

After Moving to Opportunity: How Moving to a Low-poverty Neighborhood Improves Mental Health among African American Women

Kristin Turney¹, Rebecca Kissane², and
Kathryn Edin³

Abstract

A large body of nonexperimental literature finds residing in a disadvantaged neighborhood is deleterious for mental health, and recent evidence from the Moving to Opportunity (MTO) program—a social experiment giving families living in high-poverty neighborhoods the opportunity to move to low-poverty neighborhoods—suggests a causal effect of moving to a low-poverty neighborhood on adult mental health. We use qualitative data from 67 Baltimore adults who signed up for the MTO program to understand how moving to a low-poverty neighborhood produced these mental health benefits. First, we document the vast array of mental health challenges, traumatic experiences, and stressors reported by both experimentals (those who received a housing voucher to move to a low-poverty neighborhood) and controls (those who did not receive a voucher). We then explore how changes in the physical and social environments may have produced mental health benefits for experimentals. In particular, experimentals reported the following: improved neighborhood and home aesthetics, greater neighborhood collective efficacy and pride, less violence and criminal activity, and better environments for raising children. Notably, we also document increased sources of stress among experimentals, mostly associated with moving, making the positive effects of MTO on adult mental health all the more remarkable. These findings have important implications for both researchers and policymakers.

Keywords

mental health, neighborhood, poverty, stress

Whether and how context matters for well-being has been the subject of intense scientific debate. In *The Truly Disadvantaged*, William Julius Wilson (1987) revived this debate by arguing that living in economically disadvantaged and racially segregated neighborhoods can have negative effects on individual behavior. Theories abound about what neighborhood characteristics pose the most risk: troubled peers, poor institutional resources, few ties to people with jobs, or environmental hazards (for reviews see Ellen, Mijanovich, and Dillman 2001; Leventhal and Brooks-Gunn 2000;

Sampson, Morenoff, and Gannon-Rowley 2002; Small and Newman 2001). A common thread,

¹University of California, Irvine, CA, USA

²Lafayette College, Easton, PA, USA

³Harvard University, Cambridge, MA, USA

Corresponding Author:

Kristin Turney, Department of Sociology, University of California at Irvine, 3151 Social Science Plaza, Irvine, CA 92697-51009, USA

Email: kristin.turney@uci.edu

however, is that residing in disadvantaged neighborhoods has deleterious effects on individuals' physical (Boardman et al. 2005; Browning and Cagney 2003; Ross and Mirowsky 2001) and mental health (Diez Roux 2001; Mair, Diez Roux, and Morenoff 2010; Ross 2000; Ross, Reynolds, and Geis 2000).

A frequent critique of the neighborhood effects literature is that it is difficult to disentangle the causal effect of neighborhood conditions from the effect of unmeasured characteristics on observed inequalities in physical and mental health (Sampson et al. 2002). The Moving to Opportunity (MTO) social experiment, which randomly gave 4,608 families living in public housing developments in poor communities the chance to move to low-poverty neighborhoods, addresses some of these concerns and offers the opportunity to explore how moving to a low-poverty neighborhood may influence health. Residents in public housing or Section 8 project-based housing in extremely poor neighborhoods in Baltimore, New York, Chicago, Los Angeles, and Boston applied to the MTO program from 1994 through 1998 and were randomly assigned into one of three groups: experimental, Section 8, or control. Experimental group members received a restricted Section 8 housing voucher they could use to rent a unit from a private landlord in a low-poverty neighborhood (i.e., census tracts with 1990 poverty rates of less than 10 percent), for which they would be charged 30 percent of their net income.¹ They also received housing counseling and assistance finding a unit. The Section 8 group received a housing voucher that could be used to move to any neighborhood (and not necessarily a low-poverty neighborhood). The control group did not receive a housing voucher or other assistance through the program but could continue to live in public housing or apply for other available housing programs. Across all five cities, about 47 percent assigned to the experimental group and 62 percent assigned to the Section 8 group moved through the MTO demonstration (Orr et al. 2003:28).

Results from an interim survey (conducted 4 to 7 years after random assignment) and the final survey (conducted 10 to 12 years after random assignment) show that despite the fact many experimental group members left their low-poverty neighborhoods over time and the experiment did not produce employment or earnings benefits (Kling, Liebman, and Katz 2007; Orr et al. 2003), it did produce strong effects on mental health (Ludwig et al. 2012; Orr et al. 2003; Sanbonmatsu et al.

2011). Considering mental health problems are associated with a host of social and economic disadvantages—including financial hardship, difficulty in personal relationships, and child well-being—it is especially important to understand the processes through which neighborhoods affect mental health (Coyne 1976; Miech and Shanahan 2000; Turney 2011). In this paper, we use qualitative data from 67 adults in Baltimore who participated in the MTO program to understand how moving to a low-poverty neighborhood produced mental health benefits.

BACKGROUND

Stress Process Theory

Stress process theory provides a useful theoretical framework for considering the mechanisms through which neighborhood environments affect health (Pearlin 1989; Pearlin et al. 1981; Turner, Wheaton, and Lloyd 1995). This theory suggests stressors emerge from the distinctive social contexts characterizing the lives of disadvantaged groups and that differential exposure to stressors contributes to inequalities in physical and mental health (Pearlin 1989; Turner and Avison 2003). This is consistent with social disorganization theory, which posits that neighborhoods may be an important source of stress and may contribute to a variety of deleterious mental health outcomes (Sampson and Groves 1989). Similarly, some have conceptualized the ecological context as a chronic stressor (Downey and Van Willigen 2005; Pearlin 1989) that develops “slowly and insidiously as continuing and problematic conditions in our social environments or roles” (Wheaton 1999:283). Ecological context, therefore, includes social environs but also involves elements of physical space and infrastructure that may act as stressors. Though there is some overlap between the physical and social aspects of neighborhoods, the two are conceptually distinct and may each act as stressors that differentially or cumulatively influence health (Diez Roux and Mair 2010; also see Leslie and Cerin 2008; Macintyre, Ellaway, and Cummins 2002).

Moreover, neighborhoods may be an important source of stress proliferation, the process through which a primary stressor leads to an emergence of additional, or secondary, stressors. Both primary and secondary stressors have negative implications for mental health (Pearlin, Aneshensel, and Leblanc 1997). For example, social disorganization theory suggests that disadvantaged neighborhoods

are often characterized by stressors such as drug trafficking, violence, and markers of physical disorder (abandoned buildings, graffiti), all of which may directly influence mental health (Sampson and Groves 1989). But these factors may also lead residents to perceive their communities as unsafe and, consequently, limit their interactions with others or isolate themselves (Curry, Latkin, and Davey-Rothwell 2008; Kim 2010). Strength of connections with others in the community and supportive ties are associated with positive mental health outcomes (Ziersch et al. 2005). In sum, the primary stressor of social disorganization may lead to secondary stressors of low social capital and social isolation, which may compound the mental strain placed on residents of poor neighborhoods.

Empirical Research Linking Neighborhood Conditions to Mental Health

Mental health problems are not equally distributed across the population. A large body of research considers individual-level differences in mental health problems by race, socioeconomic status, age, and marital status (Kessler et al. 2003). Recently, however, social scientists have documented that neighborhood conditions also matter, above and beyond individual-level characteristics (for a recent review, see Mair, Diez Roux, and Galea 2008). For example, neighborhood disadvantage is associated with a higher probability of depression (Aneshensel and Sucoff 1996; Ross 2000; Silver, Mulvey, and Swanson 2002), depressive symptoms (Latkin and Curry 2003), anxiety (Aneshensel and Sucoff 1996; Ross 2000), and substance abuse disorder (Silver et al. 2002). It also increases the probability an individual will struggle with anger (Schieman, Pearlin, and Meersman 2006), have difficulty trusting others (Ross, Mirowsky, and Pribesh 2001), and report powerlessness (Geis and Ross 1998).

Though a burgeoning body of (mostly nonexperimental) literature examines the mental health consequences of living in a disadvantaged neighborhood, the problems endemic to neighborhood effects research more generally are widespread in this work. Individuals are not randomly assigned to neighborhoods and instead exercise preferences and encounter structural constraints—given financial circumstances, housing availability, and family

concerns—regarding where they live and how long they live there (Sampson et al. 2002; Tienda 1991). Considering the positive association between economic disadvantage and mental health problems such as depression (Kessler et al. 2003), depressed individuals may be more likely to select into disadvantaged neighborhoods and less likely to move out of them.

