

Stress and Resilience in Fathers

From Five Communities: Results from the NICHD Community Child Health Network (CCHN)

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on behalf of CCHN



**Presentation for *Paternal Involvement in Pregnancy Outcomes
from Preconception to First Year of Life***

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CCHN NETWORK

- NIH-funded to study SES and ethnic/racial disparities in child and maternal health
- Using Community-Based Participatory Research methods (CBPR)
- 5 sites and Data Ctr



CCHN PREMISES

- **That individuals in high risk communities experience chronic stress in many forms.**
- **That the same individuals have resilience resources of many kinds that enable them to manage and even thrive in difficult circumstances.**
- **That a multi-level perspective including community, family, and individual would provide the best foundation for examining disparities in maternal and child health.**
- **That ethnic/racial and income/education groups would differ in stress and resilience.**
- **That mothers and fathers might differ in stress and resilience resources.**

CCHN SAMPLE OF PARENTS

Parents of a newborn residing in:

- **Washington DC**
- **Baltimore, MD**
- **Los Angeles County, CA**
- **Lake County, IL**
- **7 counties in eastern North Carolina**

CCHN STUDY DESIGN

Disproportionately poor or low income sample

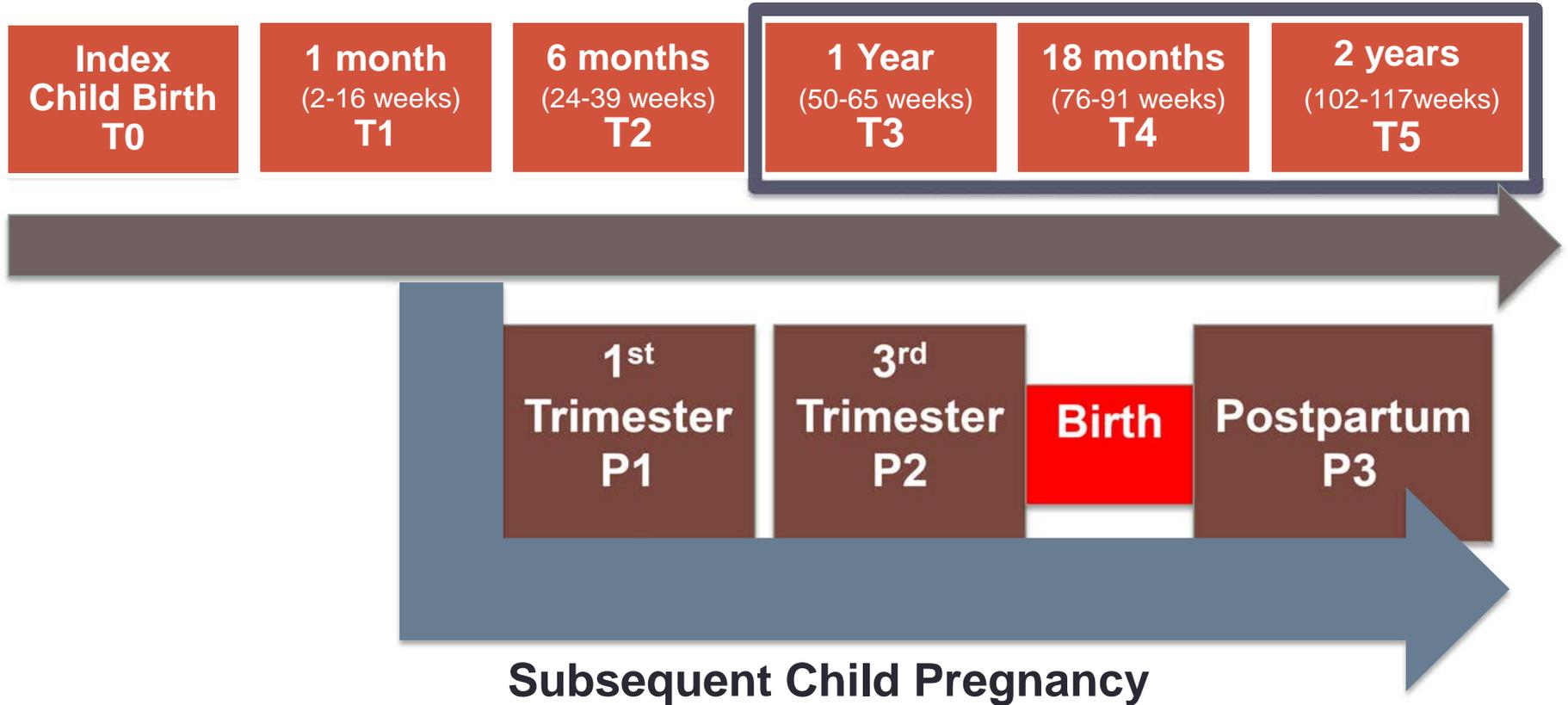
African American, Latino, Non-Hispanic White mothers

Fathers/partners either married to mother, in a relationship with mother, or mother reports he will be involved in raising the child

Followed parents over time from birth of a child to 2 years of age through home visits

Multilevel assessments (interview, biomarkers, community data)

CCHN STUDY DESIGN



CCHN Study Design

CCHN SAMPLE CHARACTERISTICS

Variable	Mothers (n=2448)	Fathers (n=1383)
Race/Ethnicity		
African-American/Black	54%	48%
White/Caucasian	24%	25%
Latino/Hispanic*	22%	27%
Cohabitation	63%	83%
Married	34%	49%
Years of Education	13	13

FATHER ENROLLMENT ISSUES

Low rates of father enrollment have plagued studies that have attempted father recruitment, including the National Children's Study, especially in minority communities.

FATHER ENROLLMENT ISSUES

Similarly, one of the early challenges for CCHN was the lower than expected rate of father enrollment in the study, 45% of the number of enrolled mothers compared to a projection of 60%.

