

## **Neighborhood Disorder and Children's Withdrawal among Low-income Families**

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### **Abstract**

*The purpose of this paper is to examine the impacts of neighborhood disorder on children's withdrawal. It contributes to the extant literature on the relationship between neighborhood and children's behavior by focusing on withdrawal symptoms instead of the global and all-encompassing concept of internalizing behaviors. Children's withdrawal, the dependent variable, is measured with a subscale of the Child Behavior Checklist (CBCL). Neighborhood disorder, the independent variable, is a scale of 10 items describing problems in neighborhood. The data came from the third wave of a three-city study collected between 2005 and 2006 in Boston, Chicago, and San Antonio with a sample size  $N = 1835$ . Regression analysis shows that neighborhood disorder and age of child are significantly and positively associated with and children's withdrawal. However, marital status and instrumental support of the parents are significantly and negatively correlated with children's withdrawal. The study lends support to the postmodern theoretical perspective of Bauman.*

**Keywords:** neighborhood disorder, children's withdrawal, internalizing behavior, postmodernity

### **Introduction**

Studies on the effect of neighborhood on an individual's mental health have mainly focused on adults (McLeod & Edwards, 1995; Natsuaki, Ge, Brody, Simons, Gibbons, & Cutrona, 2007; Sampson, Morenoff, Gannon-Rowley, 2002). Few have investigated the relationship between the neighborhood and children's mental health (Meltzer, Vostanis, Goodman, & Ford, 2007; Moren-Cross, Wright, LaGory, & Lanzi, 2006; Natsuaki, et al., 2007). Studies on the effect of neighborhood on children's behavior can be grouped into three categories: studies concerned with children externalizing behavior; studies concerned with children internalizing behavior; studies examining both. A literature review indicates that the first category, on externalizing behavior, claims the most studies (Xue, Leventhal, Brooks-Gunn, & Earls, 2005). Externalizing behavior includes aggressive and delinquent behaviors, whereas internalizing behavior includes anxiety/depression, somatic, and withdrawal behaviors (Achenbach & McConaughy, 1997).

The disproportionate amount of study on externalized over internalized behavior could have negative consequences for children. That is, the lack of research into internalizing behaviors could lead to an insufficient understanding of how children's behavior correlates with neighborhood. This can translate into inadequate solutions for children's mental health problems, affecting between 10% and 20% of children, according to the World Health Report in 2001 (Xue et al., 2005).

### **1. Purpose**

The goal of the present study is to bridge the gap found in the literature by investigating the effects of neighborhood on children internalizing behavior. More specifically, the study will be exclusively focused on analyzing withdrawal among children. Withdrawal within this study refers social isolation of Rubin and Mills (1988).

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However unlike them, social isolation is not used to mean isolation from peer as result of rejection but instead “shyness” from peer or the public (Younger & Daniels, 1992). The scope of this study has two advantages: first, the focus allows reaching a more detailed understanding of how neighborhood disorder is related to withdrawal among children; second, this focus on children’s withdrawal sets the study apart from others on the topic of neighborhood and children’s internalizing behavior. Thus, this detailed and unique study avoids the pitfall of ‘one size fits all’ approaches found in many previous studies.

## **2. Background**

The most studied association between neighborhood and children’s behavior is delinquency, an externalizing behavior. In fact, the literature on the effect of the neighborhood on children’s delinquent or deviant behaviors is overwhelming, given the lack of studies in the area of children’s withdrawal. Because of researchers’ interest in delinquency, several theories have been developed to explain how children’s neighborhood of residence can be a risk or a protective factor (Ingoldsby& Shaw, 2002; Kroneman, Loeber, Hipwell, 2004; Plybon&Kliewer, 2001).

Withdrawal has not received the same level of attention among researchers. In fact, not a single article has focused exclusively on children’s withdrawal. Therefore, this study will be grounded on past research on internalizing behavior and on the even more general topic of behavior problems.