As noted earlier, the MTO demonstration provides a unique opportunity to examine the causal effect of neighborhoods—specifically, an offer to move from public housing in high-poverty neighborhoods to private housing in low-poverty neighborhoods—on mental health. Researchers have followed MTO families to assess the short- and long-term effects of moving to low-poverty communities for adults and children. The MTO experimental treatment—receiving a housing voucher to move to a neighborhood with a poverty rate of less than 10 percent—altered the neighborhood trajectories and environments of families, even though many in the experimental group did not remain in their placement neighborhood for the long term. Indeed, 65 percent of this group moved from their initial placement neighborhood within four to seven years of random assignment, often to a higher poverty neighborhood (Orr et al. 2003). Despite this, they spent considerably less time (during those four to seven years) living in high-poverty neighborhoods and more time in low-poverty neighborhoods than those who did not receive the experimental treatment. Specifically, experimental group members who used their voucher resided in neighborhoods with poverty rates of less than 20 percent for a median of 32 months and a corresponding median of 11 months in neighborhoods in very high-poverty neighborhoods (poverty rates greater than 40 percent). Meanwhile, during these same four to seven years, controls spent a median of 63 months in very high-poverty neighborhoods but a median of zero months in neighborhoods with poverty rates of less than 20 percent (Clampet-Lundquist and Massey 2008). Recent research—both from the MTO demonstration and from other observational studies—suggests cumulative exposure to disadvantaged neighborhoods may be especially detrimental to economic (Clampet-Lundquist and Massey 2008), educational (Wodtke, Harding, and Elwert 2011), and mental health outcomes (Wheaton and Clarke 2003).

As indicated earlier, quantitative data demonstrate that adults in the experimental group,

compared to their control counterparts, experienced reduced psychological distress (measured by the Kessler 6 or K6; Kessler et al. 2002), less depression (measured with the Composite International Diagnostic Interview Short Form [CIDI-SF] Version 1.0 November 1998; Kessler et al. 1998), and increased calm and peaceful feelings four to seven years after random assignment (Kling et al. 2007; Orr et al. 2003). The magnitude of these effects is large. For example, at the interim survey, the experimental group reported psychological distress that was 4 percentage points lower than the control group, and those in the experimental group who used their voucher to move reported psychological distress that was 8 percentage points lower. Furthermore, 22 percent of control respondents met the diagnostic criterion for depression in the past year, but this was true of only 18 percent of experimentals and 14 percent of experimentals who used their voucher to move (Orr et al. 2003). These effect sizes are comparable to those found in “some of the most effective clinical and pharmacologic mental health interventions” (Kling et al. 2007:102). Moreover, the effects on psychological distress persisted at the final survey (conducted 10 to 12 years after random assignment) (Ludwig et al. 2012; Sanbonmatsu et al. 2011).

Though the interim and final surveys provide strong evidence linking an offer to move to a low-poverty neighborhood to improved mental health, they do not explain the processes through which living in an advantaged neighborhood—relative to a very disadvantaged one—confers these benefits (Sampson 2008). What could account for the large mental health benefits that accrue from moving from a high-poverty neighborhood to a low-poverty neighborhood, and why do differences between program groups persist even though those in the experimental group who moved with an MTO voucher lived in low-poverty neighborhoods for a median of only 32 months (Clampet-Lundquist and Massey 2008)? The goal of this qualitative analysis is to shed light on the processes underlying these results. Though another qualitative analysis based on MTO participants has focused on the impact of MTO on the mental health of youth (Briggs, Popkin, and Goering 2010), we know of no qualitative MTO study that specifically considers the processes underlying the mental health effects among adults.

DATA AND METHODS

We use data from in-depth, semi-structured interviews with Baltimore adult respondents who participated in the MTO demonstration. Individuals interviewed in Baltimore were a stratified random subsample of all three program groups (experimental, Section 8, and control) across three household types: households with children 8 to 13 years old, households with children 14 to 19 years old, and households with children in both age groups. From 2003 to 2004 (six to nine years after random assignment), we interviewed 124 of the 149 adult respondents randomly selected for the in-depth interviews (83 percent response rate). Reasons for nonresponse include inability to locate, death, and refusal. Of these 124 respondents, 51 were in the experimental group, 53 were in the control group, and 20 were in the Section 8 group.

At the time of both the interim and final surveys, researchers found no differences in mental health between adults in the Section 8 group and the control group (Orr et al. 2003:77; Sanbonmatsu et al. 2011:116). Given the MTO intervention did not improve mental health outcomes for those in the Section 8 group, we omit these 20 respondents from our qualitative analysis. Instead, we compare individuals in the experimental group to individuals in the control group, as this is where the experimental impacts were observed.

We further restrict our analytic sample to experimental adult respondents who took up the MTO offer and complied with the MTO treatment by moving to a low-poverty neighborhood ($n = 33$, or 65 percent of the 51 experimental respondents we interviewed), hereafter referred to as “experimentals.”² To ensure the experimental and control groups are as similar as possible, we also restrict our analytic sample to 34 adult respondents in the control group who likely would have moved through MTO had they been assigned to the experimental group (hereafter called “controls”) (see appendix; also see Turney et al. 2006). The 33 adult respondents in the experimental group and the 34 adult respondents in the control group comprise the 67 members of our analytic sample.

In-depth semi-structured interviews with these respondents were between two and five hours long and were recorded and transcribed verbatim. Among other things, we asked respondents to describe, from random assignment onward, all housing units and neighborhoods they lived in

and all schools their children attended; the families' experiences in these units, neighborhoods, and schools; and mental health challenges they experienced while living in and navigating these environments. For example, respondents were asked to describe the last time they felt down for two weeks or more, their circumstances at the time, and how they coped with such feelings. We asked similar questions of all respondents, though we varied the question wording and timing to make the interview flow as much as possible like a conversation. Adult respondents were paid from \$50 to \$85 for their time, depending on whether we asked them about one or two children.

Trained graduate students conducted preliminary coding of the transcribed interviews and entered these codes into a Microsoft Access database. These initial codes were primarily descriptive and were generated deductively, based on the topics covered in the interview guide. For example, one large descriptive field called "MHEALTH" included discussions of mental health, traumatic experiences, and mental health treatment. We then engaged in a second stage of coding using NVivo software, which allows for an inductive approach characteristic of qualitative analyses (Charmaz 2006; Strauss and Corbin 1990). During this stage, we organized the data into small conceptual categories (or "nodes") and looked for patterns that distinguished the experiences of experimentals from the controls. Several of these "nodes" were derived deductively, based on findings from previous research, but most analyses at this point emerged from the coding process itself, rather than from predetermined hypotheses or previously defined conceptual categories.

Sample Description

In Table 1, we present descriptive information for the respondents in our qualitative sample, separately for experimentals and controls. All household heads are women. Nearly all are African American (one respondent identifies as multiracial). Respondents in both groups were, at the time of the qualitative interview, 38 years old and had about three dependent children on average. Nearly half of both experimental and control respondents lived in public housing as a child but the two groups lived in somewhat different housing and neighborhood conditions at the time of the qualitative interview. For example, experimentals

were living in neighborhoods with average poverty rates of 21 percent, about 12 percentage points lower than average neighborhood poverty rates of controls (33 percent). Both experimentals and controls were also living in highly segregated neighborhoods, consistent with prior MTO research (Clampet-Lundquist and Massey 2008), though the experimentals' neighborhoods were slightly less segregated. Additionally, experimentals, compared to controls, lived in neighborhoods with a higher percentage of residents with a college degree (21 percent vs. 13 percent) and who were employed (52 percent vs. 43 percent). Only 27 percent (9 of the 33) of experimentals remained in their placement neighborhood at the time of the qualitative interview (descriptives not shown). Furthermore, on average, experimentals lived in their current neighborhoods for only 3.45 years (compared to 4.91 years among the controls). Importantly, we did not administer diagnostic measures of depression and thus cannot report quantitative similarities or differences in the prevalence of depression across program groups. This is, however, available from survey results (Orr et al. 2003; Sanbonmatsu et al. 2011).

RESULTS

Our results proceed in three stages. We begin by documenting stressors and mental health challenges typically faced by both experimentals and controls. The random assignment ensures both experimental and control group members were similar when they enrolled in MTO, and indeed, our analysis shows they faced many similar challenges prior to the intervention. Understanding these pre-enrollment challenges is a critical first step in understanding why the offer to move to a low-poverty neighborhood might have had such a substantial effect on mental health.

In the second analytic stage, we report how experimentals described both the physical and social characteristics of the neighborhoods they moved to with their voucher, as well as any low-poverty neighborhood they lived in subsequently. We contrast these descriptions with descriptions of the high-poverty neighborhoods that experimentals and controls lived in at random assignment and beyond.

In the final analytic stage, we document several sources of increased stressors that respondents said resulted from moving to low-poverty

Table 1. Descriptive Characteristics of Baltimore Qualitative Respondents at the Time of the Qualitative Study (2003-2004)

	Experimental compliers		Control compliers	
	Percentage or mean	SD	Percentage or mean	SD
Female	100		100	
African American	97		100	
Age	38.39	5.74	37.53	6.49
Education				
Less than high school	28		47	
High school diploma or GED	59		53	
College degree	9		0	
Number of children in household	2.82	1.28	3.09	1.03
Number of people in household	3.42	1.52	4.47	2.15
Lived in public housing as child	48		48	
Current housing				
Public housing	9		21	
Subsidized housing	58		42	
Unsubsidized housing	15		18	
Homeowner	12		18	
Other	0		3	
Percentage in neighborhood in poverty	21.0		33.3	
Percentage in neighborhood with college degree	20.6		13.1	
Percentage in neighborhood employed	52.4		42.5	
Percentage African American in neighborhood	71.5		80.3	
Years in current neighborhood	3.45	2.60	4.91	4.77
Employment status				
Full time	46		32	
Part time	21		24	
Not employed	33		44	
Receives TANF	9		24	
Receives food stamps	41		39	
Receives medical assistance	56		58	
N	33		34	

neighborhoods. These stressors are largely related to challenges of moving into the private market after years of living in public housing, but are also related to distance from social networks and public transportation.