FATHER ENROLLMENT ISSUES

The shortfall in enrolled fathers was particularly acute for African Americans with fewer than 40% of eligible fathers enrolled.

FATHER ENROLLMENT BY RACE

<u>Variable</u> Category	Enrolled Mothers with Eligible Fathers	Enrolled Mothers Who Gave Permission at T0		Mothers Who Gave Permission at T0 with Fathers Completing T1	
		Yes 83%	No 17%	Yes 61%	No 39%
<u>Race/Ethnicity</u>	N=2305	P-value<0.0001		P-value<0.0001	
African-American or Black	51%	78%	22%	52%	48%
White or Caucasian	22%	91%	9%	74%	26%
Latina or Hispanic	24%	88%	12%	66%	34%
Multi-Racial	3%	89%	11%	70%	30%

FATHER ENROLLMENT BY RELATIONSHIP STATUS

<u>Variable</u> Category	Enrolled Mothers with Eligible Fathers	Enrolled Mothers Who Gave Permission at T0		Mothers Who Gave Permission at T0 with Fathers Completing T1	
		Yes 83%	No 17%	Yes 61%	No 39%
<u>Relationship Status</u>	N=2305	P-value<0.0001		P-value<0.0001	
Married	35%	92%	8%	74%	26%
Not married, but in a romantic relationship	52%	83%	17%	62%	38%
Not married and not currently in a romantic relationship	13%	64%	36%	32%	68%

THE CCHN RESPONSE

One of the unique features of CCHN has been to utilize Community-Based Participatory Research (CBPR) principles such as power-sharing and transparency in decision-making within the academic-community partnerships in order to collaborate on the design, conduct, and analysis of the research.

THE CCHN RESPONSE

Accordingly, CCHN convened an Ad-hoc Father Recruitment and Enrollment Committee led by community partners to examine data and develop strategies to enhance father recruitment and retention.

UNDERSTANDING THE DIFFERENCES IN FATHER ENROLLMENT RATES

RELATIONSHIP STATUS and RELATIONSHIP QUALITY were found to be associated with mother permission to recruit fathers into the study (multivariate regression).

A similar pattern was found in regard to father enrollment in the study, i.e., T1 interview completion, though to a lesser degree.

RACE/ETHNICITY was not significant.

CHANGES IN FATHER ENROLLMENT PROTOCOL

In light of these findings and based on recommendations from Community PI's and Co-I's, site Project Directors, and Interviewers, two significant modifications to the study design's father enrollment protocol were made:

CHANGES IN FATHER ENROLLMENT PROTOCOL

- 1. The first change was to allow fathers to enroll in the study at the 6-month postpartum time point (T2).**
- 2. A similar modification was later made to allow fathers to enroll in the study at the 12-month postpartum time point (T3).**

RATIONALE FOR CHANGES

As a mother participated in the study and gained a level of trust with study staff, she may be more likely to facilitate and encourage the father to participate.

The additional time allowed us to obtain fathers' current contact information from mothers who gave permission to contact fathers but whose contact information had changed.

The longer time period for father recruitment also allowed study staff more opportunities to ask mothers who initially denied permission to contact the father to reconsider and give permission.

NICHD FATHER SUPPLEMENT

In 2010 the NICHD further supported this effort by funding an administrative supplement to all sites in order to implement the recommendations that came out of the Ad-hoc Father Recruitment and Enrollment Committee.

With the additional funds, sites were able to dedicate new resources to the identified strategies.

COMPARING PARTICIPANTS ENROLLED UNDER THE ORIGINAL AND MODIFIED PROTOCOLS

<u>Variable</u> Category	Mothers with Fathers Completing Enrollment Interview	
	T1 (N=1179)	S0 or S1 (N=128)
<u>Relationship Status</u>	P-value<0.0001	
Married	43%	32%
Not married, but in a romantic relationship	51%	46%
Not married and not currently in a romantic relationship	5%	22%

COMPARING PARTICIPANTS ENROLLED UNDER THE ORIGINAL AND MODIFIED PROTOCOLS

<u>Variable</u> Category	Mothers with Fathers Completing Enrollment Interview	
	T1 (N=1179)	S0 or S1 (N=128)
<u>Race/Ethnicity</u>	P-value<0.0002	
African-American or Black	40%	62%
White or Caucasian	29%	18%
Latino or Hispanic	27%	19%
Multi-Racial/Other	3%	2%

FATHER PARTICIPATION IN MCH RESEARCH

We should be cautious in attributing differences in father participation in research studies by race/ethnicity to “racial/ethnic status” (which explains nothing) or presumed lack of trust in research among racial/ethnic minorities.

FATHER PARTICIPATION IN MCH RESEARCH

The view that distrust of health research by African American men explains their lower participation rates in research studies appears not to be the case with CCHN. Rather, more immediate practical issues having to do with the father's relationship with the mother was the primary reason.

FATHER PARTICIPATION IN MCH RESEARCH

Other variables associated with racial/ethnic status such as mass incarceration and chronic unemployment may be behind the mother-father relationship issues that manifest themselves in racial/ethnic disparities in father recruitment and enrollment.

STRESS AND RESILIENCE AMONG FATHERS

STRESS AND RESILIENCE

STRESS encompasses demands that tax or exceed the resources of the individual.

- Acute and chronic in form.
- Measured through both exposures and appraisals.

RESILIENCE is defined in many ways in the literature...

- Resilience Resources are capacities available to the organism to manage demands.