### **2.1 Neighborhood and children internalizing behavior**

More and more studies indicate that children’s mental health is associated with the characteristics of their neighborhood of residence (Beyers, Bates, Pettit, & Dodge, 2003; Caughy, Nettles, &O’Campo, 2008; Dorsey & Forehand, 2003; Leventhal& Brooks-Gunn, 2000; Osofsky, 1995; Roosa, Jones, Tein, & Cree, 2003; Tiet& Huizinga, 2002). For example, one study conducted by Xue and colleagues (2005) examines the impact of the concentrated disadvantaged neighborhood on children internalizing behavior. Using data from the Project on Human Development in Chicago neighborhoods, they found a positive correlation between impoverished neighborhood concentration and internalizing behavior among children.

Xue and colleagues’ study (2005) has several merits, especially the fact that it explains the mechanisms through which neighborhood characteristics influence children internalizing problems. Two mechanisms were used: one centered on the concept of collective efficacy and the other on involvement in neighborhood social organizations. Despite the study’s groundbreaking explanations, it is relatively inclusive, not elaborating on the diverse composing behaviors of internalizing problems like withdrawal.

The same problem of inclusivity is also found in the study by Caughy et al. (2008). In their study, Caughy et al. investigate the effects of a neighborhood’s concentrated economic disadvantage on children’s behavior problems. Though using a different data set they reach a conclusion similar to Xue et al. (2005) of a positive association between children’s behavior problems and the characteristics of their neighborhood of residence. Specifically, they found that a higher negative social climate is correlated with greater internalizing problems. Furthermore, they established that internalizing behavior such as anxiety and depression vary according to specific neighborhood characteristics. They underline that some characteristics of neighborhood, such as fear of crime and fear of retaliation, are highly correlated with internalizing behavior among children. Although this study contributed to the literature because of the specificity of its conclusion regarding neighborhood and internalizing behavior, it did not give a detailed account of specific behavioral components of internalizing problems, only briefly covering the anxiety and depression aspects of internalizing behavior.

While the findings of these two studies are general, some others deal more specifically with internalizing behavior (Ansehensel&Sucoff, 1996; Natsuaki et al., 2007). The specific character of these studies allows the researchers to reach detailed conclusions about the target behavior and the neighborhood conditions. Regarding depressive symptoms, for instance, the results of studies focusing on depression have shown that not all children living in disordered neighborhoods are prone to depressive symptoms (Ansehensel&Sucoff, 1996; Natsuaki et al., 2007). Other factors – such as family context – can mediate the effect of neighborhood disorder on children’s depression (Natsuaki et al., 2007). Within the family context, the type of parenting is found to influence the onset of depressive symptoms among children (Natsuaki et al., 2007). Ansehensel and Sucoff (1996) found the mediating factor to be the children’s perceptions of ambient hazards, such as graffiti, crime, or drug use.

Meltzer and colleagues (2007) also document the effect of children's perceptions of their neighborhood on their mental health and found that children's perceptions of neighborhood trustworthiness and safety are strongly associated with their mental health. Parents' perceptions of the neighborhood of residence affects mental health among children, as well; maternal perception of the neighborhood was shown to affect children's behavior problems. The worse the maternal assessment of the neighborhood, the greater the behavior problems of the children (Moren-Cross et al., 2006).

Children's race was also found to have some effects on their mental well-being, although the literature is inconsistent. While there is evidence suggesting the mediating effect of the children's race (Bolger, Patterson, Thompson, Kupersmidt, 1995; Chase-Lansdale, Gordon, Brooks-Gunn, Klebanov, 1997; Li, Nussbaum, Richards, 2007; Moren-Cross, et al., 2006; Xue et al., 2005), some articles found contrary evidence (Natsuaki et al., 2007). Xue et al., for instance, pointed that Latino children had poorer mental health compared to white children. Moren-Cross et al., while supporting the idea of the mediating effect of race, found that Latino children have fewer behavior problems than white children. Moren-Cross et al. also found that African American children present significantly fewer behavior problems than whites. Natsuaki and colleagues generalized the relationship between depressive symptoms and neighborhood disorder, that is, that the race of children does have a significant effect on the mental health originating from the context of their neighborhood of residence.

