The Impact of Neighbourhood Context on Work-Family Conflict and Psychological Distress

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy

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2013

Abstract

Does neighbourhood context influence work-family conflict (WFC) and its mental health consequences? If so, how do these associations unfold? And do these processes differ for men and women? My dissertation research addresses these significant and timely questions. Recent changes in work and family domains have led to unprecedented levels of WFC. However, theories and research on the topic to date remain limited, because they emphasize individual-level antecedents to the exclusion of broader contexts, including individuals’ neighbourhood of residence. My study is among the first to effectively examine the impact of neighbourhood context on WFC and mental health consequences. I outline three overarching mechanisms through which neighbourhood influences WFC, including (a) the social composition of the neighbourhood, (b) processes of neighbourhood structural amplification; and, (c) the objective and perceived presence of community resources. I test my hypotheses using data from Toronto, Canada, compiled from a variety of sources, including individuals, the Canadian census, and municipal data on community resources. I use Hierarchical Linear Modeling (HLM) techniques for all analyses to appropriately distinguish individual and neighbourhood-level variations. Collectively, the results from my dissertation research contribute to a more advanced framework of the antecedents of WFC and its mental health consequences compared to previous approaches—one that incorporates the importance of place.
To you Dad, with love.
Acknowledgments

I could not have completed this dissertation project without the help and support of many people along the way.

I thank my supervisor, Professor Blair Wheaton, who has taught me so much about the production of knowledge, methods, and the Sociology of Mental Health. Blair, your mentorship has contributed to the academic I am today, and hope to be in the future. I will always be grateful for your continual guidance and support throughout my doctoral studies.

I would like to extend a special thanks to Professor Scott Schieman for his academic guidance throughout my degree. Scott, your constant investment in me has contributed vastly to my academic success. I cannot thank you enough for the opportunities you have provided for me over the past six year.

This dissertation project would not be possible without the help of my other committee members: Ronit Dinovitzer, Brent Berry, and Catherine E. Ross. I would like to extend my gratitude to all of you for agreeing to be a part of this project, and for your very helpful comments that undoubtedly improved the overall quality of my research.

I will be forever grateful for the encouragement of my close friends: Nicole Freeman, Shirin Montazer, Kristin Gehlen, Jessie Gish, Joey Nowak, and Emily Laxer. I cannot thank you enough for your personal and collegial support, which has helped me preserve during difficult times of the PhD program. I also thank you for listening and challenging my ideas along the way. I have developed intellectually and personally as a result of having close friends like you.

To my family—including my father Roger Young, mother Donna Kane, sister Tamara Young, step-mother Diana Gillespie, and pseudo parents, Tom and Val Gehlen—I thank you for your unconditional love and support. You have always understood and tolerated the time I dedicate to my research, even if it meant sacrificing family time. I would especially like to thank my father, who sadly passed away two years before I finished this project. Dad, I cannot express how grateful I am to you for always being there no matter what, and believing in me when it seemed no one else did. You encouraged me to pursue my goals, and always helped me find the strength
to do so. Your unconditional love and support has helped me become the strong, successful woman I am today. I promise to keep your memory with me forever and always.

Finally, to my number one fan, best friend, and partner in life—my dearest Paul. Words cannot express my gratitude for your continual support, guidance, and love. I thank you for being such an amazing partner; my number one critic, colleague, and sole confidant. You have contributed to my academic and personal success in so many ways. You are—and will always be—the part that makes me whole; the one I laugh with, live for, admire, and love. Thank you for being you, and for all you have done for me.
Table of Contents

Chapter 1 Introduction .................................................................................................................. 1

Mechanisms of Neighbourhood Effects on WFC and Distress .................................................... 3

Neighbourhood Social Composition .............................................................................................. 3

Neighbourhood Disadvantage and Structural Amplification ......................................................... 4

Community Resource Availability ................................................................................................. 5

Gender Differences ...................................................................................................................... 6

Methodological Approach ........................................................................................................... 7

Overview of the Dissertation ........................................................................................................ 8

References ................................................................................................................................... 9

Chapter 2 The Impact of Neighbourhood Composition on Work-Family Conflict and Distress . 14

Introduction ................................................................................................................................... 14

Literature Review .......................................................................................................................... 16

Work-Family Conflict as a Chronic Stressor .................................................................................... 16

Neighbourhood Effects on Work-Family Conflict and Distress .................................................. 17

Structural Equivalence and Norm Diffusion .................................................................................. 18

Structural Equivalence and Collective Social Support ................................................................. 20

The Specificity Argument .............................................................................................................. 21

Gender Differences ...................................................................................................................... 21

Data and Method .......................................................................................................................... 22

Individual-Level Data .................................................................................................................... 22

Individual-Level Measures ............................................................................................................ 24

Neighbourhood-Level Data .......................................................................................................... 26

Neighbourhood-Level Measures: Structural Disadvantage ....................................................... 26
Structural Equivalence: Measures of Social Similarity between Respondents and Residents

Analytic Strategy

Data Sparseness

Results

Neighbourhood Variation in WFC and Distress

Work-Family Conflict: Neighbourhood Predictors and Individual-Level Controls

Psychological Distress: Interactions between WFC and Neighbourhood Composition

Discussion

Structural Equivalence, Norm Diffusion, and Collective Social Support

The Salience of Family Forms

Contributions and Directions for Future Research

References

Chapter 3 Neighbourhood Disadvantage, The Sense of Personal Control, and Work-Family Conflict: An Application of the Structural Amplification Model

Introduction

Literature Review

Neighbourhood Disadvantage and Disorder, WFC, and Distress

Indirect Effects of Neighbourhood Disadvantage: The Structural Amplification Model

Neighbourhood Disadvantage and Disorder, Psychological Resources, and WFC

Neighbourhood Context and Personal Control

Personal Control and Work-Family Conflict

Modifying Effects of Personal Control

Gender Differences

Summary of Hypotheses

Data and Method
Chapter 4 Do Community Resources Matter? The Impact of Real and Perceived Community Resource Availability on Work-Family Conflict and its Mental Health Consequences

Introduction .................................................................................................................. 98

Literature Review .......................................................................................................... 99

Neighbourhood Disadvantage, Community Resources and Work-Family Conflict ........ 99

Sample ............................................................................................................................. 64

Individual-Level Measures ........................................................................................... 65

Control Measures .......................................................................................................... 67

Neighbourhood-Level Data ........................................................................................... 67

Neighbourhood-Level Measures .................................................................................. 67

Analytic Strategy ........................................................................................................... 68

  Equation for Work-Family Conflict ........................................................................... 68
  Equation for Psychological Distress .......................................................................... 69
  Equation for Personal Control ................................................................................... 70

Results ........................................................................................................................... 71

  Neighbourhood Variation in WFC and Distress ....................................................... 71
  The Association between Neighbourhood Disadvantage, Disorder and Sense of Control ..... 72
  Neighbourhood Context, Personal Resources, and WFC ........................................ 72
  Neighbourhood Context, Personal Resources, and the Consequences of WFC ......... 73

Discussion ...................................................................................................................... 75

  Neighbourhood Context, WFC and Distress ............................................................. 76

  Structural Amplification Theory: Neighbourhood Context, Personal Resources, and WFC 77

  Gender Differences in the Associations between Neighbourhood Context, WFC, and Distress ........................................................................................................ 78

  Caveats, Considerations, and Contributions .............................................................. 79

References ....................................................................................................................... 81
| The Importance of Neighbourhood Social Composition | 139 |
| Neighbourhood Disadvantage and Structural Amplification | 140 |
| Community Resources | 140 |
| Gender Differences in the Effect of Neighbourhood Context on WFC and Distress | 141 |
| Inconsistencies, Limitations, and Directions for Future Research | 141 |
| Conclusion | 145 |
| References | 147 |
| Appendices | 152 |
| Copyright Acknowledgements | 162 |
List of Tables

Table 2.1 Random and Fixed Effects Model for Work-Family Conflict and Psychological Distress for Employed Women (N=642) and Men (N=771) ................................................................. 49

Table 2.2 Work-Family Conflict Regressed on Percent Same Family Form and Age-Gender Category in the Neighbourhood for Employed Women (N=642) and Men (N=771) .................. 50

Table 2.3 Distress Regressed on Work-Family Conflict and Percent Same Family Form in the Neighbourhood for Employed Women (N=642) and Men (N=771) ........................................... 51

Table 2.4 Distress Regressed on Work-Family Conflict and Percent Same Ethnicity in the Neighbourhood for Employed Women (N=642) and Men (N=771) ................................................. 52

Table 3.1 Random and Fixed Effects Models for Work-Family Conflict and Psychological Distress (N=1,702) ........................................................................................................ 89

Table 3.2 Regressions of Perceived Neighbourhood Disorder, and Sense of Control on Neighbourhood and Individual Characteristics (N=1,702) .......................................................... 90

Table 3.3 Work-Family Conflict Regressed on Neighbourhood Disadvantage, Disorder, and Sense of Control (N=1,702) .................................................................................................... 91

Table 3.4 Psychological Distress Regressed on Work-Family Conflict, Neighbourhood Disadvantage, Disorder, and Sense of Control (N=1,702) ................................................................. 92

Table 4.1 Random and Fixed Effects Models for Work-Family Conflict and Psychological Distress (N=1,702) ........................................................................................................ 130

Table 4.2 Regressions of Perceived Resource Availability and Social Cohesion on Neighbourhood and Individual Characteristics (N=1,702) .......................................................... 131

Table 4.3 Work-Family Conflict Regressed on Neighbourhood Resources and Social Cohesion (N=1,702) ........................................................................................................ 132
Table 4.4 Psychological Distress Regressed on Work-Family Conflict, Neighbourhood Resources and Social Cohesion (N=1,702) ........................................................................................................ 133
List of Figures

Figure 2.1 The Association between Percent of Residents with Similar Family Form to the Respondent and Work-Family Conflict for Women (N=642) .......................................................... 53

Figure 2.2 The Association between Percent of Residents with Similar Family Form to the Respondent by Work-Family Conflict and Distress for Women (N=642) ........................................... 54

Figure 3.1 Conceptual Structural Amplification Model of Neighbourhood Context and Work-Family Conflict .......................................................... 93

Figure 3.2 The Association between Neighbourhood Disadvantage and Work-Family Conflict for Men (N=795) and Women (N=907) .................................................................................................................. 94

Figure 3.3 The Association between Neighbourhood Disorder and Work-Family Conflict across Levels of Sense of Control (N=1,702) ........................................................................................................ 95

Figure 3.4 The Association between Work-Family Conflict and Distress across Levels of Neighbourhood Disorder for Men (N=795) and Women (N=907) ......................................................... 96

Figure 3.5 The Association between Work-Family Conflict and Distress across Levels of Sense of Control (N=1,702) ........................................................................................................ 97

Figure 4.1 Conceptual Model of Real/Perceived Neighbourhood Resource Availability, WFC, and Psychological Distress ........................................................................................................ 134

Figure 4.2 The Association between Perceived Community Resource Availability Disadvantage and Work-Family Conflict for Men (N=795) and Women (N=907) ........................................... 135

Figure 4.3 The Association between Perceived Community Resource Availability and Work-Family Conflict by Social Cohesion (N=1,702) .............................................................................. 136

Figure 4.4 The Association between Work-Family Conflict and Psychological Distress by Social Cohesion (N=1,702) ........................................................................................................ 137
List of Appendices

Appendix 1 Descriptive Statistics for all Study Measures, Chapter 2 for Women (N=642) and Men (N=771) .......................................................................................................................... 152

Appendix 2 Selected Demographics of Toronto and other U.S. Urban Cities. .................. 153

Appendix 3 Distribution of Missing Cases for Continuous Individual-Level Variables, Chapter 2 for Women (N=642) and Men (N=771) ................................................................. 154

Appendix 4 Year of Interview, Chapter 2 for Women (N=642) and Men (N=771) ............. 155

Appendix 5 Neighbourhood Disadvantage by Women’s Household Income, Chapter 2 (N=642) ............................................................................................................................ 156

Appendix 6 Descriptive Statistics for All Study Measures, Chapter 3 (N=1,702) ............ 157

Appendix 7 Distribution of Missing Cases for Continuous Individual-Level Variables, Chapter 3 (N=1,702) ................................................................................................................. 158

Appendix 8 Neighbourhood Disadvantage by Household Income, Chapter 3 (N=1,702) .... 159

Appendix 9 Descriptive Statistics for All Study Measures, Chapter 4 (N=1,702) ............. 160

Appendix 10 Distribution of Missing Cases for Continuous Individual-Level Variables, Chapter 4 (N=1,702) ................................................................................................................. 161
Chapter 1
Introduction

“[T]he structural contexts of people’s lives are not extraneous to the stress process but are fundamental to that process. They are the sources of hardship and privilege, threat and security, conflict and harmony” (Pearlin 1989: 243, emphasis added).

North Americans are experiencing growing difficulty balancing paid work and unpaid family obligations (Aumann, Galinsky, and Matos 2011; Bianchi, Robinson, and Milkie 2006). These competing demands result in what scholars refer to as work-family conflict (WFC), a uniquely modern risk for mental health (Frone 2000). 1 Escalating levels of WFC and its consequences reflect recent changes in the workplace and at home. The rise of dual-earner households, a growing emphasis on ‘involved parenting’, the advent of communication technology, and the pressure of a 24/7 economy are among a few features of modern society influencing unprecedented experiences of WFC (Bianchi et al. 2006; Chelsey 2005; Clark 2000; Dermott 2008; Presser 2003; Marshall 2009).

Growing levels of WFC have raised concern among academics and the general public, primarily because of its mental health consequences. WFC can be defined as a chronic stressor, which “do[es] not necessarily start as an event but develop[s] slowly and insidiously as continuing and problematic conditions in our social environment or roles...” (Wheaton 1999, p. 283). Chronic stressors, if left unabated, can ultimately lead to unmanageable levels of stress, or what mental health scholars refer to as psychological distress (Pearlin et al. 1981). Research provides strong

1 I should point out that, while some scholars differentiate the direction of work-family conflict—where work demands conflict with family demands (“work-to-family conflict”), and family demands conflict with work demands (“family-to-work conflict” (Frone 2000))—my dissertation research has focused more so on the former. Work-to-family conflict is experienced in the neighbourhood context; work spills over into the family domain, which is often located in their neighbourhood of residence. The level of neighbourhood disadvantage and community resource availability therefore influences individuals’ experiences of work-to-family conflict. These ideas are consistent with the Stress Process Model, which highlights the importance of considering the context of stressful experiences (Pearlin 1989; 1999). So while previous research on the individual-level antecedents of WFC finds that work demands influence work-to-family conflict, and family demands influence family-to-work conflict, a more comprehensive sociological approach would highlight that the context in which one experiences either of these stressors is important. I am not suggesting that neighbourhood context does not impact levels and mental health consequences of family-to-work conflict. Rather, I would argue that these associations may play out differently and are therefore beyond the scope of this dissertation. Future research should explore this potential association.
evidence for this claim in the case of WFC, where higher levels of WFC result in greater distress (Duxbury and Higgins 2008; Frone 2000; Glavin, Schieman, and Reid 2011; Greenhaus and Parasuraman 1987; Pearlin et al. 1981; Mirowsky and Ross 2003).

The trends and consequences of WFC have sparked a plethora of studies on the topic in recent decades, most of which draw upon “border / boundary theory” or “demand-resource models” to explain patterns and health costs of WFC (Bakker and Geurts 2004; Clark 2000; Nippert-Eng 1996; Voydanoff 2007). However, these theories remain limited because they tend to emphasize individual-level antecedents to the exclusion of broader social contexts, including the neighbourhood of residence—a context that shapes the meaning and experience of work and family demands, and levels of conflict between them. There are some exceptional studies, including Voydanoff’s research on work, family and community (2001; 2004; 2007), literature on family-friendly communities (Swisher Sweet and Moen 2005; Sweet, Swisher, and Moen 2005), and Pitt-Catsouphes et al.’s new paradigm of work and family research (2006; also see Booth and Crouter 2001). Still, these literatures have a variety of theoretical and methodological limitations, such that they lack measures of WFC, or they rely solely on individual-based data and methods to approximate neighbourhood effects.

My dissertation addresses these limitations, and thereby contributes to WFC research as one of the first studies to more precisely examine the impact of neighbourhood context on WFC and its mental health consequences. I use data from Toronto, Canada compiled from a variety of sources, including individual survey data, the Canadian census, and municipal data on community resources. I link and then analyze these data using Hierarchical Linear Modeling (HLM) techniques to appropriately distinguish individual and neighbourhood-level variations (Raudenbush and Bryk 2002).

My dissertation also contributes to research on neighbourhood effects literature more broadly by considering multiple mechanisms through which neighbourhoods may impact WFC and subsequent mental health. I move beyond traditional markers of neighbourhood disadvantage and disorder to consider (a) the social composition of neighbourhood residents, (b) processes of neighbourhood structural amplification, and (c) the objective and perceived presence of
community resources. I expand on the details of my research approach and contributions in the following sections.

**Mechanisms of Neighbourhood Effects on WFC and Distress**

**Neighbourhood Social Composition**

One possible way that neighbourhood context may impact WFC and its mental health consequences is through the social composition of its residents. My approach here deviates from traditional perspectives of neighbourhood effects, which tend to emphasize a continuum of advantage and disadvantage, with a focus on the structural inequality embedded in social contexts (Leventhal and Brooks-Gunn 2000; Ross, Mirowsky, and Pribesh 2001; Sampson, Raudenbush, and Earls 1997; Wheaton and Clarke 2003).

Controlling for markers of neighbourhood disadvantage, I instead consider the social and psychological features of residents within neighbourhoods that may be important over and above implied structural disadvantages. I focus specifically on the social composition of the neighbourhood, and the distributions of social categories among residents. I propose that the prevalence of social demographic similarities of neighbourhood composition at the aggregate level relative to an individual may impact experiences of WFC.

I refer to social and demographic features of residents’ similarities as structural equivalence. Structural equivalence pertains to commonalities across demographic and role sets of individuals within geographical proximity (Burt 1978). The clustering of people with similar attributes provides the basis for normative diffusion and collective social support, which helps minimize the exposure and threat of certain stressors—including WFC (Lin and Dean 1984; Pillemer and Suitor, 1996). Similar to social comparison and relative deprivation theories, these ideas suggest that structural equivalence among residents perpetuates a common, cultural standard of WFC, which may normalize individuals’ comparable experiences, reducing the salience of WFC as a stressor (Davis 1959; Festinger 1954). Furthermore, the very notion of sharing a common stressor may lower its potential threat, because it encourages perceptions of social support availability from others enduring similar experiences (see research on perceived versus actual
support for comparable arguments; Barrera 1986; Thoits 2011; Turner and Marino 1994; Wethington and Kessler 1986).

Combined, these ideas suggest that the similarity of social and demographic features between residents relative to the individual may impact WFC and its consequences by influencing norm diffusion of WFC expectations and the perception of available social support from similar others. My arguments here resonate with research on neighbourhood effects, collective efficacy, and crime (Sampson et al. 1997). However, instead of focusing on levels of trust, cohesion, and informal social control—as is often done in this literature—I focus on the commonality of norms and values among neighbouring residents, as reflected by similarity in aggregated social and demographic features.

**Neighbourhood Disadvantage and Structural Amplification**

My emphasis on the social composition of residents does not rule out the importance of *neighbourhood structural features* to WFC and its mental health consequences. Drawing on more traditional approaches of neighbourhood effects, I consider these features as characterized by aggregate levels of poverty, unemployment, and lone parent households, in addition to perceptions of social disorder that structural disadvantage may instigate among residents (Mirowsky and Ross 2003; Ross et al. 2001). I draw on ideas of the Stress Process Model (Pearlin 1999) to predict that ambient stressors associated with neighbourhood disadvantage and perceived disorder *directly* increase WFC, as well as exacerbate its mental health consequences. Pearlin (1999) refers to this process as *stress proliferation* where one stressor increases exposure and vulnerability to secondary stressors.

Applied to the case of WFC, it may be that neighbourhood stressors—such as the lack of quality employment, crime, dilapidated housing, impoverishment, or the absence of safe, affordable childcare—*increase* WFC by amplifying work-related demands and worry about one’s own security and the well-being of loved ones, while reducing resources that provide safe social settings for networking, or help mitigate childcare demands (LeClere et al. 1997; Sweet et al. 2005; Voydanoff 2007). Moreover, individuals in disadvantaged neighbourhoods may have fewer quality employment opportunities (Fernandez and Su 2004; Jargowsky 1997). Low quality
jobs with high demands and low resources may have implications for the extent to which work and family obligations conflict (see Michel 2011, for a review of WFC antecedents).

However, there is a second—less explored—avenue through which neighbourhood disadvantage may impact the experience of WFC. I am referring to the indirect processes of structural amplification that unfold in disadvantaged neighbourhoods. According to Ross and her colleagues (Ross 2012; Ross et al. 2001), structural amplification can occur when the neighbourhood in which one finds themselves contributes to secondary stressors and mental health problems, while also undermining the psychological resources individuals would otherwise use to buffer the deleterious effects of that very context.

I hypothesize that structural amplification may occur in relation to WFC and its mental health consequences. Disadvantaged neighbourhoods present real or perceived environmental demands that may increase exposure to WFC by placing additional strain on individuals, making it difficult for them to attend to role-related obligations. But aside from their direct implications, these contexts may amplify levels and consequences of WFC because they undermine important psychological resources, including the sense of personal control, that individuals would otherwise use to combat the effects of stressors presented in these contexts.

Community Resource Availability

I consider one final feature of neighbourhoods that may impact WFC and its mental health consequences—that is, individuals’ real and perceived access to community resources. Most literature on neighbourhood effects remains limited because it tends to examine neighbourhood disadvantage, with the assumption that disadvantage necessarily implies the absence of community services or public resources (Aneshensel and Sucoff 1996; Ross and Mirowsky 2001; Wheaton and Clark 2003; see Sampson et al. 2002, for a review). Few studies to date actually consider the role of community resources in combination with traditional measures of neighbourhood disadvantage.

For my purposes, I define community resources as any service, organization, or institution within geographic propinquity that helps individuals negotiate competing work and family demands, thereby reducing potential conflict between these two domains, and the mental health
consequences that may arise in the event of such conflict. The presence of community resources may help reduce levels and consequences of WFC by presenting safe and convenient spaces where social support networks can be formed and children can play without worry. They may also offer individuals prospective solutions to domestic demands, reducing interference with paid work expectations (Pitt-Catsouphes et al. 2006; Voydanoff 2007).

However, the physical presence of community resources may have little impact unless residents are aware of them. I therefore test whether individuals’ *perceptions of access to community resources* matter in addition to, or beyond the physical availability of such resources. From this perspective, perceived resource access may mediate and / or moderate the association between objective community resources and WFC or its mental health consequences.

Finally, I predict that *social cohesion* may be a necessary condition through which the benefits of real and perceived community resource availability operate. Cohesion amongst residents helps facilitate information about resources, and encourages others to use the services available to them (Carpiano 2007; Sampson et al. 1997). Social cohesion may therefore mediate and/ or moderate the associations between real and / or perceived community resource availability, WFC, and its mental health consequences.

**Gender Differences**

I consider that the various mechanisms through which neighbourhood context impacts WFC and its mental health consequences may vary for men and women. My ideas here are based on studies that find gender differences in the experiences and consequences of work, family, and neighbourhood. For example, research shows that the different meanings that men and women attribute to work and family roles influence the interpretation and mental health outcomes of WFC (Glavin et al. 2011; Simon 1995). Scholars also suggest that women are often more connected to others in their neighbourhood of residence compared to men, which may increase women’s awareness of and sensitivity to their surrounding environment (Campbell and Lee 1990; Naples 1991). Combined, these differences may manifest into gender variations in the association between neighbourhood context, WFC, and its mental health consequences.
Methodological Approach

To test my hypotheses I use a combination of data from individual surveys, community databases, and the national census. Multiple data sources are necessary to accurately tap neighbourhood effects on individual outcomes like WFC and distress. My individual-level data come from two different studies. The first is the 1995 Toronto Intact Family Study (Wheaton, PI). These data comprise information from the wife, husband, and one focal child aged 9 to 16 in each of the 888 households sampled. These data are ideal for my study, because they include the population most vulnerable to WFC and its consequences: Married parents with at least one dependent child at home (Bianchi et al. 2006). I connect these data to 1996 Canadian census data by residential postal code to contrive measures of neighbourhood context.

The second individual-level dataset is from the 2011 Neighbourhood Effects on Health and Well-Being study (Toronto NEHW study; Wheaton and O’Campo, Co-PI’s). These data were collected specifically for neighbourhood-based research, and comprise information from 2,412 respondents across Toronto’s city-defined neighbourhoods. Unlike the 1995 Intact Family data, the NEHW data are more recent, and come from respondents of various family backgrounds, which allows for greater breadth and generalizability of my findings. I connect individual responses from the NEHW data to 2006 Canadian census data to access corresponding measures that approximate neighbourhood residential features.

I further link these data to a final dataset of community resource availability at the census level. These 2010 data are from the City of Toronto, and include information on the number and type of community resources available in the Toronto area. These data are unique to neighbourhood-effects studies, and ideal for research on community resources. I connect these data with the individual NEHW data and 2006 Canadian census data to acquire a broader view of how neighbourhood context impacts WFC and its mental health consequences via community resource availability.

For all analyses, I employ Hierarchical Linear Modeling (HLM) techniques (Raudenbush and Bryk 2002). By using HLM, I can simultaneously model individual and neighbourhood-level predictors of WFC and distress. This approach correctly specifies multi-level associations by
partitioning the total variance into two components – including individual variance in WFC and mental health outcomes within neighbourhoods and across neighbourhoods.

Overview of the Dissertation

The following dissertation comprises five chapters, including the present introductory chapter. Chapters 2 through 4 present three distinct papers that can be considered as independent studies. However, combined they form a comprehensive framework for understanding neighbourhood effects on WFC and distress. The first paper (chapter 2) examines the impact of neighbourhood social composition. Here, I use the 1995 Intact Family data matched to 1996 Canadian census data to assess the extent to which socially similar—or structurally equivalent—neighbours relative to oneself reduce perceptions and mental health consequences of WFC.

The second paper (chapter 3) tests the effect of neighbourhood disadvantage and perceived disorder on WFC and distress using the 2011 NEHW data matched to 2006 Canadian census data. In this study, I draw on ideas of structural amplification to test whether neighbourhood disadvantage and disorder lead to WFC directly—generating additional conflicts between work and family obligations, and indirectly—by undermining the sense of personal control that individuals would otherwise use to combat the effects of neighbourhood context on WFC and its consequences.

In the third paper (chapter 4) I also use the 2011 NEHW data, matched to 2006 census data, and incorporate additional information on Toronto’s community resources to test whether community resource availability matters for WFC and its mental health consequences. I also assess whether the perceived presence of resources matters independent of the physical resources available, and whether the associations between real and/or perceived community resource availability, WFC, and distress vary across levels of social cohesion.

In light of research on men’s and women’s distinct experiences of work, family, and neighbourhoods, each of the studies presented in chapters 2 through 4 test for possible gender differences across my focal hypotheses.

Chapter 5 summarizes the key findings and conclusions of my studies. I also discuss the caveats and limitations that pertain to each of the papers, and highlight directions for future research.
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Chapter 2
The Impact of Neighbourhood Composition on Work-Family Conflict and Distress

Introduction

North Americans are experiencing increasing difficulty balancing paid work and unpaid family obligations (Aumann, Galinsky, and Matos 2011; Bianchi, Robinson, and Milkie 2006). These competing expectations result in what scholars refer to as work-family conflict (WFC), a uniquely modern source of mental health risk (Frone 2000). WFC has two components; objective—time or behaviour-based incompatibilities across roles; and subjective—the perceptions of normative understandings about work-family role balance (Greenhaus and Beutell 1985; Hochschild 1989; Simon 1995). Research and theory to date, however, tend to emphasize the former and neglect the latter (see Vulpis 2009, for a review).

Previous research also neglects the impact of neighbourhood context on WFC and its mental health consequences (see Swisher, Sweet, and Moen 2004; Voydanoff 2007, for exceptions), despite strong evidence of neighbourhood effects on related outcomes, including family conflict, marital satisfaction, and overall mental and physical well-being (Aneshensel and Sucoff 1996; Leventhal and Brooks-Gunn 2000; Wheaton and Clarke 2003). I apply ideas from the neighbourhood effects literature to my analysis, and reconceptualize neighbourhood context in terms of its implications for WFC as both a shared understanding of available psychosocial resources and shared assumptions about collective identity that continually define and redefine expectations of and balance between work and family roles. While factors of neighbourhood structural disadvantage, such as poverty rates or presence of community resources like day-care, may influence the objective component of WFC, the psychological and social context of the neighbourhood impacts the subjective experience of WFC and thus its mental health consequences.