A TAXONOMY OF RESILIENCE RESOURCES

I. Personality & Dispositional Resources

II. Self and Ego-related Resources

III. Interpersonal and Social Resources

IV. World Views & Culturally-Based Values

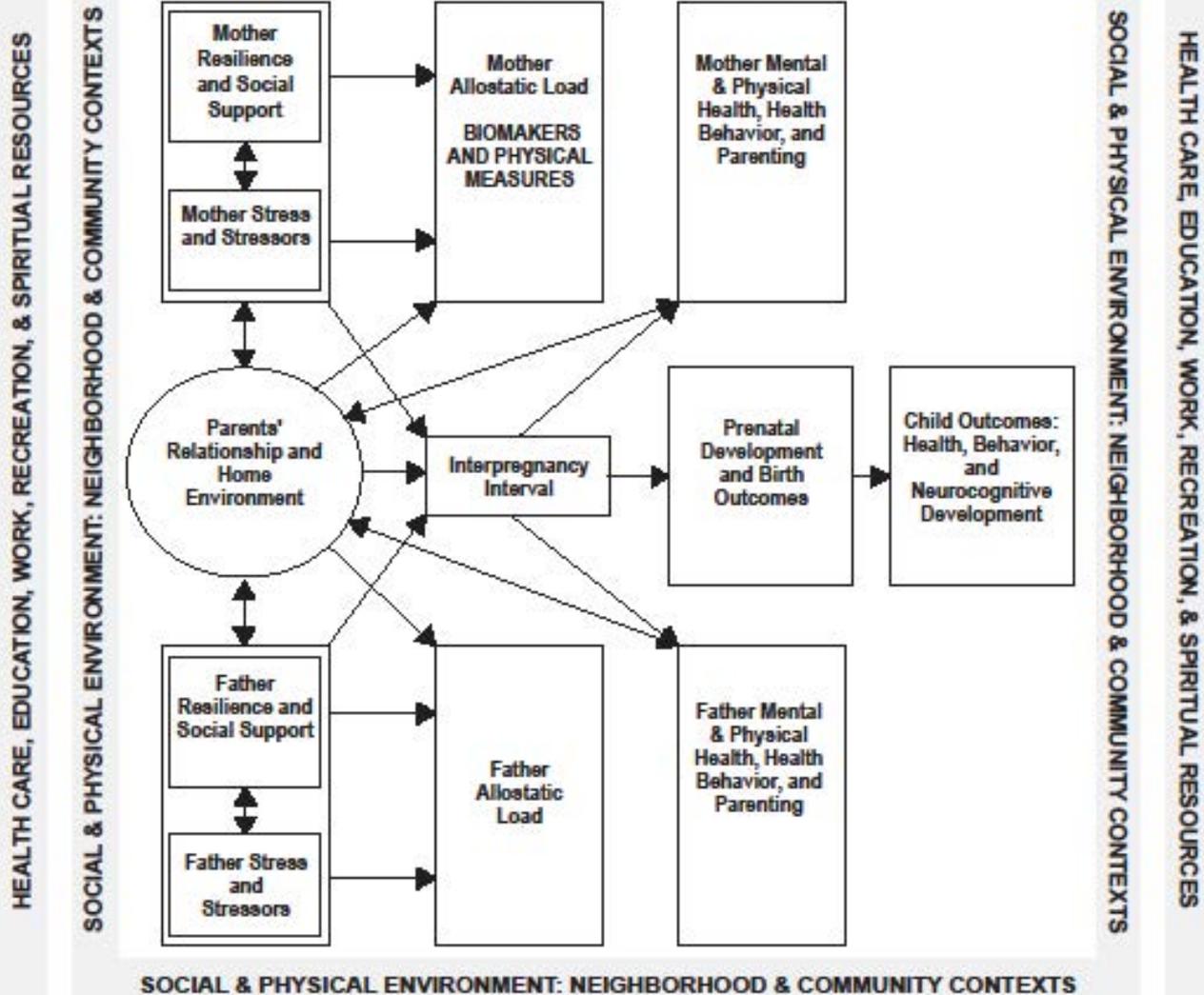
V. Behavioral & Cognitive Skills

**VI. Other Endowed/Constitutional and
Acquired Resources**

(Dunkel Schetter & Dolbier, 2011)

HEALTH CARE, EDUCATION, WORK, RECREATION, & SPIRITUAL RESOURCES

SOCIAL & PHYSICAL ENVIRONMENT: NEIGHBORHOOD & COMMUNITY CONTEXTS



SOCIAL & PHYSICAL ENVIRONMENT: NEIGHBORHOOD & COMMUNITY CONTEXTS

HEALTH CARE, EDUCATION, WORK, RECREATION, & SPIRITUAL RESOURCES

CCHN STRESS MEASURES AND TIMING OF ASSESSMENT (1ST YEAR)