Mental Health Challenges

The qualitative data show nearly all adults in both experimental and control groups reported a wide

array of traumatic experiences and stressful life events prior to enrollment in MTO. Although respondents reported a range of mental health challenges including depression, anxiety, phobias, intense mood swings, eating disorders, and drug abuse, depressive symptoms were most common. Experimentals and controls reported current and past depressive symptoms such as feeling worthless or losing interest in normally pleasurable activities, with many saying they struggled with chronic,

severe, and debilitating depression that made it difficult to find and sustain employment, engage in effective parenting behaviors, and maintain supportive social relationships with friends and family members. Respondents discussed myriad stressors that underlie the onset, recurrence, or persistence of depression, including financial difficulties, relationship problems with current romantic partners or children's fathers, and emotionally draining social networks.

Danielle, for example, a control with a history of suicide attempts, reported her depression and anxiety began in childhood when her mother started abusing drugs.³ She attributed her current depression to her inability to provide financial security for herself and her three children and revealed she had little emotional or instrumental support from her immediate family. Danielle reported her ongoing depression sharply limited her ability to parent her children effectively:

My daughter started feeling like I didn't care because I just wanted to be by myself. I didn't want nobody to bother me. I lost the thought that I had kids and that they needed me. I felt really bad, you know, and even though I was feeling really bad, I couldn't bring myself to actually hold a conversation with my kids, play with 'em, I wasn't doin' no type of activities with 'em. . . . My kids never understood.

Similarly, Billie, a control, reported depression for the past three years, which she attributed to ongoing difficulties in paying bills and to a painful separation from her children's father. She reported "the depression was so thick in the house" that it was impossible for her teenage son to ignore it. She said, "Sometimes this world is a little too much, and I'm not afraid to admit that. I'm to a point right now where I feel like just too stressed out, and I really feel like I would like to give everything up and just do nothing."

Both experimentals and controls also reported other sources of depression, many of which began long before random assignment. For example, Edith, a control, reported severe depression that stemmed from childhood sexual abuse and, more recently, from the geographic separation from her mother who moved to Virginia the year before the interview. Edith was pregnant with her third child when we spoke with her and said her

depression was so severe that only her children and husband gave her a reason to live:

'Cause I already feel like my inside, like everything inside me is just dead. I am living for them children, and I am living for my husband. I don't feel like I am living for myself; I got another baby in here [points to her stomach] that I feel as though I got to live for this baby. . . . I'm not going to make it. If I keep going the way I am going, I am not going to make it.

Wendy, also a control, described her depression, which she said was spawned in part by the incarceration of two of her five children: "Some mornings I wake up and I just be so sad. I'd be so sad, and I just cry so bad, and I call [my friend] up, and I cannot even tell her what's hurting. I don't even know what's wrong." Experimentals reported similar stressors. Coco, who had been caring for her sister's children until her physical health prevented her from continuing, attributed her long-standing depression to the burden of caring for her mother, who suffered from both severe depression and alcoholism since Coco's childhood.

Even those without debilitating depressive symptoms often experienced a multitude of traumatic and stressful life events that directly threatened their mental health. For example, both controls and experimentals spontaneously mentioned the death of a close friend or family member—often resulting from health conditions such as cancer or HIV/AIDS, from a drug overdose, or from murder—as a stressor. Both groups also commonly reported domestic violence without prompting, as a direct question about partner abuse was not asked.

For example, Tammy, a control who reported struggling with depression and bulimia, pointed to her father's death during her childhood as a source of her troubles. She and her siblings were then placed in foster care, where she was abused and attempted suicide. More recently, Tammy's mother died (from lung cancer) and, in just an 11-month span, so did her son's father and all three of her sisters. Tammy herself was a survivor of cervical cancer. Stories of multiple hardships, like Tammy experienced, were common in the interviews and highlight the already formidable strain on the MTO participants' mental health when they entered the demonstration.

The Physical Environments

In the previous section, we document the vast array of mental health challenges, traumatic experiences, and stressors reported by both experimentals and controls. In trying to understand how MTO improved mental health among experimentals, among a very disadvantaged population, the enhanced physical environment emerged as one important theme. Controls often used strong pejorative language to describe the high-poverty neighborhoods and housing—mostly high-rise public housing—they were living in at the time of random assignment and beyond, indicating that such environments may have acted as a primary stressor that triggered the emergence of secondary stressors. When asked what it was like living in public housing, Susan, a control, replied:

I felt like it was a mistake—somebody dropped me off and didn't come back and pick me up. It was torture. It was sometimes like a [bad] dream. . . . The elevators was always broke. You had to walk 13 flights of steps. My kids couldn't go downstairs all the time to the playground with the other kids when the elevator was broke and people would get to shooting down there, and I can't come running down 13 flights of steps to save 'em.

Besides broken elevators, controls experienced stress and frustration with roach and rodent infestation, trash buildup, dampness in the walls, and extremely hot (or cold) interior temperatures. LaNeesha, for example, complained about roaches in the public housing unit she lived in for six years:

They got little soldiers, roaches. And it just started—and I was a clean freak and they just, just the roaches marching on, hoorah, hoorah. . . . I don't know if you ever seen places where they just have [roach] nests and it's where you just like pull back the refrigerator, it be a nest, it be like, they just be nests all around and stuff and you be tryin' to kill 'em and stuff. That's how it was at [the project]. And my house would be clean, my house would be clean. Like I had a couple nests here and I was like, why I'm getting nests when I be cleaning this place and stuff like that. It's because the people here, they filthy.

Ayana, like other controls, complained about leaks in her unit: "We was like on the corner of the projects. . . . When it rain . . . , water gets running down on the walls. And you can get sick off that." Similarly, Charnette, still residing in public housing with her three children, reported significant water damage in her unit, along with a litany of other issues including problems with heat and electricity:

I had a long list [of problems]. I think when we went to court they had like 27 violations on them. . . . The heat is just on [all the time]. . . . This heat is too hot for me because I have asthma and my son has asthma and my daughter has bronchitis. So we will have to run fans in the winter when it's hot like that, or just leave the windows open to cut the air down. But see, we don't complain with that because if we complain and they turn our heat off; then when it's cold, it's really cold in here. So you be [suffering] if you do [complain] and if you don't.

Tammy, the control who suffered from depression and bulimia, echoed the complaints of several other respondents as she described the unit in her high-poverty neighborhood that, like many, was in a housing project:

It was, it was like an efficiency [apartment] to me. It was, it was two bedrooms, but these, these rooms were cells. They looked like a prison cell. The whole house looked like a cell. Concrete walls, concrete floors. The kitchen should've been a coatroom, you know? It was just, it was horrible. It was a horrible design and um, the heating—you were in an oven because everybody felt everything. It was no adjustment of the heat. And that's just how it was. It was a horrible. . . . And then the windows [barely let air in].

The controls also complained about the physical environment outside of their immediate housing developments and residence. Inadequate lighting, for example, was one such complaint. Louise said she was afraid coming home from work at night because "there were no buses coming in our neighborhood, you know, right there to drop us off in front of the house. So I actually had to walk, and there was a lot of dark places and there were a lot

of places where women can be raped.” Navigating dark spaces and crumbling, littered sidewalks was a common safety concern of our respondents.

For experimental families, moving to a low-poverty neighborhood meant a radical change in the physical environments of both their home and neighborhood, thus reducing a host of primary stressors. Many who once lived in massive concrete and brick projects, surrounded by cement and riddled with graffiti and litter, now found themselves living in two- or three-story, well-kept duplexes, row homes, or even single-family detached homes encircled by greenery—surroundings they may not have known they desired, but which they came to recognize as exercising a calming effect and a sense of well-being. The experimentals were often quick to note improvements in their units that resulted from the move. Although there were exceptions, experimentals repeatedly spoke highly of their new housing, calling the housing “beautiful” and acknowledging the improved amenities (e.g., new appliances or two bedrooms). When asked to describe her apartment, Stephanie replied, “It was wonderful, beautiful. I had a balcony, two bedrooms, walk-in closet, a bathroom in my room, it was nice, it was real nice, I mean beautiful. . . . I loved that apartment.” Similarly, Niecy, who spent two years in her MTO placement unit, recounted, “[MTO] helped me to find a beautiful apartment. . . . Oh my goodness, it was so beautiful there. . . . It was like everything was new. The floors, the walls, it was beautiful, it was nice. And I had a washer there, you know? I was happy. Two bedrooms.” She, like other experimentals, offered a direct connection between the conditions of her environment and her sense of what the future holds:

[The MTO unit] wasn’t a high rise, it wasn’t like that. It was a single home. It was not detached . . . but just two apartments. And it was grass. I could see grass, and I could see trees and birds and squirrels. But [in the housing project], it wasn’t nothing like that. . . . It was just like day and night. I had moved from night to day. So it was just, it was clean. The [project] was not clean. . . . I mean from me coming from [the projects] and being here like this, this is really nice. And you know, I know what, you know what, it gets better. It’s gonna get better.