Researchers are more unanimous on the mediating effect of the age of children on the relationship between neighborhood problems and children's behavior problems (Li et al., 2007; Caughy et al., 2008; Meltzer et al., 2007). More researchers share the view of the positive relationship between age and mental health of children; that is, older children living in a disordered neighborhood are more likely to have depressive symptoms than younger (Natsuaki et al., 2007; Xue, et al., 2005). However, there is a disagreement about the cutoff point. Natsuaki et al., for example, found that fewer mental health problems are associated with 11 year-olds than 13 year-olds. Li et al. on the other hand, focused their analysis on the 10 to 15 years old respondents.

Several studies have shown the decisive effect of gender on children's mental health related to neighborhood. The concordant results of several articles found that boys are associated with greater chance of behavior problems than girls (Caughy et al., 2008; Moren-Corss, et al., 2006; Xue, et al., 2005). Nevertheless, not all studies support this general view of the effect of gender. Natsuaki et al. (2007) found that girls had higher levels of depressive symptoms than boys.

### ***3. Needs of the Study***

From the review of the literature, it appears there is no study that specifically investigates the correlation between neighborhood disorder and withdrawal. A possible explanation of the lack of study on the topic can be that perhaps researchers underestimate the effect of withdrawal on children's well-being. However, this might be a mistake, as Meltzer et al., (2007) suggest that withdrawal might lead to further emotional problems. Withdrawal was reported to be associated with several problems among juvenile such as early school drop-out, low academic achievement and delinquency (Graham & Hoehn, 19995). Additionally, the results of studies on internalizing and/or externalizing behavior and neighborhood disorder (Caughy et al., 2008; Moren-Cross et al., 2006; Xue, et al., 2005) indicated an association between both variables and call for more research to examine the specific case of each part of these two types of children's behavior problems. Furthermore, the existence of studies focused on the depressive and anxiety symptoms of children living in a disordered neighborhood (Aneshensel & Sucoff, 1996; Natsuaki, et al., 2007) indicates the possibility of the correlation between children's withdrawal and the conditions of their neighborhoods. Also, the results of the study by Regoeczi (2003) on neighborhood conditions (crowding) and withdrawal among adults suggest that more investigations should be done on the topic using different demographic subgroups, including children. These four points justify the importance and the need of the present study.

This study differs from its nearest counterpart, the one by Regoeczi (2003), at several levels. For example, Regoeczi is concerned with adults, whereas the current study is specifically focused on children. Regoeczi was interested in the crowding conditions in the neighborhood and household, while the present study examines neighborhood disorder. The outcome variables in Regoeczi's study are aggression and withdrawal, compared to one dependent variable in this study – withdrawal. Furthermore, this study differs from Regoeczi's through its theoretical framework and data with different measurements of key variables.

#### **4. Bauman's Perspective on Disordered Communities**

Community and by extension neighborhood do not have the same meaning as they had in the past (Bauman, 1991; 2001a). Before, a neighborhood was a safe, warm, and pleasant place where neighbors knew each other (Bauman, 1991; 2001a). These attributes have been replaced by several problems, such as insecurity and lack of freedom (Bauman, 2001b). The advent of these problems in the neighborhood is connected to the most prevailing idea of our current era: flexibility, a concept associated with others such as deregulation, uncertainty, chaos, and disorder. With flexibility comes insecurity (Bauman, 2001a; 2001b). As a result of this generalized insecurity, people living in the same neighborhood are now "neighbors strangers" (Bauman, 1991; 2001a). This feeling of living among strangers often urges individuals to be defensive. Not knowing who is who forces individuals to be over-cautious, to be suspicious of neighbors, and to interact less (Bauman, 1991). The proliferation of strangers in the neighborhood, furthermore, forces the individuals to not trust anybody, to not ask for help in time of need, to barricade themselves from the outside world, and ultimately to be withdrawn (Bauman, 1991; 2001a).

From Bauman's perspective, the link between children's withdrawal and neighborhood disorder can occur in two conceivable ways. First, it is possible that children become withdrawn by imitating their parents. Second, it is possible that the withdrawal of children residing in a disordered neighborhood can be the result of parents' inculcation. With respect to the literature and the theoretical framework, we postulate the following hypotheses: (1) Neighborhood disorder is expected to be positively related to children's withdrawal; (2) The race of the child is expected to have an impact on withdrawal; (3) The gender of the child will be significantly correlated to withdrawal.

