles may not have been included in this data for that reason. Additionally, I only had five queries. If I had more queries, I could potentially garner more hits in the journals. As mentioned in the methods section, these same five queries were applied to each journal. While this allows for uniformity, certain search queries were more relevant in some journals than others. For example, the

query “work-family conflict + health” might be more applicable in the *Journal of Marriage and Family* than in the *American Sociological Review*. These limitations potentially decrease the number of articles that were analyzed in this thesis, potentially misrepresenting the quantity and characteristics of sociological literature and research on the topic of socioeconomic determinants of mothers’ health.

Conclusion

Clearly, there is room for further collaboration between sociological and public health research, which has critical policy implications. Collaboration between psychology and sociology could also be a vibrant field given the importance of research focused on mental health specifically. One priority that this thesis finds is the need for research on PPD because it is a mental illness at a time when mothers are particularly vulnerable. It may also be prudent to include further research into dynamic links between PDD and life-course maternal depression. That is, PPD may eventually turn into general depression and previous depression is a risk factor for PPD. Other priorities include research of the relationship between motherhood and other mental illnesses.

The current thesis found that existing research is of high quality and maintains a presence in the leading journals in sociological science. There are a variety of measures that sociologists employ to measure family, SES, and health, however, improvements may be made in order to both deepen and broaden our understanding of these relationships. I argue that this is an important and crucial

area for further research, as mothers represent a particularly vulnerable population, especially in the United States.

The current thesis offers a few broad conclusions regarding sociological research on motherhood, mental health, and socioeconomic disparities. For example, as can be seen in Figures 1 and 2, it is assumed that SES has some effect on stressors, even if it is not always directly researched in the given articles. This is likely based in the well-documented research on the relationship between SES and stressors. The relationship between stressors and health is another relationship that is often referenced but not explicitly studied in every article. Again, this may be due to the existing evidence for a relationship between stressors and health. Throughout all of these, it can be seen that sociologists seek to uncover context-dependent relationships between various factors in one's life. I also found that the vast majority of the studies were not experimental. They were, however, all quantitative studies, demonstrating that sociologists tend to favor this type of research. One explanation for this may be the applicability to a larger context that is offered by quantitative research. These similarities that are found in research on both *Motherhood, Mental Health, and SES* and *WFC and Health* indicate how sociological science arrives at conclusions in general.

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