Niecy reported few mental health challenges prior to enrolling in MTO, but the intervention also seemed to improve the well-being of some women in the experimental group with fairly severe mental health problems that predated the intervention. Amy, an experimental who lived in her placement neighborhood for six years, struggled with a host of mental health problems such as depression, anger, and phobias. Though her move with an MTO voucher did not ameliorate all of these problems, she said the change in the physical environment improved her outlook on life:

So moving up here, it’s a whole different atmosphere, the greenery, you living in a high-rise, you got a lot [of] cement. And there’s something to that effect in the psychology . . . , the hardness you get from all that concrete. The greenery, it softens you. It’s just so beautiful and peaceful, the space, the open space. You got more space.

Amy’s appreciation of the new physical environment—“beautiful and peaceful”—is illustrative of other experimentals’ descriptions. Keona, like others, said the peaceful atmosphere was the best thing about both her MTO placement neighborhood, where she only lived for a year, and the low-poverty neighborhood she subsequently moved to and still resided in at the time of our interview. She described her current neighborhood as a “ghost town”—a positive characterization in her view—where she “can hear the birds chirping.”

Importantly, better physical environments also may have reduced other stressors, such as worries over children’s physical health. Many physical ailments, such as asthma and lead poisoning, are strongly linked to neighborhood and housing conditions. Therefore, it is not surprising some experimentals reported improvements in their children’s health after the move. Jacquelyn, for example, told us her daughter’s asthma disappeared when the family moved from a public housing in Baltimore to their MTO placement neighborhood.

The Social Environments

No one who has spent any time in a high-poverty, inner-city neighborhood would find it difficult to imagine the MTO intervention not only created a dramatic contrast between the experimentals’ and controls’ physical environments but also in

their social environments. Although some changes in physical environment were certainly related to the changed social environs (e.g., being able to hear birds chirping requires that other neighborhood noise is minimal), here we concentrate on three themes of neighborhood social environments that emerged from the qualitative interviews as being linked to the improved mental health of experimentals: (1) greater neighborhood collective efficacy and pride, (2) less violence and criminal activity, and (3) better environments for raising children.

Neighborhood collective efficacy and pride. To start, many experimentals reported high levels of collective efficacy—"social cohesion among neighbors" and a willingness to work for common values (Sampson, Raudenbush, and Earls 1997:918)—in their low-poverty neighborhoods. They claimed that this collective efficacy fostered a sense of community among neighbors, made parenting less onerous, and cultivated self-efficacy, all of which positively related to their overall well-being. For example, Candy, an experimental who reported her MTO unit was a "dream home," noted the greater sense of community she felt in the low-poverty neighborhood she lived in for two years:

We had cookouts together, we work it into a routine [where] everyone kept the block clean. . . . I was not a person that associated with a lot of people [in the projects], but I seen my neighbors always saying "hi," "bye," going to work and whenever we had a little event in the neighborhood. We was always there to support each other.

Stephanie, quoted earlier, also noted observing a higher degree of community cooperation in her low-poverty neighborhood: "Everybody tried to work together as far as when it snowed, and we got out there and shoveled the walkway and stuff like that. Everybody pitched in." Similarly, Coco, whose struggles with depression were noted earlier, said the following about the placement neighborhood she lived in for two years:

[My new neighborhood had] less people to stand around doing nothing. Out in [Baltimore] County, you don't see that. The people stick together, most of 'em are homeowners and if anybody come around that house, there is always the neighborhood

watching. . . . There wasn't many situations [where the police had to be called] because a lot of people knew it was a [neighborhood where people watched]. People own their houses up there, and they weren't going to allow a lot of mess.

Experimentals described their low-poverty neighborhoods as "more settled," with residents having lived there for many years. Jocelyn, who lived in her placement neighborhood for nearly eight years, attributed this to the ratio of homeowners to renters:

[My MTO placement neighborhood] was surrounded by homeowners, nothing but homeowners. . . . So nine times out of 10 when you have an area with homeowners, they actually care about their community and what's going on in their community than people that's renting. I believe it. That's what I think makes the difference.

In addition, experimentals also reported their parenting was buttressed by the actions of their neighbors, who they felt they could trust to watch out for their children when playing outdoors. When asked whether residents looked out for each other's children, Cookie responded:

[Yes.] That's one of the biggest things out here, because this is such a small community. . . . We just had a meeting last month about that with the kids, they aren't supposed to be really unattended out here on the playgrounds if they're under age anyway. . . . But it's always either myself watching, the lady next door, and the lady next door to her. . . . And [at the meeting we agreed that] if something happen or one of the kids are doing something they're not supposed to be doing, we just contact [the parent], go take 'em to the parent and that's how we handle it.

Cookie reported few worries about her 14-year-old daughter playing outdoors, and this lack of anxiety stemmed directly from her trust in her neighbors to look out for other children. Accordingly, despite serious physical health problems that sometimes got her down (she suffered chronic back pain since she plummeted four floors in an elevator accident), Cookie was upbeat

throughout our interview and said her “inner self is calm and peaceful.”

Coco, who told us a “burden” lifted off of her when she moved into her MTO placement neighborhood, said she also felt comfortable letting her children play outside unsupervised:

... yeah, if [the neighbors] see a stranger or something walking into your apartment or looking for someone, everybody will pretty much say, “Well, we’ll keep an eye out, hold on, we’ll keep an eye out, there’s a new guy in the area, we don’t know him.” [They] were just gonna keep an eye on him to make sure he wasn’t there to do any harm to anybody that lived out in the area.

Interestingly, many controls also said at least some neighbors could be counted on to help keep their children safe when violence was about to occur. For example, Scola, a control who reported feeling unsafe while living at her public housing address, nonetheless maintained that one of the redeeming qualities of the experience was that warring gang members looked out for children when violence was imminent. She explained, “If something is to happen or they get ready to shoot or whatever, they’ll go right there, go around and be like, ‘Take the kids in the house. Everybody take the kids in the house.’” This is in contrast to Scola’s current neighborhood—a high-poverty neighborhood she has lived in for nearly 10 years—where she said people begin shooting without warning while children are outside.

In addition to fostering a sense of community and reducing parenting demands, experimentals said living in a low-poverty neighborhood increased their sense of self-worth and their motivation to improve themselves, in part, because they were surrounded by neighbors who were doing positive things. Sonya described neighbors in her low-poverty neighborhood, where she lived for four years, as “respectable people” who held steady jobs and owned their homes. Similarly, Peaches, an experimental who also spent four years in her placement neighborhood, told us “most of the adults were workers, you know. They were homeowners, you know. So they were doing something positive.” The frequency with which experimentals used the words “respectable,” “decent,” or “hardworking” to describe their neighbors in low-poverty areas is notable, as is the pride they showed

when relating these descriptions. As indicated earlier, respondents repeatedly note that these neighborhoods contained homeowners—people who have a special dose of concern for the neighborhood, who “stick together” and who “care” enough to invest time and energy to keep the neighborhood clean and safe.

Experimentals were approving of these neighbors, emulated them, and articulated that they encouraged them to strive for more. Peaches alluded to the greater sense of efficacy that came from living in new surroundings:

And living in that area motivated me to get more. I was still going to school, and I just wanted more because I saw these people get in their cars everyday, you know. Their houses were immaculate, the yards were done. I mean, you know, it’s like, God I want that. I want more, you know, this is a positive thing here. I got to get more.

Tina, an experimental still living in her low-poverty neighborhood at the time of the qualitative interview, also spoke to a behavioral change she associates with moving from the projects to the Baltimore suburbs:

I’m more settled, I’m not as wild and wide open as I was when I was in the city. In the city, I stayed in the streets more. I did work—that’s one thing. [But] it was basically all about drinking and hanging out. Out here you gonna be responsible because everyone I’m surrounded [with] works and is responsible, you know? And it’s not a bunch of sitting around and gossiping about negative stuff.

Niecy, described previously, thought the residents of the project where she once lived seemed to lack the ability to improve their situation, unlike the residents of her “beautiful” placement neighborhood: “[The projects] was everything where people lived that just couldn’t help themselves, didn’t care how to help themselves.”

Correspondingly, many controls reported their high-poverty neighborhoods failed to motivate them and often described those who inhabited the neighborhood’s public spaces as “worthless,” “disgusting,” and “about nothing.” Rachel, a control, recounted, “I really didn’t socialize with anybody down there [in the projects]. [But] that’s one of

the things that allowed me to continue to use drugs, 'cause I was always looking at people that was worse than me, instead of looking at people that were better, that were doing better than me." Notably, Rachel subsequently managed to move to a much lower-poverty neighborhood, albeit not through MTO, and has managed to leave drugs behind, a success she attributes to the change in her neighborhood environment.