I assess the impact of the psychological and social context of the neighbourhood through the prevalence of similarity between individuals’ social and demographic features relative to other neighbourhood residents. I refer to these similarities as structural equivalence. Structural
equivalence broadly refers to commonalities across status and role sets of individuals within geographical propinquity (Burt 1978). The clustering of people with similar attributes provides the basis for *normative diffusion* and *collective social support*, which helps minimize the exposure and threat of certain stressors—including WFC, and its mental health consequences (Lin and Dean 1984; Pillemer and Suitor, 1996). My approach resonates with previous research on collective efficacy (Sampson et al. 1997). However, instead of focusing on levels of trust and cohesion, and informal social control—like this research often does—I consider commonalities in the norms and values of neighbouring residents, as assumed by similarities in the aggregate of social and demographic features.

From this perspective, structural equivalence in a neighbourhood promotes two important conditions that affect the understanding and consequences of WFC: First, it creates a certain level of cohesion in the community, which allows norms about work and family role expectations to be observed and shared. Second, structural equivalence breeds the assumption that similar others are more likely to understand your own work-family situation and thus provide both emotional and information support. This fosters a perception of available collective support from others in the neighbourhood. I see these two issues as flowing from conditions of structural equivalence separately, but they are not completely independent. In fact, they overlap: the transmission of norms leads to comparable experiences, and thus, the presumption of social support from others in similar situations, while social support furthers the diffusion of norms through interactions with supportive others.

I do not, however, analyze norm diffusion or collective social support directly. Instead, I use these interpretive frames to help understand how features of structural equivalence, including family structure, age, and ethnicity, may be related to work-family conflict. I argue that the increasing correspondence of features between individuals and their neighbours—e.g., similarity in marital and parental statuses, compared to just similarity in marital status—reflects greater levels of structural equivalence. Greater levels of structural equivalence will, in turn, reduce the appraised levels and consequences of WFC through processes of norm diffusion and perceptions of collective social support.
Based on these ideas, and previous gaps in the literature, my research questions the extent to which structurally equivalent neighbours relative to oneself reduce perceptions of WFC, and its deleterious mental health consequences. Also, given evidence of gender differences in the roles and experiences of work, family, and neighbourhood, I test whether my focal associations vary for men and women.

**Literature Review**

**Work-Family Conflict as a Chronic Stressor**

Attention to WFC and its mental health consequences is growing among academics and the general public (Eby, Maher, and Butts 2010). Yet, theories of the antecedents and consequences of WFC, including demand-resource models, and border/boundary theories, remain limited in scope because they focus on individual-level antecedents and exclude broader social contexts, including residential neighbourhoods, that help shape the meaning of both work and family and the expected balance of demands between them (Clark 2000; Nipper-Eng 1996). To address this limitation, I conceptualize WFC as a chronic stressor, as defined in the Stress Process Model (Pearlin et al. 1981). An important feature of the Stress Process Model is the embeddedness of stressors experienced across social statuses, biography, and social contexts—including neighbourhood and work contexts. Chronic stressors, by definition, have dual objective and subjective elements (Wheaton 1999). In distinguishing objective from subjective components of stress, I draw attention to each as distinct elements of stress. Thus, whether or not there is an objective basis for the stressor, the “perception of it operates as a stressor” (Wheaton 1997: 60). Examples include real versus perceived discrimination (Kessler, Mickelson, and Williams 1999), objective definitions versus subjective understandings of poverty (McLeod and Nonnemaker 1999), or equality versus perceived equity in domestic chores (Lennon and Rosenfield 1994). In each case, actual opportunity or equality constitutes something quite different from perceived options or equity.

These examples may also apply to WFC, where the antecedents and consequences of perceived versus actual conflict between work and family differ. Qualitative accounts of WFC provide evidence for this claim, showing that the boundaries between work and home are not always structurally clear, but rather are actively negotiated by individuals depending on their social
context, location, and experiences (Hochschild 1989; Nippert-Eng 1996; Simon 1995). In accordance with this perspective, I argue that especially the subjective component of WFC and its consequences may be sensitive to neighbourhood context – and specifically the social and psychological context reflected by the aggregate social composition of individuals in the neighbourhood.

**Neighbourhood Effects on Work-Family Conflict and Distress**

My focus on the psychosocial aspects of neighbourhoods contrasts with more common perspectives of neighbourhood effects (see Hill and Maimon 2013, for a review). Traditionally, neighbourhood effects have been studied along a continuum of advantage and disadvantage, with a focus on the structural inequality embedded in social contexts. This literature relies on the socioeconomic status of neighbourhoods and related measures of inequality, such as poverty, prevalence of high school dropouts, single parent families, and unemployment rates (Leventhal and Brooks-Gunn 2000; Sampson et al. 1997; Wheaton and Clarke 2003). Neighbourhood disadvantage signals the availability of and access to resources, which alters individuals’ choices in the local environment, and may influence schooling, work, and family operations, as well as perceived levels of threat and feelings of insecurity (Macintyre and Ellaway 2003; Ross 2012).


A second perspective, also prevalent in the literature, is the view that the social and psychological features of residents within neighbourhoods are important over and above implied structural disadvantages (see Sampson, Morenoff, and Gannon-Rowley 2002, for a review). Jencks and Mayer (1990) include both structural and psychological impacts of neighbourhood in their outline of possibilities, but the weight of the follow-up in actual research is on structurally defined impacts of inequality on objective conditions, like disorder, access to services, resources, and pollution (Ross and Mirowsky 2001; Wickrama and Bryant 2003).
I therefore distinguish two realms of social contexts that need to be studied, including structural disadvantage and social composition. I direct my attention to the social composition of the neighbourhood, which more strictly refers to the distributions of social categories in the neighbourhood, without the assumption of status hierarchy, although these categories may also signify status differences secondarily. I focus on the compositional aspects of neighbourhoods and their impact on levels and consequences of WFC. I do not suggest, however, that neighbourhood disadvantage is irrelevant. Rather, I argue that it is important to focus on other features of neighbourhoods that are not circumscribed completely by socioeconomic disadvantage. I propose that the prevalence of demographic and social status similarities of neighbourhood composition at the aggregate level relative to an individual—including marital and parental statuses, age, and ethnicity—impact WFC in two ways: First, these similarities may buffer levels and consequences of WFC by perpetuating norms and values that reflect expectations for the “normal operations” in the realm of WFC. Second, the presence of such similarities will increase the perception of available social support in the neighbourhood because similar others are assumed to face the same configuration of demands and experiences. In effect, the presence of similar others is the starting point of shared understandings, which is a foundation for the presumption of available support. These benefits arise from the implicit transmission of cultural norms among residents. I expand on these ideas in the next section, drawing upon concepts of structural equivalence, norm diffusion, and collective social support.

**Structural Equivalence and Norm Diffusion**

Residents within a neighbourhood are likely to have similar social and demographic characteristics as a result of macro-level inequalities that sort individuals in locations by socioeconomic status, ethnicity, age, and family form (Massey and Denton 1993). These similarities across social features reflect what network theorists call *structural equivalence* (Burt 1978). Structural equivalence is defined as a “jointly occupied position or status/role set” (Burt 1978: 190), including parental and marital statuses, class standing, life course position, and ethnic origins. Network theorists find that structural equivalence reflects social homogeneity in values, attitudes, and behaviours. As Burt (1978) explains: “Using the socialization argument, structurally equivalent actors should have similar attitudes and behaviors because they tend to interact with the same types of other actors in the same manner. Structurally equivalent actors are similarly socialized by others. They should have similar attitudes and behaviors as a result” (p.
The more specific the similarity across social and demographic features, the more comparable the beliefs and value systems of the individuals involved (Burt 1978; McPherson, Smith-Lovin, and Cook 2001).

I borrow from these ideas to suggest that structural equivalence among residents within a neighbourhood matters for WFC because it signals similarities in attitudes, values, behaviours, and experiences of WFC. The prevalence of common value systems among residents perpetuates a cultural standard of WFC, which may normalize individuals’ comparable experiences, making them less salient and thus, less distressing.

My assumptions here resonate with social comparison and relative deprivation theories, which argue that when faced with a threat, demand, or stressor individuals will compare themselves to similar others to discern an acceptable response to the threat in question (Festinger 1954; Schachter 1951). Certain norms, values, and behaviours are more prevalent and therefore become common place; almost expected among particular groups. In the neighbourhood literature, Jencks and Mayer (1990) highlight how cultural standards of what constitutes normal behaviour disseminate among individuals within close geographic propinquity to deal with their personal circumstances:

…when large numbers of individuals are unable to do what society as a whole expects them to do (finish school, get a respectable job, create and support a family), they will try to create a common culture to deal with their common failure. This culture will accept as ‘normal’ and in some cases even praiseworthy what the rest of society regards as aberrant and reprehensible (p. 116-17).

The same processes may play out in the neighbourhood context with regards to experiences of WFC: Structural equivalence—or similarities in values, norms and behaviours—among residents sets a cultural standard of WFC because of the prevalence of common value systems. These standards are then transmitted indirectly via observation of others in the community, and used as a comparison point to evaluate one’s own definition of what constitutes WFC and the threshold at which it results in distress. Moreover, commonalities between the expected levels of WFC are experienced as pervasive, generic, and “a part of life” among similar others. For example, mothers of school-age children in intact families face similar sets of demands, with similar access to resources, which together act to reduce the influence of the variability in these inputs to WFC relative to the influence of normative expectations. Thus—in accordance with social
comparison and relative deprivation theories—it is only when individuals’ experiences are unusual relative to others in the neighbourhood that we should observe elevated levels of the subjective component of WFC, leading to greater distress (Festinger 1954; Schachter 1951; see Jencks and Mayer 1990, for similar arguments).

**Structural Equivalence and Collective Social Support**

Structural equivalence among neighbourhood residents may also buffer levels and consequences of WFC because it influences perceptions of implicitly available social support. Common attitudes and values create a higher probability per individual of an assumption of available social support in the face of a threat, or chronic stressor (Lin and Dean 1984; Suitor and Keeton 1997). Similar individuals, in terms of demographics, values, and beliefs, tend to endure similar experiences. Sharing similar experiences enhances both the perception and reception of empathetic understanding and emotional support (Pillemer and Suitor 1996). In contrast, individuals surrounded by dissimilar others, or those who do not share a similar experience, may be viewed as less empathetic, unavailable, and non-supportive (Suitor and Keeton 1997; see Gee 2002; Schieman and Pearlin 2006, for examples).

Thus, the very notion of sharing a common stressor lowers its potential threat, in part, because it leads to the assumption of available support from others enduring similar experiences. Despite whether or not actual support is received from one’s neighbour, what matters is the perceived availability of such support. My focus here is strongly encouraged by previous research on social support and mental health, which finds evidence that the perceived availability of support tends to matter more than the actual support received. (Barrera 1986; Thoits 2011; Turner and Marino 1994; Wethington and Kessler 1986).²

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² There may be practical implications for social support for WFC. Because of social and demographic similarities, residents are more likely to befriend the other, and extend advice and hands-on help with marital and parental-related demands (Swisher et al. 2004). Parents may offer to watch over others’ children during the work day, or exchange play-date times across households. A high prevalence of families with children might increase the presence of childcare facilities in the neighbourhood. These efforts and additional facilities may help alleviate some family demands that potentially interfere with work obligations; thus, reducing WFC and its consequences (Moen 2003; Voydanoff 2007). However, for my purposes, I focus on respondents’ perceptions of social support in the neighbourhood, with the assumption that the more individuals in the neighbourhood similar to oneself will increase perceived levels of support in the face of WFC.
**Hypothesis 1:** Structural equivalence between respondents and neighbourhood residents reflect normative expectations of WFC and enhance assumed availability of social support, which will reduce perceptions of WFC.

**Hypothesis 2:** Structural equivalence between respondents and neighbourhood residents reflect normative expectations of WFC and enhance assumed availability of social support, which will reduce the **mental health consequences** of perceived WFC.

**The Specificity Argument**

Based on the notion of structural equivalence, and the prediction that beliefs and attitudes continually converge as the number of similar social and role sets increase, I hypothesize that the benefits of structural equivalence for WFC will be strongest the greater the **specificity** of the match between neighbourhood composition and individual statuses. That is, the cultural standards, shared experiences, and assumed support surrounding WFC will converge the more specific the social and demographic similarities across residents. For example, similarities in ethnicity of residents in the neighbourhood relative to the individual may be greatest when those similarities are based on a specific country or region of origin, rather than more general classifications of visible minority status. Or, it may matter more to the individual that the neighbourhood has a high prevalence of intact families with children in the same age range than just a high prevalence of intact families per se.

I refer to this as the **specificity argument**, where specificity implies greater levels of similarity between individuals’ social and demographic features relative to their neighbours. Based on the reasoning above, I hypothesize the following:

**Hypothesis 3:** The benefits of structural equivalence between respondents and neighbourhood residents for WFC and its mental health consequences will be greater the more **specific** the match of social similarities across residents

**Gender Differences**

I suspect that my hypothesized associations will differ by gender for three reasons. First, women and men are likely to experience work and family domains differently, in addition to variations in perceptions of conflict between the two (Nippert-Eng 1996; Simon 1995). This theory is best
exemplified in the work of Simon (1995), who finds that the different meanings that men and women attribute to work and family roles influence their experiences and mental health consequences of WFC. Women view work and family roles as independent, and therefore experience WFC as pervasive and non-specific. Alternatively, men believe their work and family roles to be interdependent and experience WFC as specific and delimited, and therefore less consuming. These experiences are manifest via gender differences in mental health, where women experience more guilt, negative self-evaluations, and distress.

Second, I expect gender differences in the effects of neighbourhood social context on WFC and distress because women are often more connected to others in their neighbourhood of residence compared to men. Research suggests that women are more likely to a) integrate into the social fabric of the community (Steffensmeier 1984), b) invest in relationships with others in the neighbourhood (Tivers 1988; Naples 1991), and c) participate in public gatherings and neighbourhood activities (Campbell and Lee 1990) compared to their male counterparts. This pattern would suggest that women will be more aware of and sensitive to the neighbourhood composition and climate as well.

**Hypothesis 4:** Greater specificity of social similarities between respondents and neighbourhood residents will reduce perceptions and mental health consequences of WFC more for women compared to men.

**Data and Method**

**Individual-Level Data**

I use two data sets to test my hypotheses—individual and census level data. My individual-level data are from the Toronto Intact Family Study, and were collected between 1992 and 1996. This data set samples 888 households in the Greater Toronto Area. Information was gathered from the wife (main respondent), the husband, and one focal child aged 9 to 16 within the household. Thus, there is no variation across family form for these respondents—they are all husband-wife families with children at least one child in this age range. The first stage of sampling identified the percentage of intact families within all metropolitan census tracts to maximize response rates.

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3 Originally, the research team expected to collect data from fewer families. In 1994 the grant was extended, and additional data was collected in the latter two years.
The final sample had a response rate of 70% and was weighted based on four criteria, including: household income, female paid work status, nativity of parents, and number of children in the household.

Toronto is an ideal setting to study neighbourhood effects because of its unique demographic and social characteristics. The city is highly multicultural, with over a 50% foreign born population from over 140 different countries (City of Toronto 2012). Moreover, Toronto’s neighbourhoods are less segregated by ethnicity compared to other urban cities (see Fong and Wilkes 2003; Hulchanski 2007, for comparable arguments), which may be an implicit strength of this study. Because of the reduced level of segregation, I am able to successfully disentangle the effects of neighbourhood social composition from neighbourhood structural disadvantage. To give a more generalized picture of Toronto’s unique population, I present several demographics for Toronto, relative to other major U.S. urban cities, including Chicago, New York, and Philadelphia in Appendix 2. These figures highlight that, in comparison, Toronto has the highest percentage of foreign born, with the highest median household income as of 2006.

I use missing data imputation techniques for my continuous individual-level measures, including independent and dependent variables: a) psychological distress, b) WFC, c) childcare hours per week, d) housework hours per week, and e) paid work hours (see Allison 2002, for a review of missing data imputation techniques). I present a breakdown of the missing cases per measure for men and women in Appendix 3. The majority of missing cases were specific to work hours for women (39), and childcare hours for men (150). Among these, most respondents reported that they did not know how many hours per week they spent on the task in question. Missing cases across other measures may be attributed to refusals or coding errors. Patterns of missing data, however, appear to be arbitrary and therefore less problematic compared to systematic patterns of missing data.

To impute missing cases, I first restricted my sample to working respondents only (total 771 men and 642 women), because of the nature of my focal outcome (WFC). 4 Second, I used PROC MI

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4 My sample includes more fathers than mothers because these fathers reported non-employed wives, which were automatically excluded from my study.
in SAS 9.3 to regress all focal continuous variables on one another, which produced estimates of any missing values across these measures in five imputed data sets. I assume arbitrary missing patterns and therefore use a Markov Chain Monte Carlo (MCMC) algorithm to generate all imputed values (see Schafer 1997 for additional details on imputation algorithms). I then used PROC MIANALYZE in SAS 9.3 to average the estimates for each model across all five imputed data sets.

Individual-Level Measures

*Psychological distress* — To measure distress, I use a Composite Distress Scale (CDS), which comprises a series of 22 items from popular distress scales including Center for Epidemiological Studies Depression Scale (CES-D, see Radloff 1977), the Composite International Diagnostic Interview (Robins et al., 1988), the Beck Depression Inventory (Beck et al. 1961), the Langner Index (Langner and Michael 1963) and the Spielberger Anxiety Scale (Spielberger 1979). Factor analyses reveal that the chosen 22 items load strongly onto one factor (results not shown; α= .95 for women and .93 for men). Appendix 1 provides details about the distribution of this variable.

*Perceptions of work-family conflict* — I measure perceived WFC using an index of five subjective items. In each case, respondents were asked to “rate how easy or difficult it is for [them] to do each of the following activities” based on their paid work expectations. Items included situations such as taking children to school events and health care appointments, staying at home with a sick child, having a relaxed, pleasant time with your children, and doing shopping and running errands. Response categories ranged from “very easy” (1) to “very difficult” (4). Individual responses are averaged by the total number of index items (α= .85 for women; .83 for men). This measure is similar to others used in work-family conflict, balance, and integration literature (Bohen and Viveros-Long 1981).  

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5 My measure of WFC, adapted from Bohen and Viverous-Long (1981), is considered an ideal measure for my purposes, because it taps parents’ general appraisals of their ability to meet family expectations (especially parental obligations) given their time-constraining work expectations. I recognize that there are alternative measures of WFC in the literature (see Greenhaus and Beutell 1985; Grzywacs and Marks 2000, for example); however, these measures were not included in the 1996 Intact Family Data and could not be analyzed in my study.
Objective antecedents of work-family conflict – To effectively model the subjective component of WFC, it is necessary to control for more objective demands that may result in WFC, including individuals’ full-time or part-time work status and domestic task hours per week. Note that all questions were asked of both mothers and fathers.

Work status – Since my sample comprises working mothers and fathers only, I decided to dichotomize my work hours measure into “full-time” (1) workers compared to those working only “part-time” (0), based on whether the respondent works more or less than 30 hours per week by Canadian standards (Statistics Canada 2009).

Hours of household and childcare tasks – Respondents were asked to record the average number of hours spent on 19 domestic tasks per week, such as “preparing family meals”, “washing dishes and cleaning up after meals”, “cutting the lawn”, “taking care of the kids when spouse is home”, “taking care of kids when spouse is gone”, “driving other household members to work”, etc. These questions are similar to those in the National Survey of Families and Households (Sweet, Bumpass, and Call 1988), but cover a wider range of issues. Responses were summed to generate separate totals of hours on household tasks and childcare per week.

Control Measures
I control for immigrant status (foreign vs. native-born), respondent’s age (in years), education (coded in years), number of children (counted from the household composition), previous mental health episodes and year of interview. Previous episodes were derived from questions on mental health history. After responding to the distress items, respondents were asked: “Has there been any other period in your life when you felt sad, blue, or depressed most of the time, and had some of these other experiences at the same time”; and “Has there ever been a period in your life of two weeks or more when you lost interest in most things, like work, hobbies, and things you enjoy, and had some of these other experiences as well?” If respondents answered yes to either of these questions they were coded as having a previous mental health episode (1) versus not (0).

Finally, I control for year of interview, given that the Intact Family Data were collected over a four-year time period. Respondents were assigned a value of ‘1’ if they were interviewed in 1992.
or 1993, and a ‘0’ if interviewed in 1994, 1995, or 1996. I include this measure to assess whether years interviewed before the Census had any impact on my overall analyses.\(^6\)

**Neighbourhood-Level Data**

Because the majority of respondents were interviewed within three years of collection of the 1996 Canadian Census, I use these data to measure neighbourhood social composition—or social similarity of residents relative to the respondent—and structural disadvantage (see Appendix 4 for a breakdown of respondents’ year of interview).\(^7\) Census tracts are designated by population, include from 3,000 to 8,000 people, and are used as geographical boundaries to separate homogenous segments of the population. These data were merged with my individual-level data using the 1996 Canadian Postal Code Conversion File (PCCF4F+), which automatically assigns a census tract to each respondent based on their respective residential postal code; a common approach in neighbourhood effects research (e.g., Matheson et al. 2006; see Wilkins 2005, for a review). The women in my study were sampled from 251 different census tracts; the men from 258. From the 1996 census, I use measures of disadvantage (operationalized by the poverty rate, unemployment rate, percent of lone parents in the neighbourhood), family form, the distribution of age, and ethnic background of the census tract population.

**Neighbourhood-Level Measures: Structural Disadvantage**

Adapted from previous literature on neighbourhood effects (i.e., Aneshensel and Sucoff 1996; Matheson et al. 2006; Ross and Mirowsky 2001; Ross 2000), I measure neighbourhood structural disadvantage using three commonly used items from my Census data including: 1) poverty rate, 2) unemployment rate, and 3) percentage of lone parents in the neighbourhood. I standardize and combine these measures to form an index of average neighbourhood disadvantage (\(\alpha=.85\)). Higher values present greater disadvantage.

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\(^6\) Because of the discrepancy in years between when the individual data and census data were collected, I wanted to ensure that the 1996 best reflected the neighbourhood situation of the respondent at the time of the interview. I therefore tested interactions between my selected census measures and year of interview with the respondent. I found that year of interview increased the negative association between high neighbourhood disadvantage and psychological distress for men. None of the other interactions were significant. I control for year of interview in all analyses.

\(^7\) Census tracts may not be considered the most ideal measure of neighbourhoods because their borders are defined by population rather than designated neighbourhood parameters (Sanchez-Jankowski 2008). Researchers, however, tend to adopt this approach because of limited access to neighbourhood-level data; therefore, it has become more acceptable over the years in neighbourhood effects and health literature (Boardman et al. 2001; Ross and Mirowsky 2001; South and Crowder 1997).
Structural Equivalence: Measures of Social Similarity between Respondents and Residents

To tap levels of structural equivalence—or similarity of residents relative to the respondent, I measure the percentage of residents in the neighbourhood with similar social and demographic features to that of the respondent. I use three series of measures: a) family form, including marital and parental status, b) age-by-gender categories, and c) ethnic origins. To test the specificity effect for Hypothesis 3, I develop several measures of each, ranging from more general to specific categories.

I develop progressively specific measures of the prevalence of similarity in family form to the respondent, starting with 1) the percent of husband-wife families, 2) the percent of husband-wife families with children, and 3) the percent of husband-wife families in the closest age range available in the Census aged 6 to 14. I assess increasingly specific age-gender categories using within gender-by-age distributions, starting with a simple dichotomy at the median age in the neighbourhood, then creating three 20 year categories, and finally five decade categories. In the case of ethnicity, I start with the percent with some visible minority status, then create six groups based on broad geographical regions, and finally, fourteen separate groups based on Statistics Canada classifications used in the 1996 Census. In each case, I elaborate the measures to demonstrate that increased levels of correspondence between the respondents’ and residents’ social characteristics have a greater impact on perceptions and consequences of WFC.

Analytic Strategy

To capture the effect of neighbourhood social context on WFC and subsequent distress I use Hierarchical Linear Modelling (HLM) (Raudenbush and Bryk 2002). By using HLM, I can simultaneously model individual and neighbourhood-level predictors of WFC and distress. I use HLM to partition the total variance into two components – individual variance in WFC and distress within neighbourhoods, and variance across neighbourhoods. I group-mean center all individual-level measures so that the model at the neighbourhood is scaled to predict differences in the mean levels of WFC and distress across neighbourhoods, and to reduce collinearity between neighbourhood and individual-level effects (Kreft and De Leeuw 1996). The neighbourhood level model always includes my measure of structural disadvantage. Because the values of my structural equivalence measures depend on variations at the individual-level, I
consider them to be individual-level measures with one exception—my census-level measures of family form. Given that my sample is limited to intact families with at least one focal child aged 9 to 16, family type does not vary across respondents; therefore, the percentage of family types in a neighbourhood relative to the respondent is considered as a neighbourhood-level measure in those analyses.

I estimate models for WFC and distress separately across men and women, controlling for selected social and demographic variations, objective antecedents of WFC, and neighbourhood structural disadvantage.

Thus, my HLM models generally include at level-1 the impact of structural equivalence and controls, and the effect of structural disadvantage at level-2. In the case of distress, for example, I assess this model at level-1:

\[
\text{Distress} = \beta_{0j} + \beta_{1j}(\text{WFC}_{ij} - \text{WFC}_{*j}) + \beta_{2j}(\text{StrucEquiv}_{ij}) + \beta_{3j}((\text{WFC}_{ij} - \text{WFC}_{*j}) \ast \text{StrucEquiv}_{ij}) + \beta_{4j}(\text{Controls}_{ij} - \text{Controls}_{*j}) + e_{ij}
\]

With this model at level-2:

\[
\begin{align*}
\beta_{0j} &= \gamma_{00} + \gamma_{01}(N\text{StrucDisadv}_{ij}) + u_{0j} \\
\beta_{1j} &= \gamma_{10} + \gamma_{11} + u_{1j} \\
\beta_{2j} &= \gamma_{20} \\
\beta_{3j} &= \gamma_{30} \\
\beta_{4j} &= \gamma_{40}
\end{align*}
\]

where \(\beta_{0j}\) is the intercept, or the mean of distress in neighbourhood \(j\), \(\beta_{1j}\) is the effect of WFC on distress in neighbourhood \(j\), \(\beta_{2j}\) is the effect of structural equivalence on distress in neighbourhood \(j\), and \(e_{ij}\) is the individual random error. At level-two, \(\gamma_{00}\) is the grand mean for distress, \(\gamma_{01}\) is the level-two coefficient for the cross-over effect of neighbourhood structural disadvantage (\(N\text{StrucDisadv}_{ij}\)) on distress, \(u_{0j}\) is the residual variance between neighbourhoods after accounting for neighbourhood context, \(\gamma_{10}\) is the average slope for the effect of WFC, and other level-1 coefficients are fixed. Note that \(\beta_{3j} (\gamma_{30})\) tests the interaction between WFC and structural equivalence. The \(u_{1j}\) at level-2 represents variance in the slope for the total effect of
WFC across neighbourhoods: This variance should be significant before I presume to test an interaction between neighbourhood and WFC on distress.  

Data Sparseness

Appendix 1 provides descriptive information about the number of people per census tract. On average, there are seven people per census tract, with a maximum of 27. I do, however, have several single-respondent census tracts (14% of my sample). Yet it is unlikely that these data patterns affect my final analyses. HLM techniques are designed to take into account data sparseness at the individual-level. Effectively, sparse tracts are inversely weighted in the analysis, using the weighted precision estimate for each tract (Bryk and Raudenbush 2002). Thus 1 and 2 person tracts have little influence on the level-2 effects. Moreover, data sparseness does not affect the impact of my main variables—structural equivalence, because it is (usually) estimated at level-1. Several studies have tested the robustness of multilevel regression analyses under varying conditions of sparseness, and most find that the number of groups is more important for unbiased estimation than the number of observations per group (Clark and Wheaton 2007; Maas and Hox 2004; 2005). Furthermore, evidence using data simulations suggest that the fixed effects produced by HLM models are quite robust, even in cases where there are very few observations per level 2 unit (Clarke and Wheaton 2007; Maas and Hox 2004; 2005).

Still, because I have 14% of my respondents in single-respondent census tracts, I wanted to err on the side of caution, and so I constructed synthetic census tracts to connect individuals in geographically distinct tracts based on highly specific levels of similarity of the census tract characteristics, following the procedures in Clarke and Wheaton (2007). I conducted cluster

8 Because my measure of distress is slightly skewed (skewness=1.34, mothers; 1.17, fathers), I considered alternative transformations and distributions. Results using a logged form of the variable and poisson distribution models presented comparable results to linear estimation. For ease of interpretation, I report results of my linear estimates. Alternative estimates are available upon request.

