



The Effects of Childhood Social Support and Family Resiliency on Mental Health in Adulthood

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The Effects of Childhood Social Support and Family Resiliency on Mental Health in Adulthood

Abstract

The effect of social support on the overall health and quality of life in adulthood has been well documented particularly in chronic disease populations. Very few studies examined the relationships between childhood social support, family resiliency and mental health in adulthood in the community and among disadvantaged minority populations. We examined the role of social support and family resilience during childhood on subsequent mental health-related quality of life (HRQoL) in adulthood among racial/ethnic minorities.

A needs assessment survey which was designed to explore health determinants and quality of life indicators using a community-based participatory research (CBPR) approach in a low-income community in Tampa was analyzed. Participants were predominantly low-income non-Hispanic black and Hispanic population (n=187). The outcome mental HRQoL was measured using the validated Centers for Disease Control and Prevention's (CDC) "Healthy Days Measure" instrument. We utilized sequential multivariable logistic regression models to examine the independent effects of childhood social support and family resiliency on mental HRQoL in adulthood.

Approximately 12.3% of study participants reported poor mental HRQoL (i.e. ≥ 14 unhealthy days due to mental health). Childhood social support and family resiliency were significant predictors of mental HRQoL in adulthood, after controlling for sociodemographic characteristics. Sleep and composite health issues in adulthood were also associated with mental HRQoL.

Our analyses highlight an opportunity to promote mental health through support of interventions that improve positive family relationships and reduce the burden of chronic health issues among non-Hispanic black and Hispanic children.

Keywords

Mental health-related quality of life; racial and ethnic minorities; social support; family resiliency; low-income community

Cover Page Footnote

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ABSTRACT

The effect of social support on the overall health and quality of life in adulthood has been well documented particularly in chronic disease populations. Very few studies examined the relationships between childhood social support, family resiliency and mental health in adulthood in the community and among disadvantaged minority populations. We examined the role of social support and family resilience during childhood on subsequent mental health-related quality of life (HRQoL) in adulthood among racial/ethnic minorities. A needs assessment survey which was designed to explore health determinants and quality of life indicators using a community-based participatory research (CBPR) approach in a low-income community in Tampa was analyzed. Participants were predominantly low-income non-Hispanic black and Hispanic population (n=187). The outcome mental HRQoL was measured using the validated Centers for Disease Control and Prevention's (CDC) "Healthy Days Measure" instrument. We utilized sequential multivariable logistic regression models to examine the independent effects of childhood social support and family resiliency on mental HRQoL in adulthood. Approximately 12.3% of study participants reported poor mental HRQoL (i.e. ≥ 14 unhealthy days due to mental health). Childhood social support and family resiliency were significant predictors of mental HRQoL in adulthood, after controlling for sociodemographic characteristics. Sleep and composite health issues in adulthood were also associated with mental HRQoL. Our analyses highlight an opportunity to promote mental health through support of interventions that improve positive family relationships and reduce the burden of chronic health issues among non-Hispanic black and Hispanic children.

Keywords: Mental Health-Related Quality of Life, Racial and Ethnic Minorities, Social Support, Family Resiliency, Low-Income Community

INTRODUCTION

Racial/ethnic minority populations bear a heavy burden of mental health illness in the United States. They have a higher risk of persistence of mental disorders and disability from mental illness (Breslau, Kendler, Su, Gaxiola-Aguilar, & Kessler, 2005; US DHHS, 2001). They are also disproportionately underserved in the mental healthcare system and face barriers in accessing mental healthcare, particularly cost of care, and receipt of fragmented services (US DHHS, 2001; Cook, McGuire, & Miranda, 2007).

Social support and family resilience are two influential factors in childhood development that have been shown to be associated with mental health and health-related quality of life (HRQoL). They predict overall health, well-being, and development from childhood through adulthood (Salovey, Rothman, Detweiler, & Steward, 2000). Individuals who lack social support may find it difficult adapting to everyday life's stressors, which can further lead to deterioration of their physical and mental health (Salovey, Rothman, Detweiler, & Steward, 2000). Most adults who lived in a family with adequate social support and family resilience during childhood cope well with uncertainties in life compared to others who had limited or no social support (Gore-Felton et al., 2002).