Both experimentals and controls also reported that residence in high-poverty communities could engender shame and that moving from these neighborhoods may have diminished shame and increased well-being. For example, thinking back on her time in the projects, Amy, the experimental described previously who reported a host of mental health problems, said, "[The projects], high rise is terrible. Yeah, I really felt the scorn of living there. I was too ashamed to even get off the bus [in case I would be] identified with the building." Tammy, a control (quoted previously) who nonetheless moved out of public housing after random assignment, also made explicit the psychological impact that living in a high-poverty neighborhood had on her sense of self-worth and efficacy:

That was the worst experience that I ever experienced, living in an environment which made you feel trapped, caged, and worthless, just stuck into the atmosphere of absolutely no progress. It was a whole little community of pure dissatisfaction in everything. No one encouraged no one.

These feelings of worthlessness, engendered by the poor physical and high-risk social environment, could take a palpable toll. Tammy said the only cure, in her view, was to find a way out of her high-poverty neighborhood "because I knew that in depression . . . I became stabilized in my depression. . . . I knew I could not do anything as long as I was trapped in that situation."

Lack of violence and criminal activity. The lack of violence and criminal activity in the low-poverty neighborhoods, and the pervasiveness of violence and criminal activity in the high-poverty neighborhoods, may also have contributed to improved mental health among experimentals. Nearly two-fifths of controls spontaneously recounted how they witnessed shootings while living in high-poverty neighborhoods, nearly three-fifths reported seeing drug activity, and a smaller number claimed resorting to violence to defend

themselves. Virtually no experimentals reported these events in their low-poverty neighborhoods.

Tammy, a control quoted earlier, told us, "I've seen people lying on the steps with bullet wounds in their chest. I've seen people jump out of cars and get beat." Likewise, Scola, also quoted earlier, described witnessing a young child get shot and killed in the street just outside her front door. LaNeesha recalled her three years in a high-poverty area as "pure unadulterated hell" and described the project and surrounding area where she had lived: "It was right in the heart of drug territory and I mean just, oh, it was bad. It was bad. Nobody bothered me because I wasn't no snitch. But people would break into people's houses and stuff and steal the stuff."

Scola, quoted previously, like LaNeesha who didn't "snitch," outlined keys to survival in her project neighborhood: "In order for you to survive . . . , you had to know somebody, or you have to be brought up down [there] or born down there or had a family member down there. And you also had to know how to fight because if you didn't, you wasn't going to make it." Kenya told us, "You would have to defend yourself all the time, be on the defensive side all the time." Such reports were nearly absent in accounts of experimentals' low-poverty neighborhoods.

Other controls isolated themselves from their neighbors to cope with these risks. Patty explained, "I felt as though if I didn't socialize with these people, I wouldn't have a problem." Wendy, the control who reported depression resulting from her sons' incarcerations, described her philosophy: "See, I'm like this: I live in the inside, I don't live out[side]."

Despite these strategies, however, living in high-poverty neighborhoods was still stressful and could place families at risk of mental health difficulties. Jacquelyn, quoted earlier, revealed she felt "blessed" to escape her baseline neighborhood, where drugs and violence were rampant and escalating:

I was living [in] what they call the danger zone. . . . You don't know how bad I wanted to get out of that place . . . I got out just in time, because it had gotten even worse than it was when I first moved in . . . , it got real bad. There was shooting and all that. By me living on the corner, all the junkies and all hung right on that corner. So I was glad when I got that [MTO] apartment.

Jacquelyn also told us participating in MTO made her feel like “somebody’s looking out for me,” even though she had to move on from her MTO placement unit when her landlord sold the property. Nonetheless, despite recent financial and health problems, she says the experience of living in the low-poverty neighborhood for a little more than three years was pivotal. Now, she claims, she feels calm and peaceful “all the time.”

Neighborhoods as childrearing environments. The challenges of childrearing in high-poverty neighborhoods go beyond our earlier discussion of collective efficacy. Fully one-third of controls explicitly said the neighborhood they lived in at the time of random assignment was unsafe for children, and many of the others did not explicitly report unsafe environments but reported these neighborhoods were, as LaNeesha argued, “lousy” places to raise children. The controls explained that their children witnessed crimes, were victims of crimes, or got into fights, especially while living in public housing developments. For experimentals, the better childrearing environments in the low-poverty neighborhoods may have lowered parenting stress and thus improved mental health.

Tammy, whom we quoted earlier as having seen people getting shot and beat up, told us, “You could not raise a child or children in the projects. It was just unthinkable. What could you teach them? ‘Don’t kill,’ when there’s killing going on? [Tell them] ‘don’t kill,’ when *you* are willing to kill somebody because you’re afraid for yourself?” Similarly, LaNeesha recounted the high level of violence that her daughter could not avoid seeing:

It was real bad. I mean it was bad for [my daughter] because anytime you go in the playground and you see dead bodies and you keep on playing, you know, or you just see death, you see people get shot in the head, knife wounds and stuff. . . . It toughened her up.

Likewise, Pam, a control who stayed in the public housing development she was living in when she enrolled in MTO, revealed how having to raise her kids in a high-poverty neighborhood caused nearly constant worry:

The neighborhood, no, I don’t like it. Not for my family. I don’t like it. . . . The drugs . . . and the killings. [I tell my son], “When you

see them [neighborhood youth] up there doing something wrong, selling the drugs and all that, move away from ’em. Just . . . remove yourself and take a walk. Do whatever. Come back when you think it’s cool. But for real, don’t even be around them.” ’Cause I don’t trust none of ’em. I don’t trust none of ’em around here. . . . Worrying about my kids and getting them away from here, that really, that take a toll on me a lot.

Importantly, it was not just the violence that made parenting difficult in these high-poverty areas. Scola, a control, left the project she lived in at random assignment due to demolition, but landed in another project—a low-rise. Neither environment, she says, is a good place for her children to grow up.

It affects ’em in a big way, ’cause they don’t have no opportunities here. None whatsoever. . . . Every neighborhood or wherever you go has its problems. . . . But it’s how people do things and how they go about doing things that makes a difference or a big impact on the children around them. . . . And here in this [building], the things that go on, the things that the kids down here see, it’s not really nothing positive about, about, or nothing positive that they see going on.

LaNeesha also explained how the social environment of high-poverty neighborhoods was not conducive to raising children:

The parents [in this neighborhood] are ghetto. You know what I mean by ghetto mentality is that they don’t parent . . . , they be outside drinking beer, smokin’ weed, watching their kids and stuff like that. . . . Mine deserve better. And it’s hard on [my daughter] because she wants to go out here and play. She got a bike and stuff like that, but I wouldn’t trust her [to be safe in the neighborhood] as far as I can spit. . . . I gained more weight since I’ve been here because I’ve been miserable.

LaNeesha said she suffered from bouts of depression and expressed often feeling hopeless, worthless, and restless. No doubt, a number of factors (including childhood sexual abuse, growing up

with drug- and alcohol-addicted parents, and a recent stint of homelessness) contributed to LaNeesha's poor mental health, but the stressful neighborhood environment—and the parenting stress it incurred—may have contributed to her difficulties as well.

Some controls, like LaNeesha, employed specific strategies to keep their children safe, such as not letting them play outside, closely supervising their outside activities, putting restrictions on what friends they could spend time with, and imposing early curfews. Marvelle, still living in the same public housing neighborhood as at baseline, says she spends a lot of time encouraging her son to stay away from dangerous people or street corners. She also reported giving her son money so that he is not tempted to sell drugs. But, as we saw in a prior section, some controls were simply too dispirited to attempt to protect their children.

Notably, a few controls made their way out of these dangerous neighborhoods with the goal of protecting their children. Rachel, for example, moved out of her high-poverty neighborhood by working three jobs “to get away from there and save my son and save my daughter from being a part of that lifestyle.” Unfortunately, however, without the aid of the MTO program, most could not manage a radical move to a low-poverty neighborhood, even if they desired to improve the environment in which they raised their children.

In contrast, many experimentals specifically noted their low-poverty residences were safe and decent places to raise their children. Almost all said they felt safe while outside at night, walking to the store, or walking home from the bus stop, and only one specifically reported feeling unsafe in her low-poverty neighborhood. In particular, the lack of negative public behavior—groups of men hanging out on the corner or neighbors who “bring their business out into the street” by shouting and cursing out their children, kin, or romantic partners in public—often translated into assessments that the neighborhood is “decent” and a good place to raise children. In many cases, experimentals reported that perceived safety of children translated to increased calm and peaceful feelings.

Experimentals' accounts of their placement and current neighborhoods were often strikingly different than their recollections of the high-poverty neighborhoods where they once lived and the challenges of parenting in such environments. Coco, an

experimental respondent described previously, told us her son was jumped by other children in the housing development in which she lived: “I was afraid to let [my children] out much when we lived [in the projects]. You never know when somebody start shooting. The guys were shooting crack, found these things all in the hallway. You just never knew when something was going to happen.” Though Coco reported struggles with depression and was under the care of a psychiatrist when we spoke with her, she says both she and her children felt a “burden” lifted off of them when they moved into their MTO placement neighborhood. Here was a place she felt she could parent well.

Likewise, Amy, described previously, also says she forbade her children to play outside in her baseline public housing neighborhood, but “all of that changed when I moved [with the MTO voucher]. They had their freedom and stuff.” Jacquelyn expressed her satisfaction in this way: “And it makes me feel good that I can come home from work and come in a nice neighborhood and not see drug addicts on the corner, and hollering and screaming and cursing and all that, you know, bring my child up in a decent neighborhood.”