9 The estimated random effects may be more sensitive to data sparseness. Fewer observations per level 2 unit tend to overestimate random effects, including intercepts and random slopes across groups. This means that researchers are more likely to conclude that there are neighbourhood differences, when in fact there are not (Clarke and Wheaton 2007). Nevertheless, when using HLM, these biased random estimates often disappear as the number of level 2 units increase (Clarke and Wheaton 2007; Maas and Hox 2004), again because sparser groups are underweighted in the analyses. My data comprise 250+ groups (i.e., census tracts), and therefore should not produce biased estimates, regardless of variations in observations per level-2 unit.
analyses across single-respondent census tracts using the following criteria (see Kaufman and Rouseeuw 1990, for a review of cluster analysis): 1) the total population of census tract, 2) median family income, 3) percent foreign born, 4) unemployment rate, 5) total lone parent families, 6) number of single detached homes, and 7) number of English speaking residents. My criterion for creating a cluster was strict, allowing for less than a 2% variance in values across tracts (Clarke and Wheaton 2007). I created a total of 18 synthetic tracts, and left tracts with 2 or more people in them unaltered.

Despite its effectiveness, there is one major problem with this approach: by using cluster analysis to create synthetic census tracts, researchers may introduce artificial within-group heterogeneity, which may result in claiming no differences between neighbourhoods when in fact there are. To avoid making such an error, I compared the results from analyses using my synthetic census tracts to the results from my original tracts. As expected, the fixed effects from both sets of models were comparable. However, results from the synthetic tracts reported slightly weaker between-neighbourhood differences for the random intercepts of WFC and distress, and random slopes for WFC on distress. I decided to present results from my original census tracts, rather than the constructed synthetic tracts to avoid introducing artificial heterogeneity within neighbourhoods.

Results

Individual and census-level descriptive statistics for study participants are provided in Appendix 1.

Neighbourhood Variation in WFC and Distress

Table 2.1 reports four sets of models for women and men separately across my two focal outcomes; WFC and distress. Note that the models are presented across rows, rather than traditionally down the columns. The first panel presents results across models for WFC, the second panel presents distress as an outcome. First, I consider the variation in WFC between neighbourhoods by estimating a one-way analysis of variance (ANOVA) with no predictors at either level in the model. I find significant variation in WFC between neighbourhoods for women ($\tau_{00}=.047$, p < .05), but smaller levels of variation among men ($\tau_{00}=.021$, p < .10). Calculations indicate that 9% of the variance in women’s WFC and 4% of the variance in men’s
WFC is between neighbourhoods. I therefore proceed to consider the effect of neighbourhood differences with the expectation that WFC will be affected by neighbourhood social composition for women more so than men. I note that this finding pertains to Hypothesis 4, since there is less neighbourhood variance among men, suggesting more neighbourhood sensitivity among women.

Table 2.1 also shows the variation in distress between neighbourhoods, using a one-way ANOVA (second panel, titled psychological distress). There is significant variation in distress for both women ($\tau_{00}=11.304$, $p < .01$) and men ($\tau_{00}=7.930$, $p < .01$). Calculations (not shown) indicate that 12% of the variance in women’s, and 13% of the variance in men’s distress is between neighbourhoods, suggesting that there are some neighbourhood level differences to estimate.

Next, I test whether the effect of WFC on distress varies between neighbourhoods. I estimate this with the random effects model, which includes WFC as a predictor of distress and also allows the WFC slope to vary between neighbourhoods (model 2; second panel, titled psychological distress). Here, the effect of WFC on distress varies somewhat between neighbourhoods for both women ($\tau_{11}=6.814$, $p < .05$) and men ($\tau_{11}=7.931$, $p < .05$). This test indicates that the effect of WFC does partially vary depending on some unspecified neighbourhood characteristic, and I can proceed to test an interaction between neighbourhood context and WFC in predicting distress.\(^\text{10}\)

Table 2.1 presents results from two additional sets of models. In model 3 I estimate the effects of my individual-level controls on WFC and distress. For both women and men, age is negatively associated with WFC, while previous mental health problems are positively associated with WFC and distress. For men only, the number of children at home is positively associated with WFC, and year of interview is positively associated with distress. This suggests that men who were interviewed in earlier years (1992/93) compared to the latter years of the study (1994/95/96) report more distress. All subsequent analyses for WFC and distress account for

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\(^{10}\) This is not to say that neighbourhood variation in the effects of WFC on distress results from structural equivalence: Recall that levels of structural equivalence operate at an individual level and so cannot account for neighbourhood variations. With one exception – my measure of family forms, because my sample comprises solely intact families with children of a certain age. The between-neighbourhood variation observed in the effects of WFC on distress may result from numbers of similar family forms across neighbourhoods relative to my particular sample.
these focal control measures; however, due to space restrictions, these estimates are not shown in the tables.

In model 4 I estimate the direct effect of neighbourhood disadvantage on WFC and distress. For both women and men, I do not report significant results for either outcome. Subsequent analyses also suggest that neighbourhood disadvantage does not exacerbate the effect of WFC on distress. These findings surprise me, given that the majority of research in the area reports evidence that neighbourhood disadvantage negatively impacts health either directly, or by exacerbating the deleterious consequences of existing stressors (Boardman et al. 2001; Matheson et al. 2006; Ross and Mirowsky 2001; Wheaton and Clarke 2003). I attribute my unique finding to the nature of my subsample, which comprises intact families with at least one child aged 9 to 16. These respondents are less likely to reside in disadvantaged neighbourhoods, and thus add to the restriction in variance of disadvantage at the neighbourhood level. This becomes quite obvious when I compare my measures of disadvantage to those in other American-based studies: For example, Ross et al. (2001) use two measures of neighbourhood disadvantage among Illinois residents: poverty and percent of female lone parents. These authors report a range of 0 to 83 percent of households in poverty and a range of 0 to 67 percent of mother-only households. Comparatively, the ranges for these same measures in the Intact Family Data are much narrower: the percent of households in poverty range from 1 to 53 percent, and the percentage of single-parent household ranges only varies from 4 to 39 percent.

Appendix 5 provides a breakdown of neighbourhood disadvantage scores for the women in my sample across low, average, and high household income categories to further exemplify the reduced variation in neighbourhood disadvantage. These results suggest that there is minimal variability in neighbourhood disadvantage scores across these categories (range=3.83 standard deviation units), which provides additional support that the intact families in my study report lower levels of neighbourhood disadvantage overall, despite household income.

Work-Family Conflict: Neighbourhood Predictors and Individual-Level Controls

In Table 2.2 I estimate the effects of my structural equivalence measures, while including the controls shown in Table 2.1—education, age, number of children, previous mental health
episodes, immigrant status, and year of interview. As well as more objective measures of WFC; work status, and time spent on household chores and childcare per week. I also control for neighbourhood disadvantage in all analyses, in case of possible confounding effects with neighbourhood social composition. In each model I allow the intercept for WFC to vary between neighbourhoods. In this table I test my first series of structural equivalence measures—similarity in family form in models (i.e., rows) 1 to 3. Results here suggest that, for women, as the level of specificity of family form relative to the respondent increases, reported levels of WFC decrease. Comparing the unstandardized coefficients across models for women, I find that more refined measures of family form have a greater negative effect compared to more general measures (b_1(husband-wife families) = .004, p > .05; b_2(husband-wife families with kids) = -.009, p < .01; b_3(husband-wife families with kids 6-14) = -.036, p < .01).

Since it is difficult to gauge the statistical differences between these coefficients for similarities in family form for women, Figure 2.1 plots these three associations. The solid black slope shows the association between my most general measure; % husband-wife families —basically a flat line. Compare this to the solid grey slope for my more refined measure of % husband-wife families with children, and I see that the slant of the slope begins to decrease slightly. And, comparing this line to the dash black line, for % husband-wife families with children 6 to 14, I see that when the level of specificity approaches a match on all descriptors of family form, the effect of structural equivalence increases markedly. Here, the effect is notably more negative than in either of the other two cases. These patterns provide support for my general hypothesis about structural equivalence (Hypothesis 1), but most strongly support my specificity hypothesis (Hypothesis 3): The more specific the similarities of residents to respondents, the greater the effect of structural equivalence on WFC.

I find further evidence for my specificity hypothesis in models 4 to 6 of Table 2.2 for women, where I test the impact of increasing specificity of the prevalence of age-by-gender categories. Again, by comparing the unstandardized coefficients across models, I reveal that greater specification of age-by-gender compositional similarity progressively increases the negative effect on WFC, at least for women. I do not find WFC effects for percent in the same ethnic group, and therefore do not show these results.
For men, greater numbers of structurally equivalent residents relative to the respondent do not matter for WFC across any of my measured similarities. In fact, some results suggest that men experience more WFC with greater social similarity. This is the case when men live in neighbourhoods with higher levels of the same age-by-gender category. Thus, despite the one unexpected finding for men, my results here partially support hypotheses 1, 3 and 4: In regards to the effect of the distribution of family forms and gender-specific age categories, respondents in neighbourhoods with greater levels of similar social and demographic features relative to their neighbours perceive less WFC, but this effect is greater for women compared to men. Moreover, these finding hold net of my measures of more objective antecedents of WFC and neighbourhood disadvantage (results for these measures and other controls are not presented, but available upon request).

Psychological Distress: Interactions between WFC and Neighbourhood Composition

Tables 2.3 and 2.4 test a series of interaction models to determine whether my neighbourhood measures of equivalence modify the positive effect of WFC on distress (Hypothesis 2). Each model controls for selected social and demographic variations, as well as objective antecedents of WFC. I also control for neighbourhood disadvantage in all subsequent analyses. In Table 2.3 I begin with my measures of structural equivalence reflected by similarity in family form. Here, my first set of findings focus on models 1 to 3 for women only. In these models, the interaction coefficients test the degree to which the percent of similar others in the neighbourhood in the same family situation reduces the impact of WFC on distress. I find that the buffering effect of similarity in family form is stronger when I consider more specific correspondence (Hypothesis 4). In fact, using the most specific correspondence measure—% of husband-wife families with kids 6-14—increases the buffering effect by over three times relative to studying correspondence using the % of husband-wife families with any kids of any age.

Again, I present these interactions visually for women. In Figure 2.2 I compare slopes of WFC on distress for respondents in neighbourhoods with a “low” verses “high” percentage of similar family forms. The grey slopes show the predicted values for my most general measure of similarity in family form: husband-wife families. The solid grey slop reflects those in neighbourhoods with a low percentage of this family type, where the dashed grey line reflects
those in neighbourhoods with a high percent of this same family type. The slopes are almost parallel. The slopes outlined in black for husband wife families with children show some widening, but are still close to parallel. What is striking in this figure is the third analysis—husband wife families with children 6 to 14, represented by the solid and dashed black lines. Here, I see a much stronger decrease in the effect of WFC on distress for those in neighbourhoods with a high percentage of this same family type, represented by the black dashed line, compared to those with a low percentage of this family type, represented by the solid black line. The buffering effect of the most specific level of correspondence in family form is notably stronger in this figure, highlighting that there is threshold of salience for these social comparisons. These results suggest that social similarities across family forms buffer the mental health consequences of WFC (Hypothesis 2), but more importantly, these effects are stronger the greater the specificity of similarity, which supports my specificity hypothesis for distress (Hypothesis 3): The more similar your neighbours’ family form is to your own, the less distress you experience because of WFC. However, these processes may be applicable to women only (Hypothesis 4).

In Table 2.4 I observe similar patterns for the percentage of residents with the same ethnic background as the respondent. Comparing interaction coefficients for women across models 1 to 3, I find that the higher the percentage of residents with the most similar ethnic background to that of the respondent lowers the positive effect of WFC on distress. As I refine the specificity of the measure, the buffering effect of ethnic similarity increases. Again, these results support Hypothesis 2 (social similarities matter), and provide strong support for my specificity hypothesis (Hypothesis 3): More specific similarities in the respondent’s ethnic background relative to their neighbours reduce the deleterious effects of WFC.

Turning to results for men, in Tables 2.3 and 2.4 I find no significant interaction effects between any of my equivalence measures and WFC on distress. This suggests that the impact of normative diffusion and collective social support of WFC that results from higher structural equivalence may buffer the positive effects of WFC on distress for women, but not for men (Hypothesis 4). Together, these results partially support hypotheses 2 and 3: In regards to family type and ethnicity, respondents in neighbourhoods with greater numbers of structurally equivalent residents relative to themselves experience less distress due to perceived WFC,
compared to those in more heterogeneous neighbourhoods; however, this effect is greater for women compared to men. The results for my age-by-gender categories were not significant for either gender, and therefore, are not presented in the tables.

**Discussion**

My research questions the extent to which structurally equivalent neighbours relative to oneself reduce perceptions of and the distress associated with WFC, and whether these effects are greater for women compared to men. My approach is unique because I focus on the social composition of the neighbourhood, net of structural disadvantage. I refer to social composition as the distributions and prevalence of social categories in the neighbourhood, and focus on the similarity of residents’ features relative to the individual, with the assumption that the more specific the match between features, the greater the effect. My approach is also unique to previous research on neighbourhood effects and collective efficacy, which focuses mostly on levels of trust, informal control, and social cohesion in the neighbourhood (Sampson et al. 1997; Sampson et al. 2002). Instead, I consider the norms and value systems prevalent among neighbourhood residents, reflected by the similarity in aggregate social and demographic features. I assume that these similarities reflect commonalities in attitudes and behaviours, which foster norm diffusion and social support. Unfortunately, I do not have direct measures of cohesion or social support, and instead theorize about these causal mechanisms based on my results.

My analyses show that similarity in neighbourhood social composition has a beneficial effect, at least for women. More similar matches between residents’ and individuals’ family type and age-by-gender category decrease perceptions of WFC. Moreover, similarities across family type and ethnicity buffer the distressing consequences that may arise from these perceptions. I do not, however, observe these patterns among the men in my sample, who remain relatively unaffected by levels of similarity between their own and their neighbours’ features, regardless of the specificity of the measure.

**Structural Equivalence, Norm Diffusion, and Collective Social Support**

I speculate that my findings for women reflect the advantage of normative diffusion and collective social support that ensues from similar expectations of work and family demands
across structurally equivalent residents. First, structural equivalence facilitates similarities in values, norms and behaviours within the realm of WFC. These similarities set a cultural standard of WFC within the neighbourhood; i.e., the expected levels of conflict that should be endured and tolerated. These standards are transmitted across residents of the community through the observation of surrounding others (Bandura and Walters 1963; Cavalli-Sforza and Feldman 1981). The assumption is that expected levels of WFC are then internalized as pervasive and therefore normative. It is only when individuals feel their experiences of WFC are unusual relative to other surrounding residents do they exhibit elevated levels of the subjective component of WFC, leading to greater distress.

Second, more structurally equivalent residents may also have a corresponding greater sense of implicitly available social support, which may buffer levels and consequences of WFC. Individuals comparable in marital and parental statuses, ethnic origins, and age, tend to endure similar experiences. Sharing similar experiences enhances the reception—and more importantly—the perception of empathetic understanding and emotional support (Pillemer and Suitor 1996). From this perspective, the very notion of sharing a common stressor lowers its potential threat, because it leads to the assumption of available support from others enduring similar experiences. I find evidence to support this idea, at least for the women in my sample.  

Note, however, that not all residents in the neighbourhood need to be identical across fundamental social and demographic features for women to benefit from structurally equivalent residents. Rather, the prevalence of social similarities must exceed a threshold of salience that matters—some hidden identity threshold. There needs to be some percentage of highly equivalent residents in the neighbourhood relative to the individual before these similarities even become salient to them, and therefore, beneficial. I find indirect evidence of such a threshold among the women in my study. The highest levels of similarity in my sample never approach the possibility  

11 Structural equivalence may impact WFC via neighbourhood social cohesion. The 1995 Intact Family data do not include these measures, so I am unable to test whether the benefits of structurally equivalent neighbours actually reflect higher levels of cohesion. In other data on Toronto’s neighbourhood (see chapter 4 for associations between social cohesion, WFC, and distress. I find evidence that structural equivalence between residents and respondents is positively associated with perceptions of neighbourhood cohesion, which in turn, reduces perceptions and consequences of WFC.
of complete segregation. For example, the maximum percentage of *husband-wife families with children 6 to 14* never exceeds 20% of the neighbourhood’s population (see Appendix 1). Thus my findings may be limited to a middle range optimum—just enough, but not too much. I cannot test this possibility, but it is an important alternative to consider.

My study further suggests that, unlike women, men’s perceptions and consequences of WFC are less sensitive to the social and demographic similarities of surrounding others. Gender differences in the effects of structurally equivalent neighbours may be attributed to three factors: First, women engage more in their neighbourhood of residence and are likely to observe and interact with surrounding residents compared to men (Campbell and Lee 1990; Tivers 1988), which may result in greater awareness of neighbours’ social and demographic similarities. Second, women are more sensitive to social and psychological cues from others in their immediate environment (Rosenfield and Smith 2010). Rosenfield and Smith highlight this variation in men and women, suggesting that women are more “other” salient in general. Finally, men and women experience work and family domains differently (Simon 1995), which may problematize their perceptions of their own, as well as others, work and family demands, and the conflict between the two. Literally, there may be gender-specific thresholds.

**The Salience of Family Forms**

My results for women highlight that greater similarities in family type—in this case, the percentage of husband-wife families with children 6 to 14 in the neighbourhood—is the most beneficial similarity for perceptions and consequences of WFC. These results reflect the salience of marital and parental roles to the interpretation and negotiation of family and work demands. The comparison and normalization of conflicting work and family demands will be strongest around those with similar family obligations, indirectly enhancing perceived levels of social support.

Furthermore, it may be that, in addition to *perceived* social support, individuals with others of similar family types in close proximity have higher levels of actual supportive interactions with neighbouring parents. Because of social and demographic similarities, the homophily literature would suggest that each is more likely to befriend the other (McPherson et al. 2001), and may extend advice and hands-on help with marital and parental-related demands (Sweet et al. 2005).
Parents may offer to watch over others’ children during the work day, or exchange play-date times across households. These efforts may help alleviate some family demands that potentially interfere with work obligations; thus reducing WFC and its consequences (Moen 2003; Voydanoff 2007). Due to limitations of my data I cannot directly test these assumptions, but call upon future researchers to disentangle the actual and perceived support parents receive from living around others with similar family types.

Contributions and Directions for Future Research

My study contributes to existing literatures on WFC, neighbourhood effects, and health in several ways. First, I consider previously neglected associations between neighbourhood context, WFC, and health. In doing so, I re-conceptualize WFC as a chronic stressor with both objective and subjective components; each of which, I argue, is affected differentially by neighbourhood context. I model the subjective component of WFC, while controlling for its more objective antecedents, including household chores, childcare, and paid work. Second, I concentrate on the unique social and psychological context of the neighbourhood reflected by the aggregate composition of residents, and its impact on the perception and consequences of stressors, which is unlike previous research that instead focuses on neighbourhood structural disadvantage. Third, I find previously undocumented associations among levels of similarity between residents’ social and demographic features and the respondent’s own. Finally, I report gender differences in these associations, which may speak to inequalities in men’s and women’s health across neighbourhoods.

Despite these contributions, there are several methodological limitations worth mentioning: First, I use cross-sectional data, which limits my causal assumptions about the impact of WFC on distress. Of course, my paper articulates the standard theoretically-based assumptions of this literature. I also incorporate respondents’ mental health history as a control measure; however, these data are retrospective and longitudinal data would be preferable. Second, the Intact Family data lack measures of normative diffusion, collective social support, and social cohesion. Third, my sample is limited by family type, which may restrict the generalizability of my findings. I use data from intact families with at least one child aged 9 to 16. Consequently, my findings may not be applicable to non-parents, single, widowed, or divorced individuals, or parents with children outside of my designated age range. The unique nature of my sample could be
considered a strength because it targets those most susceptible to WFC (i.e., working parents with dependent children at home (Bianchi et al. 2006)). However, for these same reasons, some of my findings are distinct from most neighbourhood-based studies, especially in the case of neighbourhood structural disadvantage: I do not find a significant effect of neighbourhood disadvantage across neighbourhoods on respondents’ WFC or distress, which may be an artifact of my sample. Intact families are less exposed and vulnerable to contextual stressors, like neighbourhood disadvantage (Mirowsky and Ross 2003), and these patterns are quite clear in my data, especially when compared to other American-based studies (Ross et al. 2001), or when examined across categories of household income (see Appendix 5).

In light of these limitations, I draw attention to the unique message of my study: Neighbourhood context matters for WFC, and what seems to matter most in these data is how similar individuals are to their neighbours. WFC is an increasingly visible issue in the media, and in popular writing about the nature of work in the 21st century. The issue I focus on in this paper will not naturally resolve with time. WFC may become endemic, and we may collectively habituate to it, but the internal processes involved will stay the same. Focusing on the passive intervention of neighbourhood context allows us to suggest a new point of entry in the reduction of the experienced level and consequences of WFC. My paper points the way to a very different source and method of reducing this clearly modern form of chronic stress in lives – at least for women. If my results generalize, however, men also suffer from the consequences of WFC, and the issues they face in ameliorating this stress are quite distinct.
References


Table 2.1 Random and Fixed Effects Model for Work-Family Conflict and Psychological Distress for Employed Women (N=642) and Men (N=771)

<table>
<thead>
<tr>
<th>Model</th>
<th>Women</th>
<th>Men</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variation by Neighbourhoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) One-way ANOVA</td>
<td>0.047**</td>
<td>1.917***</td>
<td>0.021†</td>
<td>2.062</td>
</tr>
<tr>
<td></td>
<td>11.304**</td>
<td>—</td>
<td>12.267***</td>
<td>7.930**</td>
</tr>
</tbody>
</table>

| Random Effects Model       |            |            |            |            |

| Control Measures           |            |            |            |            |
| (3) Education              | —          | 0.034      | —          | 0.014      |
| Number of children         | —          | — 0.001    | — 0.078*   | —          |
| Age                       | — 0.012†   | — 0.019*** | —          | 0.013      |
| Previous mental health     | — 0.229*** | — 0.118†   | —          | 5.794***   |
| Childcare hours/wk         | — 0.063    | — 0.002    | —          | 0.087      |
| Housework hours/wk         | — 0.002    | — 0.015    | —          | 0.164      |
| Full-time worker           | — 0.020    | — 0.011    | —          | 0.102      |
| Immigrant                  | — 0.021    | 0.015      | —          | — 0.012    |
| Year of interview (92/93)  | — 0.059    | — 0.015    | —          | — 0.718    |
| Intercept                  | 0.047**    | 1.955***   | 0.033†     | 2.041***   |

| Neighbourhood Disadvantage |            |            |            |            |
| (4) SES                    | 0.046*     | 0.058      | 0.023†     | 0.026      |

Notes: Unstandardized coefficients presented from HLM analyses. Model 4 control for respondent’s education, number of children, age, previous mental health, childcare hours, housework hours, full-time work status, immigrant status, and year of interview. Coefficients for control variables available upon request.
Table 2.2 Work-Family Conflict Regressed on Percent Same Family Form and Age-Gender Category in the Neighbourhood for Employed Women (N=642) and Men (N=771)

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fixed</td>
<td>Random (intercept)</td>
<td>Fixed</td>
<td>Random (intercept)</td>
</tr>
<tr>
<td><strong>Model</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Same Family form</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Husband-wife families</td>
<td>.005</td>
<td>.046*</td>
<td>.013</td>
<td>.022†</td>
</tr>
<tr>
<td>(2) Husband-wife families with kids</td>
<td>-.009**</td>
<td>.034*</td>
<td>.003</td>
<td>.023†</td>
</tr>
<tr>
<td>(3) Husband-wife families with kids 6-14</td>
<td>-.036**</td>
<td>.037*</td>
<td>.003</td>
<td>.024*</td>
</tr>
<tr>
<td>Percent Same Age/Gender Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Age below or above mean</td>
<td>.001</td>
<td>.047*</td>
<td>.006†</td>
<td>.022†</td>
</tr>
<tr>
<td>(5) Age by 20 years</td>
<td>-.006†</td>
<td>.040*</td>
<td>.008*</td>
<td>.022†</td>
</tr>
<tr>
<td>(6) Age by 10 years</td>
<td>-.018**</td>
<td>.037*</td>
<td>.013**</td>
<td>.022†</td>
</tr>
</tbody>
</table>

† p<.10, * p<.05, **p<.01, ***p<.001 (two-tailed test). Notes: Unstandardized coefficients presented from HLM analyses. All models control for respondent’s education, number of children, age (except for models 4, 5, and 6), previous mental health, childcare hours, housework hours, full-time work status, immigrant status, and year of interview. Coefficients for control variables available upon request.
Table 2.3 Distress Regressed on Work-Family Conflict and Percent Same Family Form in the Neighbourhood for Employed Women (N=642) and Men (N=771)

<table>
<thead>
<tr>
<th>Model</th>
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<th>Random</th>
<th>Fixed</th>
<th>Random</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Intercept</td>
<td>Slope</td>
<td>Intercept</td>
<td>Slope</td>
</tr>
<tr>
<td></td>
<td>τ₀₀</td>
<td>τ₁₁(wfc)</td>
<td>τ₀₀</td>
<td>τ₁₁(wfc)</td>
</tr>
<tr>
<td>Percent Same Family form</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td>Work-family conflict</td>
<td>20.468</td>
<td>9.358</td>
<td>15.222***</td>
</tr>
<tr>
<td></td>
<td>Husband-wife families</td>
<td>-198</td>
<td>-0.073</td>
<td>-0.796</td>
</tr>
<tr>
<td></td>
<td>Husband-wife families x WFC</td>
<td>-15.7</td>
<td>14.576**</td>
<td>2.743</td>
</tr>
<tr>
<td></td>
<td>Husband-wife fam. w/ kids</td>
<td>-0.87</td>
<td>-0.031</td>
<td>-0.205</td>
</tr>
<tr>
<td></td>
<td>Husband-wife families w/ kids x WFC</td>
<td>-0.261**</td>
<td>14.576**</td>
<td>2.743</td>
</tr>
<tr>
<td></td>
<td>Husband-wife families with kids 6-14</td>
<td>-.205†</td>
<td>-0.35</td>
<td>14.576**</td>
</tr>
<tr>
<td></td>
<td>Husband-wife fam. w/ kids 6-14 x WFC</td>
<td>-0.796**</td>
<td>-0.444</td>
<td>-0.205</td>
</tr>
</tbody>
</table>

†p<.10, *p<.05, **p<.01, ***p<.001 (two-tailed test).

Notes: Unstandardized coefficients presented from HLM analyses. All models control for respondent’s education, number of children, age, previous mental health, childcare hours, housework hours, full-time work status, immigrant status, and year of interview. Coefficients for control variables available upon request. WFC=work-family conflict.
Table 2.4 Distress Regressed on Work-Family Conflict and Percent Same Ethnicity in the Neighbourhood for Employed Women (N=642) and Men (N=771)

<table>
<thead>
<tr>
<th>Model</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fixed b</td>
<td>Random Intercept $\tau_{00}$</td>
</tr>
<tr>
<td><strong>Percent Same Ethnicity as the Respondent</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Work-family conflict</td>
<td>6.074</td>
<td>15.040**</td>
</tr>
<tr>
<td>Visible minority</td>
<td>-.040</td>
<td>.008</td>
</tr>
<tr>
<td>Visible minority x WFC</td>
<td>-.047</td>
<td></td>
</tr>
<tr>
<td>(2) Work-family conflict</td>
<td>6.064**</td>
<td>14.257**</td>
</tr>
<tr>
<td>Ethnicity by geog. origin</td>
<td>-.044*</td>
<td>15.610**</td>
</tr>
<tr>
<td>Ethnicity by geog. origin x WFC</td>
<td>-.053†</td>
<td></td>
</tr>
<tr>
<td>Ethnicity by country of origin</td>
<td>-.016†</td>
<td></td>
</tr>
<tr>
<td>Ethnicity by country of origin x WFC</td>
<td>-.155**</td>
<td></td>
</tr>
</tbody>
</table>

†p<.10, * p<.05, **p<.01, ***p<.001 (two-tailed test).

