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Determinants of Mental Health and Self-Rated Health: A Model of Socioeconomic Status, Neighborhood Safety, and Physical Activity

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Abstract

Objectives—We investigated the underlying mechanisms of the influence of socioeconomic status (SES) on mental health and self-rated health (SRH), and evaluated how these relationships might vary by race/ethnicity, age, and gender.

Methods—We analyzed data of 44 921 adults who responded to the 2009 California Health Interview Survey. We used a path analysis to test effects of SES, neighborhood safety, and physical activity on mental health and SRH.

Results—Low SES was associated with greater neighborhood safety concerns, which were negatively associated with physical activity, which was then negatively related to mental health and SRH. This model was similar across different racial/ethnic and gender groups, but mean levels in the constructs differed across groups.

Conclusions—SES plays an important role in SRH and mental health, and this effect is further nuanced by race/ethnicity and gender. Identifying the psychological (neighborhood safety) and behavioral (physical activity) factors that influence mental health and SRH is critical for tailoring interventions and designing programs that can improve overall health.

Social determinants of health have been a focus in disparities research because these factors can be changed through prevention, intervention, and policy.[1,2] Recently, there have been concerted efforts around the world to examine how social and environmental factors affect an individual's health status.[3–6] In this study, we tested a model that examines how social determinants influence mental health and self-rated health (SRH).

The relation between socioeconomic status (SES), or socioeconomic position, and health has been examined extensively.[7–14] Regardless of how SES is measured, the predominant view

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Contributors: O. L. Meyer conceptualized the study and led all aspects of its implementation. L. Castro-Schilo helped conceptualize the study, conducted all data analyses, and interpreted the data. S. Aguilar-Gaxiola reviewed all drafts of the article and guided its revisions. All authors worked on interpreting the final results and writing the article.

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is that an individual's social and economic resources strongly influence one's health.[15–17] Decades of research have shown that lower SES is associated with poorer health behaviors,[17] a variety of health-related problems including hypertension and diabetes,[18,19] and greater morbidity and mortality.[11,20,21] The number of studies of SES and mental health is also growing. Some of these studies indicate that major depression is higher in low-SES groups.[22–27] SES is a complex phenomenon and has been measured in several ways.[28–31] Some researchers have argued that it is one's relative position in the hierarchy, or socioeconomic position, that is the critical factor. Others have suggested that education alone is the single best indicator of SES.[14] In recent studies, SES is most commonly measured in terms of education and income.[10]

In the current study, the choice of variables was influenced by ecological systems theory and Diez Roux's pathways model, which describes how SES might contribute to health disparities via individual and contextual pathways, such as neighborhoods.[32–37] Low-SES neighborhoods have fewer resources and services and reduced physical activity compared with high-SES neighborhoods.[38,39] One reason for reduced physical activity might be that those who feel less safe in their neighborhoods feel uncomfortable engaging in outdoor physical activity.[40–42] Thus, the link between neighborhood conditions and health may be partially explained by safety fears.[24,43,44] It is clear that lack of physical activity could contribute to health problems, but research has also demonstrated the beneficial effects of physical activity on mental health.[45,46] Taken together, these findings point to the potential influence of SES on health and mental health, potentially by affecting neighborhood safety and physical activity.

Race/ethnicity and SES are deeply intertwined; thus, teasing apart these effects is important in ascertaining the true influence of SES. This study contributes to the existing literature by examining the relationship between SES on mental health and SRH in a single model. Previous studies have examined how SES might affect health, mostly using regression analyses to test the relation between SES and safety fears, or safety fears and physical activity, for example. Our model considers both psychological (fear) and behavioral processes (physical activity), and is grounded in the existing literature. Additionally, we address previous study limitations by assessing how relations among SES, neighborhood safety, physical activity, mental health, and SRH might vary by race/ethnicity, age, and gender, thus providing a more nuanced picture of how SES affects health.[42,47] The use of a diverse and large sample in California provides valuable insights into understanding potential subgroup disparities. We used a structural equation modeling (SEM) framework because it allows us to focus on 2 equally important outcomes: SRH and mental health.