#### **5. Methods**

##### **5.1 Data source**

In order to test the above hypotheses, this study uses data from the third wave of the Welfare, Children and Families project. The Welfare, Children, and Families project is a longitudinal study which investigates families residing in low-income neighborhoods in three U.S. cities, namely Boston, Chicago, and San Antonio. The third wave was used because it is the most recent and therefore more suitable to the topic of this study. The first wave was conducted in 1999 and was based on a random stratified sample of approximately 2400 households with children from these three cities. The third wave, which is the main focus of this study, was conducted between February 2005 and January 2006. The ages of the focal children in the third wave were between 5 to 18 years. Data from the third wave was collected using a combination of computer-assisted personal interviews (CAPI), computer-assisted telephone interviews (CATI), face-to-face interviews, and telephone interviews, with a sample size of 1835. After data cleaning process, mainly through listwise deletion and outliers' removal, the sample size was reduced to 1408 respondents, all of whom are women.

##### **5.2 Measurement**

###### **5.2.1 Dependent variable**

*Children's withdrawal* was measured using the withdrawal subscale of CBCL/4-18 scale and found to be reliable (Achenbach & McConaughy, 1997; Loukas, Piejak, Bingham, Fitzgerald, & Zucker, 2001). Children's withdrawal scale was computed as a mean response to 8 items as listed in Table 1 ( $\alpha = .75$ ). Responses to these items were given on a 3-point Likert scale coded in the following manner: 1 = *not true*, 2 = *somewhat or sometimes true*, and 3 = *very true or often true*. Factor analysis applied to the 8 items indicates the adequacy of the sample size for factorability (Determinant of correlation matrix of .284, Kaiser-Meyer-Olkin of .838, and Bartlett's test of sphericity of  $\chi^2(28) = 1859.073, p < 0.001$ ). The results of inter-items correlation suggest that the items of the index are fairly associated with each other ( $M = 10.13, SD = 5.81$ ). The inter-items correlation matrix for the index indicates that the weakest correlation coefficient is .19 and represents the association between child not involved and child enjoys little. The highest coefficient is .40 and represents the correlation between child not involved and child rather be alone. Table 1 shows that among the 8 items, child secretive is the most reported item ( $M = 1.47, SD = .67$ ) while child underactive and child not involved are the least reported items ( $M = 1.14, SDs = .43, .37$  respectively).

### 5.2.2 Independent variable

*Perceived neighborhood disorder* was measured as the mean response to 10 items (Table 2) reported to be reliable (Hill, Ross, & Angel, 2005). Cronbach's alpha for the index is  $\alpha = .90$ . The responses categories for these items were coded 1 = *not a problem*, 2 = *somewhat of a problem*, and 3 = *a big problem*. Factor analysis applied of the 10 items suggests that the size is adequate for the factorability of the index (Determinant of correlation matrix of .009, Kaiser-Meyer-Olkin measure of .932, and Bartlett's test of sphericity of  $\chi^2 (45) = 6639.215, p < 0.001$ ). The results of inter-items correlation suggest that the items of the index are fairly associated with each other ( $M = 17.54, SD = 5.60$ ). The inter-items correlation matrix for the index indicates that the weakest correlation coefficient is .34 and represents the association between neighborhood/police not available and neighborhood/high unemployment. The highest coefficient is .70 and represents the correlation between neighborhood/open drug dealing and neighborhood/gangs activities. Additionally, Table 2 indicates that among the 10 items, neighborhood/high unemployment is the most reported item ( $M = 2.09, SD = .79$ ) while neighborhood/abandoned houses is the least reported item ( $M = 1.50, SD = .74$ ).