Notes: Unstandardized coefficients presented from HLM analyses. All models control for respondent’s education, number of children, age, previous mental health, childcare hours, housework hours, full-time work status, immigrant status, and year of interview. Coefficients for control variables available upon request.
Figure 2.1 The Association between Percent of Residents with Similar Family Form to the Respondent and Work-Family Conflict for Women (N=642)

Note: Predicted values of WFC are based on results from Table 2.2, models 1 to 3 for women. All continuous variables are held constant at their respective means, which equals 0 for all group-mean centered individual-level measures. For categorical variables, I solved the equation for full-time status, non-immigrants without a previous mental health record.
Figure 2.2 The Association between Percent of Residents with Similar Family Form to the Respondent by Work-Family Conflict and Distress for Women (N=642)

Note: Predicted values of WFC are based on results from Table 2.3, models 1 to 3 for women. All continuous variables are held constant at their respective means, which equals 0 for all group-mean centered individual-level measures. For categorical variables, I solved the equation for full-time status, non-immigrants without a previous mental health record.
Chapter 3
Neighbourhood Disadvantage, The Sense of Personal Control, and Work-Family Conflict: An Application of the Structural Amplification Model

Introduction

Does neighbourhood disadvantage impact work-family conflict (WFC) and its mental health consequences? Few researchers have explored this possibility and instead, focus on individual-level antecedents to the exclusion of broader social contexts, despite previous findings of neighbourhood effects on related outcomes, like child well-being, adolescence health, school achievement, marital satisfaction, and overall mental and physical well-being (Aneshensel and Sucoff 1996; Entwhistle et al. 1994; Leventhal and Brooks-Gunn 2000; Mannon and Brooks 2006; Ross et al. 2001; Wheaton and Clarke 2003). I draw on theories of structural amplification to elucidate how neighbourhood disadvantage may impact levels and consequences of WFC (Ross et al. 2001; Ross 2012). Structural amplification can occur when the neighbourhood in which one finds themselves contributes to secondary stressors and mental health problems, while also undermining the psychological resources individuals would otherwise use to buffer the deleterious effects of that very context.

I hypothesize that structural amplification may occur in relation to WFC and its mental health consequences. Disadvantaged neighbourhoods present real or perceived social and physical markers of disadvantage, demoralization, and normlessness that may present additional demands and fewer resources, exacerbating incompatibilities between work and family. These contexts may also undermine the psychological resources that individuals would otherwise use to combat neighbourhood effects on WFC and its mental health consequences. I consider one focal psychological resource: the sense of personal control. According to the mental health literature, the sense of control is considered one of the most effective psychological resources in reducing the threat and consequences of stressors (Mirowsky and Ross 2003; Pearlin 1999). This may be especially true in the case of WFC, where a high sense of control precipitates action and encourages individuals to negotiate a path to their own successful work-family balance (Mirowsky and Ross 2003; Pearlin 1999; Ross and Sastry 1999; Westman 2001).
In the following study I test the idea of structural amplification for WFC and its mental health consequences using data from 1,702 individuals from Toronto Canada, connected to 2006 Census data. Given research on gender differences in experiences of work, family, and neighbourhood (Campbell and Lee 1990; Hochschild 1997; Naples 1991; Simon 1995), I also test whether my focal associations vary for women and men.

Literature Review

Neighbourhood Disadvantage and Disorder, WFC, and Distress

*Neighbourhood structural disadvantage* refers to the physical and social inequalities of the neighbourhood, such as concentrated poverty, inadequate childcare, the absence of parks or green spaces, excessive unemployment, and a high prevalence of female-headed households (Hill and Maimom 2013; LeClere et al. 1997; MacIntyre and Ellaway 2003; Robert 1998; Ross et al. 2001). Disadvantaged neighbourhoods often exude a variety of ambient stressors, while offering few public resources or services where residents can access help (Aneshensel and Sucoff 1996; Pearlin 1999; Robert 1999). For these reasons, individuals in disadvantaged neighbourhoods tend to experience worse mental health compared to those living in more advantaged communities (Kim 2010; Matheson et al. 2006; see Hill and Maimon 2013, for a review).

Neighbourhood structural disadvantage may also impact exposure and vulnerability to stressors indirectly, via individual-based *perceptions of disorder*, characterized by graffiti, noxiousness, abandoned or dilapidated buildings, crime, drug use, or loitering, for example (Hill et al. 2008; Mirowsky and Ross 2003; Ross 2012; Ross et al. 2001). Ross and Mirowsky (2001) elucidate this process further in their work, pointing out that neighbourhood disadvantage may, a) encourage youth to leave high school because of limited employment opportunities; b) instigate illegitimate activities to make ends meet; c) provoke uncivil attitudes and disorderly behaviour as being normative and “a part of life”; d) limit positive social ties, and e) offer few institutional resources that would otherwise contribute to stronger social connections. Collectively, these situations lead to salient signs of disarray, despair, and an overall breakdown in social order, which can precipitate secondary stressors and
impact individuals’ general well-being (Aneshensel and Sucoff 1996; Hill et al. 2008; Ross et al. 2001). From this perspective, there may be “...nothing inherently distressing about living in a neighbourhood with a lot of poor people or single mothers. It is the disorder common in such neighbourhoods that distresses residents” (Mirowsky and Ross 2003: 155). Perceptions of disorder therefore partially account for the association between neighbourhood disadvantage and mental health outcomes (Ross 2000; Ross and Mirowsky 2001; Ross et al. 2001).

I argue that a similar situation may occur in the face of WFC. Ambient stressors associated with neighbourhood disadvantage likely increase WFC, as well as exacerbate its mental health consequences. For example, excessive neighbourhood demands, such as hazardous waste or unsafe housing may generate additional concern about one’s home and other family members. A lack of access to safe, affordable childcare and community centres may also increase WFC, since these resources provide an opportunity to create and strengthen social support systems, in addition to easing childcare demands (LeClere et al. 1998; Mirowsky and Ross 2003; Sweet et al. 2005; Voydanoff 2007). Moreover, perceptions of social disorganization, disorder, and drug or other related activities reduce individuals’ confidence in the larger community, generating feelings of mistrust and worry of other residents that may interfere with work or family expectations. From this perspective, neighbourhood structural disadvantage affects WFC and its consequences by presenting additional environment demands—including the absence of public resources or services, and by generating perceptions of disorder, despair and demoralization that residents are forced to face on a daily basis.  

My ideas here resonate with the Stress Process Model (Pearlin 1989). An important feature of this model is the embeddedness of stressors experienced across social statuses, biography, and social contexts—including individuals’ neighbourhood context. Neighbourhood stressors associated with disadvantage, such as noxiousness, social and physical disorder, a lack of access to resources like transportation and childcare, can precipitate secondary stressors through a process known as stress proliferation, where one stressor leads to or exacerbates the presence of another stressor (Pearlin 12

My description here suggests that neighbourhood structural disadvantage may matter for WFC and its consequences beyond the scope of perceived disorder. I argue this, despite previous research that finds perceptions of disorder fully account for the association between neighbourhood disadvantage and mistrust (Ross et al. 2001), depression (Ross 2000), and physical health (Ross and Mirowsky 2001).
This idea is similar to social disorganization theory or other ecological approaches, where the context in which one finds themselves influences their life choices and experiences (see Aneshensel 2009, for a review; Faris 1955; Shaw and McKay 1942; Turney, Kissane, and Edin 2012; Sampson et al. 2002). I argue from this perspective that neighbourhood disadvantage may be a catalyst for rising levels of WFC, and its mental health consequences.

While evidence on this topic to date is limited, some research supports ideas of stress proliferation of neighbourhood disadvantage and WFC (Boardman 2001; Mirowsky and Ross 2003; Voydanoff 2007). For example, Boardman and his colleagues (2001) find that neighbourhood disadvantage and the perceived absence of resources increase residents exposure to role strain. Mirowsky and Ross (2003) find that employed mothers without access to convenient, safe, affordable childcare report higher distress compared to otherwise because of elevated conflict between work and family roles. Moreover other research from Ross and Mirowsky (2000; 2001) suggests that neighbourhood disadvantage may impact perceptions of stressful situations, leading to internalized anxiety, and fear, resulting in greater strain across all roles. Finally, Voydanoff’s (2007) research on work, family, and community reports similar trends. Using individual-level data, she concludes that community demands, including social incoherence increases WFC, while resources, including a sense of community, decrease this conflict.

Based on these ideas and evidence, I hypothesize that neighbourhood disadvantage and perceived disorder will increase levels and consequences of WFC.

**Indirect Effects of Neighbourhood Disadvantage: The Structural Amplification Model**

Neighbourhood disadvantage and disorder may also affect WFC indirectly by depleting the psychological resources necessary to abate the deleterious effects of that context on WFC. This process entails what Ross and her colleagues (2001; Ross 2012) refer to in the neighbourhood and mental health literature as structural amplification. As Ross explains: “Structural amplification exists when conditions undermine the personal attributes that otherwise would moderate their undesirable consequences” (Ross 2012: 290). That is, the context in which one finds themselves not only contributes to a mediating stressor, but also depletes the resources necessary to minimize the
consequences of that very context, thereby amplifying the situation. The authors find evidence for structural amplification of neighbourhood disorder on mistrust: Perceived neighbourhood disorder increases mistrust directly, but also indirectly by increasing feelings of powerlessness, which exacerbate the effects of neighbourhood disorder on mistrust. Thus, the effect of neighbourhood disorder is essentially amplified, because it decreases a personal resource that would otherwise buffer its deleterious effects.

Hill and his colleagues (2008) also test the possibility of structural amplification using measures of sleep quality. The authors find that neighbourhood disorder increases distress by reducing the quality of sleep one receives each night. Consistent with ideas of structural amplification, they show that neighbourhood disorder also reduces the benefits of sleep quality on distress. That is, sleep quality buffers the effects of neighbourhood disorder on distress, but given that neighbourhood disorder reduces the quality of sleep, the benefits of sleep are greater for those in more advantaged neighbourhoods.

I draw upon this body of literature to suggest that the process of structural amplification may explain the indirect association between neighbourhood disadvantage and disorder, WFC, and subsequent distress. Neighbourhood disadvantage and its associated disorder may reduce the very resources that would otherwise combat the ill effects of neighbourhood context on WFC and its mental health consequences. This suggests both a mediating association (neighbourhood disadvantage and disorder indirectly affect WFC and its consequences by reducing psychological resources), and a moderating association (neighbourhood disadvantage and disorder undermine the psychological resources that would otherwise buffer the effects of neighbourhood context on WFC).

**Neighbourhood Disadvantage and Disorder, Psychological Resources, and WFC**

I consider one psychological resource in the current study: *the sense of personal control over one’s life circumstances*. A sense of control is considered one of the most important psychological resources in reducing the threat and mental health consequences of a given stressor (Mirowsky and Ross 2003; Pearlin 1999). According to Mirowsky and Ross (2003) personal control can be defined as “a learned,
generalized expectation that outcomes are contingent on one’s own choices and actions” (Mirowsky and Ross 2003: 174). Individuals with a high sense of control experience fewer stressors, and are less affected by these stressors, because of their ability to actively avoid and cope with stressful circumstances (Mirowsky and Ross 2003; Turner and Turner 2013). Similar terms to personal control have been used throughout the literature, including references to powerlessness (which is defined as the exact opposite of personal control; Ross et al. 2001), mastery (Pearlin et al. 2007; Pearlin and Schooler 1978), instrumentalism (Jessor et al. 1968; Kohn 1972; Wheaton, 1980) self-efficacy (Bandura 1986), and locus of control (Rotter 1966; Lefcourt 1991). For my purposes, I refer to the sense of personal control (or simply ‘personal control’), and argue that it both mediates and moderates the association between neighbourhood context, WFC, and distress. This suggests that neighbourhood context impacts WFC indirectly via personal control. I outline these associations below by discussing first, how neighbourhood context impacts personal control; second, how personal control decreases WFC and its consequences; and third, how personal control modifies the effect of neighbourhood context on WFC and its consequences.

Neighbourhood Context and Personal Control
Research suggests that neighbourhood context impacts individuals’ sense of control. Neighbourhood disadvantage and its associated levels of disorder expose residents to a variety of stressors that are seen to be beyond their control, including noxiousness, vandalism, insufficient infrastructure, dilapidated housing, hazardous or dangerous wastes, homelessness, incivilities, and/or criminal activities (see Geis and Ross 1998, for a discussion). Neighbourhood disadvantage breeds chaos, despair, disorder, and demoralization, which undermines an individual’s sense of control by conjuring up feelings of alienation and exploitation. Residents come to see themselves as abandoned by mainstream society, with insufficient physical or social resources, combined with overwhelming ambient demands. Over time, individuals in these contexts lose a sense of control not only over their specific residential situation, but over the universalities of life itself (Mirowsky and Ross 2003; Ross 2000; Ross and Mirowsky 2001; Ross et al. 2001; Schieman and Meersman 2004). This process can lead to greater exposure and vulnerability to a variety of individual and neighbourhood-level stressors, including WFC.
Personal Control and Work-Family Conflict

A sense of personal control may be of particular importance to buffering levels and consequences of WFC, because the experience of inter-role conflict is often a product of our perceived success at balancing competing domain demands (see Frone, Yardley, and Markel 1997; Pearlin and Schooler 1978, for related studies). Moreover, a sense of personal control signals the absence of powerlessness. It builds confidence and assurance among individuals, which helps combat feelings of hopelessness, self-estrangement, isolation, or normlessness. A sense of control helps foster proactive coping efforts in the face of a stressor, encouraging motivation, problem-solving strategies, and adaptation to the circumstances at hand. Those with a higher sense of control are more prepared when confronted with a stressor, and effectively take action to mobilize the resources necessary to reduce levels and consequences of that very stressor (Mirowsky and Ross 2003; Wheaton 1983). The opposite is true of individuals with a low sense of control, or a more fatalistic approach to life, who may instead try to avoid the problem, with the expectation or hope that external forces will eventually intervene (Wheaton 1980; 1983).

Drawing on this literature, I hypothesize that individuals with a high sense of control likely experience lower levels and consequences of WFC, because they possess the mental capacity to consolidate competing domain demands by perhaps scheduling tasks more efficiently, asking for help when necessary, or taking the initiative to produce a more compatible approach to work and family obligations (Pearlin 1999; Ross and Sastry 1999; Thoits 2011). The stress literature also points out that personal control influences the extent to which people perceive a stressor as present and/or threatening (Pearlin 1999; Skaff, Pearlin, and Mullan 1996; Wheaton 1997). Thus, an individual with a high sense of control may perceive work and family demands as complementary, or any potential conflict between the two as non-threatening, despite the objective situation. Collectively, these ideas suggest that neighbourhood disadvantage and disorder may impact WFC and its consequences indirectly by reducing levels of personal control, which may in turn, increase WFC.

Modifying Effects of Personal Control

Consistent with the stress literature on coping resources and structural amplification, I also hypothesize that the sense of personal control buffers the negative effects of neighbourhood
disadvantage and disorder on WFC and its consequences. Again, this is likely because individuals with a higher sense of personal control either possess or know how to acquire the resources, skills, and support necessary to combat the deleterious consequences of a given stressor. Ambient demands, such as real or perceived social and physical disorder, vandalism, crime, and loitering, or a lack of safe, affordable childcare, dilapidated housing, or chronic exposure to concentrated poverty, may have less of an effect on WFC and its consequences for individuals with a high sense of control because they are able to mobilize resources effectively to cope with such drawbacks. These benefits, however, are less prevalent in disadvantaged and disorderly neighbourhoods, where levels of personal control decline considerably. Thus, in accordance with the structural amplification model, I propose that neighbourhood disadvantage and disorder amplify levels and consequences of WFC because they undermine an important psychological resource that individuals would otherwise use to combat the stressors presented in these contexts.

Gender Differences
The focal associations between neighbourhood disadvantage, disorder, personal control, and WFC may differ by gender for several reasons. First, research demonstrates that women and men continue to experience work and family domains differently, in addition to the relationship between these domains (Nippert-Eng 1996; Simon 1995). Robin Simon best exemplifies these ideas in her qualitative research on working mothers and fathers. She finds that the different meanings men and women attribute to work and family roles influence their experiences and mental health consequences of WFC. Women view work and family roles as independent, and therefore experience WFC as pervasive and non-specific. Men, in contrast, see their work and family roles as interdependent, and consequently experience WFC as specific, delimited, and less consuming. These experiences manifest as gender differences in mental health, where women experience more guilt, negative self-evaluations, and distress compared to men.

Second, research to date highlights differences in men’s and women’s experiences in their neighbourhood of residence and local community. Women are more likely than men to integrate into

13 Some research has suggested that during adolescence, boys may actually be influenced more by their immediate environment compared to girls (Entwisle et al. 1994).
the social fabric of the community, invest in relationships with others in the neighbourhood, volunteer at local organizations, and participate in public gatherings and activities (Campbell and Lee 1990; Kaminer 1984; Naples 1991). Women are also more likely to use publicly available resources, such as childcare, social services, and recreational facilities (Bianchi et al. 2006; Hochschild 1997; Ross and Mirowsky 1988). This literature therefore suggests that, compared to men, women may be more acutely aware their structural and social surrounding, compared to their male counterparts. These factors could translate into variable experiences of neighbourhood context, which may result in gender differences in the overall effect of neighbourhood context on WFC and its consequences.

**Summary of Hypotheses**

Based on my overview of the literature, I propose the *structural amplification hypothesis*. This hypothesis suggests that neighbourhood disadvantage and disorder are positively associated with WFC and its consequences. Neighbourhood disadvantage may influence WFC *directly*, because of the absence of physical resources and the addition of environmental demands, and *indirectly*, through the perceived disorder, despair and demoralization individuals face in these neighbourhoods on a day-to-day basis. Yet, these associations may arise—in part—because neighbourhood disadvantage and its associated disorder reduce individuals’ sense of personal control, which would otherwise lower levels of WFC, and buffer the consequences of that very context. The deleterious effects of neighbourhood disadvantage and disorder on WFC and its mental health consequences are therefore amplified. Given research on gender differences in experiences of work, family and neighbourhoods, I also hypothesize that these associations vary for men and women.

Figure 3.1 presents a conceptual model of my predictions. The solid lines reflect the direct associations tested between neighbourhood context, personal control, WFC, and distress. The dashed lines present the hypothesized modifying effects across these focal associations.

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14 Previous studies suggest that these associations may be dependent on social status or racial background (Campbell and Lee 1992; LeClere et al. 1998).
Data and Method

Sample

I use two data sets to test my hypotheses—individual and census level data. Individual-level data from the Toronto Study on Neighbourhood Effects on Health and Well-Being (NEHW, P.I. Wheaton and O’Campo), which comprises interviews with 2,412 individuals. To select the sample, a three-stage sampling design was used, which aimed to ensure a random and geographically distributed sample of neighbourhoods across the Greater Toronto Area (GTA). Using the 140 Toronto neighbourhoods defined in terms of the City of Toronto administrative boundaries (as they existed in 2001) as a starting point, we employed an innovative method called “serpentine ordering” (Geurder 1984) to order the 140 neighbourhoods in the GTA. The research team assigned an arbitrary ID number to each of the 140 neighbourhoods and then drew a line on the map starting in the northeast corner of the GTA (top right), proceeding from east to west, and then west to east until we reached the southwest corner of the map (bottom left). This method (and resulting line) resembles a snake gliding in a zigzag manner across the map and allows for the ordering of the neighbourhoods in an even and non-arbitrary manner. After the neighbourhoods were ordered, the research team randomly selected 50 to be included in our study. Interviews were conducted with ~20 to 30 respondents in 87 census tracts across the city-defined neighbourhoods in Toronto. Interviews took place face-to-face and lasted approximately 90 minutes. Eligible participants were between the ages of 25 to 64, felt comfortable speaking and understanding English and, at the date of interview, had resided at their current address for at least 6 months. We achieved an overall response rate of 72%. The final sample was weighted based on five criteria, including household income, age, gender, nativity, and household size.

I use missing data imputation techniques for my continuous individual-level measures, including independent and dependent variables: a) psychological distress, b) WFC, c) neighbourhood disorder, d) personal sense of control, e) hours of domestic chores per week, and f) paid work hours (see Allison 2002, for a review of missing data imputation techniques). I present a breakdown of the missing cases per continuous measure in Appendix 7. The majority of missing cases were specific across domestic chore hours / week (160). Missing cases across other measures may be attributed to refusals or coding errors. Patterns of missing data, however, appear to be arbitrary and therefore less problematic.
compared to systematic patterns of missing data. To impute missing cases, I first restricted the sample to working respondents only (n=1,702), because of the nature of my focal outcome (WFC). Second, I used PROC MI in SAS 9.3 to regress all continuous variables on one another, which produced estimates of any missing values across these measures in five imputed data sets. I assume arbitrary missing patterns and therefore use a Markov Chain Monte Carlo (MCMC) algorithm to generate all imputed values (see Shafer 1997 for additional details on imputation algorithms). I then used PROC MIANALYZE in SAS 9.3 to average the estimates for each model across all five imputed data sets.

Individual-Level Measures

*Work-family conflict* is measured by four commonly referenced items borrowed from the National Survey of the Changing Workforce (NSCW, Aumann et al. 2011; Bond et al. 2003). Respondents are asked about the prevalence of the following situations: “How often have you not had enough time for your family or other important people in your life because of your job?” “How often have you not had the energy to do things with your family or other important people in your life because of your job?” “How often has your job kept you from doing as good a job at home as you could?” and “How often has your job kept you from concentrating on important things in your family and personal life?” Response choices include “very often” (5), “often” (4), “sometimes” (3), “rarely” (2), and “never” (1). I index these scores, so that higher scores represent greater conflict (α=.91).

*Psychological distress* is measured using a total of 16 items based on Radloff’s Center for Epidemiologic Studies Depression Scale (1977) (CES-D), and Eaton et al.’s (2004) Revised CES-D-R. Together, these items “survey mood, somatic complaints, interactions with others, and motor functioning” (Eaton et al. 2004: 365). Factor analyses confirm that the 16 items I selected had comparable factor loadings (results available upon request). Respondents are asked whether they felt these symptoms “none of the time” (1), “a little of the time” (2), “some of the time” (3), “most of the time” (4) or “all of the time” (5). I create an index of these items, so that higher scores reflect greater distress (α=.95).

*Perceptions of Neighbourhood Disorder* My scale for neighbourhood disorder includes ten items about the physical and social problems in a given neighbourhood, including for example, litter or trash on the sidewalks and street, graffiti on building and walls, rundown sidewalks, or drug dealers hanging out.
Responses may include “a serious problem”, “quite a problem”, “more or less a problem”, “a minor problem”, or “not at all a problem”. This item is similar to those used in previous studies (Ross 2000). Responses were averaged so that higher scores reflect greater neighbourhood problems ($\alpha=.87$).

**Personal sense of control** is measured by seven items. Respondents were asked the extent to which they agree with the following statements: “There is little I can do to change many of the important things in my life”, “I often feel helpless in dealing with problems of life”, “Sometimes I feel that I am being pushed around in life”, “what happens to me in the future mostly depends on me” (reverse coded), and “I can do just about anything I really set my mind to” (reverse coded). Responses ranged from (1) “strongly disagree” to (5) “strongly agree” and were indexed so that higher scores reflect a higher sense of control ($\alpha=.82$).

**Additional antecedents of work-family conflict** – To effectively model the impact of neighbourhood context on WFC, it is necessary to control for more objective demands that may result in WFC, including individuals’ full-time or part-time work status and domestic task hours per week.

**Work status** – Since my sample comprises working individuals only, I decided to dichotomize our work hours measure into “full-time” (1) workers compared to those working only “part-time” (0), based on whether the respondent works more or less than 30 hours per week (Statistics Canada 2009).

**Domestic chores** – Respondents were asked to record the average number of hours spent on 19 domestic tasks per week, such as “preparing family meals”, “washing dishes and cleaning up after meals”, “cutting the lawn”, “taking care of the kids when spouse is home”, “taking care of kids when spouse is gone”, “driving other household members to work”, etc. These questions are similar to those in the National Survey of Families and Households (Sweet, Bumpass, and Call 1988), but cover a wider range of issues. Responses were summed to generate total domestic hours per week, including household tasks and childcare.
Control Measures
I control for immigrant status (foreign vs. native-born), respondent’s age (in years)\(^{15}\), education (coded in years), number of children (counted from the household composition), and marital status (married=1; else=0).

Neighbourhood-Level Data
I linked all personal interviews to the 2006 Canadian Census data, available through Statistics Canada. Census tracts are designated by population, include from 3,000 to 8,000 people, and are used as geographical boundaries to separate homogenous segments of the population. These data were merged with our individual-level data using the 2006 Canadian Postal Code Conversion File (PCCF4F+), which automatically assigns a census tract to each respondent based on their respective residential postal code; a common approach in neighbourhood effects research (e.g., Matheson et al. 2006; see Wilkins 2005, for a review. Also, see note 7 in chapter 2 for a discussion of census tracts as approximating neighbourhoods).

Neighbourhood-Level Measures
I use 2006 Canadian census data to measure neighbourhood disadvantage. Adapted from previous literature on neighbourhood effects (i.e., Aneshensel and Sucoff 1996; Boardman et al. 2005; Matheson et al. 2006; Ross et al. 2001; Ross 2000), I measure neighbourhood structural disadvantage using three common items, including 1) poverty rate, 2) unemployment rate of males over the age of 15; and, 3) percentage of lone parents in the neighbourhood (Elliot 2000; Matheson et al. 2006; Ross and Mirowsky 2001). I standardize and combine these measures to form an index of neighbourhood disadvantage (\(\alpha=.79\)). Higher values present greater disadvantage.

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\(^{15}\) I also tested a quadratic effect of age on distress, given research that suggests a curvilinear association between age and depression (Mirowsky and Ross 1992; Schiemann, Van Gundy and Taylor 2002). However, I did not find support for such an association in my data.
Analytic Strategy
To capture the effect of neighbourhood disadvantage and disorder on resources, WFC and subsequent distress, I use Hierarchical Linear Modelling (HLM; Raudenbush and Bryk 2002). By using HLM, I can simultaneously model individual and neighbourhood-level predictors of WFC and distress. The advantage of HLM here is that it divides the total variance in the outcome into portions due to variance strictly between-individuals (i.e., at the individual level) and variance between neighbourhoods (literally, the variance of neighbourhood means around the total mean). By partitioning this variance, I can concentrate on explaining the portion due to neighbourhood independently of the portion at the individual-level. I group-mean center all individual-level measures so that the model at the neighbourhood is scaled to predict differences in the mean levels of WFC and distress across neighbourhoods, and to reduce collinearity between neighbourhood and individual-level effects (Kreft and De Leeuw 1996).

I model my measures of neighbourhood structural disadvantage as occurring at the neighbourhood level, or what I refer to as a “Level-2 measure.” Perceptions of neighbourhood disorder, personal control, WFC, and distress are all modelled at the individual-level.

Equation for Work-Family Conflict
The generic WFC model at level 1 can be specified as:

\[
WFC = \beta_{0j} + \beta_{1j}(PersonalControl_{ij}) + \beta_{2j}(Disorder_{ij}) + \beta_{3j}(PersonalControl_{ij} \times Disorder_{ij}) + \beta_{4j}(Controls_{ij}) + e_{ij}
\]

With this at level 2:

\[
\beta_{0j} = \gamma_{00} + \gamma_{01}(NStrucDisadv_{j}) + u_{0j}
\]
\[
\beta_{1j} = \gamma_{10} + \gamma_{11}(NStrucDisadv_{j}) + u_{1j}
\]
\[
\beta_{2j} = \gamma_{20}
\]
\[
\beta_{3j} = \gamma_{30}
\]
\[
\beta_{4j} = \gamma_{40}
\]
Where—at level 2—\( \gamma_{00} \) is the grand mean for WFC, \( \gamma_{01} \) is the level-two coefficient for the cross-over effect of neighbourhood disadvantage (\( NStrucDisadv_j \)), \( \gamma_{10} \) is the coefficient for personal control, \( \gamma_{11} \) is the level-two coefficient for the cross-over interaction between of neighbourhood disadvantage and personal control, \( \gamma_{20} \) is the coefficient for perceived neighbourhood disorder, \( \gamma_{30} \) is the individual-level interaction coefficient between personal control and perceived disorder, \( \gamma_{40} \) reflects the generic coefficients for all control measures in the model at the individual level, \( e_{ij} \) is the individual-level error \( u_{0j} \) represents the residual variance of neighbourhoods after accounting for neighbourhood disadvantage. When testing the crossover interaction between neighbourhood disadvantage and personal control I allow for the coefficient of personal control to vary across neighbourhoods by specifying a random component \( (u_{ij}) \).