As seen in Figure 1, we hypothesized that individuals lower in SES have greater fears about their safety. Greater concerns over one's safety would inhibit physical activity, which in turn would lead to worse health outcomes. We compared this model across 4 subgroups: (1) non-White women, (2) non-White men, (3) White women, and (4) White men. Additionally, age was included as a predictor of mental health and SRH, and time lived at current residence as a predictor of safety fears.[48]

Methods

We used data from the 2009 California Health Interview Survey (CHIS), the largest statewide, population-based health survey in the nation.[49] The survey employs a multistage sampling design, using a random-digit-dial sample of landline and cellular telephone numbers from 44 geographic sampling strata to randomly select households. Surveys were conducted in English, Spanish, Mandarin, Cantonese, Vietnamese, and Korean.

In 2009, the CHIS surveyed 47 614 adults[49]; this study's sample includes respondent information for the 44 921 individuals whose information was complete on at least 1 of the variables of interest. The sample was 70.7% White, 12.8% Latino, 10.9% Asian, 4.3% African American, 1.1% American Indian/Alaska Native, and 0.2% Pacific Islander. We rescaled all measures to make sure a meaningful zero was present in the observed data. This practice facilitates the interpretation of the path analysis results just as it does in traditional regression analysis. That is, the value of the intercept becomes meaningful because it is the average value of the dependent variable when all the predictors are zero. Furthermore, traditional practices for testing interaction effects require that predictors be centered at the mean or at another meaningful value.

Measures

Because education and income have typically been the most validated measures of SES, we used these variables to create a measure of SES.[10] Individuals reported on their education by selecting 1 of 11 options ranging from having no formal education to having a PhD or equivalent. We computed income by dividing total household income by the number of adults residing in the household. We then standardized this value and averaged it with a standardized version of the education variable to create a composite index of SES.[12]

Neighborhood safety fears were assessed with the question, “How often do you feel safe in your neighborhood?” Answer choices ranged from 1 = All of the time to 4 = None of the time. Higher values indicated greater safety fears.

The CHIS physical activity variable was created from several questions using the International Physical Activity Questionnaire (IPAQ) guidelines.[50] Questions focused on frequency and duration spent on moderate and vigorous leisure time physical activity. Based on responses to these questions, CHIS classifies physical activity into 3 levels: regular physical activity, some physical activity, and no physical activity. Higher values represented more physical activity.

We measured mental health using the Kessler-6 scale, which measures severity of psychological distress and was designed to estimate the proportion of serious mental illness within a population.[51] Participants were asked to recall the worst month in the past year when they had experienced serious psychological distress and were asked to report, during that time, how often they felt nervous, hopeless, restless, depressed, worthless, or that everything was an effort. Values ranged from 0 to 24, with higher values representing more distress. We reverse-coded this variable so that higher values indicated better mental health. The Kessler-6 was originally developed for use in the US National Health Interview Survey

and has established reliability and validity for use in population-based samples both in the United States and internationally.[51–53]

Participants reported their general health condition by choosing an option from a 5-point Likert scale ranging from 1 = excellent to 5 = poor.[54] We reverse-coded this variable so that higher values represented better SRH. The validity of this single-item measure of overall health has been well established among diverse populations in the United States.[55]

We determined race/ethnicity from the University of California, Los Angeles, Center for Health Policy Research Office of Management and Budget standard. We treated race/ethnicity as a dichotomous variable: we considered Latino, Pacific Islander, American Indian/Alaska Native, Asian and African American categories as non-White, and we considered White as White. Participants also reported their age and gender. We included time lived at current address (in months) as a covariate.

