

Acute Depression in Hispanic Youth in California – Findings from the California Health Survey 2003

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Introduction and Research Question Depression is a very frequent mood problem and is expected to be the second biggest health care problem after heart disease in 2020 [1]. Prevalence and age of onset is rising in young people [2, 3]. A large study conducted in the United States showed that people of Hispanic origins had a higher prevalence of depression than Whites [4]. The reasons remain unclear; they might be caused by race itself or by contextual factors. However, other studies showed contrasting results: immigrants from Mexico had lower rates of psychiatric disorders than non-immigrants [5]. The present study aimed at investigating the association between race and the prevalence of acute depression in Whites and Hispanic youth. Possible determinants besides ethnicity were also examined.

Design and Methods A secondary analysis was performed using data from the 2003 CHIS adolescent survey [6]. CHIS is a population-based, random-digital (RDD) telephone survey which is representative for California's households. The analysis was based on 4,010 telephone-interviews with teenagers, comprising White youth (n=2071), Latino youth (n=1125), and "Others" (n= 814) measuring acute depression. A reduced version of the CES-D Scale with a cut-off point set at 11 scores was used [7]. The following variables were tested for inclusion in the model: age, gender, socio-economic status, self-perceived body weight, volunteering, physical activity, household crowding, social support at home and social support at school provided by adults.

The data analysis was carried out using SPSS 12.0. At the univariate and bivariate level, frequencies were calculated for the description of the sample and Chi-Square tests were carried out, testing for significant differences at the 5%-Level (p-value). At the multivariate level, logistic regression models were used. All significant variables at the p<0.25 level in the bivariate analysis were included in the preliminary main effects model [8]. In the final main effects model, adjusted Odds Ratios (ORs) and confidence intervals (CIs) were calculated. The variables of the main effects model were tested for significant interactions and stratified.

Results The prevalence of acute depression in Latino youth was 9.9%, and 4.9% in Whites (p<0.001). White youth (17%) in contrast to Latino youth (67%) came less often from lower income households. Social support provided by adults at school was higher for White students. The majority of White (60%) and Hispanic youth (52%) perceived themselves as having the right weight.

The final multivariate model for determinants of depression included six main effects and two interactions. Household crowding, volunteer work and exercising were excluded since they did not show significant associations with depression (p>0.05).

The results of the multivariate logistic regression (see Tab.1.) showed that lack of social support provided by adults carried the highest risk for depression. An increased risk was associated with Hispanic background, lower household income, being female and self-perceived overweight.

Significant interactions were identified between race and social support at school as well as race and poverty level. The combination of Hispanic background and little support at school, or small household income respectively, appeared to lower the risk for depression. The main effects identified were then stratified by "Race". The risk associated with lack of support by adults at school differed between the two groups [White adolescents: OR 6.74 (95% CI: 3.64 – 12.46); Latino: OR 1.85 (CI: 1.01 – 3.41)]. A similar effect appeared for lower household income. The OR for the poorer White youth was 2.46 (1.58 – 2.86). In contrast, low income had no significant effect in the Latino group.

Discussion The prevalence of acute depression is twice as high in Latino as in White youth which confirms other studies [9, 10]. Sociodemographic and psychosocial disparities could partly explain the increased risk for Latino youth. Yet the risk of suffering from acute depression was still higher for Latinos than for White youth after adjusting for all covariates in the multivariate logistic regression. The stratified results revealed great differences between Latinos and Whites for the two covariates "social support at school" and "poverty level": their adverse effects on mental health seem to be much smaller for Latino adolescents.

Some of the underlying concepts such as social support require extra consideration, i.e. the validity of the respective scales in the CHIS questionnaire. Also the CHIS questionnaire did not include any items on peer relationships, although they are found to be a major predictor of depression [11, 12].

These findings lead to the question how "Race" relates to the prevalence of depression. However, the reasons for the increased risk associated with Hispanic background could not be examined in this study. Further research is required regarding culture as some recent studies claim that it might be a protective factor without, however, observing or measuring it [13]. Thus a multidimensional concept of culture is needed.

Variable and Reference Category	OR	95% CI
Race (Ref: White)		p<0,001
Latino	2,74	1,76 – 4,25
Other	1,42	0,89 – 2,28
Age (Ref: 12 -13 years)		p= 0,588
14-15 years	1,12	0,82 – 1,54
16 -17 years	1,18	0,86 – 1,62
Gender (Ref: male)		p<0,001
female	2,26	1,73 – 2,96
Poverty Level (Ref:>200% FPL)		p<0,001
0-199% FPL	2,44	1,56 – 3,81
Perceived Body Weight (Ref: right weight)		p<0,001
Underweight	1,28	0,86 – 1,91
overweight	1,90	1,44 – 2,50
Social Support at School (Ref: high)		p <0,001
Low	6,85	3,73 – 12,59
Social Support at Home (Ref: high)		p = 0,008
Low	3,77	1,41 – 10,10
Interaction: Race/ Social Support at School		p = 0,008
Latino/low support	0,26	0,11 – 0,61
Other/ low support	0,56	0,19 – 1,64
Interaction: Race/ Poverty Level		p = 0,012
Latino/0-199% FPL	0,40	0,22 - 0,74

Tab. 1. Factors associated with depression in the youth in California (CHIS 2003)

Literature

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