**Equation for Psychological Distress**

Next, I estimate the cross-level and individual-level interaction effects for WFC and neighbourhood context on psychological distress using the following generic equation at level 1:

\[
Distress = \beta_{0j} + \beta_{1j}(WFC_{ij}) + \beta_{2j}(PersonalControl_{ij}) + \beta_{3j}(Disorder_{ij}) + \beta_{4j}(Disorder_{ij} \times WFC_{ij}) + \beta_{5j}(PersonalControl_{ij} \times W) + \beta_{6j}(PersonalControl_{ij} \times Disorder_{ij} \times WFC_{ij}) + \beta_{7j}(Controls_{ij}) + e_{ij}
\]

With this at level 2:

\[
\begin{align*}
\beta_{0j} &= \gamma_{00} + \gamma_{01}(NStrucDisadv_{ij}) + u_{0j} \\
\beta_{1j} &= \gamma_{10} + \gamma_{11}(NStrucDisadv_{ij}) + u_{1j} \\
\beta_{2j} &= \gamma_{20} \\
\beta_{3j} &= \gamma_{30} \\
\beta_{4j} &= \gamma_{40} \\
\beta_{5j} &= \gamma_{50} + \gamma_{51}(NStrucDisadv_{ij}) + u_{5j} \\
\beta_{6j} &= \gamma_{60} \\
\beta_{7j} &= \gamma_{70}
\end{align*}
\]
Here, $\gamma_{00}$ is the mean distress level across neighbourhoods and $\gamma_{01}$ is the crossover effect of neighbourhood structural disadvantage on distress, $\gamma_{10}$ is the coefficient for WFC, $\gamma_{11}$ reflects the crossover interaction effect between neighbourhood structural disadvantage and WFC on distress, $\gamma_{20}$ is the coefficient for personal control, $\gamma_{30}$ is the coefficient for perceived neighbourhood disorder, $\gamma_{40}$ is the coefficient for the individual-level interaction effect between perceived disorder and personal control, $\gamma_{50}$ is the coefficient for the individual interaction between personal control and WFC, $\gamma_{51}$ is the coefficient for the crossover three-way interaction effect between neighbourhood disadvantage, personal control and WFC, $\gamma_{60}$ is the individual-level three way interaction coefficient between perceived disorder, personal control and WFC, $\gamma_{70}$ is the effect of individual-level controls on distress, and $e_{ij}$ is the individual-level error. When testing the crossover interactions between neighbourhood disadvantage, WFC, and personal control I allow for the coefficients of WFC and personal control to vary across neighbourhoods by specifying a random component ($u_{1j}$, $u_{5j}$, respectively). All analyses test for differences by gender as well, including two-way and three-way interaction effects between distress, WFC, neighbourhood disadvantage, perceptions of disorder, and personal control.

**Equation for Personal Control**

The aforementioned equations for WFC and distress represent the “moderating equations” of structural amplification. However, in each case there is also a mediating equation that partially defines the process of structural amplification, where neighbourhood disadvantage and disorder influence the sense of personal control. Thus personal control in the above equations can be substituted with the following generic equation at level 1:

$$ \text{PersonalControl} = \gamma_{00} + \gamma_{0j}(N\text{StrucDisadv}) + \gamma_{10} + \gamma_{1j}(\text{Disorder}_j) + u_{0j} + u_{1j} + e_{ij} $$

Consistent with the structural amplification hypothesis, I correctly specify the amplifying effect of neighbourhood context on WFC by substituting the mediating equation into the modifier equation. Neighbourhood disadvantage and disorder amplify WFC and its resulting distress because both decrease the sense of personal control, which would otherwise buffer these deleterious consequences.
Results

Individual and census-level descriptive statistics of study participants are provided in Appendix 6.

Neighbourhood Variation in WFC and Distress

Table 3.1 reports three sets of models across my two focal outcomes, WFC and distress. Note that the models are presented across rows, rather than traditionally down the columns. The first panel presents results across models for WFC, the second panel presents distress as an outcome. First, I consider the variation in WFC between neighbourhoods by estimating a one-way analysis of variance (ANOVA) with no predictors at either level in the model (model 1, WFC panel). I find significant variation in WFC between neighbourhoods ($\tau_{00} = .775, p < .001; \hat{\sigma}^2 = 9.526$). Calculations indicate that 8% of the variance in WFC is between neighbourhoods. I can therefore proceed to consider the effect of neighbourhood differences.

Table 3.1 also shows the variation in distress between neighbourhoods (model 1, distress panel). Again, using a one-way ANOVA, I find that 3% of the variance in respondents’ distress is between neighbourhoods ($\tau_{00} = 2.070, p < .01; \hat{\sigma}^2 = 67.701$), suggesting that there are some neighbourhood level differences to consider.

Next, I test whether the effect of WFC on distress varies between neighbourhoods. I estimate this with the random effects model (model 2, distress panel), which includes WFC as a predictor of distress and also allows the WFC slope to vary between neighbourhoods. Here, the effect of WFC on distress varies between neighbourhoods ($\tau_{11} = .843, p < .01$). This test indicates that the effect of WFC does vary depending on some unspecified neighbourhood characteristic, and I can proceed to test cross-level interactions between neighbourhood context and WFC on distress.

Finally, Table 3.1 presents results from a third model. Here, I estimate the effects of my individual-level control measures on WFC and distress. Married people report less distress, compared to those who are not married. Education is negatively associated with distress. The number of children in the household under the age of 18 increases WFC, and domestic chores are positively associated with
WFC and distress. Full-time workers report more WFC, but less distress, compared to part-time workers.

The Association between Neighbourhood Disadvantage, Disorder and Sense of Control

Before considering the effects of neighbourhood context and resources on WFC and subsequent distress, I first test a) whether neighbourhood disadvantage is associated with perceived disorder, and b) if neighbourhood disadvantage and disorder impact individuals’ sense of personal control, as I have predicted. Table 3.2 shows the results of these analyses, controlling for selected social and demographic measures. The first model presents a positive association between neighbourhood disadvantage and perceptions of disorder. The next model presents personal control as an outcome, which is negatively associated with both neighbourhood disadvantage and disorder. Together, these results suggest that —consistent with previous research (Ross and Mirowsky 2001; Ross et al. 2001)— neighbourhood disadvantage partly manifests as perceptions of disorder, and when disadvantage and disorder are considered simultaneously, both reduce personal control, which partially supports my structural amplification hypothesis.

Neighbourhood Context, Personal Resources, and WFC

Table 3.3 presents the results for my focal associations with WFC as an outcome, controlling for selected social and demographic covariates. Based on my hypotheses, I expect that neighbourhood disadvantage directly affects WFC, but that part of this association is mediated by perceived neighbourhood disorder. I further predict that the effects of neighbourhood disadvantage and perceptions of disorder on WFC are buffered by a sense of personal control. And, I expect that these associations will be more salient for women compared to men based on research of gender differences in experiences of work, family and neighbourhood. Overall, I find partial support for these hypotheses.

Model 1 in Table 3.3 shows the effects of neighbourhood disadvantage by gender. Analyses (not shown) suggest that neighbourhood disadvantage is positively associated with WFC for women only ($b_{female \times disadvantage} = .468, p < .05$). Given this finding, I derive effects of neighbourhood disadvantage for women and men, separately. Figure 3.2 presents this association visually. The solid line reflects the impact of neighbourhood disadvantage on WFC for women, compared to the dashed line, which
presents this same association for men. Model 2 shows that the significant association for women between neighbourhood disadvantage and WFC decreases when considering the positive impact of perceptions of neighbourhood disorder on WFC. These results suggest that neighbourhood disadvantage partially manifests into perceptions of disorder, which in turn, increase perceived WFC. This conclusion is further supported by the results in Table 3.2, where neighbourhood disadvantage positively predicts perceived neighbourhood disorder.

Models 3 through 5 of Table 3.3 show the impact of personal control on WFC directly (model 3), and in combination with neighbourhood disadvantage (model 4), and perceived disorder (model 5). The interaction term in this last model suggests that the positive effect of perceived neighbourhood disorder on WFC is partially buffered by personal control. That is, a high sense of personal control reduces the deleterious impact of perceived neighbourhood disorder on WFC. Figure 3.3 presents this association visually. Those who report high personal control also report the lowest levels of WFC as a result of perceived neighbourhood disorder (solid black line), compared to average personal control (grey line), and low personal control (dashed line). Subsequent tests confirm significant differences in regression slopes across levels of personal control. This, however, is not the case for neighbourhood disadvantage, where the positive impact on WFC holds regardless of personal control levels.

Combined with the findings in Table 3.2, the results from model 5, Table 3.3 offer support for my structural amplification argument—at least for perceived neighbourhood disorder: Neighbourhood disorder not only increases WFC directly, it also undermines the psychological resources used to combat its deleterious effects on WFC, which supports ideas of structural amplification.

Neighbourhood Context, Personal Resources, and the Consequences of WFC

Table 3.4 tests the associations between psychological distress, neighbourhood disadvantage and perceived disorder, personal control, and WFC. According to my hypotheses, neighbourhood disadvantage and disorder should exacerbate the effect of WFC on distress. However, the deleterious effects of neighbourhood should be buffered by personal control. Furthermore, these associations
should be far more salient for women compared to men, based on theories of gender differences in experiences of work, family, and neighbourhood.

I find several results that support my hypotheses. Model 1 shows that neighbourhood disadvantage—at a structural level—is positively associated with psychological distress net of various social and demographic controls. It is important to note as well, that neighbourhood disadvantage explains a significant proportion of the random component in distress across neighbourhoods ($\tau_{00, \text{table 3.1, mod1}}=.926$, $p > .10$, compared to $\tau_{00, \text{table 3.1, distress}}=2.070$, $p < .01$).

The association between neighbourhood disadvantage and distress holds even when I consider perceptions of neighbourhood disorder in model 2, which also positively increases distress levels.\(^{16}\) Next, I consider the impact of WFC. Preliminary analyses (not shown) highlight that the effect of WFC on distress is conditional upon, a) perceived levels of disorder; and, b) gender ($b_{\text{wfc disorder x female}}=.135$, $p < .05$). That is, the association between WFC and distress varies for men and women, depending on their perceptions of neighbourhood disorder. To accurately present this three-way interaction I derive the WFC slopes separately for women and men by high and low levels of perceived neighbourhood disorder (90\(^{th}\) and 10\(^{th}\) percentile, respectively). As these results show in model 3, the effect of WFC is greatest for women with high levels of perceived disorder ($b_{\text{high disorder women}}=1.245$, $p < .001$). The only other significant WFC slope is for men with equally high perceptions of neighbourhood disorder ($b_{\text{high disorder men}}=.467$, $p < .05$). Subsequent tests suggest that these two slopes for men and women are significantly different ($F=8.01$, $p < .01$). These associations are visually represented in Figure 3.4, which shows that WFC impacts distress more for women in neighbourhoods with high disorder.

Model 4 in Table 3.4 tests whether the associations between neighbourhood disorder and WFC are mediated by a sense of personal control. Results suggest that personal control is negatively associated

\(^{16}\) Most studies on neighbourhood context and mental health finds that any effect of neighbourhood disadvantage (at the census-level) is a product of the perceived disorder that ensues among residents in such disadvantaged conditions. This has been the case in research on mistrust (Ross et al. 2001), depression (Kim 2010; Ross 2000), and physical health (Ross and Mirowsky 2001). My results for psychological distress, however, do not reflect similar patterns. I would argue that these results may be the product of my outcome (psychological distress), as well as my particular sample—which is restricted to residents living in Toronto, Canada.
with distress, and further, the impact of WFC in highly disorderly neighbourhoods is partially mediated by personal control for women, and fully mediated for men.

In the final model of Table 3.4, I test an interaction between WFC and personal control. I find a significant interaction effect between these two variables, as shown in model 5: The effect of WFC on distress is buffered by personal control. Figure 3.5 presents these associations visually, and shows that those with higher levels of personal control report less distress as a result of rising WFC (solid black line). When considered in combination with the results from Tables 3.2 and 3.3, this finding provides evidence for my structural amplification hypothesis: The disadvantaged context in which one finds themselves depletes the resources individuals would otherwise use to buffer the ambient stressors presented in these contexts, and thus their mental health consequences. I provide evidence for this conclusion across my results: Table 3.2 shows that neighbourhood disadvantage and disorder decrease a personal sense of control. Table 3.3 shows that neighbourhood disadvantage and disorder increase WFC, albeit differently for men and women. I also show in this table that personal control decreases WFC levels and buffers the effects of perceived neighbourhood disorder on WFC. Table 3.4 shows that WFC increases distress, depending on perceived neighbourhood disorder and gender, and that personal control attenuates the distressing effects of WFC. Overall then, the very fact that neighbourhood disadvantage and perceived disorder, a) decrease personal control, b) increase WFC; and, c) exacerbate its distressing effects, offers evidence for structural amplification theory.17

Discussion

My study tested whether neighbourhood disadvantage impacts work-family conflict (WFC) and its mental health consequences. Drawing on ideas of structural amplification, I hypothesized that neighbourhood disadvantage and disorder lead to WFC directly—generating additional conflicts between work and family obligations, and indirectly—by undermining the sense of personal control that individuals would otherwise use to combat the effects of neighbourhood context on WFC and its consequences. Using 2011 data from individuals in Toronto, Canada matched to census data, I reveal

17 I tested additional interactions between gender, neighbourhood disadvantage, disorder, personal control, WFC and distress. Other than the results presented in Tables 3.3 and 3.4, I found no significant gender differences in these focal associations.
several noteworthy results. First, neighbourhood disadvantage and perceived disorder are positively associated with WFC. However, the association between disadvantage and WFC is significant for women only. Second, consistent with ideas of structural amplification, I find that lower levels of personal control result in more WFC for individuals who perceive high disorder in their neighbourhood. Finally, results show that perceived disorder exacerbates the effects of WFC on distress more for women than men, while personal control attenuates the effects of WFC on distress for both genders. Together, my findings provide support for structural amplification theory. I elaborate on these findings in the following sections, and highlight the contributions of my study in relation to WFC research and the neighbourhood effects literature more broadly.

**Neighbourhood Context, WFC and Distress**

Does neighbourhood disadvantage impact WFC and its mental health consequences? While the results from my study suggest that it does, the process through which this association plays out is rather complex. For women, the effect of neighbourhood structural disadvantage and perceptions of disorder on WFC exist independent of one another. However, this is not the case for men, whose WFC is influenced by perceptions of disorder only. I discuss the importance of these gender differences in the next section, but first, would like to reiterate why neighbourhood disadvantage and/or perceptions of disorder may impact WFC at all.

Neighbourhood disadvantage and disorder present chronic ambient stressors that, when endured daily, may increase exposure and vulnerability to secondary stressors. This process is best described through Pearlin’s notion of stress proliferation (1989; 1999). Recall that stress proliferation occurs when one stressor leads to or exacerbates the presence of another stressor (Pearlin 1999). In the current study, the stressors associated with neighbourhood disadvantage instigate higher levels of WFC, at least for the women in my sample. I also find evidence that neighbourhood disadvantage affects WFC and its mental health consequences indirectly, via perceptions of disorder among residents. Such perceptions can instigate a variety of subsequent stressors, and exacerbate their mental health consequences (Kim 2010; Ross 2012; Ross and Mirowsky 2001; Ross et al. 2001). In the case of WFC, salient signs of disorder, such as graffiti, drug use, loitering, incivilities, vandalism, and other illegal activities, may reduce individuals’ confidence in the larger community, generating feelings of mistrust and worry of
others that may interfere with work or family expectations. I find evidence to support that these associations play out for both the men and women in my sample.

I also find evidence that perceptions of disorder exacerbate the mental health consequences of WFC, but this association is stronger for women compared to men. That is, women who perceive their neighbourhood to be more disorderly experience higher levels of distress as a result of WFC, compared to men with similar perceptions of disorder and levels of WFC. Combined, these results provide support that the stressors associated with neighbourhood disadvantage and disorder proliferate, giving rise to WFC and exacerbating its mental health consequences, but these associations vary for men and women.

**Structural Amplification Theory: Neighbourhood Context, Personal Resources, and WFC**

My study finds evidence that neighbourhood disadvantage and disorder may further impact WFC through a second mechanism: By diminishing levels of personal resources that would otherwise, a) reduce WFC and its mental health consequences, and b) buffer the deleterious effects of neighbourhood disorder on these outcomes. My results here are consistent with structural amplification theory. Recall this theory posits that the context in which one finds themselves not only contributes to a mediating stressor, but also depletes the resources necessary to minimize the consequences of that very context, thereby amplifying the situation.

In the current study, I consider one of the most important psychological resources in the mental health literature—the sense of personal control—and analyze how it may directly and indirectly affect WFC and its consequences in the context of neighbourhood disadvantage and perceived disorder. In accordance with previous studies, I find that neighbourhood disadvantage and disorder are both negatively associated with the sense of personal control. Neighbourhood disadvantage breeds chaos, despair, disorder, and demoralization, which may lead residents to see themselves as abandoned by mainstream society. These conditions deplete individuals’ sense of control not only over their specific residential situation, but over the universalities of life itself (Mirowsky and Ross 2003; Ross 2000; Ross et al. 2001; Schieman et al. 2004).
My results further suggest that a diminished sense of control has implications for levels and consequences of WFC. According to literature on this topic, individuals with a higher sense of control are more prepared when confronted with a stressor, and effectively take action to mobilize the resources necessary to reduce levels and consequences of that very stressor (Mirowsky and Ross 2003; Wheaton 1983). These individuals may also be more apt to perceive work and family demands as complementary or conflict between the two as less threatening (Pearlin 1999). My study reports findings consistent with these conclusions: Individuals with a higher sense of control report less WFC, and fewer distressing symptoms in the face of WFC. Personal control also mitigates the deleterious effects of perceived disorder on WFC.

Together, these results provide strong support for my structural amplification hypothesis: The effect of neighbourhood context on WFC and its consequences is amplified in more disadvantaged and disorderly neighbourhoods. The features of these contexts reduce individuals’ sense of personal control, which would otherwise decrease levels and consequences of WFC. Furthermore, because personal control mitigates the impact of perceived neighbourhood disorder on WFC, the deleterious effects of WFC are amplified among individuals in more disorderly neighbourhoods, and thus—by extension—more disadvantaged neighbourhoods.

Gender Differences in the Associations between Neighbourhood Context, WFC, and Distress

My focal associations differ for men and women. Two results show stronger effects of neighbourhood context for women compared to men, including 1) the impact of neighbourhood structural disadvantage on WFC (Table 3.3, model 5); and, 2) the combined effect of neighbourhood disorder and WFC on distress (Table 3.4, model 5). These findings suggest that women are more aware of their social and structural surroundings when it comes to negotiating competing work and family demands, and the distress that may subsequently arise from conflict between them. Studies support these ideas and show that compared to men, women invest more time and energy into their communities, and integrate more into the social fabric of the neighbourhood. They may therefore be more attuned to signs of disadvantage, disorder and disarray, as well (Campbell and Lee 1990; Kaminer 1984; Naples 1991; Steffensmeier 1984). When confronted with signs of structural disadvantage and social disorder, women may feel they have fewer resources to cope with competing work and family demands, and
subsequent conflict between the two that may arise. While these ideas support my results, the exact mechanisms through which these associations unfold remain unclear, and should be researched further in the future.

**Caveats, Considerations, and Contributions**

Despite the contributions of my results, there are several methodological limitations worth mentioning:

First, I use cross-sectional data, which limits my causal assumptions about the impact of WFC on distress. While my paper articulates the standard theoretically-based assumptions of this literature, these data provide only a snapshot and longitudinal data would be preferable. Second, my sample is limited by location, which may restrict the generalizability of my findings. I use data from residents in Toronto, Canada only. Toronto, in some respects, is an ideal setting to study neighbourhood effects because of its unique demographic and social characteristics. The city is one of the most multicultural in North America, with over a 50% foreign born population from over 140 different countries (City of Toronto 2012). Furthermore, Toronto’s neighbourhoods are less segregated by ethnicity compared to other urban places, which may be an implicit strength of this study (Fong and Wilkes 2003; Hulchanski 2007; Massey and Denton 1993). Because of the reduced level of segregation, I am able to successfully disentangle the effects of neighbourhood structural disadvantage and individual-level characteristics (see Appendix 2 for select Toronto demographics compared to other U.S. cities). Nevertheless, the unique nature of the sample does restrict my ability to generalize my findings to other urban cities.

Finally, I do not consider other important antecedents of WFC that may mediate its association with neighbourhood disadvantage and perceived disorder, including measures of work-related experiences, occupation type, and additional family-related demands or resources. For example, a plethora of research suggests that work-related demands and resources—such as job pressures, work at home, schedule control, and autonomy associated with various occupations—strongly influence WFC (Schieman et al. 2009; see Michel 2010, for a review). It may be that neighbourhood disadvantage influences the employment opportunities available to individuals, which thus, impacts exposure to variable work demands and resources (Fernandez and Su 2004). The quality of jobs in a neighbourhood may therefore explain part of the association between neighbourhood disadvantage and levels and consequences of WFC. Future research should explore these potential associations.
These limitations do not impede the contributions of my findings, however. Neighbourhood disadvantage does affect WFC and its mental health consequences. My study is among the first to demonstrate these important, yet complex associations. My findings bring to light the importance of recognizing that neighbourhoods provide an opportunity to either help or hinder our negotiation of work and family demands, and the mental health consequences that arise as a result. The ambient demands we face directly, or perceive around us, have implications for the daily stressors we encounter, and the resources we maintain psychologically to combat them. The impact of neighbourhoods may vary for men and women, however, which highlights the importance of providing gender-specific services across our communities. In closing then, I would like to highlight that neighbourhood disadvantage matters for a host of reason—it influences our future prosperity, status attainment, and life choices, as well as our overall physical and mental health. Now, in addition to these factors, we must also consider how our neighbourhood of residence affects the personal roles we enact daily, including our work and family roles, and how we negotiate their competing demands.
References


Schieman, Scott and Steven C. Meersman. 2004. “Neighborhood Problems and Health among Older Adults: Received and Donated Social Support and the Sense of Mastery as Effect Modifiers.” *Journal of Gerontology: Social Sciences* 95B: s89-97.


Table 3.1 Random and Fixed Effects Models for Work-Family Conflict and Psychological Distress (N=1,702)

<table>
<thead>
<tr>
<th>Model</th>
<th>Work-Family Conflict</th>
<th>Psychological Distress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variation by Neighbourhoods</td>
<td>0.775***</td>
<td>2.070**</td>
</tr>
<tr>
<td>One-way ANOVA</td>
<td>0.775***</td>
<td>2.070**</td>
</tr>
</tbody>
</table>

Random Effects Model

<table>
<thead>
<tr>
<th>(2) Work-family conflict</th>
<th>.843**</th>
<th>.295*</th>
<th>.103***</th>
</tr>
</thead>
</table>

Control Measures

| (3) Female | .198 |  |  | .019 |
| Education  | .129 |  |  | -.038* |
| Age        | .001 |  |  | -.004 |
| Canadian   | -.086 |  |  | .011 |
| Married    | .326 |  |  | -.152** |
| Number of children | .043*** |  |  | .035 |
| Domestic hours/wk     | .024*** |  |  | .004* |
| Full-time worker      | 1.570*** |  |  | -.137** |
| Intercept             | .641*** | 8.877*** |  | .028** |

Notes: Unstandardized coefficients presented from HLM analyses.

*p<.10, *p<.05, **p<.01, ***p<.001 (two-tailed test).
### Table 3.2 Regressions of Perceived Neighbourhood Disorder, and Sense of Control on Neighbourhood and Individual Characteristics (N=1,702)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Neigh. Disorder</th>
<th>Sense of Control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Neighbourhood Context</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neigh. disadvantage</td>
<td>.406***</td>
<td>-.108***</td>
</tr>
<tr>
<td>Neigh. disorder</td>
<td>—</td>
<td>-.049***</td>
</tr>
<tr>
<td><strong>Control Measures</strong></td>
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</tr>
<tr>
<td>Female</td>
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<td>.009</td>
</tr>
<tr>
<td>Education</td>
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<td>.057</td>
</tr>
<tr>
<td>Age</td>
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<td>-.002</td>
</tr>
<tr>
<td>Canadian</td>
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<td>.189***</td>
</tr>
<tr>
<td>Married</td>
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<td>.108***</td>
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<tr>
<td>Number of children</td>
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<td>.006</td>
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<tr>
<td>Domestic hours/wk</td>
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<td>.001</td>
</tr>
<tr>
<td>Full-time worker</td>
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<td>.127***</td>
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<tr>
<td><strong>Random Effects</strong></td>
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<td></td>
</tr>
<tr>
<td>Fixed intercept</td>
<td>4.157***</td>
<td>3.783***</td>
</tr>
<tr>
<td>Random intercept ( ( \tau_{00} ))</td>
<td>.241***</td>
<td>.019***</td>
</tr>
</tbody>
</table>

\( ^\dagger \)p<.10, * p<.05, **p<.01, ***p<.001 (two-tailed test). Notes: Unstandardized coefficients presented from HLM analyses. \(^a\) Random intercepts and slope reflect between neighbourhood variances.
Table 3.3 Work-Family Conflict Regressed on Neighbourhood Disadvantage, Disorder, and Sense of Control (N=1,702)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
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<td>Neighbourhood Context</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neigh. disadvantage by gender &lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>.466**</td>
<td>.420*</td>
<td>.427*</td>
<td>.432*</td>
<td>.404*</td>
</tr>
<tr>
<td>Men</td>
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<td>.034</td>
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<tr>
<td>Neigh. disorder</td>
<td>—</td>
<td>.236***</td>
<td>.185***</td>
<td>.191***</td>
<td>.168***</td>
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<tr>
<td>Resources</td>
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<tr>
<td>Sense of control</td>
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<td>—</td>
<td>-.833***</td>
<td>- .815***</td>
<td>- .820***</td>
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<tr>
<td>Interactions with Resources</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Neigh. disadv. x sense of control</td>
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<td>—</td>
<td>—</td>
<td>.153</td>
<td>—</td>
</tr>
<tr>
<td>Neigh. disorder x sense of control</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>-.162*</td>
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<tr>
<td>Control Measures</td>
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</tr>
<tr>
<td>Female</td>
<td>.279</td>
<td>.248</td>
<td>.239</td>
<td>.271</td>
<td>.248</td>
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<tr>
<td>Education</td>
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<td>-.491</td>
<td>-.444</td>
<td>-.427</td>
<td>-.439</td>
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<td>Age</td>
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<td>-.001</td>
<td>-.003</td>
<td>-.003</td>
<td>-.003</td>
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<tr>
<td>Canadian</td>
<td>.019</td>
<td>.064</td>
<td>.200</td>
<td>.197</td>
<td>.202</td>
</tr>
<tr>
<td>Married</td>
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<td>.356*</td>
<td>.448**</td>
<td>.450**</td>
<td>.467**</td>
</tr>
<tr>
<td>Number of children</td>
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<td>-.043</td>
<td>-.041</td>
<td>-.037</td>
<td>-.040</td>
</tr>
<tr>
<td>Domestic hours/wk</td>
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<td>.024***</td>
<td>.024***</td>
<td>.024***</td>
<td>.024***</td>
</tr>
<tr>
<td>Full-time worker</td>
<td>1.556***</td>
<td>1.592***</td>
<td>1.697***</td>
<td>1.731***</td>
<td>1.698***</td>
</tr>
<tr>
<td>Fixed intercept</td>
<td>8.716***</td>
<td>8.685***</td>
<td>8.736***</td>
<td>8.502***</td>
<td>8.479***</td>
</tr>
<tr>
<td>Random Effects &lt;sup&gt;b&lt;/sup&gt;</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WFC random intercept (τ&lt;sub&gt;00&lt;/sub&gt;)</td>
<td>.619***</td>
<td>.616***</td>
<td>.615***</td>
<td>.622***</td>
<td>.610***</td>
</tr>
<tr>
<td>Female random slope (τ&lt;sub&gt;11&lt;/sub&gt;)</td>
<td>.150</td>
<td>.212</td>
<td>.215</td>
<td>.230</td>
<td>.228</td>
</tr>
</tbody>
</table>

<sup>a</sup>p<.10, * p<.05, **p<.01, ***p<.001 (two-tailed test). <sup>b</sup>Notes: Unstandardized coefficients presented from HLM analyses. WFC=work-family conflict. <sup>a</sup>Estimates derived from the interaction between gender and neighbourhood disadvantage. <sup>b</sup>Random intercepts and slope reflect between neighbourhood variances. I allow the slope for female to vary across neighbourhoods, since I find evidence of a cross-level interaction. Additional information about the random effects of these slopes on WFC is available from the authors upon request.
Table 3.4 Psychological Distress Regressed on Work-Family Conflict, Neighbourhood Disadvantage, Disorder, and Sense of Control (N=1,702)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Neighbourhood Context</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neigh. disadvantage</td>
<td>1.037***</td>
<td>1.073***</td>
<td>.973***</td>
<td>1.005***</td>
<td>1.020***</td>
</tr>
<tr>
<td>Neigh. disorder</td>
<td>—</td>
<td>1.003***</td>
<td>.377*</td>
<td>.071</td>
<td>.052</td>
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<tr>
<td><strong>Work-Family Conflict by Disorder</strong></td>
<td></td>
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<tr>
<td>Women</td>
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<tr>
<td>WFC by neigh. disorder</td>
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<tr>
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<td>—</td>
<td>1.245***</td>
<td>.899*</td>
<td>.840*</td>
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<tr>
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<td>—</td>
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<td>.300</td>
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<tr>
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<td>—</td>
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<td>-5.971***</td>
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<td>-.050**</td>
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</tr>
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<td>10.246***</td>
<td>12.336***</td>
<td>11.091***</td>
<td>11.053***</td>
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<tr>
<td>Distress random intercept ( $\tau_{00}$)</td>
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<td>.922</td>
<td>.417</td>
<td>.723</td>
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<td>WFC random slope ( $\tau_{11}$)</td>
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<td>.191**</td>
<td>.178**</td>
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*p<.10, *p<.05, **p<.01, ***p<.001 (two-tailed test). WFC=work-family conflict. Notes: Unstandardized coefficients presented from HLM analyses. WFC=work-family conflict. a Estimates derived from the interaction between gender and neighbourhood disadvantage. b Random intercepts and slope reflect between neighbourhood variances.
Figure 3.1 Conceptual Structural Amplification Model of Neighbourhood Context and Work-Family Conflict

Notes: The solid black lines represent the direct associations between neighbourhood context, resources, WFC and distress. The dashed lines indicate the modifying associations across my focal associations. I hypothesize that these associations will vary for men and women, which is reflected by the top box of the figure.
Note: Predicted values of WFC are based on results from Table 3.3, model 5. All continuous variables are held constant at their respective means, which equals 0 for all group-mean centered individual-level measures. For categorical variables, I solved the equation for full-time status, Canadians.
Figure 3.3 The Association between Neighbourhood Disorder and Work-Family Conflict across Levels of Sense of Control (N=1,702)

Note: Predicted values of WFC are based on results from Table 3.3, model 7. High, average, and low sense of control correspond to the 90th, 50th and 10th percentile, respectively. All continuous variables are held constant at their respective means, which equals 0 for all group-mean centered individual-level measures. For categorical variables, I solved the equation for full-time status, Canadians.
Figure 3.4 The Association between Work-Family Conflict and Distress across Levels of Neighbourhood Disorder for Men (N=795) and Women (N=907)

*Note:* Predicted values of distress are based on results from Table 3.4, model 5. High, average, and low disorder correspond to the 90th, 50th and 10th percentile, respectively. All continuous variables are held constant at their respective means, which equals 0 for all group-mean centered individual-level measures. For categorical variables, I solved the equation for full-time status, Canadians.
Figure 3.5 The Association between Work-Family Conflict and Distress across Levels of Sense of Control (N=1,702)

Note: Predicted values of distress are based on results from Table 3.4, model 5 High, average, and low sense of control correspond to the 90\textsuperscript{th}, 50\textsuperscript{th} and 10\textsuperscript{th} percentile, respectively. All continuous variables are held constant at their respective means, which equals 0 for all group-mean centered individual-level measures. For categorical variables, I solved the equation for full-time status, Canadians.
Chapter 4
Do Community Resources Matter? The Impact of Real and Perceived Community Resource Availability on Work-Family Conflict and its Mental Health Consequences

Introduction

To what extent do community resources help individuals cope with work-family conflict (WFC) and its mental health consequences? Despite the plethora of articles published on WFC, most scholars in the area have yet to ask—let alone answer—this research question (see Hostetler et al. et al. 2012; Pitt-Catsouphes et al. 2006; Swisher et al. 2004; Sweet et al. 2005; Voydanoff 2007, for some exceptions). Instead, theories on WFC tend to emphasize individual-level antecedents to the exclusion of broader contexts, including the neighbourhood or community of residence (Clark 2001; Demerouti et al. 2001; Greenhaus and Beutell 1987; Nippert-Eng 1996), despite strong evidence of neighbourhood effects on related outcomes, like child well-being, adolescent health, family conflict, marital satisfaction, and overall mental and physical well-being (Aneshensel and Sucoff 1996; Leventhal and Brooks-Gunn 2000; Mannon and Brooks 2006; Ross and Mirowsky 2001; Wheaton and Clarke 2003).