Statistical Analyses

We performed a multiple-group path analysis using full information maximum likelihood estimation in Mplus version 7 (Muthén & Muthén, Los Angeles, CA).[56] We used sample weights along with the Jackknife 2 method to account for the complex sampling design of the CHIS. The hypothesized model is depicted in Figure 1. To test for a potential moderating effect of age, we computed an interaction variable and included it in the model (i.e., the product of age and safety fears). We determined model fit by the root mean square error of approximation (RMSEA).[57]

We evaluated group differences in the path model by using the multiple-group analysis feature in Mplus, which consisted of 4 steps, fitting a model that: (1) had equality constraints across all groups (i.e., assumes all groups are invariant with respect to the estimated parameters); (2) relaxed constraints in variances and residual variances only, (3) relaxed constraints in variances, residual variances, means, and intercepts; and (4) relaxed constraints in the first 3 steps in addition to regression parameters. These systematic comparisons allowed us to identify exactly how groups differed. Comparing models 1 and 2 indicates whether groups differ only in their patterns of variability. Comparing models 2 and 3 points to differences in the overall level (i.e., mean) of the variables across groups. Finally, comparing models 3 and 4 suggests whether variables' influences on one another differ between groups.

We used likelihood ratio tests to compare the 4 models. However, these tests depend on sample size, and because the CHIS sample is quite large, we expected significant likelihood ratio tests for all model comparisons even in instances in which constraints were reasonable. Thus, we opted to consider all available information to assess the appropriateness of equality constraints across groups, including changes in −2 log-likelihood (LL) and RMSEA. Furthermore, with such a large sample size, issues of practical significance are important. Thus, we focused on the magnitude of parameter estimates and proportion of variance explained in the models to assess fit.

Results

Zero-order correlations and descriptive statistics for the variables included in the path analysis are shown in Table 1. About half of the participants (50.7%) were female. The weighted mean age was 45.35 years (SE = 0.05 years). Of the sample, 20.0% reported regular physical activity levels, 44.0% reported engaging in some physical activity, and 36.0% were inactive. The majority of the sample reported positive mental health and about average SRH. Bivariate correlations suggested that mental health was most positively related to SRH and age, followed by SES and physical activity, and was negatively related to neighborhood safety fears. SRH was strongly positively related to SES, followed by mental health and physical activity, and was most negatively related to neighborhood safety fears and age.

Relations Among Variables

As shown in Table 2, greater SES was associated with better SRH and mental health, greater physical activity, and lower neighborhood safety fears. Physical activity was positively associated with SRH and mental health. Older adults had worse SRH, better mental health, and less physical activity than did younger adults. Greater safety fears were related to worse mental health and less physical activity. The age by neighborhood safety fears interaction on physical activity was not significant, suggesting that the relation between safety fears and physical activity is the same for all age groups. Finally, the longer someone had been living at his or her current address, the lower his or her safety fears.

Model Selection

The hypothesized model (Figure 1) with invariant parameters across groups resulted in marginal fit to the data: RMSEA = 0.11 (90% confidence interval [CI] = 0.10, 0.11). A possible explanation for the lack of fit is the potential difference in patterns of relations across non-White women and men, and across White women and men. In the next several models, we investigated whether different patterns of associations existed for different gender and racial/ethnic groups. Because race/ethnicity and gender are categorical variables, we performed multiple-group testing across these groups. By contrast, we included age, a continuous variable, as a moderator in the multiple-group model.

We fit a series of models in which we systematically freed parameters to be estimated differently for each group. Model 2 was similar to model 1 (the hypothesized model), but we allowed variances and residual variances to vary across groups.[58] For this comparison, Δ-2LL = 6560.79, Δ*df* =51 (*P*< .001), suggesting groups have statistically significant differences in the spread of reported values for variables in the model. However, inspection of RMSEA (RMSEA = 0.11; 90% CI = 0.10, 0.11) and Δ-2LL suggested that this model was not a clear improvement over model 1.

