

Substance Use Among Parents or Guardians of Preteenagers in Boston

Boston, MA 2016

INTRODUCTION

Conversations between parents/guardians and child dyads can be protective against substance use, however, there is a lack of research about how and when best to speak with children. A novel, adaptable, and resource-efficient substance misuse preventive intervention for parents/guardians, focusing on talking with children about substance use and eating family meals was conducted in the Boston area.

Substance use before the age of 13 is very dangerous and can be linked to poorer quality of life and health outcomes. Interventions geared at parents or guardians of adolescents can also act as an intervention by encouraging an individual to examine their own substance use. Substance use by parents can be as simple as a glass of wine or beer with dinner and could also include smoking or eating marijuana. The goal of this study was to examine if past three month substance use, defined as alcohol or marijuana, by the parent or guardians of the students enrolled in the study, vary by school as well as examine the density of alcohol and cigarette retailers to see if a relationship may exist between the retailers and substance use among the parents or guardians.

METHODS

Survey data from 70 parental and child dyads from the NIAAA study from 2014-2015 were used. The data includes frequencies of parent-child conversations about alcohol, marijuana, and other drugs, as well as, frequency and duration of family meals, along with reported substance use. Data were accessed from Reference USA using NAICS codes to gather a detailed list of liquor and cigarettes retailers in the Boston Area. The Reference USA data was then clipped to only include retailers within one square mile of the five schools that were used for recruitment during the study. The schools served as the geographic identifiers for each of the parental or guardians since home addresses were not known. Buffers of 1 mile were applied to each of the five schools since the Boston Public School department has been progressively working so that each student will travel less than one mile to school. The survey data were joined with state-level data from ESRI. Choropleth maps were made using ArcMap.

DATA SOURCES

Data were from Reference USA, ESRI, as well the R34 NIAAA funded study.

LIMITATIONS

- The study was very small (n=70) and underpowered.
- Adolescents were between third and sixth grade so younger than 13 years of age, therefore the substance use reports were pleasantly low.
- The wide variability number of individuals recruited from the different schools meant that the study was underpowered.
- Parental addresses were unknown so it is possible that the parents live further than one mile away from the school.
- Boston students do not attend the closest schools, rather there is a lottery system that could lead to more over than initially expected.
- One mile buffers could be dramatically inaccurate.

CONCLUSIONS

While this analysis was severely limited by the small sample size, this analysis serves as a first step at gaining a better understanding of the geographic differences that exist between the parents of preteenagers recruited from five Boston elementary schools in 2014. A larger sample size as well as a longer follow-up period would have been beneficial in order to see if the decreasing trend of alcohol use continued. Additionally, past three month marijuana use will be especially interesting to examine further as marijuana becomes more available and accessible to MA youth, even if it is illegal. This study was a first step at looking at these data and hopefully the analyses can be expanded with data

References:

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RESULTS

There were five schools with 70 parents or guardians of adolescents. There was a drastic range of number of parents recruited from the school (4-24). The following maps display past three month substance use collected at baseline and then at six months.

Figure 1: Prior three month parental alcohol use gathered at base-



Parental alcohol use is important to understand since children often mirror the actions and behaviors that adults present. In the map above, the darker circles indicate a higher percentage of individuals reporting drinking any alcohol over the three months prior to the baseline study visit.

Figure 2: Past three month parental alcohol use gathered at six months



Compared to the map from baseline, the overall percentages of individuals reporting past three month alcohol use has decreased.

Figure 3: Past three month parental marijuana use gathered at baseline



As Massachusetts has legalized marijuana, parental marijuana use will become interesting to evaluate as marijuana is more available. The map above illustrates past three month marijuana use. The darker circles indicate a higher percentage of individuals reporting using any marijuana over the three months prior to the baseline study visit.