Most literature within the realm of this topic is also limited because it tends to examine neighbourhood disadvantage, with the assumption that disadvantage necessarily implies the absence of community resources or public services (Aneshensel and Sucoff 1996; Ross and Mirowsky 2001; Wheaton and Clark 2003; see Sampson et al. 2002, for a review; see Mannon and Brooks 2006; Swisher et al. 2004, for exceptions). In fact, few studies to date actually consider the role of community resources beyond to traditional measures of neighbourhood. My research therefore takes a unique approach, and instead of focusing solely on markers of neighbourhood disadvantage, examines whether real and / or perceived community resource availability helps individuals combat WFC and its deleterious health effects.

I consider two additional caveats to my focal associations. First, in line with previous research on the importance of collective efficacy and community belonging (Carpiano 2007; Sampson et al. 1997; Voydanoff 2007), I argue that social cohesion may be a necessary condition through
which the benefits of real and perceived community resource availability operate. Cohesion amongst residents helps facilitate information about resources, and encourages others to use the services available to them (Carpiano 2007; Kawachi and Berkman 2001; Sampson et al. 1997). Second, I test for possible gender differences in light of research on men’s and women’s variant roles and experiences of work, family, and neighbourhood (Campbell and Lee 1990; Christianson and Palkovitz 2001; Leventhal and Brooks 2000; Simon 1995).

Taken together, my study attempts to answer the following research questions: 1) Do the objective and / or perceived presence of community resources affect levels and mental health consequences of WFC? 2) Are these associations affected by individuals’ perceived levels of social cohesion? And, 3) Do these associations vary for men and women? I argue that real and perceived community resources reduce levels and mental health consequences of WFC. However, these associations may be greater for women compared to men, and likely depend upon the subjective assessment of social cohesion in the neighbourhood.

**Literature Review**

**Neighbourhood Disadvantage, Community Resources and Work-Family Conflict**

Traditional measures of neighbourhood disadvantage include aggregated socioeconomic statuses of residents and other related measures of inequality at the neighbourhood level, including poverty, average education, the prevalence of high school dropouts, single parent families, and unemployment rates (Boardman et al. 2001; Kowaleski-Jones 2000; Leventhal and Brooks-Gunn 2000; Ross and Mirowsky 2000; Ross et al. 2001). Most research in this area emphasizes how disadvantage contributes to increased levels and consequences of individual stressors (see Hill and Maimon 2013, for a review). This perspective often assumes that neighbourhood disadvantage mirrors the absence of community resources that would otherwise help buffer levels and consequences of stressors. While it is likely the case that disadvantaged neighbourhoods have fewer resources, it is necessary to examine whether access to such resources, like family services, grocery stores, green spaces, exercise and recreation facilities, safe affordable daycare, community centres, and employment agencies matter beyond the scope
of disadvantage, especially when it comes to the negotiation of work and family demands, and potential conflict between them.

For my purposes, I define community resources as any service, organization, or institution within geographic propinquity that helps individuals negotiate competing work and family demands, thereby reducing potential conflict between these two domains, and the mental health consequences that may arise in the event of such conflict. The presence of community resources may help reduce levels and consequences of WFC by presenting safe and convenient spaces where social support networks can be formed, children can play without worry, and friends or family can gather to spend time together. Moreover, these resources offer individuals prospective solutions to domestic demands of quality employment opportunities reduce interference between paid and unpaid work expectations (Hochschild 1997; Mirowsky and Ross 2003:103).

While literature examining this topic is limited, there are some exceptional studies that broadly address the impact of “community” on WFC (Pitt-Catsouphes et al. 2006; Swisher et al. 2004; Sweet et al. 2005; Voydanoff 2007). For example, Pitt-Catsouphes and her colleagues propose

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18 A related body of research on community, work, and family comes from Swisher, Sweet, and Moen (Moen 2003; Swisher et al. 2004; Sweet et al. 2005), who attempt to conceptualize and empirically test potential antecedents of family-friendly communities. Using survey data from individuals living in upstate New York, these studies highlight that neighbourhood structural and social features, such as residential similarity in life stage and parental status, recreational and education opportunities, community events, and neighbourliness, contribute to residents’ overall perceptions of family-friendly communities. These features, in turn, reduce WFC—at least theoretically—by offering a safe, supportive space where residents have access to social and physical resources that help them facilitate work and family demands. While relevant to WFC research, the overall contribution of this literature is also limited, because it focuses mainly on individuals’ appraisals of what constitutes a family-friendly community and family adaptive strategies to community selection. No study that I know of has actually examined the impact of family-friendly communities on WFC and its consequences.

Another body of literature associated with community and WFC includes Patricia Voydanoff’s organizing theoretical and empirical research model for work, family, and community (2001; 2005; 2007). Over the years, she has attempted to develop and test a conceptual model of the interaction between these three domains using a demands-resource / ecologic approach (see Bakker and Demerouti 2007; Bronfenbrenner 1979; Clark 2001, for details). Using individual-level survey data from two nationally representative surveys (National Study of the Changing Workforce; NSCW and Midlife in the United States study; MIDUS), Voydanoff finds that community demands, including incoherence and friend demands increase WFC, while resources, including a sense of community and support from friends decrease WFC. While her approach has contributed greatly to WFC research, it is not without limitations. For example, she theoretically and methodologically confounds the structural components of the community with unmeasured individual-level factors, which ultimately mis-specifies her analytical models, and thus, her conclusions of the community’s impact on work and family experiences.
a new paradigm for work-family research that acknowledges the importance of community to work and family functioning (Pitt-Catsouphes et al. 2006, p. 1401; also see Booth and Crouter 2001; DeBord et al. 2000, for related arguments). The authors highlight neighbourhood features such as formal community resources, and that these objective resources, like after-school daycare, employment services, and convenient access to food stores, and health care are associated with less WFC (Piotrowski and Kessler-Sklar 1996).

Yet, despite the theoretical plausibility of the association between objective resources and WFC, Pitt-Catsouphes et al. (2006) do not provide convincing evidence to the reader. Instead, the authors lack measures of community resources, and instead use data from participants’ own reports when testing these theories. The analyses are also quite limited, including bivariate correlations only, which restricts conclusions about multivariate effects and limits the overall generalizability and contributions of the authors’ research results.

My research addresses these limitations by using advanced methods and unique data to effectively model the general association between community resource availability and WFC, while controlling for traditional measures of neighbourhood disadvantage. In doing so, I expect that community resources will reduce levels and consequences of WFC.

**Hypothesis 1:** Community resources will reduce WFC and its mental health consequences, net of traditional neighbourhood disadvantage measures.

**Perceived Resource Availability**

The physical presence of community resources may have little impact on WFC unless residents are aware of them. Perceived access to community resources may therefore matter in addition to, or beyond the physical availability of such resources. From this perspective, perceived resource access may mediate and / or moderate the association between objective community resources and WFC or its mental health consequences. My ideas here resonate with previous research on neighbourhood disadvantage, perceptions of disorder, and health: Disadvantage manifests as perceived disorder in one’s community, and it is precisely these perceptions that influence physical and mental well-being (Burdette 2008; Ross 2000; Ross and Mirowsky 2001).
Neighbourhood disadvantage matters for mental health, but this association is fuelled by residents’ perceptions of disorder that follow from features of disadvantage.

I argue that a similar process may occur in the association between community resource availability, WFC, and its mental health consequences. The objective presence of community resources precipitates perceptions of resource availability among residents, to a degree. Thus, it is only when residents are aware of these resources that the buffering effects of resources are possible. This view also suggests that perceptions of resource availability may modify the effects of the objective presence of community resources on WFC and its mental health consequences. In other words, perceived resource availability may directly enhance the benefits of real community services for WFC and its mental health consequences.

There is the possibility, however, that real and perceived resource availability matter independently. This view suggests that objective resources may have direct impacts beyond the awareness of the individual. The use of resources, like childcare, or public transit, may become so habituated that they are no longer considered by residents as potential “resources”. Instead, they may be taken for granted as simply present or part of the community. This idea resonates with literature on social comparison theory: Over exposure to a resource can deter the likelihood that it is perceived as a resource, rather than a given, unless compared to others’ circumstances (Festinger 1954; Jencks and Mayer 1990).

The perception of resource availability may also reduce individuals WFC and subsequent distress, but independently and in complex ways. Regardless of whether individuals use community resources or services to help ease work and family demands, they are aware that support is available if and when necessary, which provides a sense of comfort. My ideas here speak to mental health research on real and perceived support, which advocates that despite whether or not actual support is received from another individual, service, or provider, it is the perceived availability of such support that often matters most (Barrera 1986; Lin et al. 1999; Turner and Marino 1994; Thoits 2011; Turner and Turner 2013; Wethington and Kessler 1986). Together, these ideas inform the following hypotheses:
Hypothesis 2: Perceived community resource availability will decrease WFC and its mental health consequences.

Hypothesis 3a: Perceived community resource availability may mediate the association between objective community resources, WFC and its mental health consequences.

Hypothesis 3b: Perceived community resource availability may moderate the association between objective community resources, WFC and its mental health consequences.

Social Cohesion: Mediating and Moderating Associations

In line with previous research on the importance of collective efficacy and community belonging (Sampson et al. 1997; Voydanoff 2007), I argue that social cohesion may be a necessary condition through which the benefits of real and perceived community resource availability operate. Cohesion amongst residents helps facilitate information about resources, and encourages others to use the services available to them (Sampson et al. 1997). Drawing upon others’ definitions, I conceptualize social cohesion as the working trust among residents in a community, where individuals share the same ideals, beliefs, and values, with the assumption that each faces similar experiences and challenges (Maxwell 2006; Sampson et al. 1997). Social cohesion is part of the experiential component of neighbourhood context, and implies first, the absence of conflict among members of the community, and second, the assumption of strong bonds between residents (Kawachi and Berkman 2000; Maxwell 2006). Furthermore, social cohesion functions as a form of social capital providing opportunities for social networking, whereby residents engage in reciprocal relationships of information exchange (Coleman 1990; Putnam 1995).

Social cohesion may impact the association between community resources, WFC, and its sequelae in several ways. First, community resources may increase levels of cohesion, which in turn, may decrease WFC. Community resources provide safe and convenient social spaces where residents can gather to form friendships and social networks (Ellaway et al. 2001; Witten et al. 2003). Neighbourhood institutions, facilities, and services available in the immediate environment increase the propensity of informal social interactions among residents (Witten et al. 2003). Opportunities for observation of others also increase when resources are plentiful. Residents become more aware of surrounding neighbours who may be using similar services and facilities as themselves. These observations and interactions lead to a greater sense of belonging,
familiarity, trust, and thus social cohesion amongst members of the community (Lin et al. 1999; Sampson et al. 1997).

Social cohesion likely decreases WFC and its consequences. Residents are more likely to rely on neighbours to watch over their children in times of need, or talk to others in the community about the challenges of competing work and family demands when levels of cohesion are high. Neighbourhoods reflect safe spaces where individuals can escape the daily stressors of work life, rather than threatening and disconnected environments (Sampson et al. 1997). Moreover, cohesion may also provide a sense of collective social support from others in the neighbourhood, by fostering the belief that other residents endure similar experiences (Lin et al. 1999; Witten et al. 2003). Sharing similar experiences enhances both the perception and reception of empathetic understanding and emotional support (Pillemer and Suitor 1996). In contrast, individuals in less cohesive neighbourhoods may view surrounding others as less empathetic, unavailable, and non-supportive (Suitor et al., 1985; see Gee 2002; Schieman and Pearlin 2006; Walton 2009, for examples). A supportive network may therefore proliferate in neighbourhoods with high levels of social cohesion.

Collectively, these ideas suggest that social cohesion plays a mediating role in my focal associations:

**Hypothesis 4a:** Social cohesion may mediate the association between objective community resources, WFC and its mental health consequences.

Social cohesion may also amplify the benefits of community resource availability for WFC and its consequences. Here, I’m hypothesizing that the benefits of real or perceived resource availability may be modified by social cohesion. These ideas are informed by literature on social capital, and the idea that social capital availability is greater in more cohesive neighbourhoods (Carpiano 1997; Coleman 1988; Putman 2000). Over the years, social capital has come to reflect a variety of competing definitions (see Lesser 2012, for a review). One of the key features of social capital across these definitions, however, is the propensity of information exchange between parties. Individuals with more information at their disposal are assumed to be better off,
because they have a greater variety of resources to confront a given situation (Bourdieu 1986; Coleman 1988).

Neighbourhoods present a context in which social relations are formed, facilitating the acquisition of social capital and convenient access points for information from others (Carpiano 2007; also see Sampson et al. 2002, for a review). However, levels of social capital and the flow of information between residents may be greater in more cohesive neighbourhoods (Forrest and Kearns 2001). Social cohesion may increase knowledge of neighbourhood resources available to help balance competing work and family demands. Thus, by facilitating the flow of information about community resource availability, social cohesion becomes a necessary condition through which the real and/or perceived presence of community resources impacts WFC and its consequences. These ideas imply a moderating effect between real or perceived community resource availability and social cohesion on WFC and its mental health consequences.

**Hypothesis 4b**: Social cohesion may moderate the association between real and/or perceived community resources, WFC and its mental health consequences.

**Gender Differences**

I suspect that the focal associations between real and/or perceived resource availability, social cohesion, WFC and distress may differ by gender for several reasons. First, research demonstrates that women and men continue to experience work and family domains differently, in addition to the relationship between these domains (Nippert-Eng 1996; Simon 1995). Robin Simon best exemplifies these ideas in her qualitative research on working mothers and fathers. She finds that the different meanings men and women attribute to work and family roles influence their experiences and mental health consequences of WFC.

Second, men and women experience their neighbourhood of residence and local community differently, which may also impact my focal associations. Women are more likely than men to integrate into the social fabric of the community, invest in relationships with others in the neighbourhood, volunteer at local organizations, and participate in public gatherings and activities (Campbell and Lee 1992; Kaminer 1984; Naples 1991). Women are also more likely to
use publically available resources, such as childcare, social services, and recreational facilities (Bianchi et al. 2006; Ross and Mirowsky 1988). These ideas suggest that women, more so than men, may be acutely aware of the surrounding community, including the resources and services available, and may have a better sense of the overall order and cohesion among community members. I therefore hypothesize the following:

**Hypothesis 5:** The associations between real and perceived resource availability, social cohesion, WFC and its consequences will be greater for women compared to men.

### Summary of Hypotheses

Based on my overview of the literature, I hypothesize that the presence of community resources will reduce levels and mental health consequences of WFC (Hypothesis 1). This association, however, may be mediated and/or moderated by the perceived availability of such resources in the neighbourhood, which will directly reduce WFC and mitigate its mental health consequences (Hypotheses 2, 3a, and 3b). I further hypothesize that neighbourhood social cohesion (as perceived by the respondent) will act as a necessary condition through which the benefits of real and perceived resource availability for WFC and its mental health consequences arise. This point predicts that social cohesion may either mediate or moderate the benefits of real and/or perceived community resource availability (Hypothesis 4a, 4b). Finally, given literature on gender differences in the experience of work, family, and neighbourhood, I hypothesize that these associations will be greater for women compared to men (Hypothesis 5).

Figure 4.1 presents a conceptual model summarizing my hypotheses. The solid lines reflect the direct associations tested between real and perceived community resource availability, social cohesion, WFC, and distress. The dashed lines present the hypothesized modifying effects across these focal associations. The double-black lines present three-way interactions.

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19 Previous studies suggest that these associations may be dependent on social status or racial background (Campbell and Lee 1990; LeClere et al. 1998).
Data and Method

Sample
I use three data sets to test my hypotheses—individual, community, and census data. The individual-level data come from the Toronto Study on Neighbourhood Effects on Health and Well-Being (NEHW, P.I. Wheaton and O’Campo), which comprises interviews with 2,412 individuals. To select the sample, a three-stage sampling design was used, which aimed to ensure a random and geographically distributed sample of neighbourhoods across the Greater Toronto Area (GTA). Using the 140 Toronto neighbourhoods defined in terms of the City of Toronto administrative boundaries (as they existed in 2001) as a starting point, the research team employed an innovative method called “serpentine ordering” (Geurder 1984) to order the 140 neighbourhoods in the GTA. The research team assigned an arbitrary ID number to each of the 140 neighbourhoods and then drew a line on the map starting in the northeast corner of the GTA (top right), proceeding from east to west, and then west to east until reaching the southwest corner of the map (bottom left). This method (and resulting line) resembles a snake gliding in a zigzag manner across the map and allows for the ordering of the neighbourhoods in an even and non-arbitrary manner. After the neighbourhoods were ordered, the research team randomly selected 50 to be included in my study. Interviews were conducted approximately 20-30 respondents in each of the 87 census tracts within the city-defined neighbourhoods in Toronto, Canada. Interviews took place face-to-face and lasted approximately 90 minutes. Eligible participants were between the ages of 25 to 64, felt comfortable speaking and understanding English and, at the date of interview, had resided at their current address for at least 6 months. We achieved an overall response rate of 72%. The final sample was weighted based on five criteria, including household income, gender, nativity, and household size.

I use missing data imputation techniques for my continuous individual-level measures, including independent and dependent variables: a) psychological distress, b) WFC, c) perceived resource availability, d) social cohesion, e) hours of domestic chores per week, and f) paid work hours (see Allison 2002, for a review of missing data imputation techniques). I present a breakdown of the missing cases per continuous measure in Appendix 10. The majority of missing cases were specific across domestic chore hours / week (160). Missing cases across other measures may be
attributed to refusals or coding errors. Patterns of missing data, however, appear to be arbitrary and therefore less problematic compared to systematic patterns of missing data. To impute missing cases, I first restricted the sample to working respondents only (n=1,702), because of the nature of my focal outcome (WFC). Second, I used PROC MI in SAS 9.3 to regress all focal continuous variables on one another, which produced estimates of any missing values across these measures in five imputed data sets. I assume arbitrary missing patterns and therefore use a Markov Chain Monte Carlo (MCMC) algorithm to generate all imputed values (see Shafer 1997 for additional details on imputation algorithms). I then used PROC MIANALYZE in SAS 9.3 to average the estimates for each model across all five imputed data sets.

**Individual-Level Measures**

*Work-family conflict* is measured by four commonly referenced items borrowed from the National Study of the Changing Workforce (NSCW, Aumann et al. 2011; Bond et al. 2003). Respondents are asked about the prevalence of the following situations: “How often have you not had enough time for your family or other important people in your life because of your job?”, “How often have you not had the energy to do things with your family or other important people in your life because of your job?”, “How often has your job kept you from doing as good a job at home as you could?”, and “How often has your job kept you from concentrating on important things in your family and personal life?” Response choices include “very often” (5), “often” (4), “sometimes” (3), “rarely” (2), and “never” (1). I index these scores, so that higher scores represent greater conflict (α=.91).

*Psychological distress* is measured using a total of 16 items based on Radloff’s Center for Epidemiologic Studies Depression Scale (1977) (CES-D), and Eaton et al.’s (2004) Revised CES-D-R. Together, these items “survey mood, somatic complaints, interactions with others, and motor functioning” (Eaton et al. 2004: 365). Factor analyses confirm that the 16 items I selected had comparable factor loadings (results available upon request). Respondents are asked whether they felt these symptoms “none of the time” (1), “a little of the time” (2), “some of the time” (3), “most of the time” (4) or “all of the time” (5). I create an index of these items, so that higher scores reflect greater distress (α=.95).
Perceived community resource availability I use a scale adapted from Coulten et al. (1996), which includes a list of nine resources such as public transportation, childcare facilities (daycare, after-school programs, community centres), libraries, health care and medical services, recreational facilities, and employment or adult education services, for example. Respondents are asked about the availability of these services in their particular neighbourhood. Responses included “excellent” (1), “very good” (2), “good” (3), “fair” (4), or “poor” (5). In each instance, responses were reverse coded and averaged so that higher scores reflect greater availability of community services (α=.85).

Perceptions of social cohesion are measured using five commonly used items (Sampson 1997). Participants were asked the extent to which they agree with the following statements: “people around here are willing to help their neighbours”; “this is a close-knit neighbourhood”; “people in this neighbourhood can be trusted”; “people in this neighbourhood generally don’t get along with each other” (R); “people in this neighbourhood do not share the same values” (R). Responses include “strongly disagree” (1), “somewhat disagree” (2), “neither agree nor disagree” (3), “somewhat agree” (4), “strongly agree” (5). Responses were averaged so that higher scores indicate greater perceived social cohesion amongst residents (α=.83).

Additional antecedents of work-family conflict – To effectively model the impact of community resources on WFC, it is necessary to control for more objective demands that may result in WFC, including individuals’ full-time or part-time work status and domestic task hours per week.

Work status–Since my sample comprises working respondents only, I decided to dichotomize my work hours measure into “full-time” (1) workers compared to those working only “part-time” (0), based on whether the respondent works more or less than 30 hours per week (Statistics Canada 2009).

Domestic Chores–Respondents were asked to record the average number of hours spent on 19 domestic tasks per week, such as “preparing family meals”, “washing dishes and cleaning up after meals”, “cutting the lawn”, “taking care of the kids when spouse is home”, “taking care of kids when spouse is gone”, “driving other household members to work”, etc. These questions are
similar to those in the National Survey of Families and Households (Sweet, Bumpass, and Call 1988), but cover a wider range of issues. Responses were summed to generate total domestic hours per week, including household tasks and childcare.

Control Measures
I control for gender (female=1; male=0), immigrant status (foreign vs. native-born), respondent’s age (in years), education (coded in years), number of children (counted from the household composition), and marital status (married=1; else=0).

Community Resource Data and Measures
I incorporate two census-level data sets to answer my research questions. The first comprises information from the 2010 Toronto Administrative data on community resources and services available to individuals within their neighbourhood. These data provide information on a variety of service types including non-profit childcare services, recreational facilities and community centers, social organizations, health resources, housing services, youth programs, and support groups across Toronto neighbourhoods and is available for purchase from Toronto’s Findhelp Information Services. I merge these data to the individual-level data from the Toronto NEHW study using residential postal codes. I tally these resources by type to create a summated scale of the total number of various resources in each neighbourhood.

Neighbourhood-Level Data and Measures
I link all personal interviews and the 2010 Toronto Administrative data to the 2006 Canadian Census data, available through Statistics Canada. Census tracts are designated by population, include from 3,000 to 8,000 people, and are used as geographical boundaries to separate homogenous segments of the population. These data were merged with my individual-level data using the 2006 Canadian Postal Code Conversion File (PCCF4F+), which automatically assigns a census tract to each respondent based on their respective residential postal code; a common approach in neighbourhood effects research (e.g., Matheson et al. 2006; see Wilkins 2005, for a review).
I use the 2006 Canadian census data to measure *neighbourhood disadvantage*. Adapted from previous literature on neighbourhood effects, I measure neighbourhood structural disadvantage using three commonly used items including: 1) poverty rate, 2) unemployment rate of males over the age of 15; and, 3) percentage of lone parents in the neighbourhood (Elliot 2000; Matheson et al. 2006; Ross and Mirowsky 2001). I standardize and combine these measures to form an index of neighbourhood disadvantage (α=.79). Higher values present greater neighbourhood disadvantage.

**Analytic Strategy**

To capture the effect of community resources on WFC and subsequent distress, I use Hierarchical Linear Modelling (HLM) (Raudenbush and Bryk 2002). By using HLM, I can simultaneously model individual and neighbourhood-level predictors of WFC and distress. The advantage of HLM here is that it divides the total variance in the outcome into portions due to variance strictly between-individuals (i.e., at the individual level) and variance between neighbourhoods (literally, the variance of neighbourhood means around the total mean). By partitioning this variance, I can concentrate on explaining the portion due to neighbourhood independently of the portion at the individual-level. I group-mean center all individual-level measures so that the model at the neighbourhood is scaled to predict differences in the mean levels of WFC and distress across neighbourhoods, and to reduce collinearity between neighbourhood and individual-level effects (Kreft and De Leeuw 1996).

**Equation for WFC**

I model my measures of neighbourhood structural disadvantage and presence of community resources as occurring at the neighbourhood level, or what I refer to as “Level-2 measures.” Perceptions of community resource availability, social cohesion, WFC, and distress are all modelled at the individual-level. The generic WFC model at level 1 can be specified as:

\[
WFC = \beta_{0j} + \beta_{1j}(\text{Resources}_{ij}) + \beta_{2j}(\text{SocialCohesion}_{ij}) \\
+ \beta_{3j}(\text{Resources}_{ij} \ast \text{SocialCohesion}_{ij}) + \beta_{4j}(\text{Controls}_{ij}) + e_{ij}
\]
With this at level 2:

\[
\begin{align*} 
\beta_{0j} &= \gamma_{00} + \gamma_{01}(\text{Comm Re sources}_j) + \gamma_{02}(\text{NStrucDisadv}_j) + u_{0j} \\
\beta_{1j} &= \gamma_{10} + \gamma_{11}(\text{Comm Re sources}_j) + u_{1j} \\
\beta_{2j} &= \gamma_{20} + \gamma_{21}(\text{Comm Re sources}_j) + u_{2j} \\
\beta_{3j} &= \gamma_{30} + \gamma_{31}(\text{Comm Re sources}_j) + u_{3j} \\
\beta_{4j} &= \gamma_{40} 
\end{align*}
\]

where, at level-two, \( \gamma_{00} \) is the grand mean for WFC, \( \gamma_{01} \) is the level-two coefficient for the cross-over effect of community resources (\( \text{Comm Re sources}_j \)). As a side note, (\( \text{Re sources}_j \)) refers to perceptions of community resource availability at the individual-level), \( \gamma_{02} \) is the level-two coefficient for the cross-over effect of neighbourhood disadvantage (\( \text{NStrucDisadv}_j \)), \( \gamma_{21} \) models the cross-over interaction effect between real and perceived community resources availability, \( \gamma_{21} \) is the level-two coefficient for the cross-over interaction between community resources and social cohesion, \( u_{0j} \) is the residual variance of neighbourhoods after accounting for neighbourhood context, \( \gamma_{30j} \) is the individual-level interaction between perceived community resources and social cohesion, \( \gamma_{31j} \) is the level-two coefficient for the three-way crossover interaction between real and perceived community resources and social cohesion, \( \gamma_{40j} \) is the effect of control measures on WFC for individuals by neighbourhood. I allow for the coefficients of perceived community resources and social cohesion to vary across neighbourhoods by specifying random components (\( u_{1j}, u_{2j}, \) respectively), \( e_j \) is the individual random error.