For model 3, we also allowed means and intercepts to vary. This resulted in a significant improvement of fit to the data: RMSEA = 0.05 (90% CI = 0.04, 0.05); Δ-2LL =8191.48; Δ*df* = 24 (*P* < .001). Before deciding whether to retain this model, we fit model 4, which allowed regression coefficients to also vary across groups. The resulting model fit

adequately: RMSEA = 0.07 (90% CI = 0.07, 0.08). However, parameter estimates did not suggest practically significant differences (parameter estimates from both models were almost identical across groups). Thus, model 3–in which regression coefficients were fixed to equality across groups, but all remaining estimates were different–was retained as the best fitting model (Table 2).

Estimates suggested that 4.8%, 5.2%, 5.4%, and 7.4% of the variance in mental health (R^2) was explained by the model for non-White women, non-White men, White women, and White men, respectively. Estimates of explained variance in SRH were 14.3%, 13.8%, 14.5%, and 15.7%, for non-White women, non-White men, White women, and White men, respectively. Inspection of total indirect effects allows us to quantify the amount of mediation that safety fears and physical activity have on each of the outcomes. Because parameter estimates were invariant across groups, indirect effects were all identical. The total indirect effect of SES to SRH was b = 0.03 ($P < .001$), which suggests a small but significant mediation effect. The total indirect effect can be put into context by comparing it to the total effect of SES on SRH (which is the sum of all indirect effects and direct effect), b = 0.39 ($P < .001$). Similarly, the total indirect effect of SES to mental health was b = 0.11 ($P < .001$), and the total effect was b = 0.53 ($P < .001$). In sum, this suggests important but small mediation effects of neighborhood safety fears and physical activity.

Table 3 shows the best fitting model, model 3, that includes estimates which were allowed to vary across groups. The most notable differences were the means for SES, which were lower for non-Whites than for Whites and higher for men than for women. Intercepts of mental health seemed to be comparable across groups, suggesting similar levels of mental health. By contrast, intercepts of SRH were higher for Whites. Intercepts for physical activity were lower for women (particularly non-White women) than for men. Thus, men appear to be more active than women, and non-White women seem to have the lowest levels of physical activity. Finally, because age was centered at 45 years, the negative mean age values suggest that non-Whites are, for the most part, younger than Whites.

Discussion

Our results supported the hypothesis that higher SES was associated with lower neighborhood safety fears, which in turn was associated with more physical activity, and physical activity was positively related to SRH and mental health. Although one cannot assume causation from the current data, it is possible that low SES individuals are more concerned about their neighborhood safety, which might lead them to be less physically active, which might result in worse health outcomes. Our findings suggest that relations among SES, neighborhood safety fears, physical activity, and mental and SRH are similar across age, race/ethnicity, and gender groups. However, key racial/ethnic and gender differences existed in the average level of the constructs themselves. This is consistent with the literature detailing disparities in SES, such as Whites and men having higher SES than non-Whites and women.[59–61]

With respect to SRH, results suggested that higher levels of SES are linked to better SRH, and that racial/ethnic minorities have lower SRH compared with Whites, corroborating

previous literature.[61–65] Also as expected, older adults had worst SRH than did younger adults.[66,67] As with SRH, SES and physical activity had a positive effect on mental health. In line with previous work, older adults had better mental health than did younger adults.[68] Neighborhood safety fears had a negative impact on mental health. As hypothesized, greater safety fears and older age were related to lower physical activity, whereas higher SES resulted in higher levels of physical activity. Regardless of race/ethnicity, men had higher levels of physical activity, and non-White women had the lowest levels of physical activity, supporting previous research.[69,70]

Findings from previous research on the association between neighborhood safety and physical activity are inconsistent, with some studies finding no relation between neighborhood safety and physical activity,[71,72] and others suggesting a positive relation.[40,42,73] This may be because as our study suggests, neighborhood safety is a significant but weak predictor of physical activity. Importantly, higher SES was linked to lower safety fears for all groups. Thus, as SES increases, Whites followed by men obtain the greatest benefits from decreased neighborhood fears. We also found that the relation between safety fears and physical activity did not differ across age groups as hypothesized. A potential explanation for this finding is that people are physically active in places other than their neighborhood, so that neighborhood safety may not be a central issue.[74]