Of course, not all experimentals rated their MTO address as a uniformly positive experience for their children. Negative assessments usually occurred among respondents whose MTO placement neighborhoods were in rapid decline, which was not uncommon in the inner suburban ring of Baltimore. Across the MTO cities, a substantial number of neighborhoods that qualified as “low-poverty neighborhoods” under MTO guidelines, which were based on the 1990 census, showed substantial decline by 2000 (Clampet-Lundquist and Massey 2008; Orr et al. 2003). For example, Peaches said her feelings about the neighborhood as a place to raise her children changed as the neighborhood changed. As the area took a turn for the worse, her daughter began participating in neighborhood fights, Peaches' house was broken into by a group of teenagers, and her son's head was split open after getting hit by a rock.

Overall, however, experimentals rated their new neighborhoods as excellent places to raise children and felt these communities offered them a chance to parent their children in the way they wanted to—in a manner more consistent with their images of what kind of environments good parents ought to provide for their children. The changes in the social and physical environment, in addition to the previously discussed sense that one could count

on others to watch out for the neighborhood's children, seems to have relieved some of the stress and mental strain of parenting for the experimentals. As Peaches told us:

Oh God, when I first moved in . . . everything was just so neat, clean, and well kept and quiet and peaceful, I was like "Thank you God. This is what I have been waiting for," you know? And when I first moved in the house, I just cried. I just really cried. I was like "Oh my God, a house. Now I can raise my family in the way I want to raise them," you know?

Sources of Increased Stress

Although most respondents explicitly said a move to a low-poverty neighborhood through an MTO voucher relieved their stress, relocating produced added stress for some. Typically, new sources of stress were related to navigating the private housing market, with which few experimentals had had much experience prior to their low-poverty move. Finances were often a concern, especially when winter utility bills, which they did not have to pay in public housing, arrived or when the landlord increased the monthly rent (allowable after one year). Peaches, for example, was forced out of her home when her landlord raised the rent to an unaffordable level. When asked what stressed her out about the move, she said:

The whole thing [about] losing the house. I was really attached to that house. That house was like everything to me. . . . It was really—it was crushing. And I just didn't get over that right away. And my mother would say, "You need to let that thing go. Just let it go and I just could not let it go." I just stayed with it, you know. And that was the real thing that pushed me into that depressed period in my life.

Similarly, Theresa, who only stayed in her placement neighborhood for a year and a half, explained she moved because she could not afford the utility bills and rent. She discussed the stress it caused:

Moving to Opportunity. It was more like moving—I hate to say it, but it was more like moving to hell, to me. Because I'd

a did better [financially] just staying in the projects. At least I had money to buy clothes and everything else. When I got in that house I couldn't hardly buy nothin'. All my money went to the rent, gas and electric, and when I could pay the water bill, because sometimes I couldn't pay it.

Other experimentals expressed stress about keeping up their new homes and, for those living in duplexes or single-family homes with lawns, maintaining the grounds (e.g., trimming the bushes, mowing the lawn) to the standards of their new communities. Peaches recounted the stress associated with keeping up her new unit in the suburbs, where she was supposed to care for the grounds:

With the house, it's a whole lot [of maintenance]. . . . I had to trim the bushes, mow the grass, you know, make sure the upkeeping was kept up. And that's what you are supposed to do when you have a house. . . . Working at night, taking care of house, and doing the kids, and try to have time for myself was impossible. And I was just really stressed out. I mean, I had changed physically; I was losing hair. I had tremendous bags under my eyes. I was just really going through a bad stage.

Another added stressor noted by some experimentals involved transportation. Most inner-city neighborhoods, if nothing else, are well served by public transportation, compared to some suburban locales. Tisha, who only stayed in her placement neighborhood for a year, explained:

I couldn't stay in the County because I didn't have transportation. So I had to get back into the City where more buses run on a frequent basis than in the County. . . . If you missed it [the bus in the county] . . . the next bus comes an hour and half to two hours later. So that was ridiculous, and there was a lot of stress. And when I moved back to the city, I told my sister, I said, "I feel so good." And, much as I hate the bus, I was never so happy to be back in the city where I could catch any bus to get me anywhere I needed to get to.

Finally, some experimentals identified that moving away from friends and family was

associated with increased stress. Others, though, noted that moving away from draining ties actually was a relief (for details, see Kissane and Clampet-Lundquist 2012). All in all, the increased sources of stress described in this section were real, but respondents who shared stories of this kind almost always pointed to aspects of the low-poverty neighborhoods as sources of decreased stress as well. It also should be said that these stressors seemed to be of a lesser caliber than those the controls continued to manage.

DISCUSSION

In this article, we use qualitative data from in-depth, semi-structured interviews with MTO participants in Baltimore ($n = 67$) collected six to nine years after random assignment to better understand the processes through which neighborhoods may improve adult mental health, an outcome that has great implications for family processes, child well-being, and social policy. We systematically examine narratives drawn from those in the experimental group who moved to a low-poverty neighborhood through the MTO program, as well as from individuals assigned to the control group who likely would have moved through the program if given the opportunity. We find that though both experimentals and controls reported a wide array of traumatic experiences, stressful life events, and mental health challenges, experimentals spoke of improved physical environments that were both directly and indirectly related to their mental health. Additionally, experimentals reported improved social environments—characterized by greater neighborhood collective efficacy and pride, less pervasive violence and criminal activity, and better childrearing environments—that contributed to their improved mental health.

As should be evident from the narratives presented here, MTO participants are far from a random slice of the American population, or even the population in poverty, and this fact has sometimes been lost in debates surrounding the impacts of MTO. For some, underlying stressors and mental health problems were a large part of why they ended up in, or remained in, public housing. For others, it was primarily the exposure to high-poverty neighborhoods that generated these challenges. And for many, both were no doubt occurring simultaneously, making many MTO participants incredibly vulnerable.

Having to deal with stressful events and circumstances is a common experience for the poor and non-poor alike. But what often differentiates the poor from others is the nature of these stressors and the resources at their disposal to help cope with them. As outlined previously, without a doubt, the experimentals and controls faced both common and extraordinary stressors currently and in the past. They had family members, friends, and boy-friends who often had serious health and/or addiction problems; they had taxing jobs that did not pay enough and frequently conflicted with the demands of home; and they faced daily and significant financial strain and hardships. Like the controls, the death or incarceration of loved ones, incidents of domestic violence, and exposure to violent crime were common in the lives of experimentals. This vulnerability, evidenced by the high incidence of stressors and mental health issues for both groups of women, makes the significant mental health effects of the experimental group even more remarkable and may help explain why the MTO demonstration did not markedly improve outcomes in other areas (e.g., employment).

In addition, in line with stress process theory, the respondents experienced stressors associated with the physical and social environments of their neighborhoods. For many controls, in particular, who were living in substantially more disadvantaged neighborhoods than experimentals years after random assignment, they had to deal with the stress of living in dangerous and drug-riddled neighborhoods that threatened both their safety and the safety of their families, prompting many to express they wanted to move (e.g., Scola, Ethel). Though, certainly, some experimentals eventually moved to neighborhoods where they remained stressed about their and their children's safety, most did perceive improvements in this regard after moving through MTO. By and large, they reported their residences and neighborhoods were clean, peaceful, and safe for themselves and their children, and that these improved physical and social environments had positive psychological effects.

There were also indirect benefits and, perhaps, a reduction in secondary stressors associated with improved neighborhood conditions. For one, moving to a low-poverty neighborhood was a source of enhanced self-efficacy and reduced shame. In addition, many respondents told us that in their improved neighborhoods, they could finally parent their children in the kind of environments they

believed were ideal. Both experimentals and controls relied on their neighbors to keep their children safe (experimentals were more likely to say so, however), but the same level of child monitoring across two very different environments may yield sharply different results when it occurs within environments where the stakes are much different. In high-poverty neighborhoods, having a neighbor with a watchful eye *may* possibly prevent a child from falling victim to random violence or witnessing a crime (and it also might not). Absent the high incidence of these high-stakes problems, a watchful eye in a low-poverty neighborhood may possibly prevent minor injuries and fighting among children. And, removed from high-crime neighborhoods with low collective efficacy, the experimentals, perhaps, could feel safe enough to leave their homes and interact with others. Given the strength of the contrasts with the controls and the myriad of ways respondents said moving brought relief, the sharp increases in mental health may be less surprising. Our findings suggest that scholars interested in neighborhood effects on mental health, who traditionally rely on social disorganization theory (Sampson and Groves 1989), may consider stress theory (and, specifically, stress proliferation theory) along with social disorganization theory to shed insight into causal processes linking neighborhoods to mental health.