### 5.2.3 Control variables

*Age of parent* was measured in years. *Race* was coded with two dummy variables Black (= 1; else = 0) and Hispanic (= 1; else = 0). *Education* was coded as follows: 1. none, 2. H.S. equivalency (e.g., GED), 3. H.S. diploma, 4. vocational tech diploma, 5. associate degree, 6. RN diploma, 7. bachelor's degree, 8. master, 9. M.D., Ph.D., law, dental, and 10. other. *Income* was measured by asking respondents to indicate their total household income from all sources in the month preceding the interview in a dollar amount. *Employment status* was measured by asking respondents whether or not they had worked in the last 11 months and was coded (1 = employed, 0 = not employed). *Religious services attendance* was coded as 1 = never to a few times, 2 = one or two times per month to more than once a week. *Marital status* was coded (1 = married, 0 = not married). *Emotional support* was measured by a single item. Respondents were asked to identify the number of people they could count on when they were feeling low. The response categories were 1 = *enough people*, 2 = *too few*, and 3 = *and no one*. Responses were reverse coded in such a way that lower values indicate less emotional support. *Instrumental support* was measured as the mean response to three items (Table 3) reported to be reliable (Durden, et al., 2007; Ghazarian & Roche, 2010). Cronbach's alpha for the index is  $\alpha = .80$ . The response categories for all the items of instrumental support were coded as follows: 1 = *enough people*, 2 = *too few*, and 3 = *and no one*. These responses were reverse coded so that higher values indicate more instrumental support. Factor analysis shows that the data is adequate for the factorability of the index (Determinant of correlation matrix of .381, Kaiser-Meyer-Olkin measure of .689, Bartlett's test of sphericity of  $\chi^2 (3) = 1649.015, p < 0.001$ ). The results of inter-items correlation suggest that the items of instrumental support index are fairly associated with each other ( $M = 6.93, SD = 1.77$ ). The inter-items correlation matrix, further, indicates that the weakest correlation coefficient is .49 and represents the association between people to loan money and people to take care of children. The highest coefficient is .63 and represents the correlation between people to loan money and person of people for favor. Among the 3 items, people take care of children is the most reported item ( $M = 2.40, SD = .70$ ) while people to loan money is the least reported item ( $M = 2.15, SD = .75$ ). *Age of the child* was measured in years. *Gender of the child* was coded as follows: 1 = female, 0 = male. *City* was coded as two dummy variables designating Boston (= 1; else = 0) and Chicago (= 1; else = 0).

### 5.3 Statistical procedure

The paper uses descriptive statistics and regression technique in SPSS 20. The descriptive analysis is used to evaluate the characteristics of the respondents. The regression technique is conducted to test the hypotheses.

**Table 1: Inter-item correlations for withdrawal index (N = 1483)**

	1	2	3	4	5	6	7	8	M	SD
1. Child enjoys little	1.00								1.28	.53
2. Child rather be alone	.23	1.00							1.30	.55
3. Child refuses to talk	.29	.31	1.00						1.20	.46
4. Child secretive	.27	.29	.36	1.00					1.47	.67
5. Child is too shy	.14	.23	.30	.27	1.00				1.42	.60
6. Child underactive	.27	.19	.21	.28	.19	1.00			1.14	.41
7. Child unhappy	.27	.26	.32	.36	.19	.28	1.00		1.18	.43
8. Child not involved	.19	.37	.40	.26	.27	.22	.31	1.00	1.14	.37
Total M = 10.13										
Total SD = 5.81										

**Table 2: Inter-item correlations for neighborhood index (N = 1408)**

	1	2	3	4	5	6	7	8	9	10	M	SD
1. Neighborhood/high Unemployment	1.00	2.09	.79									
2. Neighborhood Abandoned houses	.36	1.00	1.50	.74								
3. Neighborhood/burglaries, Thefts	.36	.41	1.00	1.71	.77							
4. Neighborhood/assaults, Muggings	.40	.41	.64	1.00	1.57	.75						
5. Neighborhood/gangs Activities	.41	.39	.51	.61	1.00	1.89	.84					
6. Neighborhood/open Drug dealing	.44	.41	.46	.57	.70	1.00	1.90	.88				
7. Neighborhood/unsupervised Children	.38	.38	.45	.50	.56	.64	1.00	1.88	.85			
8. Neighborhood/teenage Pregnancy	.43	.38	.47	.53	.58	.60	.57	1.00	1.86	.84		
9. Neighborhood/police. Not available	.34	.35	.38	.45	.47	.50	.48	.46	1.00	1.54	.74	
10. Neighborhood/unsafe Streets, daytime	.36	.39	.46	.56	.54	.53	.50	.55	.56	1.00	1.54	.73
Total Mean = 17.54												
Total SD = 5.60												