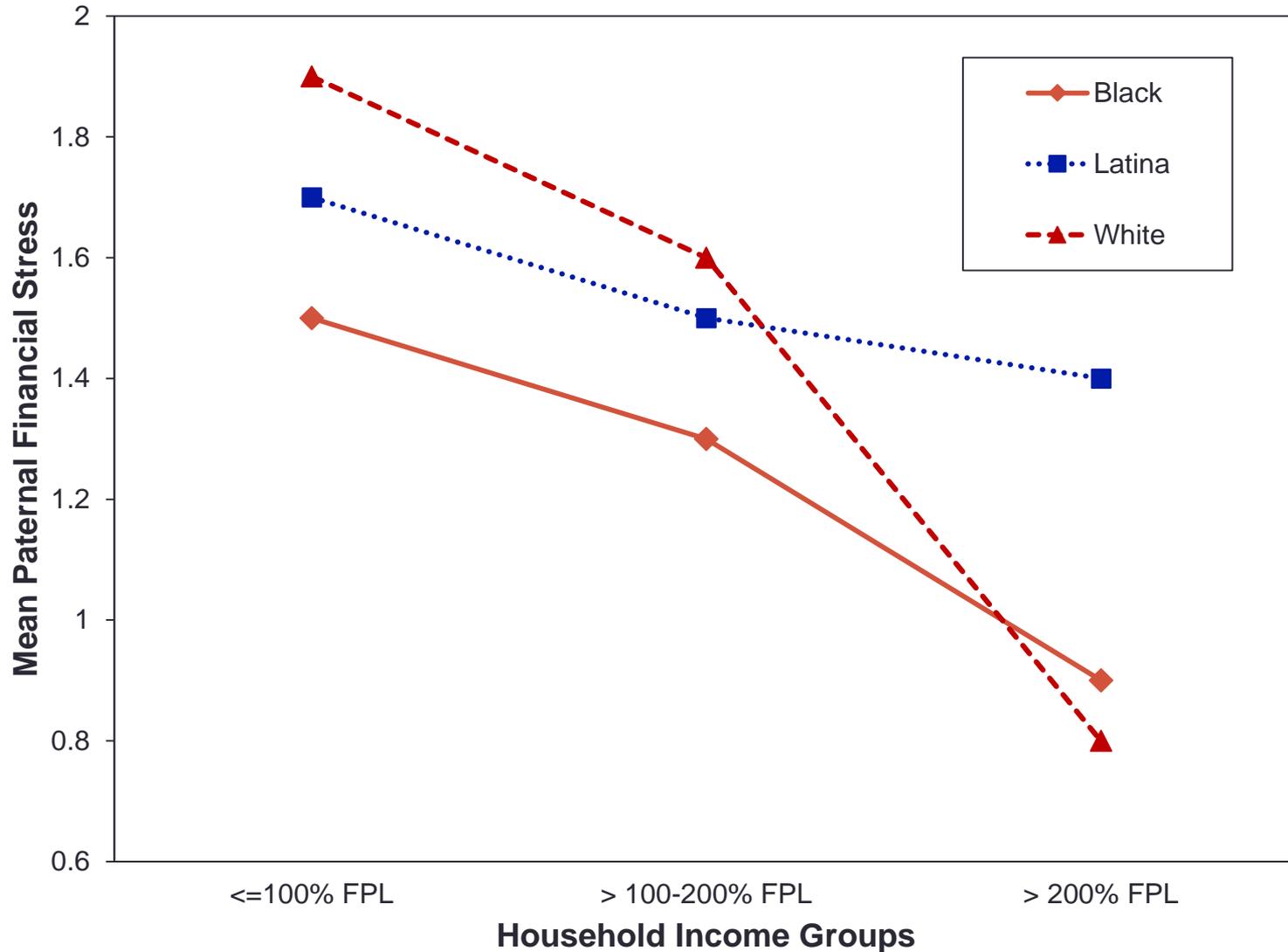
Stress Aspect	1 month post birth	6 mo post birth	12 mo post birth
1. Financial Stress	X		
2. Pregnancy Stress (retrospective)	X (M only)		
3. Life Events	X		X
4. Chronic Stress		X	
5. Perceived Stress	X	X	X
6. Interpersonal Violence	X (M only)		X
7. Racism/Discrimination	X		X
8. Parenting Stress			X
9. Daily Activity Stress			X

CCHN ANALYTIC GOALS

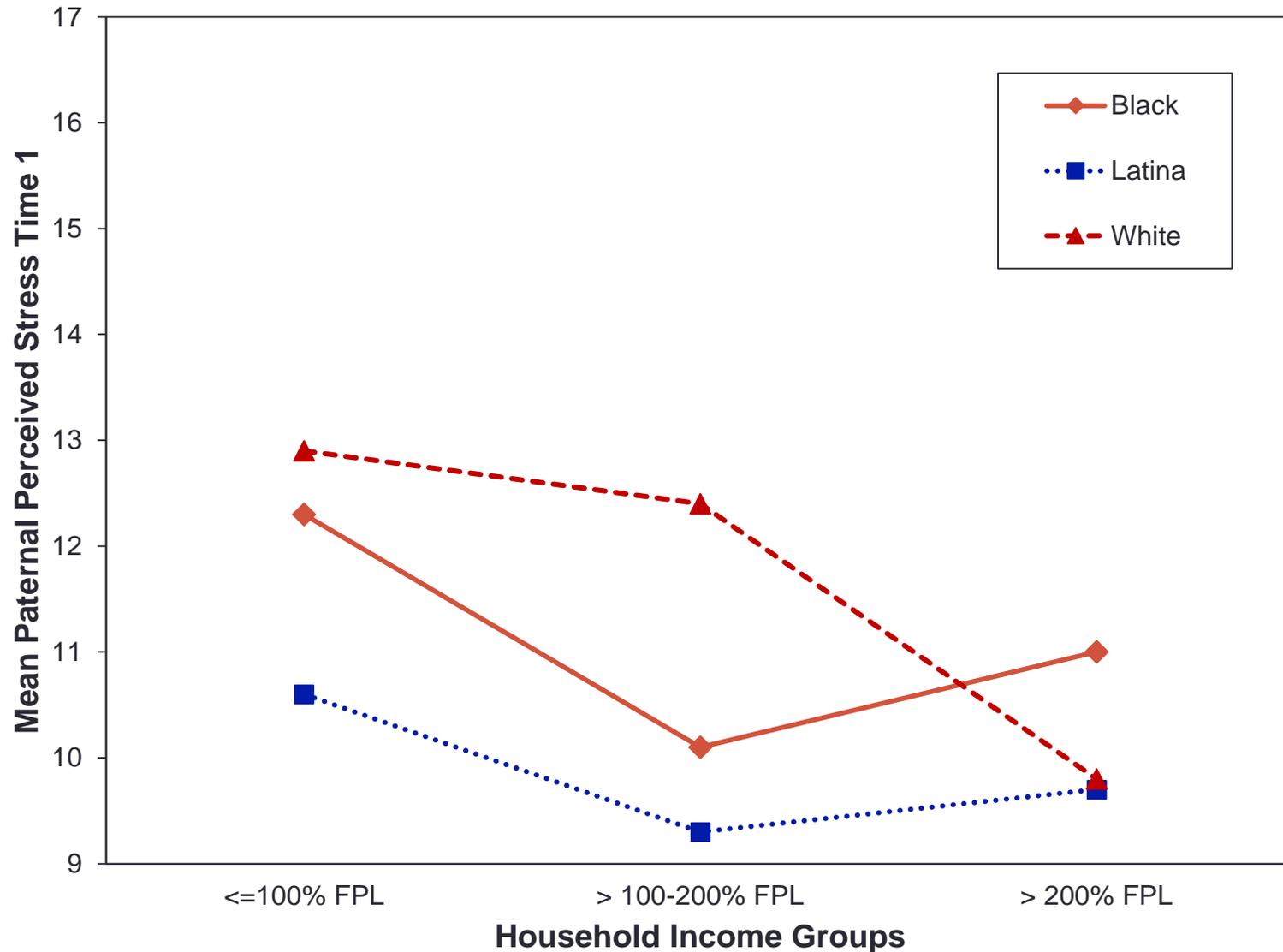
To examine ethnic/racial and income/education differences in stress and resilience to understand how the subgroups in our study differed in these respects.