Practical Implications

Our results have several implications for policy and future research. Given that non-White women have the lowest levels of physical activity, they represent an important target group for health promotion. An implication of the study is that to improve non-White women's health, policy might focus on some aspects of the neighborhood, but that issues related to women's economic resources should be a priority (as SES had a strong direct effect on SRH). For instance, it may be helpful for recreational programs (regardless of perceived safety) to offer discounts to low-income women. Studies have shown that factors related to one's social circumstances (e.g., lack of time and energy), health (e.g., obesity), and psychology (e.g., self-efficacy) can be barriers to some women's physical activity.[75–77] Future research should examine if addressing these barriers increases non-White women's physical activity levels. If so, it would seem that public health interventions and policy should target these barriers and women's economic resources, rather than neighborhood safety, to increase physical activity.

Our results suggest that because women have lower physical activity than men, increasing everyone's SES would help both groups equally, thus maintaining existing gender disparities in physical activity. Interventions that increase SES would be beneficial for all individuals in terms of health, but a sole focus on SES would not eliminate physical activity and health disparities in different racial/ethnic groups (available as supplement to the online version of this article at: http://www.ajph.org). Recently, the Texas Health Institute released a series of reports that highlighted implications and areas of improvement in regards to the Affordable Care Act.[78] These reports as well as our study suggest that by investigating the social determinants of health and addressing key areas for change (e.g., community-level interventions to promote safe recreation areas), we can work toward reducing disparities in

SES and neighborhoods. However, policy and interventions that focus on eliminating SES disparities without targeting vulnerable groups (e.g., non-Whites) may only serve to maintain current racial/ethnic disparities. Policy and public health interventions to promote health should take into consideration both SES and race/ ethnicity.

Limitations and Strengths

Our data are cross-sectional and, therefore, we were unable to establish temporal ordering of variables. Our path model suggests a specific order of relations among constructs, but evidence for causality requires longitudinal data. Furthermore, given the complexity of our model and analyses, we did not test alternate path directions (e.g., health to SES) and subgroup differences (Chinese, Vietnamese, etc.). For example, it is possible that selection effects operate so that poor health increases the likelihood of living in unsafe areas or having low SES.[79] Also, Latino and Asian populations are quite heterogeneous and future research should replicate our results with ethnic subgroups. It is important to note that several paths in this study were small, with some effects slightly greater than zero. Therefore, it is important that future research examine other potential ways that SES might influence SRH and mental health. We focused on perceptions of one's neighborhood without examining the physical characteristics of neighborhoods (e.g., abandoned buildings). Although objective measures would provide additional insight into the relation between aspects of the environment and physical activity, an individual's perceptions may be just as important in defining behavior and influencing health.[80,81] Nonetheless, future research should include objective and subjective measures of the neighborhood. Also, some physical activities may be more related to neighborhood safety (e.g., bicycling) than others (e.g., dancing),[47] but the data did not permit us to tease apart specific physical activities. Finally, our model stipulated linear associations between all variables, however, some relations could be nonlinear; for example, some research suggests a curvilinear relationship between age and mental health.[82]

A strength of this study is that, to our knowledge, it is the only investigation examining SES determinants of both SRH and mental health using a population-based probability sample and sophisticated analytic techniques. Through the use of SEM, we specified a path model that illustrates how SES might influence both psychological and behavioral processes that subsequently affect health outcomes. Lastly, by considering SES, race/ethnicity, and gender in the model, we were able to characterize more accurately the associations among the variables for different groups and to disentangle the sometimes intertwining effects of race/ ethnicity and SES.