**Table 3: Inter-item correlations for instrumental support index (N = 1710)**

	1	2	3	M	SD
1. People take care of children	1.00	2.40	.70		
2. People for favors	.59	1.00	2.38	.65	
3. People to loan money	.49	.63	1.00	2.15	.75
Total Mean = 6.93					
Total SD = 1.77					

## 6. Results

### 6.1 Univariate analysis

Table 4 presents the descriptive statistics of the variables of the study. Even though most of the parents live in a neighborhood with problems (88%), they report that the withdrawal items do not apply to their children ( $M = 1.17$ ,  $SD = .30$ ). On average, they are 37 years old have few people to count for emotional support ( $M = 2.45$ ,  $SD = .65$ ) and instrumental support ( $M = 2.32$ ,  $SD = .58$ ). In terms of education, on average, they have high school diploma ( $M = 3.93$ ,  $SD = .32$ ) with a mean monthly income of \$1758.00. A little more than half are employed (54%) and never or attend religious services a few times (56%). The majority of them are not married (77%). Among these parents, 44% are Black and 50% are Hispanic. They live in San Antonio (31%), Chicago (34%), and Boston (35%). The age of children in the sample ranges from 5 to 18 years. About half of these children are boys (51%).

**Table 4: Minimum, maximum, means, and standard deviation of the sample ( $N = 1408$ )**

Variable	Minimum	Maximum	Mean	SD
Withdrawal	0.00	3.00	1.17	.30
Neighborhood	0.00	1.00	.12	.32
Education	1.00	8.00	3.93	2.11
Income	0.00	7600.00	1758.00	1181.52
Child age	5.00	18.00	10.96	4.49
Child gender	0.00	1.00	.49	.50
Marital status	0.00	1.00	.23	.42
Parent age	21.00	78.00	37.15	9.46
Race				
Black	0.00	1.00	.44	.49
Hispanic	0.00	1.00	.50	.50
City of interview				
Boston	0.00	1.00	.35	.48
Chicago	0.00	1.00	.34	.47
Employment	0.00	1.00	.54	.50
Religion	0.00	1.00	.44	.50
Emotional support	1.00	3.00	2.45	.65
Instrumental support	1.00	3.00	2.32	.58

#### Note

Religion (1 = 1 to 2 times and more than once/week)

Neighborhood (1 = not a Problem)

City of interview (San Antonio as Ref.)

Race (White as Ref)

Employment (1 = employed)

### 6.2 Multivariate analysis

**Table 5: Children's withdrawal regressed on neighborhood disorders (unstandardized coefficients and standard errors in parenthesis)**

	Model 1	Model 2
bb		
Neighborhood	.050*** (.013)	.039** (.013)
Employment (1 = employed)	-.031 (.016)	-.026 (.016)
Marital status (1 = married)	-.047* (.019)	-.048* (.019)
Education	-.006 (.004)	-.005 (.004)
Religious services	-.006 (.006)	-.004 (.006)
Income	6.322E-6 (.007)	7.825E-6 (.000)
Age	-.002* (.001)	-.016 (.002)
Age Child	.016*** (.002)	.016*** (.002)
Sex Child (1 = female)	-.000 (.015)	-.003 (.015)
Boston (San Antonio as ref.)	.012 (.019)	.013 (.019)
Chicago (San Antonio as ref.)	-.004 (.019)	-.005 (.019)
Black (White as ref.)	.024 (.033)	.044 (.027)
Hispanic (White as ref.)	.066* (.033)	.035 (.032)
Emotional support	- -	-.010 (.015)
Instrumental support	- -	-.081*** (.016)
Constant	1.063*** (.057)	1.293*** (.067)
N	1407 1407	
R <sup>2</sup>	.088	.120
R <sup>2</sup> adj.080	.110	

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$  (two-tailed tests).

Religion (1 = 1 to 2 times and more than once/week)

Neighborhood (1 = not a Problem)

Table 5 presents the results of two regression models. The Model 1 estimates the relationship between neighborhood disorder and withdrawal controlling for the effect of the several other variables such as employment status, marital status, highest level of education, frequency of religious service attendance, income, race (Black and Hispanic) and age, city of the study (Boston and Chicago), age of child, and gender of child. The regression analysis indicates that this first model is significant with  $R^2 = .088$ ,  $R^2 \text{ adj} = .080$   $F(13, 1394) = 9.596$ ,  $p < .001$ .