This approach includes examining within-group differences.

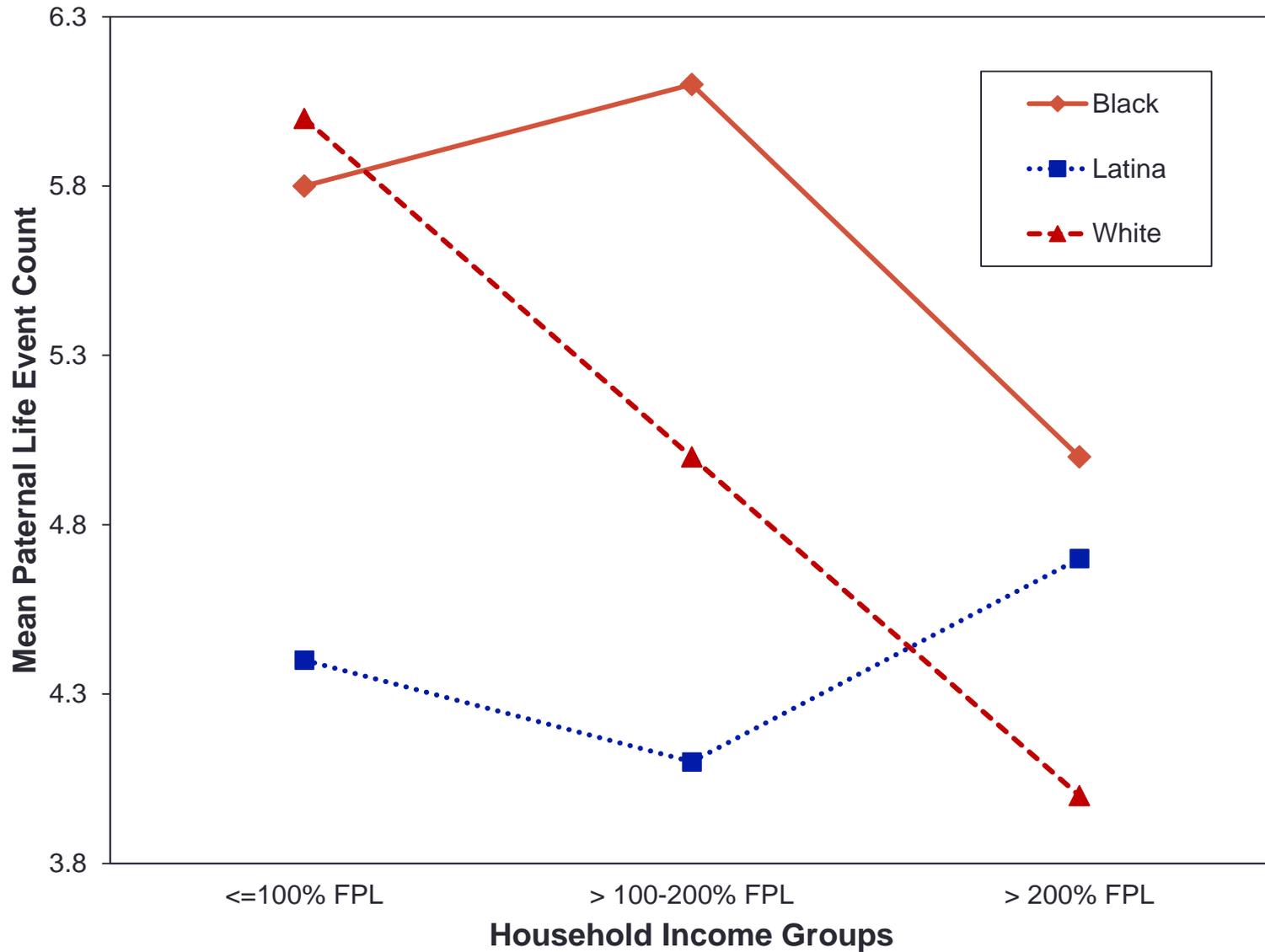
PATERNAL FINANCIAL STRESS BY INCOME AND RACE/ETHNICITY