Positive emotional functioning from social support promotes better mental and physical health and in the long run, longevity (Wiest, Schuz, Webster, & Wurm, 2011; Xu, & Roberts, 2010). An individual who enjoys family social support has lower levels of stress indicators, such as cortisol, and better immune responses (Wiest, Schuz, Webster, & Wurm, 2011; Xu & Roberts, 2010; Cohen & Pressman, 2006). Racial/ethnic minorities experience a higher rate of stressful life events such as discrimination, abuse, and trauma than whites and are more sensitive to perceive that high levels of social support might be beneficial for them (US DHHS, 2001; Uchino, 2004). Similarly, non-Hispanic black and Hispanic children are less likely than whites to be resilient and the rates of resilience decrease over time for youth who experienced early childhood adversity (Dubowitz et al., 2016; McCubbin & McCubbin, 1988; Criss, Henry, Harrist, & Lazrelere, 2015).

The effect of social support on the overall health and quality of life in adulthood has been documented in several studies particularly in chronic disease populations (Franks et al., 2006; Piferi & Lawler, 2006). Yet, very few studies examined this relationship in the community, especially the relationships between childhood social support, family resiliency and mental health in adulthood (Dubowitz et al., 2016; Compas, Wagner, Slaviv, & Vannatta, 1986). Additionally, there is paucity of research examining this relationship among disadvantaged minority populations.

In this study, we assessed the role of social support and family resilience during childhood as predictors of mental HRQoL in adulthood among a subpopulation of racial/ethnic minorities. Understanding this relationship could provide a framework that elucidates causal pathways for mental illness in vulnerable populations and the impact these factors have on overall health (Carlsson, Olsen, Mortensen, & Kastrup, 2006).

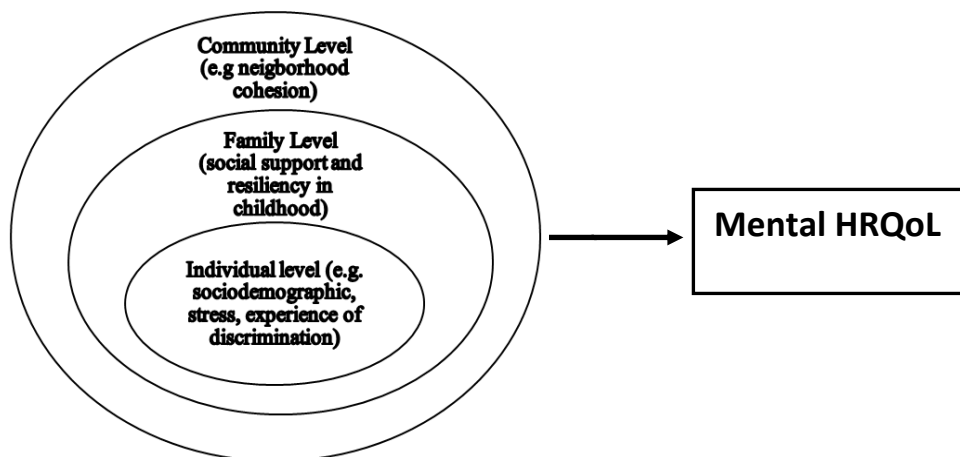
The Conceptual Model

The framework for this study outlines pathways linking social support and family resiliency in childhood to mental HRQoL in adulthood. It also describes the relationships of these predictors with individual and community factors that impact mental HRQoL in adulthood (Figure 1). The framework builds on the socio-ecological model and the family systems theory approaches to family resilience. The socio-ecological model considers the complex interplay between

individual, relationship, community, and societal factors while the family systems approach is based on the assumption that risk and protective factors, vulnerability, and outcomes occur at multiple interrelated family adaptive system levels and the broader ecosystems (CDC, 2016; Henry, Morris, & Harris, 2015).