The unstandardized coefficient of .050 ( $p < .001$ ) associated with neighborhood disorder indicates that on average, withdrawal increases by about .05 points for each additional score on neighborhood disorder, everything else being equal. Four additional predictors are significantly correlated to withdrawal such as marital status ( $-.047$ ,  $p < .05$ ), Age of parent ( $-.002$ ,  $p < .05$ ), age of child (.016,  $p < .001$ ), and Hispanic (.066  $p < .05$ ). The coefficient of  $-.047$  ( $p < .05$ ) for marital status, shows that, on average, withdrawal decreases for parents who are married compared to those who are unmarried. The b of  $-.002$  ( $p < .05$ ) suggests that children's withdrawal decreases, on average, about .002 points for each additional year of parents. The age of the child also has a significant impact on withdrawal. The b of .016 ( $p < .001$ ) for age of the child indicates that withdrawal increases by about .016 points with an increase in the age of the child, all else being equal. The coefficient associated with Hispanic  $b = .066$  ( $p < .05$ ) suggests that withdrawal, is by about .066 points higher for Hispanic children than White children.

The Model 2, which is the full model, contains two additional variables than the previous model and is also significant with  $R^2 = .120$ ,  $R^2 \text{ adj} = .109$   $F(15, 1392) = 11.655$ ,  $p < .001$ . The new variables are emotional support and instrumental support. The introduction of these new variables slightly decreases the coefficient and the significance level of the correlation between neighborhood disorder and withdrawal. From .050 ( $p < .001$ ) in the Model 1, the b of the correlation between neighborhood and withdrawal changes to .039 ( $p < .01$ ). Despite these moderating effects of the two new variables, all the other predictors that were significant in the Model 1 (marital status, age of parent, age of the child, Hispanic) remain significant in the Model 2 except age of parent and Hispanic.



The examination of the Model 2 reveals that one of the two new variables, instrumental support is significantly associated with withdrawal ( $b = -.081, p < .001$ ). The  $b$  of  $-.081$  for instrumental support shows that withdrawal decreases by about  $.081$  points for each additional increase in the instrumental support level of parents.

## **7. Discussion**

The focus of this study is to investigate the relationship between neighborhood disorder and Children's withdrawal. To reach this goal, three hypotheses were formulated. First, it was hypothesized that neighborhood disorder is expected to be positively related to children's withdrawal. The second hypothesis stated that race will be significantly associated with children's withdrawal. The third hypothesis stated that gender of child will have a significant effect on children's withdrawal.

With analysis of the data, results indicate that the first hypothesis is confirmed. That is that neighborhood disorder positively influences children's withdrawal. The positive correlation found between neighborhood disorder and children's withdrawal confirms the results of past studies on neighborhood and internalizing behavior (Anshensel & Sucoff, 1996; Natsuaki et al., 2007, Xue, et al., 2005). This finding also lends support to Bauman's perspective on community in postmodernity. Using this theoretical perspective, it is understandable that individuals, especially parents, who are living in a neighborhood characterized by a high rate of unemployment, abandoned houses, burglaries, assaults, gang activity, open drug dealing, and absence of police, will have a tendency to mistrust their neighbors. From the mistrust, neighbors will become "neighbors strangers" (Bauman, 2001b). Since the individuals have a tendency to fear the unknown, neighbors develop a sense of suspicion toward each other. This suspicion in turn leads to the feelings of insecurity.

As a result of the feelings of insecurity, the individuals living in such a neighborhood will feel unsafe on the streets, outside their houses or apartments. In this climate of an unsafe and insecure neighborhood, it makes sense that the individuals reduce or avoid interactions with neighbors. Consequently, the individuals barricade themselves from the outside world. In such a neighborhood where the individuals limit contact with the outside world in order to be safe and secure, children's withdrawal will not be a surprise. From this perspective, withdrawal of children living in a disordered neighborhood can occur through the process of imitation. This means that the withdrawal of some children can be linked to the withdrawal of their parents (Moren-Cross et al., 2006). Using the argument of imitation, it appears that children become withdrawn by observing and copying their parents. Besides imitation, withdrawal can also occur through the process of inculcation. The difference between these processes is that parents are passive in the first case but active in the second one. In the process of inculcation, parents actively teach their children to shy away from or be less open to the outside world, as a measure against insecurity in the neighborhood. Thus, the absorption of this teaching over years can eventually lead children to exhibit symptoms of withdrawal.