**Equation for Psychological Distress**

Next, I estimate the cross-level and individual-level interaction effects for WFC and neighbourhood context on psychological distress using this generic equation at level 1:

\[
\text{Distress} = \beta_{0j} + \beta_{1j}(\text{WFC}_j) + \beta_{2j}(\text{Re sources}_j) \\
+ \beta_{3j}(\text{SocialCohesion}_j) + \beta_{4j}(\text{Re sources}_j*\text{WFC}_j) \\
+ \beta_{5j}(\text{Re sources}_j*\text{SocialCohesion}_j*\text{WFC}_j) + \beta_{6j}(\text{Controls}_j) + e_j
\]
With this at level-2:

\[ \beta_{0j} = \gamma_{00} + \gamma_{01}(\text{Comm Re sources}_j) + \gamma_{02}(\text{NStrucDisadv}_j) + u_{0j} \]
\[ \beta_{1j} = \gamma_{10} + \gamma_{11}(\text{Comm Re sources}_j) + u_{1j} \]
\[ \beta_{2j} = \gamma_{20} \]
\[ \beta_{3j} = \gamma_{30} \]
\[ \beta_{4j} = \gamma_{40} + \gamma_{41}(\text{Comm Re sources}_j) + u_{4j} \]
\[ \beta_{5j} = \gamma_{50} \]
\[ \beta_{6j} = \gamma_{60} \]

Note that all individual-level measures are group mean centered. At level 2, \( \gamma_{01} \) is the level-two coefficient for the cross-over effect of community resources (\text{Comm Re sources}_j), \( \gamma_{02} \) is the level-two coefficient for the cross-over effect of neighbourhood disadvantage (\text{NStrucDisadv}_j), \( \gamma_{10} \) is the main effect of WFC, and \( \gamma_{11} \) is the coefficient for the cross-level interaction between community resources and WFC on distress, \( \gamma_{40} \) is the coefficient for the individual-level interaction effect between perceived community resource availability and WFC, \( \gamma_{41} \) represents the three-way cross-level interaction effect between real and perceived community resource availability and WFC, \( \gamma_{50} \) is the three-way individual-level interaction between perceived resources, social cohesion and WFC, \( \gamma_{20} \) and \( \gamma_{20} \) are the coefficients for perceived resource availability and social cohesion, respectively, \( \gamma_{60} \) is the effect of individual-level controls on distress, and \( e_{ij} \) is the individual-level error. I allow for the coefficient of WFC and perceptions of community resources to vary across neighbourhoods by specifying a random component (\( u_{1j} \), \( u_{4j} \), respectively). All analyses test for gender differences.

**Results**

Individual and census-level descriptive statistics for respondents are provided in Appendix 9.

**Neighbourhood Variation in WFC and Distress**
Table 4.1 reports three sets of models across my two focal outcomes, WFC and distress. Note that the models are presented across rows, rather than traditionally down the columns. The first panel presents results across models for WFC, the second panel presents distress as an outcome. First, I consider the variation in WFC between neighbourhoods by estimating a one-way analysis of variance (ANOVA) with no predictors at either level in the model (model 1, WFC panel). I find significant variation in WFC between neighbourhoods ($\tau_{00}=.775$, $p < .001$; $\hat{\sigma}^2 = 9.526$). Calculations indicate that 8% of the variance in WFC is between neighbourhoods. I can therefore proceed to consider the effect of neighbourhood differences.

Table 4.1 also shows the variation in distress between neighbourhoods (model 1, distress panel). Again, using a one-way ANOVA, I find that 3% of the variance in respondents’ distress is between neighbourhoods ($\tau_{00}=2.070$, $p < .01$; $\hat{\sigma}^2 = 67.701$), suggesting that there are some neighbourhood level differences to consider.

Next, I test whether the effect of WFC on distress varies between neighbourhoods. I estimate this with the random effects model (model 2, distress panel), which includes WFC as a predictor of distress and also allows the WFC slope to vary between neighbourhoods. Here, the effect of WFC on distress varies between neighbourhoods respondents ($\tau_{11}=.843$, $p < .01$). This test indicates that the effect of WFC does vary depending on some unspecified neighbourhood characteristic, and I can proceed to test cross-level interactions between neighbourhood context and WFC on distress.

Finally, Table 4.1 presents results from a third model. Here, I estimate the effects of my individual-level control measures on WFC and distress. Married people report less distress, compared to those who are not married. Education is negatively associated with distress. The number of children in the household under the age of 18 increases WFC, and domestic chores are positively associated with WFC and distress. Full-time workers report more WFC, but less distress, compared to part-time workers.
Predicting Perceived Resource Availability and Social Cohesion

Before considering the effects of real and perceived community resource availability on WFC and subsequent distress, I present a set of results in Table 4.2 that test whether the presence of community resources is associated with the perception of resource availability (first model), or social cohesion (second model), net of neighbourhood disadvantage. I must analyze these associations as a preliminary step to testing my hypothesized mediating associations (Hypothesis 3a, 4a). Table 4.2 shows the results of these analyses, controlling for selected social and demographic measures. The objective presence of community resources has a positive effect on perceived resource availability (model 1), but no statistically significant effect on cohesion (second model), contrary to expectations (Hypothesis 4a). Combined, these results partially support Hypotheses 3a. The presence of community resources influences perceptions of availability.

The Impact of Community Resources on WFC

Table 4.3 presents the regression results for the effects of real and perceived community resource availability, and social cohesion on WFC net of my neighbourhood disadvantage measure. Analyses (not shown) suggest that neighbourhood disadvantage is positively associated with WFC for women only (interaction effect: b=.476, p < .05). Based on that finding, I derive the effects for women and men, separately, and control for this effect throughout all models, in addition to selected social and demographic covariates.

Model 1 provides evidence for my first hypothesis: the total number of community services available will decrease WFC. This association remains relatively stable in Model 2, where I introduce perceptions of community resource availability by gender (initial analyses, not shown, present a significant interaction between perceived community resource availability and gender on WFC; b=-.881, p < .05). The difference in these coefficients suggests that perceptions of resource availability are more negatively associated with WFC for women than men. Figure 4.2 presents this association visually, where women report less WFC as a result of perceived resource availability, compared to men (solid line versus dashed line, respectively). Subsequent tests confirm significant differences between slopes.
Combined, these results partially support Hypothesis 2 (perceived resource availability decreases WFC) and Hypothesis 5 (these associations are greater for women compared to men). I do not, however, find evidence that perceived resource availability mediates the benefits of objective community services (Hypothesis 3a). Nor do I find evidence to support Hypothesis 3b – that perceived resource availability modifies the association between community resources and WFC. To test this, I created an interaction term between these two variables, and estimated WFC with this term in the model. The results were not significant.

Models 3 and 4 incorporate the effects of social cohesion. Model 3 shows that the additive effect of social cohesion is negatively associated with WFC; however, cohesion does not mediate the effect of total community resources, as I had predicted (Hypothesis 4a). I also test whether cohesion modifies the impact of real and / or perceived resource availability on WFC (Hypothesis 4b). I find a significant moderating effect between perceived resource availability and cohesion. For the sake of space, I present this interaction coefficient only in model 4. The significant interaction term (b=-.349, p < .01) suggests that cohesion enhances the benefits of perceived resource availability for WFC, which supports Hypothesis 4b. Subsequent tests confirm significant differences between slopes. Figure 4.3 presents these associations visually. High availability of resources (dashed line) is associated with less WFC at higher levels of cohesion. I tested a three-way interaction effect between cohesion, perceived resource availability, and gender on WFC, but the results were not statistically significant.

The Impact of Community Resources on the Mental Health Consequences of WFC

Table 4.4 presents the results for distress. Recall that my main focus in this table is to test whether real and / or perceived community resource availability, or social cohesion modify the effects of WFC on psychological distress. Models 1 through 3 show that real and perceived resource availability are both negatively associated with distress; however, the former association is rather modest (model 1). WFC is positively associated with distress (model 2), and social cohesion is negatively associated with distress (model 3). Model 4 tests the interactions between WFC and real and perceived resource availability, and social cohesion. I find that cohesion does reduce the positive effect of WFC on distress. Subsequent tests confirm significant
differences between slopes. Figure 4.4 presents a visual representation of this association. The solid line reflects those with high levels of cohesion, versus those with low levels (dashed line).

Contrary to my hypotheses (Hypothesis 1, Hypothesis 2), I find no evidence to support that real or perceived resource availability reduces the impact of WFC on distress, as indicated by the two non-significant interaction coefficients presented in model 4, Table 4.4. Nor do I find evidence of three-way interactions between real and perceived resource availability and WFC (Hypothesis 3b), or real and/or perceived resource availability, cohesion and WFC (Hypothesis 4b).

**Discussion**

My study tested the extent to which community resources help individuals cope with work-family conflict (WFC) and its mental health consequences. Unlike previous studies on the topic, I use community and census-level data, in addition to individual survey data to correctly model these associations. My approach is also unique to neighbourhood effects literature, which often assumes that disadvantage necessarily implies the absence of resources. Alternatively, I argued that the objective presence and perceived presence of resources matter independent of neighbourhood disadvantage. I also tested whether social cohesion acts as a necessary condition that activates the benefits of real and/or perceived resource availability for WFC and its mental health, and whether these associations vary for men and women.

Using individual-level data from 1,702 respondents of Toronto Canada, matched to community and census-level data, I find several noteworthy results. First, the presence of community resources significantly decreases WFC, net of traditional measures of neighbourhood disadvantage. Second, perceptions of community resource availability also decrease WFC, but this association is greater for women compared to men. Third, the benefits of perceived resource availability are enhanced by presumed levels of neighbourhood social cohesion for both men and women. Finally, while cohesion buffers the mental health consequences of WFC, neither real nor perceived community resource availability buffer the mental health effects of WFC, irrespective of social cohesion. In the following section I elaborate on my findings, and discuss their theoretical and practical contribution to research on WFC, neighbourhood effects literature, and community-related policies more generally.
Community Resource Availability and WFC

My study is among the first to test, and find evidence that community resources help reduce WFC. In fact, I report that both real and perceived community resource availability independently help alleviate levels of WFC. My results speak to the fact that the objective presence of resources may offer safe and convenient options to manage competing work and family demands, and the distress arising from conflict between them. These features reduce WFC through the amelioration of complexity and uncertainty, not because individuals are aware of them as special resources. This idea resonates with literature on social comparison theory: Over exposure to a resource can deter the likelihood that it is perceived as a resource, rather than a given, unless compared to others’ circumstances (Festinger 1954; Jencks and Mayer 1990).

Furthermore, despite using these resources, individuals may report less WFC and subsequent distress if they are aware that support is available to them in the face of WFC. My ideas here resonate with research on real and perceived support, which advocates that whether or not actual support is received from another individual, service, or provider, it is the perceived availability of such support that often matters most (Barrera 1986; Lin et al. 1999; Thoits 2011; Turner and Turner 2013; Wethington and Kessler 1986). The results from my study offer support for these ideas, and speak to the importance of considering objective and perceived resource availability separately. My data, however, do not address whether these ideas pertain to all types of services. Future research should more closely evaluate the effects of real versus perceived resource availability of specific community services related to work and family demands.

Gender Differences in the Effect of Perceived Resource Availability

I find that the direct association between perceived resource availability and WFC varies for men and women. As predicted, women report greater benefits from these perceptions. This may be because men and women experience their neighbourhood of residence and local community differently. Women are more likely than men to integrate into the community, invest in relationships with others in the neighbourhood, and participate in public gatherings and activities (Campbell and Lee 1990; Kaminer 1984). Women may also be more likely to use publically available resources, such as childcare and recreational facilities (Bianchi et al. 2006; Ross and
Mirowsky 1988), and may be more likely to draw upon community resources in times of need, compared to men. These ideas suggest that women, more so than men, are acutely aware of the surrounding community, including the resources and services available. These factors could result in the gender differences I observe in the effect of perceived resource availability on WFC.

Social Cohesion: A Necessary Condition for Perceived Resource Availability

The benefits of perceived resource availability for WFC are moderated by social cohesion for both men and women. I draw on ideas of social capital to explain this finding (Coleman 1988; Putman 2000). Neighbourhoods present a context in which social relations are formed, facilitating the acquisition of social capital and convenient access points for information from others (Carpiano 2007; also see Sampson et al. 2002, for a review). Yet, levels of social capital, and the flow of information between residents may be greater in more cohesive neighbourhoods (Forrest and Kearns 2001). Social cohesion may increase knowledge of neighbourhood resources available to help balance competing work and family demands. By facilitating the flow of information about community resource availability, social cohesion becomes a necessary condition through which the perceived availability of community resources impacts WFC. I find evidence to support these ideas.

This same association, however, does not play out for objective community services, contrary to expectations. It may be that the benefits of cohesion for objective services function through perceptions of resource availability. The transfer of information about resources does not affect the use of actual services directly, but rather indirectly—by influencing residents’ perceptions of resource availability. This particular association was not tested in my study, but should be in the future.

Caveats and Contributions

Despite the contributions of my results, there are several methodological limitations worth mentioning: First, I use cross-sectional data, which limits my causal assumptions about the impact of real and perceived resource availability, social cohesion, WFC, and distress. While my paper articulates the standard theoretically-based assumptions of this literature, these data provide only a snapshot and longitudinal data would be preferable. Second, my sample is limited
by location, which may restrict the generalizability of my findings. I use data from residents in Toronto, Canada only. Toronto, in some respects, is an ideal setting to study neighbourhood effects because of its unique demographic and social characteristics. The city is one of the most multicultural in North America, with over a 50% foreign born population from over 140 different countries (City of Toronto 2012). Furthermore, Toronto’s neighbourhoods are less segregated by ethnicity compared to other urban places (Fong and Wilkes 2003; Hulchanski 2007; Massey and Denton 1993). Because of the reduced level of segregation, I am able to successfully disentangle the effects of neighbourhood structural resources and disadvantage from individual-level characteristics (see Appendix 2 for Toronto demographics, relative to other major U.S. urban cities, including Chicago, New York, and Philadelphia). Nevertheless, the unique nature of the sample does restrict my ability to generalize my findings to other urban cities.

Finally, I do not consider other important antecedents of WFC that may mediate its association with real and perceived community resource availability, including measures of work-related experiences, occupation type, and additional family-related demands or resources. For example, a plethora of research suggests that work-related demands and resources—such as job pressures, work at home, schedule control, and autonomy associated with various occupations—strongly influence WFC (Schiman et al. 2009; see Michel 2010, for a review). It may be that neighbourhood resources influence the level of job quality available to individuals, which thus, impacts exposure to variable work demands and resources (Fernandez and Su 2004). The quality of jobs in a neighbourhood may therefore explain part of the association between community resources and levels and consequences of WFC. Future research should explore these potential associations.

These limitations do not impede the contributions of my findings, however. Real and perceived community resource availability does affect WFC and its mental health consequences. My study is among the first to demonstrate these important, yet complex associations. These findings bring to light the importance of recognizing that neighbourhoods provide an opportunity to help individuals negotiate work and family demands, and the psychological consequences that may arise as a result. The availability of services, such as childcare, recreation facilities, healthcare, employment services, homecare, and after-school programs can facilitate residents’ daily
endeavors by ameliorating the confusion and complexity associated with role expectations. However, it is not simply the physical availability of resources that matter, but residents’ recognition that these resources are available to them. This starts at a municipal level, but trickles down to us—the residents that comprise that neighbourhood. As my research shows, cohesive neighbourhoods provide an opportunity for information exchange about the resources and services that could potentially ease the conflict we face between work and family obligations—a constant and continually escalating battle for North Americans in the 21st century.
References


Table 4.1 Random and Fixed Effects Models for Work-Family Conflict and Psychological Distress (N=1,702)

<table>
<thead>
<tr>
<th>Model</th>
<th>Work-Family Conflict</th>
<th>Psychological Distress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\tau_{00}$</td>
<td>$b$</td>
</tr>
<tr>
<td><strong>Variation by Neighbourhoods</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) One-way ANOVA</td>
<td>.775***</td>
<td>—</td>
</tr>
<tr>
<td><strong>Random Effects Model</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Work-family conflict</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>Control Measures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Female</td>
<td>—</td>
<td>.198</td>
</tr>
<tr>
<td>Education</td>
<td>—</td>
<td>.129</td>
</tr>
<tr>
<td>Age</td>
<td>—</td>
<td>.001</td>
</tr>
<tr>
<td>Canadian</td>
<td>—</td>
<td>-.086</td>
</tr>
<tr>
<td>Married</td>
<td>—</td>
<td>.326</td>
</tr>
<tr>
<td>Previous mental health</td>
<td>—</td>
<td>1.152***</td>
</tr>
<tr>
<td>Number of children</td>
<td>—</td>
<td>.043***</td>
</tr>
<tr>
<td>Domestic hours/wk</td>
<td>—</td>
<td>.024***</td>
</tr>
<tr>
<td>Full-time worker</td>
<td>—</td>
<td>1.570***</td>
</tr>
<tr>
<td>Intercept</td>
<td>.641***</td>
<td>8.877***</td>
</tr>
</tbody>
</table>

† $p<.10$, * $p<.05$, **$p<.01$, ***$p<.001$ (two-tailed test). Notes: Unstandardized coefficients presented from HLM analyses.
Table 4.2 Regressions of Perceived Resource Availability and Social Cohesion on Neighbourhood and Individual Characteristics (N=1,702)

<table>
<thead>
<tr>
<th></th>
<th>Perceived Resource Availability</th>
<th>Social Cohesion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Neighbourhood Resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total resources available</td>
<td>.019*</td>
<td>.009</td>
</tr>
<tr>
<td><strong>Neighbourhood Disadvantage and Control Measures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neigh. disadvantage</td>
<td>-.087*</td>
<td>-.135***</td>
</tr>
<tr>
<td>Female</td>
<td>.029</td>
<td>.089***</td>
</tr>
<tr>
<td>Education</td>
<td>.109</td>
<td>-.017</td>
</tr>
<tr>
<td>Age</td>
<td>.005**</td>
<td>.002</td>
</tr>
<tr>
<td>Canadian</td>
<td>.147**</td>
<td>.114*</td>
</tr>
<tr>
<td>Married</td>
<td>.144**</td>
<td>.165***</td>
</tr>
<tr>
<td>Number of children</td>
<td>.006</td>
<td>.010</td>
</tr>
<tr>
<td>Domestic hours/wk</td>
<td>.002</td>
<td>-.001</td>
</tr>
<tr>
<td>Full-time worker</td>
<td>.118***</td>
<td>.117**</td>
</tr>
<tr>
<td><strong>Fixed intercept</strong></td>
<td>3.539***</td>
<td>2.900***</td>
</tr>
<tr>
<td><strong>Random intercept (τ₀₀)</strong></td>
<td>.047***</td>
<td>.052***</td>
</tr>
</tbody>
</table>

*p<.10, *p<.05, **p<.01, ***p<.001 (two-tailed test). Notes: Unstandardized coefficients presented from HLM analyses.
Table 4.3 Work-Family Conflict Regressed on Neighbourhood Resources and Social Cohesion (N=1,702)

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Focal Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total resources available</td>
<td>-.080*</td>
<td>-.075*</td>
<td>-.073*</td>
<td>-.074*</td>
</tr>
<tr>
<td>Perceived resource avail. by gender&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>-</td>
<td>-.959***</td>
<td>-.888***</td>
<td>-.892***</td>
</tr>
<tr>
<td>Men</td>
<td>-</td>
<td>-.432**</td>
<td>-.368*</td>
<td>-.414*</td>
</tr>
<tr>
<td>Social cohesion</td>
<td>-</td>
<td>-</td>
<td>-.308*</td>
<td>-.307*</td>
</tr>
<tr>
<td>Social cohesion x perc. resource available</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-.394*</td>
</tr>
<tr>
<td><strong>Neighbourhood Disadvantage by Gender&lt;sup&gt;b&lt;/sup&gt;</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>.412*</td>
<td>.415*</td>
<td>.425*</td>
<td>.426*</td>
</tr>
<tr>
<td>Men</td>
<td>-.063</td>
<td>-.042</td>
<td>-.041</td>
<td>-.031</td>
</tr>
<tr>
<td><strong>Control Measures</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>.287</td>
<td>.291</td>
<td>.320</td>
<td>.309</td>
</tr>
<tr>
<td>Education</td>
<td>-.493</td>
<td>-.437</td>
<td>-.444</td>
<td>-.472</td>
</tr>
<tr>
<td>Age</td>
<td>-.001</td>
<td>-.001</td>
<td>-.002</td>
<td>-.001</td>
</tr>
<tr>
<td>Canadian</td>
<td>.014</td>
<td>.118</td>
<td>.151</td>
<td>.151</td>
</tr>
<tr>
<td>Married</td>
<td>.255**</td>
<td>.331**</td>
<td>.374**</td>
<td>.365**</td>
</tr>
<tr>
<td>Number of children</td>
<td>-.037</td>
<td>-.028</td>
<td>-.024</td>
<td>-.021</td>
</tr>
<tr>
<td>Domestic hours/wk</td>
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<td>.025***</td>
<td>.025***</td>
<td>.025***</td>
</tr>
<tr>
<td>Full-time worker</td>
<td>1.558***</td>
<td>1.606***</td>
<td>1.643***</td>
<td>1.618***</td>
</tr>
<tr>
<td><strong>Fixed intercept</strong></td>
<td>8.946***</td>
<td>8.882***</td>
<td>8.839***</td>
<td>8.894***</td>
</tr>
<tr>
<td><strong>Random Effects</strong>&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WFC intercept (τ&lt;sub&gt;00&lt;/sub&gt;)</td>
<td>.555***</td>
<td>.587***</td>
<td>.580***</td>
<td>.578***</td>
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<tr>
<td>Female slope (τ&lt;sub&gt;11&lt;/sub&gt;)</td>
<td>.153</td>
<td>.216</td>
<td>.219</td>
<td>.231</td>
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</table>

†p<.10, * p<.05, **p<.01, ***p<.001 (two-tailed test).

Notes: Unstandardized coefficients reported from HLM analyses. WFC=work-family conflict.
<sup>a</sup>Estimates derived from the interaction between gender and neighbourhood disadvantage.
<sup>b</sup>Estimates derived from the interaction between gender and perceived neighbourhood resources.
<sup>c</sup>Random intercepts and slope reflect between neighbourhood variances.
Table 4.4 Psychological Distress Regressed on Work-Family Conflict, Neighbourhood Resources and Social Cohesion (N=1,702)

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
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</thead>
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<tr>
<td><strong>Focal Variables</strong></td>
<td></td>
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<tr>
<td>Total resources available</td>
<td>-.107†</td>
<td>-.100†</td>
<td>-.089</td>
<td>-.094†</td>
</tr>
<tr>
<td>Perceived resource availability</td>
<td>-2.055***</td>
<td>-1.444***</td>
<td>-1.144***</td>
<td>-1.174***</td>
</tr>
<tr>
<td>Work-family conflict</td>
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<td>.894***</td>
<td>.884***</td>
<td>.951***</td>
</tr>
<tr>
<td>Social cohesion</td>
<td></td>
<td></td>
<td>-1.428***</td>
<td>-1.416***</td>
</tr>
<tr>
<td><strong>Interactions with WFC</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total resources available x WFC</td>
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<td>-.029</td>
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<td>Perceived resource availability x WFC</td>
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<td>.093</td>
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<td>Social cohesion x WFC</td>
<td></td>
<td></td>
<td></td>
<td>-.223*</td>
</tr>
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<td><strong>Neigh. Disadvantage and Control Measures</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neigh. disadvantage</td>
<td>1.017***</td>
<td>1.015***</td>
<td>1.014***</td>
<td>1.033***</td>
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<td>Female</td>
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<td>.911</td>
<td>.889</td>
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<tr>
<td>Education</td>
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<td>-.361</td>
<td>-.613</td>
<td>-.578</td>
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<td>Age</td>
<td>-.026</td>
<td>-.028**</td>
<td>-.025**</td>
<td>-.023**</td>
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<tr>
<td>Canadian</td>
<td>.322</td>
<td>.251</td>
<td>.483***</td>
<td>.495***</td>
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<tr>
<td>Married</td>
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<td>-2.233***</td>
<td>-2.044***</td>
<td>-2.101***</td>
</tr>
<tr>
<td>Number of children</td>
<td>-.259*</td>
<td>-.251</td>
<td>-.219</td>
<td>-.221</td>
</tr>
<tr>
<td>Domestic hours/wk</td>
<td>.045**</td>
<td>.017</td>
<td>.019</td>
<td>.022</td>
</tr>
<tr>
<td>Full-time worker</td>
<td>-1.776***</td>
<td>-3.369***</td>
<td>-3.117***</td>
<td>-3.079***</td>
</tr>
<tr>
<td><strong>Fixed intercept</strong></td>
<td>11.520***</td>
<td>11.696***</td>
<td>11.478***</td>
<td>12.524***</td>
</tr>
</tbody>
</table>

| **Random Effects**  |         |         |         |         |
| Distress intercept (τ₀₀) | .580    | .299    | .222    | .201    |
| WFC random slope (τ₁₁) |         | .241**  | .236**  | .220**  |

†p<.10, *p<.05, **p<.01, ***p<.001 (two-tailed test).
Notes: Unstandardized coefficients reported from HLM analyses. WFC=work-family conflict.

a Random intercepts and slope reflect between neighbourhood variances.
Figure 4.1 Conceptual Model of Real/Perceived Neighbourhood Resource Availability, WFC, and Psychological Distress

Notes: The solid black lines represent the direct associations between neighbourhood context, social cohesion, WFC and distress. The dashed lines indicate the modifying associations across my focal associations. The double-black lines present three-way interactions. I hypothesize that these associations will vary for men and women, which is reflected by the top box of the figure.
Note: Predicted values of WFC are based on results from Table 4.3, model 4. All continuous variables are held constant at their respective means, which equals 0 for all group-mean centered individual-level measures. For categorical variables, I solved the equation for full-time status, Canadians.
Figure 4.3 The Association between Perceived Community Resource Availability and Work-Family Conflict by Social Cohesion (N=1,702)

Note: Predicted values of WFC are based on results from Table 4.3, model 4. High and low perceived resource availability values are calculated from the 90th and 10th percentiles, respectively. All continuous variables are held constant at their respective means, which equals 0 for all group-mean centered individual-level measures. For categorical variables, I solved the equation for full-time status, women of Canadian status.
Figure 4.4 The Association between Work-Family Conflict and Psychological Distress by Social Cohesion (N=1,702)

*Note:* Predicted values of psychological distress are based on results from Table 4.4, model 4. High and low cohesion values are calculated from the 90th and 10th percentiles, respectively. All continuous variables are held constant at their respective means, which equals 0 for all group-mean centered individual-level measures. For categorical variables, I solved the equation for full-time status, women of Canadian status.
Chapter 5
Discussion and Conclusions

Does neighbourhood context influence WFC and its mental health consequences? If so, how do these associations unfold? Do these processes differ for men and women? My dissertation research addressed these important and timely questions. Recent changes in work and family domains have led to unprecedented levels of WFC among North Americans. The rise of dual-earner households, a new emphasis on involved parenting, the introduction of communication technology, and the pressure of a 24/7 economy are among a few features leading to greater WFC (Bakker and Geurts 2004; Bianchi et al. 2006; Chelsey 2005; Clark 2000; Dermott 2008; Frone 2000; Glavin et al. 2011; Hochschild 1997; Marshall 2009; Presser 2003).

These trends have sparked much needed research on the topic, most of which draws upon “border / boundary theory” or “demand-resource models” to explain patterns of WFC and its consequences (Bakker and Geurts 2004; Clark 2000; Nippert-Eng 1996; Voydanoff 2007). These theories remain limited; however, because they emphasize individual-level antecedents to the exclusion of broader social contexts, including individuals’ neighbourhood of residence (see Michel et al. 2010, for a review). Among the studies that do incorporate some reference to community or neighbourhood, most have a variety of theoretical and methodological limitations (i.e., they lack measures of WFC, or rely on individual-based data and methods to approximate neighbourhood effects; Pitt-Catsoupes et al. 2006; Mannon and Brooks 2006; Sweet et al. 2005; Voydanoff 2007).