Social support through both the direct effects and the buffering hypotheses protect against poor health outcomes, including poor mental health (Salovey, Rothman, Detweiler, & Steward, 2000; Taylor, 2011). Family resiliency, which involves responding positively to stressful life events (McCubbin & McCubbin, 1988), protects mental health during stress and adversity through several documented mechanisms. The possible associations of social support and resiliency with mental health outcomes are influenced by the interplay of several factors at multiple levels of the socioecological model (Jessor, Turbin, & Costa, 2003; Davydov, Stewart, Ritchie, & Chaudieu, 2010). The global environment and select sociodemographic characteristics are linked to variations in the level of social support and resiliency in childhood which can eventually impact mental health in adulthood (Chung et al., 2016; Jacoby, Tach, Guerra, Wiebe, & Richmond, 2016; Dubowitz et al., 2016).

Figure 1. Conceptual model of the relationship between social support and family resiliency in childhood and mental health related quality of life (HRQoL) in adulthood



METHODS

Design and Study Sample

We analyzed cross-sectional data from a needs assessment survey designed to explore health determinants and quality of life indicators in a low-income community in Tampa using a community-based participatory research (CBPR) approach. The CBPR study builds upon an existing community-academic partnership among REACHUP Inc., University of South Florida Tampa, and the Baylor College of Medicine. Community members participated actively in the design of the study and data collection. From 110,451 residents of the target population, a total of 201 participants were recruited using flyers, social media, and “word-of-mouth”. The participants were predominantly non-Hispanic black (60%) and had higher unemployment rate (41.8%) than the rest of the county (Salihu, Mbah, Jeffers, Alio, & Berry, 2009). Details of the study

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methodology has been published elsewhere (Salinas-Miranda, et al., 2016). Our sample was restricted to non-Hispanic black and Hispanic/Latino participants (n=187).

Instrument

The needs assessment survey was administered through mall intercept interviews across a five zip code areas in Tampa between November 2013 and March 2014. The development of survey questions was guided by the Life Course Perspective (LCP) with input from the Community Advisory Board. The LCP framework evaluates the cumulative influences of risk and protective factors during critical periods of human development and the effects those factors may have on the health trajectories of individuals (Braveman & Barclay, 2009). Community members in partnership with academic researchers reviewed local data, identified important topics to be studied, provided feedback on wording and readability, assessed acceptability of survey questions and technology, and pilot tested questions. The survey was translated to Spanish by native speakers and assessed for accuracy of translation using back translation and pilot testing.

The survey was administered by trained community members using the droidSURVEY software, which was installed on ten Hewlett-Packard Slate 7" tablet computers (Contact Software Limited, 2013; Hewlett-Packard Company, 2014). Written informed consent was obtained and monetary incentives were given to all participants. The study was approved by the Institutional Review Board of the University of South Florida.

Study Variables

Outcome variable: HRQoL was measured using the validated Centers for Disease Control and Prevention's (CDC) "Healthy Days Measure" instrument (CDC, 2013). The brief version of the instrument, the Healthy Days Core Module (4-items questionnaire), assessed a person's perceived sense of well-being through four questions on: 1) self-rated health; 2) number of days during the past 30 days when physical health was not good; 3) number of days during the past 30 days when mental health was not good; and 4) number of recent activity limitation days because of poor physical or mental health. To assess Mental HRQoL, we used the question on mental health which has been found to correlate closely with two commonly used and validated subscales for assessing mental health; the Short Form Health Survey (SF-36) (subscales for mental health, emotional role limitations, vitality and social functioning) and the mental health items of the National Institutes of Health (NIH) Patient-Reported Outcome Measurement Information System (PROMIS) Global Health Scale (Barile, et al., 2013; Barile, et al., 2016). Mental HRQoL was defined as poor if the number of unhealthy mental days during the past 30 days was 14 or more. This cutoff-point was used by the CDC and other authors as a measure to evaluate excessive unhealthiness (CDC, 2016; Strine, Chapman, Kobau, Balluz, & Mokdad, 2004).