A close look at the regression Table 5 shows that race does not have a significant effect on children's withdrawal in Model 1 but not in the full model. Thus, the second hypothesis predicting that race of the child will have a significant impact on withdrawal is not supported by the data. This result of race on children's withdrawal found in the present study is dissimilar to past studies documenting neighborhood characteristics and children's mental problems (Li et al., 2007; Moren-Cross, et al., 2006; Xue et al., 2005). The finding regarding the insignificance effect of race on children's withdrawal can be due to the nature of the data of this study. The fact that the data were collected among low-income families may have cancelled out the differences in the prevalence and the types of mental health problems found among races.

The data did not support the third hypothesis predicting a significant effect of gender on children's withdrawal. Despite that the coefficient of gender of the child is not statistically significant in the full model; the regression Table 5 reveals an interesting point about this predictor. The negative  $b$  of gender of child in both models suggests that girls are less likely to be withdrawn than boys (Caughy et al., 2008; Moren-Corss et al., 2006; Xue et al., 2005).

The study reveals that marital status of parents has a protective effect on the withdrawal. That is, that the withdrawal decreases for children who are living with parents who are married than that of children whose parents are unmarried. This finding corroborates the general trends found between marital status and its buffering effect on individual mental health (Dohrenwend & Dohrenwend, 1976; Mirowsky & Ross, 2003). Thus, being married is not beneficial for the mental health of the married couple only but their children's as well.

Instrumental support is another important protective factor against children's withdrawal. This positive influence of the instrumental support of parents on children's withdrawal confirms past studies investigating the effects of social support on individuals' mental health (Hastings, 2003; Pinderhughes, Bates, Dodge, Pettit, & Zelli, 2000). Nevertheless, the result of instrumental support is unusual when compared to the one of emotional support. In fact, findings from previous research suggest for the most part that emotional support is more powerful than instrumental support in dealing with mental health problems (Mirowsky & Ross, 2003). The peculiarity of the results for instrumental support compared to emotional support can be attributed to the fact that the data were collected among low-income families. As such, any tangible or material support toward these families will have a significant effect on their mental health. It appears then that emotional support is not always the best type of support in dealing with mental health problems in all sociodemographic groups.

The negative sign of the coefficient for instrumental support suggests that withdrawal decreases with an increase in the level of instrumental support of parents. This finding can be explained by the possibility of parents having their support system within their neighborhood of residence. Having a lot of people that they can count on in their neighborhood for support in tough times, can make parents less fearful of their neighbors. As a result, parents will be more likely to interact frequently with neighbors and consequently less withdrawn. Children, through the process of socialization, will internalize this behavior of their parents in their turn. Having internalized this behavior of parents over time, children will be less likely to be withdrawn.

### Conclusion

This study on the influence of neighborhood disorder on children's withdrawal has some limitations. One of the limitations is related to the locations where the data were collected. The data were collected in only three major cities of the U.S. such as Boston, Chicago, and San Antonio. Consequently, findings may be interpreted with caution. Another limitation is related to the fact that the data overly represent low income families. Furthermore, the data include a relatively small number of White respondents ( $N = 101$ ) compared to Black ( $N = 618$ ) and Hispanic ( $N = 689$ ). The combination of these three limitations may potentially introduce some biases in the findings and therefore limit the generalizability of the study. These limitations warrant future studies on the topic.

Despite these limitations, the study reveals some important findings and lends support to Bauman's theoretical perspective. The study explains how neighborhood disorder is positively related to children's withdrawal. Additionally, it reveals that age of the child significantly influences withdrawal among children. These findings suggest that age of the child and neighborhood disorder are risk factors of children's withdrawal, while being a girl and living with married parents who have people to count on for instrumental support are protective factors. Knowing these risk factors and the protective factors will help avoid the pitfalls of a one-size-fits-all approach to the problems of withdrawal among children.

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