Our findings highlight the need for sociologists to theorize more aspects of neighborhoods that urban planners have spent considerable time understanding—namely, aesthetics. When urban sociologists and neighborhood effects researchers discuss how physical aspects of the urban ecology are important to well-being, often they are concerned about poor families' proximity to amenities (e.g., social services, supermarkets, banking, or transportation) or their perception and navigation of degraded physical space (e.g., ill-lit streets littered with garbage, drug paraphernalia, and graffiti). What seems to be lost is how perceptions of what is "beautiful" may actually enhance mental well-being. Although this article cannot unpack how pleasing aesthetics may improve mental health—that is, whether perceiving one is living in a "beautiful" space leads directly to improved self-worth or decreased stress or whether it impacts neighborhood satisfaction and this leads to improved mental health (as others have suggested, cf. Leslie and Cerin 2008)—the narratives of the women in this study suggest that *they* associate moving from "prison-like" concrete complexes to

areas with green spaces, well-kept blocks, and "beautiful" homes with improving their mental health.

Furthermore, epidemiologists, medical sociologists, and public health scholars have for some time emphasized how housing conditions impact physical health (e.g., the likelihood of lead poisoning and asthma). Our findings indicate that perceptions of the quality and nature of one's housing seem to relate to one's sense of worth and depressive symptoms. This is a point that may be missed by focusing on neighborhood-level effects on well-being. In essence, our results suggest that "neighborhood effects" may operate not only at the census tract or block level but also in terms of the physical layout and characteristics of homes in neighborhoods.

Despite the compelling narratives offered by MTO respondents, several limitations must be kept in mind when interpreting our findings. First, all individuals in our analytic sample self-selected into the MTO program (Clampet-Lundquist and Massey 2008). This means that all were, at one time or another, interested in leaving their public housing unit. It is also possible the controls, frustrated and feeling helpless by their not being chosen to receive a MTO housing voucher, experienced increased stress after MTO. Surely, this is possible, but this theme did not appear in our narratives.

Second (and relatedly), the mental health benefits associated with MTO potentially conflate moving to a low-poverty neighborhood and leaving public housing. Although also plausible, we suspect the benefits are indeed more about moving to low-poverty neighborhoods than about getting out of public housing. Recall that members of the Section 8 group, who primarily remained in high-poverty neighborhoods, did not exhibit the mental health gains the experimentals did. Those Section 8 group members in the qualitative study (analysis not shown) only rarely discuss notable improvements in neighborhood aesthetics, collective efficacy, self-worth and self-efficacy, violence and criminal activity, or environments for raising their children after moving out of the projects with their unrestricted Section 8 vouchers. Moreover, the majority of controls (about 80 percent) had also left public housing by the time of the qualitative interviews—further suggesting that it is a low-poverty move that matters for mental health, as it more radically changes individuals' physical and social context, not just getting out of public housing.

Third, we do not have diagnostic measures of depression for our qualitative respondents at the

time of the qualitative interview, and it is possible our respondents who discuss mental health problems or report improved mental health are those who did not meet the criteria in the first place. However, diagnostic (and dichotomous) measures of depression are limited, and indeed, any dimensional improvement in mental health may improve well-being (Mirowsky and Ross 2002). Finally, in some cases, we use women's retrospective accounts of prior neighborhoods, and it is possible that recall bias affects their discussion of these neighborhoods. However, given nearly all MTO participants, both experimentals and controls, moved from their baseline neighborhoods by the time of the qualitative interview, we would not expect recall bias to differentially affect experimentals and controls.

Despite these limitations, these findings have several policy implications. For one, when designing or implementing housing policy, policymakers should be attentive to the debilitating mental health conditions reported by public housing residents and perhaps consider mental health interventions as part of their services. Additionally, in the context of housing redevelopment programs, policymakers should consider stressors associated with moving and offer services to mitigate or eliminate some of these stressors. Moreover, our findings suggest the physical and social characteristics of neighborhoods, as well as the physical condition of housing, have important implications for quality of life and, accordingly, mental health. As such, our findings suggest promise for both place-based policies that improve such environs in high-poverty neighborhoods but also for those that help poor families move to neighborhoods where such environs already exist.

APPENDIX

We match 18 experimental noncompliers to 19 likely control noncompliers, with the reasoning that both the experimental and control groups would have the same fraction of adults who would *not* use the voucher to move. We use STATA to first select 100,000 random samples of 19 respondents in the control group. For each of these 100,000 random samples, we compare the distribution of 14 demographic, neighborhood, and employment covariates to that of the 18 experimental noncompliers (e.g., age, number of children, high school dropout). The 19 likely control noncompliers is the sample that is most similar to the 18 experimental noncompliers, with similarity defined as the sum of the difference in means for each variable

divided by the control group standard deviation for that variable (essentially, the sum of the difference between groups in the average z-scores for the 14 covariates). Each variable receives equal weight in the calculation. Based on this matching procedure, we select a group of control noncompliers that are similar, on average, to the experimental noncompliers. The qualitative analysis excludes experimental noncompliers and control noncompliers.

ACKNOWLEDGMENTS

We are grateful to Todd Richardson and Mark Shroder of the Department of Housing and Urban Development; to Eric Beecroft, Judie Feins, Barbara Goodson, Robin Jacob, Stephen Kennedy, Larry Orr, and Rhiannon Patterson of Abt Associates; to our collaborators Jeanne Brooks-Gunn, Greg Duncan, Lawrence Katz, Tama Leventhal, Jeffrey Liebman, Jens Ludwig, and Lisa Sanbonmatsu; to staff members of the Moving to Opportunity Qualitative Study Project; to research assistant Jana Pohorelsky; and to Susan Clampet-Lundquist and Stefanie Deluca for feedback.

FUNDING

The author disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Primary support for this research was provided by grants from the Russell Sage Foundation and the William T. Grant Foundation.

NOTES

1. The federal government uses Section 8, currently known as the Housing Choice Voucher (HCV), to deconcentrate its federally subsidized housing units. Households employ the HCV in the private housing market; thus, they may locate wherever they choose, as long as they find a willing landlord and the rent falls within the range covered by their voucher and income. Tenants pay a portion of the rent based on their income, with the government covering the remainder up to a certain threshold. We use Section 8 (rather than HCV) terminology in this article, as the study's respondents used this language in the interviews.
2. Thus, not all individuals assigned to the experimental group used their voucher to move to a low-poverty neighborhood. Participants had a limited period (typically 120 days) to use the voucher and sometimes reported difficulty finding a suitably sized unit in a low-poverty neighborhood or a landlord who would accept the voucher. It is also possible participants in the experimental group changed their mind about wanting to move from public housing.

3. To protect confidentiality, we refer to all respondents by the pseudonym they chose prior to the interview. We also eliminated any information in the quotes that could identify respondents.