Primary exposures: Perceived childhood social support was measured using five questions from the Medical Outcomes Study Social Support Survey (Sherbourne & Stewart, 1991). Using 5-point Likert type scales ('Never'=1 to 'All of the time'=5), individuals were asked to indicate how often the following types of support were available to them during the first 18 years of their life: 1) had others who would listen when they needed to talk about their problems; 2) when they were lonely, there were several people they could talk to; 3) had someone to turn to if they needed food or housing; 4) if there was a crisis, they had others they could talk to; and 5) if they needed help in school, they knew where to go for help. The scores from all 5 questions were added and the total score ranged from 5 to 25, with higher scores indicating higher levels of social support.

Childhood family resiliency was assessed using 5 questions from the Protective Factors Survey of the National Resource Center for Community Based Child Abuse Prevention with similar 5-point Likert type scales (National Resource Center for Community Based Child Abuse Prevention, 2016). Participants were asked: when growing up how often did the following situations happen in your family: 1) we talked about our problems; 2) we listened to “both sides of the story” when we argued; 3) we took time to listen to each other; 4) we pulled together when things were stressful; and 5) we were able to solve our own problems. The scores were added and the total score ranged from 5 to 25, with higher scores indicating higher levels of family resiliency.

Socio-demographic characteristics: The following key variables were included: age in years (≤ 35 , > 35), level of education attainment ($<$ high school, \geq high school), current marital status (married, unmarried), race/ethnicity (non-Hispanic black, Hispanic/Latino), employment status (employed, unemployed), and annual household income (\leq \$20,000, $>$ \$20,000).

Other individual level covariates: Stress was measured with the 4-item Perceived Stress Scale, which is a validated instrument used to make comparisons of individuals’ perceived stress related to current events. The questions are how often in the last month have you felt: 1) that you were unable to control the important things in your life; 2) confident about your ability to handle your personal problems; 3) that things were going your way; and 4) difficulties were piling up so high that you could not overcome them? The answers followed a 5-point Likert type scale from ‘Strongly disagree’=1 to ‘Strongly agree’=5. A combined score was derived by adding the scores on all 4 questions and multiplying by a factor of 5, yielding a 100-point scale. The higher the score, the higher the risk for clinical psychiatric disorders (Cohen, Janicki-Deverts, & Miller, 2007). Sleep *disturbances* were measured with a question from the Behavioral Risk Factor Surveillance System (CDC, 2013): “During the past 30 days, for about how many days have you felt you did not get enough rest or sleep?” This was defined as a continuous variable, with higher number of days indicating worse sleep disturbances. *Experience of discrimination (EOD)* was measured using the validated instrument “EOD measure”, which was based on a prior instrument used in the Coronary Artery Risk Development in Young Adults study (Krieger, Smith, Naishadham, Hartman, & Barbeau, 2005). Our study asked about 9 different situations of discrimination experience (“at school”, “getting hired or getting a job”, “at work”, “getting housing”, “getting medical care”, “getting service in a store or restaurant”, “getting credit, bank loans or a mortgage”, “on the street or in a public setting”, “from the police or in the courts”). The question was scored by counting the number of situations in which a participant reported experiencing discrimination. The higher the score, the greater the EOD. Finally, *composite health issues* were measured using the question: In the last 12 months, have you suffered any of the following health problems? A list of health problems including stroke, high blood pressure, and high blood sugar were provided. Respondents chose all that applied to them. The total number of health issues was summed up to yield a *composite health issues* score.

Community level covariates: Perceived community-wide issues were measured with this question: “Which of the following is a problem in the neighborhood?” A list of community issues identified by the CAB, such as, lack of recreation parks, grocery store, and high crime rates were included, with an option of listing other issues not identified by the CAB. The final variable for analysis consisted of the total number of different issues reported. Neighborhood social cohesion was assessed by measuring the participant’s level of agreement with a set of questions proposed by Cagney and colleagues (Cagney & Browning, 2004): 1) “people around here are willing to help

their neighbors”; 2) “this is a close-knit neighborhood”; 3) “people in this neighborhood can be trusted”; and 4) “people in this neighborhood generally don’t get along with each other” (reverse coded). These questions were based on a 5-point Likert type scale and the responses were then summed to provide a total score. Higher scores signify higher neighborhood social cohesion.

