Reviewer's report

Title: Demographic, psychosocial, and genetic risk associated with smokeless tobacco use among Mexican heritage youth

Version: 2

Date: 11 April 2015

Reviewer: Adam J Milam

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The paper entitled Demographic, psychosocial, and genetic risk associated with smokeless tobacco use among Mexican heritage youth submitted to BMC Medical Genetics explores the association between genetic and psychosocial risk factors and smokeless tobacco use. Although smokeless tobacco use has seen declines in prevalence it remains a threat to public health especially among adolescents and young adults. While this paper is well-written and uses a unique population major revisions should be made before this paper is considered for publication. The major concern is the use of three waves of data collection with the same analyses. Detailed comments are below.

1. Would be helpful to have some statistics in the results section of the abstract. Also, counts should be accompanied with percentages.
2. Be careful about the use of the word “risk.” Increased likelihood (or odds) should be used.
3. Line 70 should have e.g. (for example) instead of i.e.
4. Line 74, Confidence intervals are not needed.
5. Line 107, consent and assent should be mentioned. Also compensation for time should be mentioned.
6. Major problem with the analyses. Line 109, need to discuss attrition analyses. Was the final sample similar to the original sample? What type of missingness? How do you plan to handle the missingness? What is the advantage of using multiple waves of data examining the same outcome and predictors? What variables are changing each year (other than adding individuals to the ever STU group)? Couldn’t the analyses focus on Wave 3 when you have the highest prevalence of STU.
7. Line 113 use dichotomous or binary instead of two level variable.
8. Line 118, please include the number and percentage of individuals who were inconsistent regarding their STU.
9. Line 161, 3 different cross sectional analyses for the same sample? Does Bonferroni correction apply since the sample is not independent?
10. Line 226 two periods, correct. Also, would be helpful to include the statistic that goes with the statement. Include odds ratio when describing results e.g. 235.
11. Line 237 has 9% instead of 95% CI.
12. Line 247 change risk to appropriate word
13. Is this studied properly powered given the percentage of STU?
14. The discussion section cannot be fully evaluated until the methodological issues are addressed.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
No competing interests or conflicts of interest.