Conclusions

In general, our results support previous findings regarding health disparities that exist for low SES and racial/ethnic minority group members, particularly non-White women. Disparities in health for non-Whites persist, and this may partly be because of lower physical activity, at least for non-White women. Results of this study demonstrate the complicated effects of individual and contextual determinants on SRH and mental health and suggest that policy and interventions address disparities considering both SES and race/ ethnicity.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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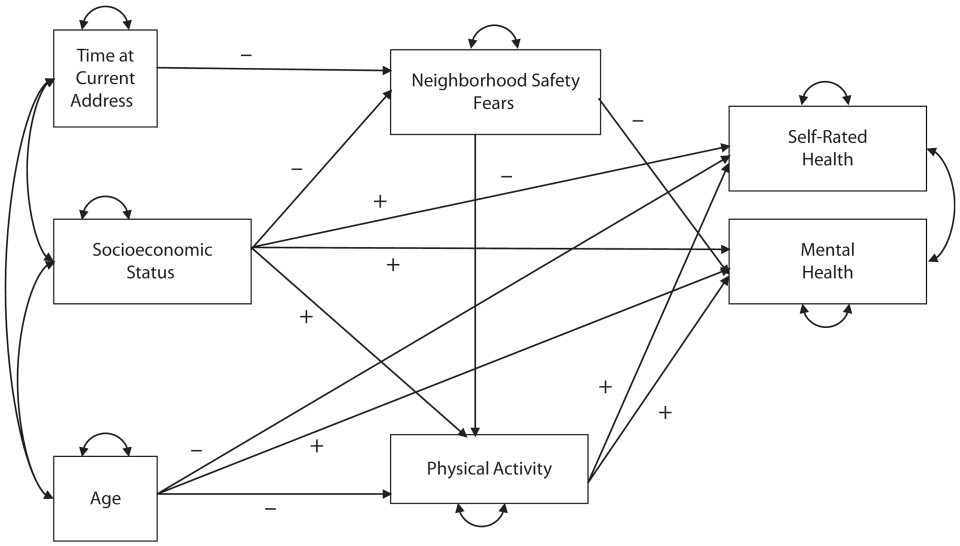

Note. The model was fit across 4 groups: non-White women, non-White men, White women, and White men. We tested age as a moderator on the relation between safety concerns and physical activity (relation not shown). Single-headed arrows indicate a hypothesized pathway between 2 variables (+ = positive association, – = negative association). Two-headed arrows on same variable represent variances. Two-headed arrows between 2 variables represent covariances.

Figure 1. Hypothesized multiple-group path model of the effects of socioeconomic status on self-rated health and mental health through neighborhood safety fears and physical activity

Table 1

Descriptive Statistics and Zero-Order Correlations for Path Analysis Variables (n = 44 921): California Health Interview Survey, 2009

		Variable								
Variable	**Mean ±SE or Unweighted No. (Weighted %)**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1: SES	−0.19 ±0.01	1.00	…	…	…	…	…	…	…	
2: Female	0.51 ±0.00	-0.02*	1.00	…	…	…	…	…	…	
3: Age	45.35 ±0.05	0.11***	0.05***	1.00	…	…	…	…	…	
4: Physical activity	2.13 ±0.01	0.11***	-0.13***	-0.12***	1.00	…	…	…	…	
5: Safety fears	1.53 ±0.01	-0.15***	0.06***	-0.15***	-0.06***	1.00	…	…	…	
6: Mental health	20.01 ±0.05	0.10***	-0.06***	0.16***	0.05***	-0.16***	1.00	…	…	
7: Self-rated health	3.50 ±0.01	0.33***	0.00	-0.15***	0.24***	-0.15***	0.24***	1.00***	…	
8: Household income	74 192.00 ±550.12	0.72***	-0.05***	-0.00	-0.12***	-0.16***	0.10***	0.30***	1.00	
9: Household size	3.28 ±0.01	-0.37***	-0.00	-0.35***	0.02	0.14***	-0.05***	-0.06***	-0.05***	
10: Time at address	127.66 ±1.44	0.04***	0.04***	0.51***	-0.03***	-0.08***	0.12***	-0.04***	-0.02***	-0.18***
Education										
< high school	4030 (14.9)									
High school diploma	9788 (25.9)									
Some college	12 185 (23.9)									
Bachelor's degree	11 156 (22.5)									
Graduate degree	7553 (12.8)									
Gender										
Female	26 571 (50.7)									
Male	18 350 (49.3)									

Note. SES = socioeconomic status. Ranges of variables: age (18-85 years), physical activity (0-2), safety fears (0-3), mental health (0-24), self-rated health (0-4), household income ($0-300 000), household size (1-10).