Thus, my study is among the first to appropriately examine the impact of neighbourhood context on WFC and mental health consequences. I use data from a variety of sources, including individual surveys, the Canadian census, and municipal data on community resources. I link and then analyze these data using Hierarchical Linear Modeling (HLM) techniques to accurately distinguish individual and neighbourhood-level variations (Raudenbush and Bryk 2002). My research outlines three overarching mechanisms through which neighbourhoods impact WFC, including (a) the social composition of the neighbourhood, (b) processes of neighbourhood
structural amplification; and, (c) the objective and perceived presence of community resource availability. The results from my study contribute to a more advanced framework of the antecedents of WFC and its mental health consequences compared to previous approaches—one that incorporates the importance of place.

I should point out that, while some scholars differentiate the direction of work-family conflict—where work demands conflict with family demands (“work-to-family conflict”), and family demands conflict with work demands (“family-to-work conflict” (Frone 2000))—my dissertation research has focused mostly on the former. Work-to-family conflict is experienced in the neighbourhood context; work spills over into the family domain, which is often located in their neighbourhood of residence. The level of neighbourhood disadvantage and community resource availability therefore influences individuals’ experiences of work-to-family conflict in this realm. These ideas are consistent with the Stress Process Model, which highlights the importance of considering the context of stressful experiences (Pearlin 1989; 1999). So while previous research on the individual-level antecedents of WFC finds that work demands influence work-to-family conflict, and family demands influence family-to-work conflict, a more comprehensive sociological approach would highlight that the context in which one experiences either of these stressors is important.20 I expand on my findings for specific neighbourhood mechanisms affecting work-to-family conflict (WFC) in the following sections.

The Importance of Neighbourhood Social Composition

My first paper (chapter 2) takes a unique approach to neighbourhood effects research, focusing on the social composition of neighbourhood residents, rather than traditional markers of disadvantage. In this paper I use 1995 data from intact families in Toronto Canada, matched to 1996 Census data to show that similarity in neighbourhood social composition has a beneficial effect, at least for the women in my sample. The match between residents’ and individuals’ family type and age-by-gender category decrease perceptions of WFC, and the match across

20 Note that I am not suggesting that neighbourhood context does not impact levels and mental health consequences of family-to-work conflict. Rather, I would argue that these associations may play out differently and are therefore beyond the scope of this dissertation. Future research should explore these potential associations.
family type and ethnicity buffer the distressing consequences that may arise from these perceptions. I do not, however, observe these patterns among the men in my sample, who remain relatively unaffected by levels of similarity between their own and their neighbours’ features, regardless of the specificity of the measure. I argue that these findings, at least for women, may reflect the advantage of normative diffusion and collective social support that ensues from similar expectations of work and family demands across structurally equivalent residents.

**Neighbourhood Disadvantage and Structural Amplification**

In chapter 3 I take an approach more aligned with traditional research on neighbourhood effects. Here, I focus on the importance of *neighbourhood structural disadvantage* to WFC and its mental health consequences. Using the 2011 NEWH data from individuals in Toronto, Canada matched to 2006 census data, I find that neighbourhood disadvantage and perceived disorder are positively associated with WFC. However, the association between disadvantage and WFC is significant for women only. In accordance with my structural amplification hypothesis, I find that lower levels of personal control result in more WFC for individuals who perceive high disorder in their neighbourhood. I also find that perceived disorder enhances the effects of WFC on distress more for women than men, while personal control attenuates the effects of WFC on distress for both genders.

**Community Resources**

My third paper (chapter 4) extends the previous two by examining the degree to which community resources help individuals cope with WFC and its mental health consequences. This paper is quite unique to neighbourhood effects literature, which often assumes that disadvantage necessarily implies the absence of resources. Alternatively, I argue that the objective presence—and perceived presence of resources matter independent of neighbourhood disadvantage. I also test whether social cohesion acts as a necessary condition that activates the benefits of real and/or perceived resource availability for WFC and subsequent distress, and whether these associations vary for men and women.

I report several noteworthy findings: First, both real and perceived community resource availability decrease WFC, net of traditional measures of neighbourhood disadvantage.
However, perceptions of resource availability are more beneficial for women than men. Second, the benefits of perceived resource availability are enhanced by presumed neighbourhood social cohesion for both men and women. Finally, cohesion buffers the mental health consequences of WFC; however, neither real nor perceived community resource availability attenuates the mental health effects of WFC, irrespective of social cohesion.

Gender Differences in the Effect of Neighbourhood Context on WFC and Distress

All three papers reflect the importance of gender differences in the associations between neighbourhood context, WFC, and distress. I find that, compared to men, women’s levels and consequences of WFC are affected more by the social composition of the neighbourhood, markers of neighbourhood disadvantage, and perceived community resource availability. It is likely that these gender differences result from men’s and women’s unique experiences of work, family, and neighbourhood. For example, men and women’s interpretation of WFC often vary, and so do the consequences that result from such conflict (Simon 1995). Men and women also experience their neighbourhood of residence differently. Women are more likely than men to integrate into the community, invest in relationships with others in the neighbourhood, and participate in public gatherings and activities (Campbell and Lee 1990; Kaminer 1984; Naples 1991). Compared to men, women may also be more likely to use publically available resources, such as childcare and recreational facilities (Bianchi et al. 2006; Ross and Mirowsky 1988), and may be more likely to draw upon community resources or neighbouring support networks in times of need. These ideas suggest that women may be more acutely aware of the surrounding community, including the resources and services available. These factors could potentially explain the gender differences I observe in the effect of neighbourhood context on WFC and subsequent distress.

Inconsistencies, Limitations, and Directions for Future Research

Overall, my dissertation presents a comprehensive picture of how neighbourhood context matters for WFC and subsequent psychological distress. The mechanisms through which these processes unfold are rather complex. To effectively model these associations, I use data from multiple
sources—including two individual-level data sets from Toronto, Canada. The first includes data collected between 1992 and 1996 from intact families with at least one child aged 9 to 16 (Intact Family data). The second dataset was collected in 2011 and comprises a more generalizable sample of individuals across Toronto’s neighbourhoods (NEHW data). Because of the variation in samples, there are some inconsistencies across the findings shown in chapter 2—using the Intact Family data, and chapters 3 and 4—using the NEHW data.

First, my measure of neighbourhood disadvantage does not impact WFC or its consequences for intact families in chapter 2, but I do find a clear, strong relationship between neighbourhood disadvantage and WFC for women in the NEHW data. Using these data I also find a strong effect between disadvantage and distress net of other covariates. Inconsistent results in the effect of neighbourhood disadvantage may be due to the differences in my samples. Compared to the participants in the NEHW data, the 1995 Intact Family sample are less likely to live in disadvantaged neighbourhoods, and have more resources to combat the ill effects of such contexts in the event of exposure to ambient stressors (Appendix 1 and Appendix 6 present the overall descriptives for each sample for the purposes of comparison. I also present differences in the variation in the range of neighbourhood disadvantage between the intact families sample used in chapter 2 (range=3.83; Appendix 5), and the more generalizable NEHW sample used in chapters 3 and 4 (range=4.02; Appendix 8). While these differences might appear substantively small they may be significantly different statistically, which would help explain inconsistent results across samples).

Second, the impact of structural equivalence (i.e., similarity in social composition) on WFC and its consequences may apply to intact families only. I constructed and tested comparable measures in the NEHW data, and did not find the same patterns—with one exception: When I reduce the NEHW sample to intact families with young children at home, significant effects for my structural equivalence measures begin to emerge in the direction that I would predict, but for women only. By imposing these restrictions on my data, however, I reduce the number of applicable cases to 521. Because I am dealing with such a small sample size, while trying to test gender differences in the effects of structural equivalence, my results were not consistent enough to include in this dissertation.
I would also like to note that I find evidence to support my theory of structural equivalence and perceived social support using measures of social cohesion from the NEHW data (which were not available in the Intact Family data): My constructed measures of structural equivalence between residents relative to the respondent in the NEHW data increase levels of perceived social cohesion in the neighbourhood, which in turn reduces WFC and subsequent distress (see chapter 4, Tables 4.3 and 4.4, for the association between social cohesion, WFC, and distress). My preliminary analyses suggest that these results pertain to multiple family types, but need to be examined further in future research.

Other limitations of my dissertation research have been addressed throughout chapters 2 through 4, so I will only briefly reiterate them here. First, I rely on cross-sectional data for all analyses. My hypothesized causal associations are theoretically-based on previous literature. However, it is likely the case that WFC and/or distress may influence neighbourhood selection, which could be modeled appropriately using longitudinal data. For example, literature on family-friendly communities documents that parents evaluate and opt into friendlier neighbourhoods, which may avoid potential exposure to WFC (Moen 2003; Sweet et al. 2005; Swisher et al. 2004). And, as suggested by the differential vulnerability hypothesis, disadvantaged individuals relegated to disadvantaged neighbourhoods may be more susceptible to levels and consequences of WFC resulting from ambient stressors in these contexts (Kessler et al. 1999; Wheaton and Clarke 2003). If tracked over time, researchers could effectively disentangle these potential associations.

The findings of my dissertation have limited generalizability because of the type and location of my individual-level samples. For example, the 1995 Intact Family data are limited to married parents, with at least one dependent child aged 9 to 16. These data limitations mean that I cannot test my theories of structural equivalence across various family forms, nor can I be completely confident in the effects of neighbourhood disadvantage because of my specific sample.

The NEHW data are more generalizable; comprising information on residents of all family types. However, these data are still limited by location. Like the 1995 Intact Family Data, the NEHW data come from Toronto, Canada. Toronto is a unique urban setting because of its demographic and social characteristics. It is considered a quintessential multicultural context, with over a 50% foreign born population from over 140 different countries (City of Toronto 2012). Moreover,
Toronto’s neighbourhoods are less segregated by ethnicity compared to other urban places (Fong and Wilkes 2003; Hulchanski 2007; Massey and Denton 1993), which may be an implicit strength of this study because I am able to successfully model other features of neighbourhood context, beyond traditional markers of structural disadvantage (see Appendix 2 for selected demographics of Toronto compared to other major U.S. cities). However, the neighbourhood effects of social composition, disadvantage, and community resource availability may be applicable first and foremost to Toronto’s population. My results should therefore be compared to other cities in North America that exhibit less ethnic diversity and multicultural attitudes within and across neighbourhoods.

My research could also be considered limited because it does not speak to variations in the associations between neighbourhood context and WFC across focal individual statuses like age, ethnicity, family type, and socioeconomic status. The differential vulnerability hypothesis predicts that the consequences of stressors vary across sub-groups of the population. Socially disadvantaged people may be more vulnerable to the deleterious consequences of stressors, placing them at greater health risks (Avison and Walters 2007; Wheaton 1999). In this case, two individuals of varying social positions can experience equal levels of a particular stressor; however, those in socially disadvantaged situations may be more susceptible to the harmful effects, compared to otherwise, because they lack the resources necessary to mitigate these effects (Pearlin 1999). For example, ethnic minorities may experience neighbourhood effects differently, depending on racial segregation, participation in ethnic enclaves, and cultural norms surrounding the utilization of neighbourhood resources (Sampson et al. 2002) This is also the case among older individuals of lower socioeconomic backgrounds because these individuals may (a) be more reliant on neighbourhood and family resources; and, (b) lack the familial, financial, and social resources necessary to mitigate the harmful consequences of neighbourhood and family stressors (McLeod and Nonnemaker 1999; Mirowsky and Ross 2003; Sampson et al. 1997; Schieman and Pearlin 2006). I encourage researchers to explore these possible variations in future research on neighbourhood effects on WFC, and mental health outcomes.

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21 Individuals’ experiences of work, family, and neighbourhoods may also differ because of discrepancies in the demands and resources associated with various family types (Bellavia and Frone 2005; Duxbury et al. 1994). Single parents, for example, endure greater work and family demands and have fewer family resources to draw upon
Finally, I do not consider other important antecedents of WFC that may mediate its association with neighbourhood context, including measures of work characteristics and occupation type. For example, a plethora of research suggests that work-related demands and resources—such as job pressures, supervisor support, schedule control, and levels of autonomy associated with various occupations—strongly influence WFC (Schieman et al. 2009; see Michel 2010, for a review). It may be that neighbourhood context influences the employment opportunities available to individuals, which thus, impacts exposure to variable work demands and/or resources (Fernandez and Su 2004). The quality of jobs in a neighbourhood may therefore explain part of the association between neighbourhood disadvantage and levels and consequences of WFC. Future research should explore these potential associations.

Conclusion

Overall, my dissertation research presents a unique and contributory perspective of how neighbourhood context impacts WFC and its mental health consequences. My research is among the first to study these important yet complex processes. From my study, I can conclude that neighbourhood context matters for WFC, and what seems to matter most is (a) how similar individuals are to their neighbours, (b) perceptions of disorder that amplifies levels of WFC by undermining residents’ sense of personal control, and (c) the real and perceived resources available within the context of cohesive neighbourhoods. My research is quite significantly timely. WFC is an increasingly visible issue in the media, and in popular writing about the nature of work in the 21st century. Moreover, it will not naturally resolve with time and instead, will likely worsen. My findings bring to light the importance of recognizing that neighbourhoods compared to married couples or individuals in extended family households (Crouter and Booth 2004; Duxbury et al. 1994; Presser 2003). Family type might also determine individuals’ level of community engagement, subsequently influencing the impact of neighbourhood on the levels and mental health consequences of WFC. For example, compared to unattached individuals, married parents may interact more frequently with other parents in the neighbourhood because of child-related activities and/or concerns (Leventhal and Brooks-Gunn 2000; Swisher et al. 2005).
present a context that can either help or hinder our negotiation of work and family demands, and associated mental health consequences.

The ambient demands we face directly, or perceive around us, have implications for the daily stressors we encounter, and the resources we maintain psychologically to combat them. However, the availability of real and perceived social and physical resources, such as normative understandings of WFC, collective social support, childcare, healthcare, employment services, and after-school programs can facilitate our daily endeavors by ameliorating the confusion, complexity, and threat associated with role expectations. WFC may become endemic, and we may collectively habituate to it, but the internal processes involved will stay the same. Focusing on the intervention of neighbourhood context allows us to suggest a new point of entry in the reduction of the experienced level and consequences of WFC. My dissertation points the way to a very different source and method of reducing this clearly modern form of chronic stress.
References


### Appendix 1 Descriptive Statistics for all Study Measures, Chapter 2 for Women (N=642) and Men (N=771)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Women (N=642)</th>
<th>Men (N=771)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean  SD  Min  Max</td>
<td>Mean  SD  Min  Max</td>
</tr>
<tr>
<td><strong>Individual-level Measures</strong></td>
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<td></td>
</tr>
<tr>
<td>Distress</td>
<td>11.97  9.75  0   55.48</td>
<td>10.23  8.01  0   43.87</td>
</tr>
<tr>
<td>Work-family conflict</td>
<td>1.89   .67   .96  4.00</td>
<td>2.07   .69   .96  4.00</td>
</tr>
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<td>Education</td>
<td>4.47   1.53  1    7</td>
<td>4.72   1.61  1    7</td>
</tr>
<tr>
<td>Number of children</td>
<td>3.28   .85   1    6</td>
<td>3.37   .97   1    6</td>
</tr>
<tr>
<td>Age</td>
<td>40.86  4.78  28   54</td>
<td>42.82  5.68  28   67</td>
</tr>
<tr>
<td>Previous mental health</td>
<td>.45    —     0    1</td>
<td>.33    —     0    1</td>
</tr>
<tr>
<td>Immigrant</td>
<td>.52    —     0    1</td>
<td>.52    —     0    1</td>
</tr>
<tr>
<td>Childcare hours</td>
<td>7.14   7.68  0    87</td>
<td>3.08   3.94  0    49</td>
</tr>
<tr>
<td>Housework hours</td>
<td>3.02   2.54  0    25.42</td>
<td>2.07   1.99  0    28.75</td>
</tr>
<tr>
<td>Full-time worker (vs. part-time)</td>
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<td>1.00   1.22  0    1</td>
</tr>
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<td>Year of interview (1992-1993)</td>
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<td>.47    —     0    1</td>
</tr>
<tr>
<td>Year of interview (1994-1996)</td>
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<td>.53    —     0    1</td>
</tr>
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<td><strong>Census Measures: Disadvantage</strong></td>
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<td>Neighbourhood disadvantage</td>
<td>-.05   .59   -.92  2.91</td>
<td>-.03   .61   .92  3.47</td>
</tr>
<tr>
<td><strong>Census Measures: Social Composition</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% H-W families with kids 6-14</td>
<td>12.76  2.57  3%   20%</td>
<td>12.74  2.55  3%   20%</td>
</tr>
<tr>
<td>% Same ethnicity (13 categories)</td>
<td>20.45  14.66 0%   70%</td>
<td>22.05  14.86 0%   70%</td>
</tr>
<tr>
<td>% Same age (5-year categories)</td>
<td>24.26  5.50  8%   41%</td>
<td>23.18  5.77  7%   42%</td>
</tr>
<tr>
<td>No. of people per census tract</td>
<td>7.50   6.41  1    27</td>
<td>7.49   6.39  1    27</td>
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</tbody>
</table>

**Notes:** Percentages presented for categorical variables. Descriptives presented for continuous variables are based on imputed values, averaged across the 5 imputed data sets, and based on unweighted data.
Appendix 2 Selected Demographics of Toronto and other U.S. Urban Cities.

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Toronto</th>
<th>Chicago</th>
<th>New York</th>
<th>Philadelphia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent foreign born</td>
<td>49.9\textsuperscript{a}</td>
<td>21.0\textsuperscript{b}</td>
<td>36.8\textsuperscript{b}</td>
<td>11.6\textsuperscript{b}</td>
</tr>
<tr>
<td>Med. household income</td>
<td>68,110.0\textsuperscript{a}</td>
<td>47,371.0\textsuperscript{b}</td>
<td>51,270.0\textsuperscript{b}</td>
<td>36,957.0\textsuperscript{b}</td>
</tr>
<tr>
<td>Total population</td>
<td>2,615,060.0\textsuperscript{a}</td>
<td>2,707,120.0\textsuperscript{c}</td>
<td>8,244,910.0\textsuperscript{c}</td>
<td>1,536,471.0\textsuperscript{c}</td>
</tr>
</tbody>
</table>

Notes: \textsuperscript{a} Source: 2011 Canadian Census. \textsuperscript{b} Source: 2011 U.S. Census Bureau, figures from 2007-2011. \textsuperscript{c} Source: 2011 U.S. Census Bureau.
Appendix 3 Distribution of Missing Cases for Continuous Individual-Level Variables, Chapter 2 for Women (N=642) and Men (N=771)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Women (N=642)</th>
<th>Men (N=771)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent-level Measures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distress (max missing of 22 items)</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Work-family conflict (max missing of 4 items)</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Education</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Number of children</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Age</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Childcare hours</td>
<td>5</td>
<td>150</td>
</tr>
<tr>
<td>Housework hours</td>
<td>2</td>
<td>83</td>
</tr>
<tr>
<td>Work hours</td>
<td>39</td>
<td>5</td>
</tr>
</tbody>
</table>

Notes: "I imputed missing values on each item comprising the distress scale and WFC scale. The value presented reflects the average number of missing cases across all the items. Five imputed data sets were generated. I provide details about my approach to missing data imputation in the methods section of chapter 2."
Appendix 4 Year of Interview, Chapter 2 for Women (N=642) and Men (N=771)

<table>
<thead>
<tr>
<th>Year of Interview</th>
<th>Women (N=642)</th>
<th></th>
<th>Men (N=771)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>1992</td>
<td>15</td>
<td>2.34</td>
<td>19</td>
<td>2.46</td>
</tr>
<tr>
<td>1993</td>
<td>333</td>
<td>51.95</td>
<td>393</td>
<td>50.97</td>
</tr>
<tr>
<td>1994</td>
<td>22</td>
<td>3.43</td>
<td>29</td>
<td>3.76</td>
</tr>
<tr>
<td>1995</td>
<td>70</td>
<td>10.92</td>
<td>76</td>
<td>9.86</td>
</tr>
<tr>
<td>1996</td>
<td>201</td>
<td>31.36</td>
<td>254</td>
<td>32.94</td>
</tr>
</tbody>
</table>

Notes: Because the majority of respondents were interviewed within three years of 1996 (i.e., 1993 to 1996) I use 1996 Canadian Census data to approximate neighbourhood characteristics at the time of interview, rather than 1991 Canadian Census data.
Appendix 5 Neighbourhood Disadvantage by Women’s Household Income, Chapter 2
(N=642)

<table>
<thead>
<tr>
<th>Household Income</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low ($0-44,999)</td>
<td>.28</td>
<td>.79</td>
<td>-.92</td>
<td>2.91</td>
</tr>
<tr>
<td>Average ($45,000-84,999)</td>
<td>-.02</td>
<td>.60</td>
<td>-.92</td>
<td>2.53</td>
</tr>
<tr>
<td>High ($85,000-200,000)</td>
<td>-.16</td>
<td>.51</td>
<td>-.92</td>
<td>1.37</td>
</tr>
<tr>
<td>Total</td>
<td>-.05</td>
<td>.59</td>
<td>-.92</td>
<td>2.91</td>
</tr>
</tbody>
</table>

Notes: We present results for women only because our sample comprises married parents; therefore, the men in our sample reported similar values for household income. Low, average, and high household income reflect the 25th, 50th, and 75th percentile, respectively.
Appendix 6 Descriptive Statistics for All Study Measures, Chapter 3 (N=1,702)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Full Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td><strong>Individual-level Measures</strong></td>
<td></td>
</tr>
<tr>
<td>Distress</td>
<td>9.29</td>
</tr>
<tr>
<td>Work-family conflict</td>
<td>9.00</td>
</tr>
<tr>
<td><strong>Perceptions of Neighbourhood Context</strong></td>
<td></td>
</tr>
<tr>
<td>Neighbourhood disorder</td>
<td>3.91</td>
</tr>
<tr>
<td><strong>Psychological Resources</strong></td>
<td></td>
</tr>
<tr>
<td>Personal sense of control</td>
<td>4.01</td>
</tr>
<tr>
<td><strong>Control Measures</strong></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>.53</td>
</tr>
<tr>
<td>Education</td>
<td>4.73</td>
</tr>
<tr>
<td>Age</td>
<td>47.73</td>
</tr>
<tr>
<td>Canadian</td>
<td>.63</td>
</tr>
<tr>
<td>Married</td>
<td>.56</td>
</tr>
<tr>
<td>Number of children</td>
<td>1.30</td>
</tr>
<tr>
<td>Domestic chores/week</td>
<td>18.55</td>
</tr>
<tr>
<td>Full-time worker (vs. part-time)</td>
<td>.72</td>
</tr>
<tr>
<td><strong>Census-level Measures</strong></td>
<td></td>
</tr>
<tr>
<td>Neighbourhood disadvantage (standardized)</td>
<td>0</td>
</tr>
</tbody>
</table>

Notes: Percentages presented for categorical variables. Descriptives averaged across all 5 imputed, unweighted data sets.
Appendix 7 Distribution of Missing Cases for Continuous Individual-Level Variables, Chapter 3 (N=1,702)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of Missing Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent-level Measures</strong></td>
<td></td>
</tr>
<tr>
<td>Distress (max missing of 16 items) (^a)</td>
<td>2</td>
</tr>
<tr>
<td>Work-family conflict (max missing of 4 items) (^a)</td>
<td>15</td>
</tr>
<tr>
<td>Neighbourhood disorder (max missing 20 items) (^a)</td>
<td>5</td>
</tr>
<tr>
<td>Sense of control (max missing 7 items) (^a)</td>
<td>5</td>
</tr>
<tr>
<td>Education</td>
<td>4</td>
</tr>
<tr>
<td>Age</td>
<td>0</td>
</tr>
<tr>
<td>Number of children</td>
<td>0</td>
</tr>
<tr>
<td>Domestic chores /week (^b)</td>
<td>160</td>
</tr>
<tr>
<td>Work hours</td>
<td>8</td>
</tr>
</tbody>
</table>

Notes: \(^a\) I imputed missing values on each item comprising continuous scales. The value presented reflects the average number of missing cases across all the items. Five imputed data sets were generated. I provide details about my approach to missing data imputation in the methods section of chapter 3. \(^b\) Respondents who did not have children were assigned a value of 0 for all childcare-related questions.
Appendix 8 Neighbourhood Disadvantage by Household Income, Chapter 3 (N=1,702)

<table>
<thead>
<tr>
<th>Household Income</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low ($0-56,999)</td>
<td>.92</td>
<td>.61</td>
<td>-.06</td>
<td>2.24</td>
</tr>
<tr>
<td>Average ($57,000-67,999)</td>
<td>.20</td>
<td>.48</td>
<td>-.60</td>
<td>1.15</td>
</tr>
<tr>
<td>High ($68,000-$376,411)</td>
<td>-.60</td>
<td>.48</td>
<td>-1.78</td>
<td>.65</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>1.00</td>
<td>-1.78</td>
<td>2.24</td>
</tr>
</tbody>
</table>

Notes: Low, average, and high household income reflect the 25\textsuperscript{th}, 50\textsuperscript{th}, and 75\textsuperscript{th} percentile, respectively.
Appendix 9 Descriptive Statistics for All Study Measures, Chapter 4 (N=1,702)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Full Sample</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Min</td>
<td>Max</td>
</tr>
<tr>
<td><strong>Individual-level Measures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distress</td>
<td>9.29</td>
<td>8.37</td>
<td>0</td>
<td>3.98</td>
</tr>
<tr>
<td>Work-family conflict</td>
<td>9.00</td>
<td>3.25</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td><strong>Perceptions of Community Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived availability of resources</td>
<td>3.70</td>
<td>.70</td>
<td>1.54</td>
<td>5</td>
</tr>
<tr>
<td><strong>Social Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social cohesion</td>
<td>3.83</td>
<td>.67</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td><strong>Control Measures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>.53</td>
<td>—</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Education</td>
<td>4.73</td>
<td>.31</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Age</td>
<td>47.73</td>
<td>10.14</td>
<td>24</td>
<td>66</td>
</tr>
<tr>
<td>Canadian</td>
<td>.63</td>
<td>—</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Married</td>
<td>.56</td>
<td>—</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Number of children</td>
<td>1.30</td>
<td>1.27</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Domestic chores /week</td>
<td>18.55</td>
<td>12.64</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Full-time worker (vs. part-time)</td>
<td>.72</td>
<td>.44</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Census-level Measures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total community resources available</td>
<td>2.60</td>
<td>3.785</td>
<td>0</td>
<td>21</td>
</tr>
<tr>
<td>Neighbourhood disadvantage (standardized)</td>
<td>-.01</td>
<td>.84</td>
<td>-2</td>
<td>1.75</td>
</tr>
</tbody>
</table>

Notes: Percentages presented for categorical variables. Descriptives averaged across the 5 imputed data sets, and based on unweighted data.
Appendix 10 Distribution of Missing Cases for Continuous Individual-Level Variables,
Chapter 4 (N=1,702)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of Missing Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent-level Measures</strong></td>
<td></td>
</tr>
<tr>
<td>Distress (max missing of 16 items) &lt;sup&gt;a&lt;/sup&gt;</td>
<td>2</td>
</tr>
<tr>
<td>Work-family conflict (max missing of 4 items) &lt;sup&gt;a&lt;/sup&gt;</td>
<td>15</td>
</tr>
<tr>
<td>Perceived resource availability (max missing 20 items) &lt;sup&gt;a&lt;/sup&gt;</td>
<td>2</td>
</tr>
<tr>
<td>Social cohesion (max missing 7 items) &lt;sup&gt;a&lt;/sup&gt;</td>
<td>8</td>
</tr>
<tr>
<td>Education</td>
<td>4</td>
</tr>
<tr>
<td>Age</td>
<td>0</td>
</tr>
<tr>
<td>Number of children</td>
<td>0</td>
</tr>
<tr>
<td>Domestic chores /wk &lt;sup&gt;b&lt;/sup&gt;</td>
<td>160</td>
</tr>
<tr>
<td>Work hours</td>
<td>8</td>
</tr>
</tbody>
</table>

*Notes: <sup>a</sup> I imputed missing values on each item comprising continuous scales. The value presented reflects the average number of missing cases across all the items. Five imputed data sets were generated. I provide details about my approach to missing data imputation in the methods section of chapter 4. <sup>b</sup> Respondents who did not have children were assigned a value of 0 for childcare-related questions.*
Copyright Acknowledgements

An earlier version of chapter 2 was presented at the 106th American Sociological Association Annual Meeting, Las Vegas, Nevada (co-authored with Blair Wheaton). Another version of chapter 2, co-authored with Blair Wheaton, has been submitted and peer-reviewed at the Journal of Health and Social Behavior. We have received the option of revising and resubmitting the manuscript as of March, 2013. The chapter is reprinted in this dissertation with permission of the authors.