REFERENCES

- Aneshensel, Carol S. and Clea A. Sucoff. 1996. "The Neighborhood Context of Adolescent Mental Health." *Journal of Health and Social Behavior* 37: 293-310.
- Boardman, Jason D., Saint Onge Jarron M., Richard G. Rogers, and Justin T. Denney. 2005. "Race Differentials in Obesity: The Impact of Place." *Journal of Health and Social Behavior* 46:229-43.
- Briggs, Xavier de Souza, Susan J. Popkin, and John Goering. 2010. *Moving to Opportunity: The Story of an American Experiment to Fight Ghetto Poverty*. New York: Oxford University Press.
- Browning, Christopher R., and Kathleen A. Cagney. 2003. "Moving Beyond Poverty: Neighborhood Structure, Social Processes, and Health." *Journal of Health and Social Behavior* 44:552-71.
- Charmaz, Kathy. 2006. *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*. Thousand Oaks, CA: Sage Publications.
- Clampet-Lundquist, Susan and Douglas S. Massey. 2008. "Neighborhood Effects on Economic Self-sufficiency: A Reconsideration of the Moving to Opportunity Experiment." *American Journal of Sociology* 114:107-43.
- Coyne, James C. 1976. "Depression and the Response of Others." *Journal of Abnormal Psychology* 85:186-93.
- Curry, Aaron, Carl Latkin, and Melissa Davey-Rothwell. 2008. "Pathways to Depression: The Impact of Neighborhood Violent Crime on Inner-city Residents in Baltimore, Maryland, USA." *Social Science and Medicine* 67:23-30.
- Diez Roux, Ana V. 2001. "Investigating Neighborhood and Area Effects on Health." *American Journal of Public Health* 91:1783-89.
- Diez Roux, Ana V. and Christina Mair. 2010. "Neighborhoods and Health." *Annals of the New York Academy of Sciences* 1186:125-45.
- Downey, Liam and Marieke Van Willigen. 2005. "Environmental Stressors: The Mental Health Impacts of Living Near Industrial Activity." *Journal of Health and Social Behavior* 46:289-305.
- Ellen, Ingrid G., Tod Mijanovich, and Keri-Nicole Dillman. 2001. "Neighborhood Effects on Health: Exploring the Links and Assessing the Evidence." *Journal of Urban Affairs* 23:391-408.
- Geis, Karlyn J. and Catherine E. Ross. 1998. "A New Look at Urban Alienation: The Effect of Neighborhood Disorder on Perceived Powerlessness." *Social Psychology Quarterly* 61:232-46.
- Kessler, Ronald C., Gavin Andrews, Daniel Mroczek, Bedirhan Ustun, and Hans-Ulrich Wittchen. 1998. The World Health Organization Composite International Diagnostic Interview Short Form (CIDI SF). *International Journal of Methods in Psychiatric Research* 7:171-185.
- Kessler, Ronald C., Gavin Andrews, Lisa J. Colpe, Eva Hiripi, Daniel K. Mroczek, Sharon-Lise T. Normand, Ellen E. Walters, and Alan M. Zaslavsky. 2002. "Short Screening Scales to Monitor Population Prevalences and Trends in Non-specific Distress." *Psychological Medicine* 32:959-76.
- Kessler, Ronald C., Patricia Berglund, Olga Demler, Robert Jin, Doreen Koretz, Kathleen R. Merikangas, A. John Rush, Ellen E. Walters, and Philip S. Wang. 2003. "The Epidemiology of Major Depressive Disorder: Results from the National Comorbidity Survey Replication (NCS-R)." *Journal of the American Medical Association* 289:3095-105.
- Kim, Joongbaeck. 2010. "Neighborhood Disadvantage and Mental Health: The Role of Neighborhood Disorder and Social Relationships." *Social Science Research* 39:260-71.
- Kissane, Rebecca Joyce and Susan Clampet-Lundquist. 2012. "Social Ties, Social Support, and Collective Efficacy among Families from Public Housing in Chicago and Baltimore." *Journal of Sociology and Social Welfare* 34(4):155-179.
- Kling, Jeffrey R., Jeffrey B. Liebman, and Lawrence F. Katz. 2007. "Experimental Analysis of Neighborhood Effects." *Econometrica* 75:83-119.
- Latkin, Carl A. and Aaron D. Curry. 2003. "Stressful Neighborhoods and Depression: A Prospective Study of the Impact of Neighborhood Disorder." *Journal of Health and Social Behavior* 44:34-44.
- Leslie, Eva and Ester Cerin. 2008. "Are Perceptions of the Local Environment Related to Neighbourhood Satisfaction and Mental Health in Adults?" *Preventive Medicine* 47:273-78.
- Leventhal, Tama and Jeanne Brooks-Gunn. 2000. "The Neighborhood They Live in: Effects of Neighborhood Residence on Child and Adolescent Outcomes." *Psychological Bulletin* 126:309-37.
- Ludwig, Jens, Greg J. Duncan, Lisa A. Gennetian, Lawrence F. Katz, Ronald C. Kessler, Jeffrey R. Kling, and Lisa Sanbonmatsu. 2012. "Neighborhood Effects on the Long-term Well-being of Low-income Adults." *Science* 337:1505-10.
- Macintyre, Sally, Anne Ellaway, and Steven Cummins. 2002. "Place Effects on Health: How Can We Conceptualise, Operationalise and Measure Them?" *Social Science and Medicine* 55:125-39.
- Mair, Christina, Ana V. Diez Roux, and Sandro Galea. 2008. "Are Neighborhood Characteristics Associated with Depressive Symptoms? A Review of Evidence." *Journal of Epidemiology and Community Health* 62: 940-46.

- Mair, Christina, Ana V. Diez Roux, and Jeffrey D. Morenoff. 2010. "Neighborhood Stressors and Social Support as Predictors of Depressive Symptoms in the Chicago Community Adult Health Study." *Health and Place* 16:811-19.
- Miech, Richard Allen and Micahel J. Shanahan. 2000. "Socioeconomic Status and Depression over the Life Course." *Journal of Health and Social Behavior* 41:162-76.
- Mirowsky, John and Catherine E. Ross. 2002. "Measurement for a Human Science." *Journal of Health and Social Behavior* 43:152-70.
- Orr, Larry, Judith D. Feins, Robin Jacob, Erik Beecroft, Lisa Sanbonmatsu, Lawrence F. Katz, Jeffrey B. Liebman, and Jeffrey R. Kling. 2003. *Moving to Opportunity Interim Impacts Evaluation*. Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research.
- Pearlin, Leonard I. 1989. "The Sociological Study of Stress." *Journal of Health and Social Behavior* 30: 241-56.
- Pearlin, Leonard I., Carol S. Aneshensel, and Allen J. Leblanc. 1997. "The Forms and Mechanisms of Stress Proliferation: The Case of AIDS Caregivers." *Journal of Health and Social Behavior* 38:223-36.
- Pearlin, Leonard I., Morton A. Lieberman, Elizabeth Menaghan, and Joseph T. Mullen. 1981. "The Stress Process." *Journal of Health and Social Behavior* 22: 337-56.
- Ross, Catherine E. 2000. "Neighborhood Disadvantage and Adult Depression." *Journal of Health and Social Behavior* 41:177-87.
- Ross, Catherine E. and John Mirowsky. 2001. "Neighborhood Disadvantage, Disorder, and Health." *Journal of Health and Social Behavior* 42:258-76.
- Ross, Catherine E., John Mirowsky, and Shana Pribesh. 2001. "Powerlessness and the Amplification of Threat: Neighborhood Disadvantage, Disorder, and Mistrust." *American Sociological Review* 66:568-91.
- Ross, Catherine E., John R. Reynolds, and Karlyn J. Geis. 2000. "The Contingent Meaning of Neighborhood Stability for Residents' Psychological Wellbeing." *American Sociological Review* 65:581-97.
- Sampson, Robert J. 2008. "Moving to Inequality: Neighborhood Effects and Experiments Meet Social Structure." *American Journal of Sociology* 114: 189-231.
- Sampson, Robert J. and W. Byron Groves. 1989. "Community Structure and Crime: Testing Social-disorganization Theory." *American Journal of Sociology* 94: 774-802.
- Sampson, Robert, Jeffrey D. Morenoff, and Thomas Gannon-Rowley. 2002. "Assessing 'Neighborhood Effects': Social Processes and New Directions in Research." *Annual Review of Sociology* 28: 443-78.
- Sampson, Robert J., Stephen W. Raudenbush, and Penton Earls. 1997. "Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy." *Science* 277:918-24.
- Sanbonmatsu, Lisa, Jens Ludwig, Lawrence F. Katz, Lisa A. Gennetian, Greg J. Duncan, Ronald C. Kessler, Emma Adam, Thomas McDade, and Stacy Tessler Lindau. 2011. *Moving to Opportunity for Fair Housing Demonstration Program: Final Impacts Evaluation*. Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research.
- Schieman, Scott, Leonard Pearlin, and Stephen C. Meersman. 2006. "Neighborhood Disadvantage and Anger among Older Adults: Social Comparisons as Effect Modifiers." *Journal of Health and Social Behavior* 47:156-72.
- Silver, Eric, Edward P. Mulvey, and Jeffrey W. Swanson. 2002. "Neighborhood Structural Characteristics and Mental Disorder: Faris and Dunham Revisited." *Social Science and Medicine* 55:1457-70.
- Small, Mario Luis and Katherine Newman. 2001. "Urban Poverty after the Truly Disadvantaged: The Rediscovery of the Family, the Neighborhood, and Culture." *Annual Review of Sociology* 27:23-45.
- Strauss, Anselm and Juliet Corbin. 1990. *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. Newbury Park, CA: Sage Publications.
- Tienda, Marta. 1991. "Poor People and Poor Places: Deciphering Neighborhood Effects on Poverty Outcomes." Pp. 244-62 in *Macro-micro Linkages in Sociology*, edited by J. Huber. Thousand Oaks, CA: Sage Publications.
- Turner, R. Jay and William Avison. 2003. "Status Variations in Stress Exposure among Young Adults: Implications for the Interpretation of Prior Research." *Journal of Health and Social Behavior* 44:488-505.
- Turner, R. Jay, Blair Wheaton, and Donald Lloyd. 1995. "The Epidemiology of Social Stress." *American Sociological Review* 60:104-24.
- Turney, Kristin. 2011. "Chronic and Proximate Depression among Mothers: Implications for Child Well-being." *Journal of Marriage and Family* 73:149-63.
- Turney, Kristin, Susan Clampet-Lundquist, Kathryn Edin, Jeffrey Kling, and Greg Duncan. 2006. "Neighborhood Effects on Barriers to Employment: Results from a Randomized Housing Mobility Experiment." Pp. 137-72 in *Brookings-Wharton Papers on Urban Affairs*, edited by G. Burtless and J. R. Pack. Washington, DC: Brookings Institution Press.
- Wheaton, Blair. 1999. "Social Stress." Pp. 277-300 in *Handbook of the Sociology of Mental Health*, edited by C. S. Aneshensel and J. C. Phelan. New York: Springer.
- Wheaton, Blair and Philippa Clarke. 2003. "Space Meets Time: Integrating Temporal and Contextual

- Influences on Mental Health in Early Adulthood.” *American Sociological Review* 68:680-706.
- Wilson, William J. 1987. *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. Chicago: University of Chicago Press.
- Wodtke, Geoffrey T., David J. Harding, and Felix Elwert. 2011. “Neighborhood Effects in Temporal Perspective: The Impact of Long-term Exposure to Concentrated Disadvantage on High School Graduation.” *American Sociological Review* 76:713-36.
- Ziersch, Anna M., Fran E. Baum, Colin MacDougall, and Christine Putland. 2005. “Neighbourhood Life and Social Capital: The Implications for Health.” *Social Science and Medicine* 60:71-86.