*$P < .05$;

***$P < .001$.

Table 2

Model 3 Parameter Estimates for Self-Rated Health, Mental Health, Physical Activity, and Neighborhood Safety Fears: California Health Interview Survey, 2009

Predictor	B	b	SE	z	*P*
Predictors of self-rated health					
SES	0.25	0.35	0.01	28.44	< .001
Physical activity	0.19	0.27	0.01	21.42	< .001
Age	-0.18	-0.01	0.00	-17.47	< .001
Predictors of mental health					
SES	0.07	0.43	0.06	6.72	< .001
Physical activity	0.05	0.32	0.05	6.26	< .001
Safety fears	-0.09	-0.70	0.10	-6.88	< .001
Age	0.18	0.05	0.00	16.06	< .001
Predictors of physical activity					
Safety fears	-0.04	-0.05	0.01	-4.82	< .001
SES	0.11	0.11	0.01	9.77	< .001
Age	-0.14	-0.01	0.00	-11.00	< .001
Age × safety fears	0.01	0.00	0.00	0.84	.401
Predictors of safety fears					
SES	-0.12	-0.10	0.01	-12.55	< .001
Time at current address	-0.08	0.00	0.00	-7.36	< .001

Note. SES = socioeconomic status. Model 3: freely estimated variances, residual variances, covariances, means, and intercepts.

Table 3

Model 3 Variances, Residual Variances, Means, and Intercepts for Different Groups: California Health Interview Survey, 2009

Parameter	Non-White Women, Estimate (SE)	Non-White Men, Estimate (SE)	White Women, Estimate (SE)	White Men, Estimate (SE)
Variances				
SES	0.55 (0.04)	0.59 (0.03)	0.53 (0.01)	0.64 (0.02)
Time at current address	14 569.77 (509.77)	13 861.39 (854.11)	22 559.38 (316.71)	19 691.20 (396.14)
Age	291.35 (4.01)	244.81 (3.42)	317.98 (4.28)	319.52 (4.52)
Age × safety fears	466.25 (37.29)	382.17 (23.43)	223.70 (11.56)	210.56 (18.37)
Residual variances				
Mental health	23.85 (1.36)	19.55 (1.19)	19.87 (0.63)	15.47 (0.65)
Safety fears	0.61 (0.03)	0.55 (0.02)	0.37 (0.01)	0.34 (0.02)
Self-rated health	0.96 (0.03)	0.99 (0.03)	0.93 (0.02)	0.85 (0.03)
Physical activity	0.49 (0.01)	0.54 (0.01)	0.52 (0.01)	0.55 (0.01)
Means				
SES	-0.44 (0.02)	-0.47 (0.02)	0.00 (0.01)	0.10 (0.02)
Time at current address	109.12 (2.22)	104.93 (2.81)	154.18 (1.60)	138.31 (2.01)
Age	-14.03 (0.21)	-14.67 (0.24)	-6.29 (0.17)	-8.75 (0.21)
Age × safety fears	-11.44 (0.59)	-9.99 (0.57)	-4.69 (0.27)	-4.66 (0.37)
Intercepts				
Mental health	20.76 (0.13)	21.13 (0.13)	20.21 (0.10)	20.74 (0.09)
Safety fears	0.67 (0.02)	0.61 (0.02)	0.53 (0.01)	0.43 (0.02)
Self-rated health	2.08 (0.02)	2.04 (0.03)	2.42 (0.02)	2.32 (0.02)
Physical activity	0.71 (0.02)	0.94 (0.02)	0.83 (0.01)	0.94 (0.02)

Note. SES = socioeconomic status.