Statistical Analysis

Descriptive statistics in the form of frequencies and proportions for categorical variables and means and standard deviations for continuous variables were calculated. We used a χ^2 test to examine if mental HRQoL differed by sociodemographic characteristics. Fisher exact test was utilized when the expected cell sizes were < 5 . All reported differences were significant at $P \leq .05$. To examine the independent effects of childhood social support and family resiliency on mental HRQoL in adulthood, we utilized sequential multivariable logistic regression models. Three models were tested separately for each predictor: 1) adjusting for socio-demographic characteristics; 2) adjusting for additional individual level confounders; and 3) addition of community level confounders. The three set of covariates were grouped into blocks based on our theoretical framework of factors associated with our exposures and outcome of interest, and block stepwise selection was applied in the regression analyses. Unadjusted and adjusted odds ratios (ORs) were calculated and confidence intervals (CIs) were reported at the 95% level. All analyses were conducted using SPSS Statistics for Windows Version 22.0 (IBM Corp., 2013).

RESULTS

The mean age of study participants was 44.5 years ($SD \pm 14.1$). Most of the participants were non-Hispanic blacks (71.1%), unmarried (72.5%), unemployed (57.3%), and had at least a high school degree (80.2%) (Table 1). Among those who reported income (87%), 56.1% had income $< \$20,000$. The mean number of unhealthy days in the past 30 days due to stress, depression, or problems with emotions was 5.0 days ($SD \pm 8.0$). Approximately 12.3% of study participants ($n=23$) reported having poor mental HRQoL. Participants who reported < 14 mental unhealthy days were more likely to be males, married, > 56 years, and those with $<$ high school education although the findings were not statistically significant. Overall, there were no significant differences in mental HRQoL observed with respect to all socio-demographic variables.

Table 1. Mental HRQoL of participants by their sociodemographic characteristics (N=187).

Variables			≥14 unhealthy		0-13 unhealthy		P-value ^b
	N ^a	(%)	Count	(%)	Count	(%)	
Age (in years)							0.454
<35	59	(31.7)	6	(10.2)	53	(89.8)	
36-45	37	(19.9)	6	(16.2)	31	(83.8)	
46-55	48	(25.8)	8	(16.7)	40	(83.3)	
> 55	32	(22.6)	3	(7.1)	29	(92.9)	
Gender							
Female	122	(65.2)	18	(14.8)	104	(85.2)	0.242
Male	65	(35.8)	5	(7.7)	60	(92.3)	
Education							0.577
< High school	37	(19.8)	3	(8.1)	34	(91.9)	
≥ High school	150	(80.2)	20	(13.3)	130	(86.7)	
Marital status							0.348
Unmarried	127	(72.5)	18	(14.2)	109	(85.8)	
Married	58	(27.5)	5	(8.6)	53	(91.4)	
Race/ethnicity							0.821
Hispanic or Latino	54	(32.8)	6	(11.1)	48	(89.1)	
Non-Hispanic black	133	(71.1)	17	(17.9)	116	(82.1)	
Household income							0.481
< \$20,000	105	(56.1)	16	(15.2)	89	(84.8)	
\$20,000-40,000	33	(17.6)	2	(6.1)	31	(93.9)	
>\$40,000	24	(12.8)	3	(12.5)	21	(87.5)	
Employment Status							0.655
Unemployed	106	(57.3)	12	(11.3)	96	(88.7)	
Employed	79	(42.7)	11	(13.9)	68	(86.1)	
Total	187	100	23	(12.3)	164	(87.7)	

^a Some column numbers do not add to total sample size due to missing values.