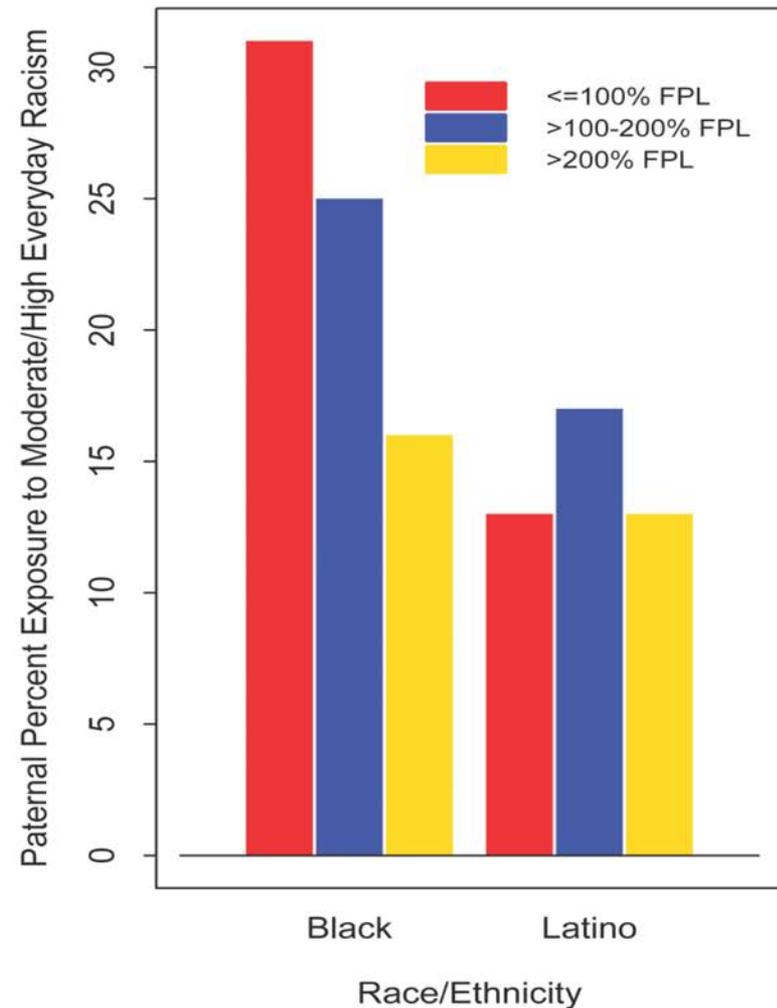
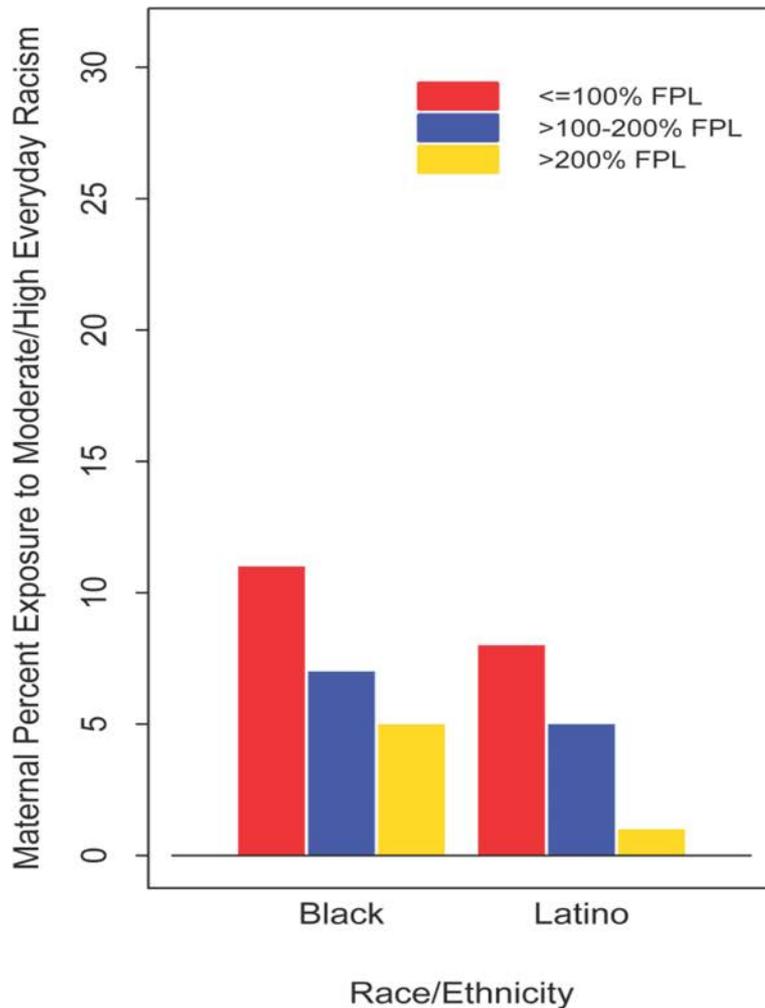
PATERNAL PERCEIVED STRESS BY INCOME AND RACE/ETHNICITY



PATERNAL LIFE EVENTS BY INCOME AND RACE/ETHNICITY



MATERNAL AND PATERNAL EVERYDAY RACISM BY RACE/ETHNICITY & INCOME



CONCLUSIONS ABOUT STRESS

- **Fathers from these communities, like mothers, experience high rates of many forms of stress in the year following a birth.**
- **Black mothers and fathers experience high levels of all types of stress compared to Whites.**
- **In particular, Black fathers have high rates of everyday discrimination (higher than Black mothers).**
- **The effects of increasing income and education on reductions in stress in Blacks and Latinos are not as great or consistent as among Whites.**

CCHN RESILIENCE MEASURES AND TIMING OF ASSESSMENT (1ST YEAR)

Resilience Resource	1 month post birth	6 mos post birth	12 mos post birth
1. Mastery	X		X
2. Self Esteem	X		
3. Perceived Support	X		
4. Collective Efficacy	X		
5. Community Cohesion		X	
6. Optimism		X	
7. Familism			X
8. Collectivism			X
9. Positive Affect			X
10. Approach Coping Style			X
11. Spirituality		X	X

ASSOCIATIONS OF RESOURCES WITH EDUCATION AND INCOME FOR FATHERS

RESOURCE	FATHER EDUCATION & FATHER RESOURCES	HH INCOME & FATHER RESOURCES
Personal Resources	.19***	.09*
Perceived Support	.07	.11**
Spirituality	-.13***	-.17***
Community Resources	.16**	.17***
Cultural Resources	-.06	-.03

ADJUSTED RACE / ETHNICITY DIFFERENCES IN FATHER RESILIENCE RESOURCES

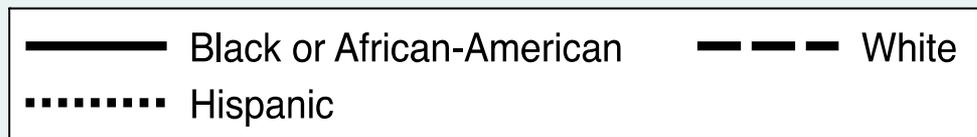
Father Resources	p-value (adjusted)*	Direction of Sig Effects
Mastery	0.05	B > L
Self Esteem	MARGINAL	
Perceived Support	MARGINAL	
Community Cohesion	<.0001	W > B
Collective Efficacy	< 0.001	W > B, L
Optimism	MARGINAL	
Familism	< 0.05	B > W
Collectivism	NOT SIG	
Positive Affect	< 0.01	B, W > L
Spirituality	<.0001	B > L > W

SUMMARY OF SES EFFECTS WITHIN RACE / ETHNICITY AND GENDER GROUPS

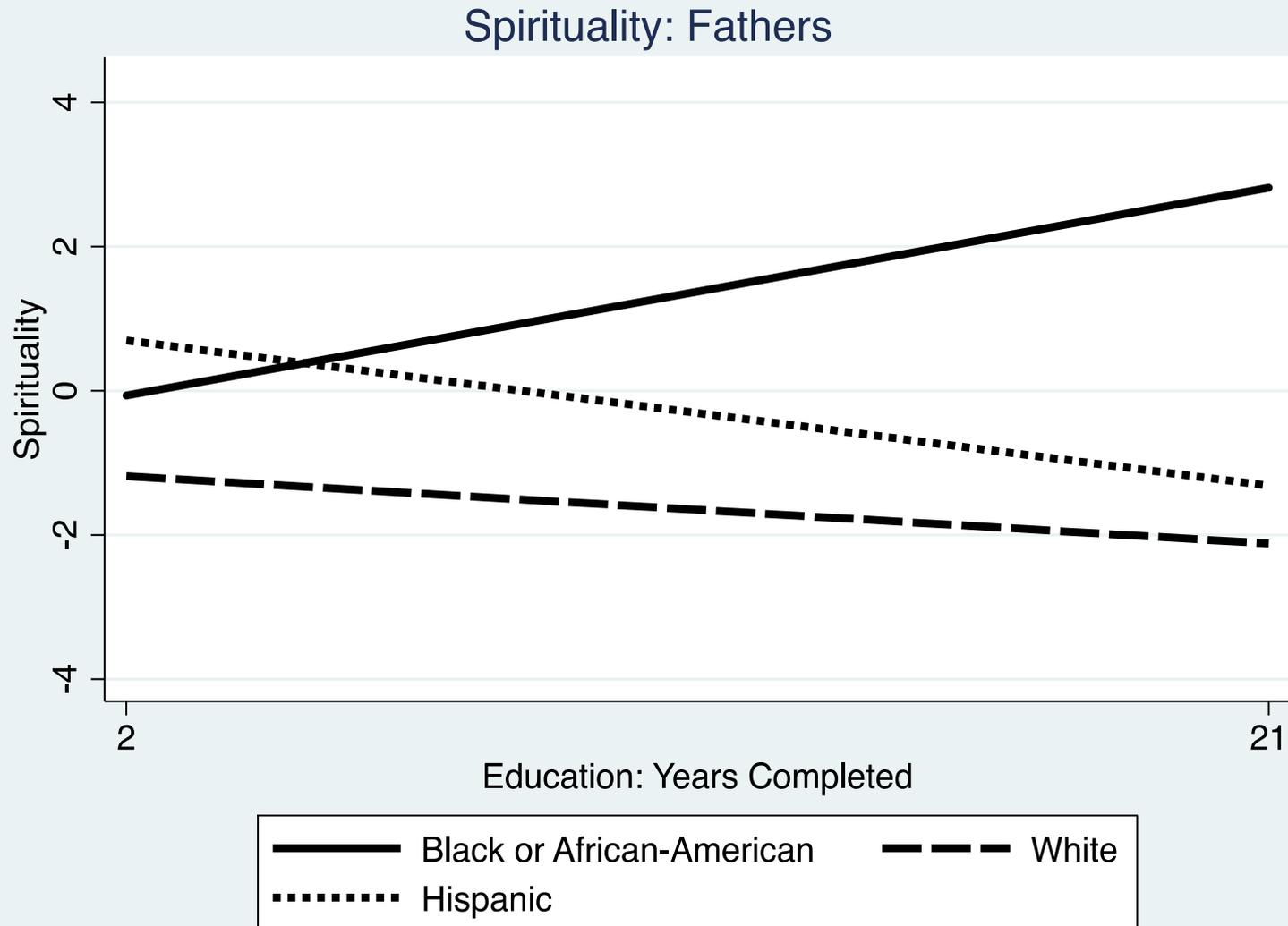
Overall, income had similar effects for all 6 racial/ethnic by gender groups but effects were weaker for Latinos and fathers.