^b χ^2 test

Childhood social support was significantly associated with poor mental HRQoL in the unadjusted model and in the adjusted model after controlling for sociodemographic characteristics [OR = 0.89, 95% CI 0.82-0.97] (Table 2). For every point increase in childhood social support score, the likelihood of poor mental HRQoL was reduced by 11%. After adjusting for other covariates in models 2 and 3, the association became null [AOR (adjusted odds ratio) = 0.95, 95% CI 0.84-1.08]. The main reduction in the protective effect of childhood social support on mental HRQoL in adulthood was explained by controlling for individual level covariates; stress, sleep, experience of discrimination and composite health issues. Other factors that predicted poor mental HRQoL in adulthood were sleep disturbances (AOR = 1.12, 95% CI 1.05-1.18) and composite health issues (AOR = 1.33, 95% CI 1.04-1.70).

Table 2. Unadjusted and adjusted associations between participants' childhood social support and mental HRQoL.

Variable	Unadjusted model	Model 1	Model 2	Model 3
	OR (95% CI)	AOR (95% CI) ^a	AOR (95% CI) ^b	AOR (95% CI) ^c
Childhood Social Support	0.89 (0.82-0.97)^d	0.89 (0.82-0.97)^d	0.95 (0.84, 1.06)	0.95 (0.84, 1.08)
Stress	1.79 (1.36-2.35)^d	-	1.00 (0.97-1.03)	1.01 (0.97-1.03)
Sleep	1.14 (1.09-1.20)^d	-	1.11 (1.05-1.18)^d	1.12 (1.05-1.18)^d
Experience of Discrimination	1.31 (1.08-1.60)^d	-	1.14 (0.87-1.48)	1.13 (0.87-1.48)
Composite Health Issues	1.50 (1.25-1.79)^d	-	1.32 (1.04-1.67)^d	1.33 (1.04-1.70)^d
Community-Wide Issues	1.17 (1.02-1.35)^d	-	-	1.00 (0.81-1.23)
Neighborhood Cohesion	0.98 (0.95-1.00)	-	-	0.99 (0.96-1.03)
Adjusted R ²		0.12	0.42	0.43

AOR: Adjusted odds ratio; CI: Confidence interval.

^a Adjusted for sociodemographic characteristics; ^b Adjusted for sociodemographic and individual level confounders;

^c Adjusted for sociodemographic, individual, and community level confounders; ^d Statistically significant 95 % CI.

Adjusted R² - proportion of variance in accounted for by the variables in the model

Childhood family resiliency was significantly associated with poor mental HRQoL in the unadjusted model and in the adjusted model controlling for sociodemographic characteristics (AOR = 0.91, 95% CI 0.84-0.99) (Table 3). For every point increase in childhood family resiliency score, the likelihood of poor mental HRQoL was reduced by 9%. This protective association became insignificant after controlling for other covariates in models 2 and 3 (AOR = 0.95, 95% CI 0.85-1.06). As in the social support model, the main decline in the protective effect of childhood family resiliency on mental HRQoL in adulthood was explained by controlling for individual level covariates which are stress, sleep, experience of discrimination and composite health issues. Sleep disturbances and composite health issues were also significantly associated with mental HRQoL in this model.

Table 3. Unadjusted and adjusted associations between participants' childhood family resiliency and mental HRQoL.

Variable	Unadjusted model	Model 1	Model 2	Model 3
	AOR (95% CI)	AOR (95% CI) ^a	AOR (95% CI) ^b	AOR (95% CI) ^c
Childhood Family Resiliency	0.90 (0.83-0.98)^d	0.91 (0.84-0.99)^d	0.95(0.85-1.05)	0.95 (0.85, 1.06)
Stress	1.79 (1.36-2.35)^d	---	1.00 (0.97-1.03)	1.00 (0.97-1.03)
Sleep	1.14 (1.09-1.20)^d	---	1.11(1.05-1.18)^d	1.11 (1.05-1.18)^d

Experience of Discrimination 1.31 (1.08-1.60)^d --- 1.13 (0.87-1.48) 1.13 (0.86-1.48)

Table 3. Unadjusted and adjusted associations between participants' childhood family resiliency and mental HRQoL.