- As income increased, **Self Esteem** increased for fathers of all ethnic/racial groups.
- As income increased, **Mastery, Optimism, and Perceived Support** increased for White and Black Fathers, but NOT for Latino fathers.
- As income increased, **Collective Efficacy** increased (only marginally for White fathers.)
- As income increased, **Community Cohesion and Positive Affect** increased for Blacks, mainly for Black mothers.
- Income had NO EFFECT on levels of **Familism for fathers.**

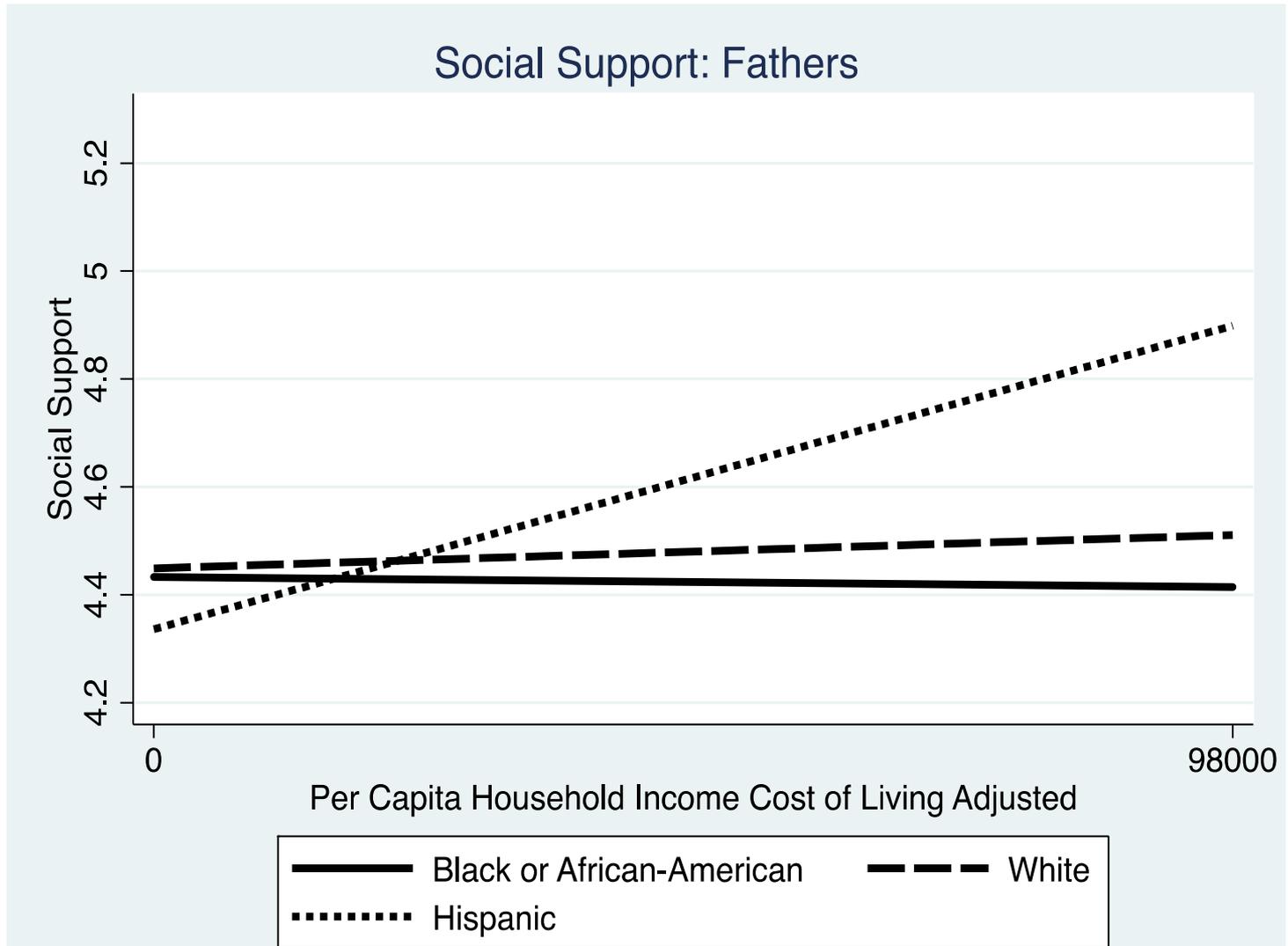
FATHERS' PERSONAL RESOURCES BY EDUCATION



FATHERS' SPIRITUALITY BY EDUCATION



FATHERS' SOCIAL SUPPORT BY INCOME



CONCLUSIONS ABOUT RESILIENCE

- **Black and White fathers tend to have different resilience resources even when controlling for income.**
- **Latino fathers are often lower in resilience resources than Whites and Blacks independent of place of birth, income and education.**
- **Mastery, Self Esteem, Optimism, Perceived Support and Collective Efficacy increase with increased income in all ethnic/racial groups and for mothers as well as fathers.**
- **Some resources vary by race/ethnicity and income/education in complex ways.**

FUTURE DIRECTIONS

Now, we are testing our main hypothesis regarding whether stress and resilience predict a cumulative index of wear and tear on biological systems (Allostatic Load) taking into account the complexities of race/ethnicity and income/education.

FUTURE DIRECTIONS

We have been examining the magnitude of racial disparities in stress and allostatic load by income/education, to offer insights into findings from other research regarding increased racial disparities among lower risk, versus higher risk, SES groups.

**e.g., Dunkel Schetter, Schafer, et al for CCHN
(in press, *Perspectives in Psychological Science*)**

FUTURE DIRECTIONS

Many other questions can be addressed with this extensive dataset whose richness reflects the value of CBPR processes.

THANK YOU!