Variable	Unadjusted Model	Model 1	Model 2	Model 3
	AOR (95% CI)	AOR (95% CI) ^a	AOR (95% CI) ^b	AOR (95% CI) ^c
Composite Health Issues	1.50 (1.25-1.79) ^d	---	1.35 (1.06-1.71) ^d	1.35 (1.06-1.73) ^d
Community-Wide Issues	1.17 (1.02-1.35) ^d	---	----	1.00 (0.81-1.23)
Neighborhood Cohesion	0.98 (0.95-1.00)	---	----	0.99 (0.96-1.03)
Adjusted R ²		0.09	0.42	0.43

AOR: Adjusted odds ratio; CI: Confidence interval

^a Adjusted for sociodemographic characteristics; ^b Adjusted for sociodemographic and individual level confounders;

^c Adjusted for sociodemographic, individual, and community level confounders; ^d Statistically significant 95% CI Adjusted R² - proportion of variance in accounted for by the variables in the model

DISCUSSION

Our study found that adequate childhood social support and family resiliency were protective against poor mental health in adulthood among racial/ethnic minorities. These associations remained after controlling for sociodemographic factors. Several researchers have reported that social support and family resiliency positively affect health outcomes (Salovey, Rothman, Detweiler, & Steward, 2000; Cohen & Wills 1985; Cohen, 2004). Our results and the conceptual framework emphasize the complex interplay of factors linking childhood social support and family resiliency to mental health in adulthood. Identifying and modifying the pathways linking these factors to mental health may be crucial for improving mental health status.

Consistent with previous research on this topic, we found that stress, sleep, EOD, and chronic medical illnesses reduced the protective mental health effects of adequate childhood social support/family resiliency (Cohen & Wills, 1985; Pascoe, Smart, & Richman, 2009). These covariates are probably intervening variables that partly explain the relationship between our exposures of interest and mental HRQoL. Other studies suggested that social support is helpful in reducing stress, thereby promoting optimal mental health while family resilience is helpful in withstanding and rebounding from disruptive stressful life challenges (Taylor, 2011; Walsh, 2003). The social support an individual receives from the family promotes increased psychological well-being among constituent family members especially in response to important stressful life events (Cohen, 2004). Furthermore, mental illness is linked to stress, which can eventually worsen symptoms of an ongoing medical illness or lead to relapse in a previously resolved disease (Mostafaei, 2012). Social support can alleviate both psychological and physical effects resulting from internal or external stressors (Mizuno, Kakuta, & Inoue, 2009). Based on our findings, these stressors could be the identified intervening variables stress, sleep, EOD, and chronic medical illnesses.

Our study has limitations. The sample size was relatively small and smaller effect sizes for factors that truly predict mental HRQoL might not have been detected. Generalizability of our findings may be limited because participants were not randomly selected. Future studies with larger and more representative sample are required to confirm or refute our results. Recall bias is also a possibility as participants were asked to recollect their experience of social support and resiliency during childhood. Since participants may either under- or over-report their level of positive childhood experiences, the effect of this non-differential bias is an underestimation of our reported measure of effect. To account for recall bias in future studies, a prospective study is recommended. Our study has several important strengths. One could assume reasonably and with caution that temporal sequence is demonstrated because we asked respondents about their social support and family resiliency while growing up, and these exposures precede the outcome, mental health in adulthood. Our study was grounded in theory and, to our knowledge, no study has examined the relationships we investigated using theoretical concepts as outlined in this paper. Furthermore, we analyzed data from a unique population that suffers heavily from mental health issues and inequalities in access to mental health care (Breslau, Kendler, Su, Gaxiola-Aguilar, & Kessler, 2005; US DHHS, 2001).

CONCLUSION

The findings from this study have important implications. Our analyses highlight an opportunity to promote mental health through support of interventions that improve positive family relationships among racial/ethnic minority children. It also suggests that reducing the burden of mental health among these subpopulations requires policies and interventions aimed at decreasing experiences of discrimination, stress, and the burden of chronic medical illnesses. Future research should continue to explore racial/ethnic disparities in mental health with regards to early childhood experiences, refine theories linking adverse childhood experiences with mental health, and implement more specific interventions to promote mental health among racial/ethnic minorities in the United States.

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