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The Co-occurrence of Daily Smoking, Binge Drinking and IPV Among Latino Expectant Fathers

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Abstract

Introduction—Many Latino men have multiple risk factors that predispose them to chronic disease morbidity and mortality, yet few have examined patterns in this population. We describe the co-occurrence of daily smoking, binge drinking, and intimate partner violence (IPV) behaviors among Latino expectant fathers and examine factors associated with the co-occurrence of these behaviors.

Methods—We conducted a secondary analysis of baseline data from the Parejas Trial, a randomized controlled trial testing a culturally tailored couples-based smoking cessation intervention. We used Kruskal-Wallis test statistics to explore the relationship of the co-occurring behavior and demographic and cultural factors.

Results—All participants smoked as was a requirement of being in the trial, but only 39% smoked daily. 43% of the participants engaged in one behavior, 32% engaged in two behaviors, and 5% engaged in three behaviors, with binge drinking being the most common co-occurring behavior. In the bivariate analysis, higher stress (p=0.01) and having more children (p=0.003) were found to be positively significantly associated with the number of behaviors.

Discussion and Conclusions—Helping Latino expectant fathers manage with their stress may serve as tailoring points for future interventions to reduce risk behaviors.

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Keywords

Introduction

In the United States (U.S.) Latino population, males have a relatively high incidence of high risk behaviors, including alcohol use, tobacco use and intimate partner violence (IPV) (1, 2, 3, 4). Indeed, these behaviors might contribute and exacerbate each other. (1) For instance, men who use alcohol use also are more likely to commit IPV with binge drinking being particularly strongly associated with violence perpetration. (2) The co-occurrence of alcohol use, tobacco use, and IPV among Latino men is complex and may be the result of multiple psychosocial, cultural factors such as acculturation and/or shared behavioral triggers such as stress.

Stress is a common trigger for both alcohol use and tobacco use and has been related to both IPV victimization and perpetration. (1,2,3) Although stress can be triggered by many situations during the life course, new parenthood may increase the risk of engaging in negative behaviors from the many new demands of a new baby (e.g., feeding, bathing, diaper changes, etc.), all performed without benefit of a good night's sleep. For other new parents, increasing the number of children in a household strains the family budget. (3) Stress might be particularly salient among recently immigrated Latinos in an area where deportations threaten families. All of these situational stresses may increase the risk of engaging in drinking, tobacco use and IPV behaviors.

Cultural factors including acculturation, which refers to the adoption of another culture's beliefs and behaviors, (2) may induce stress and, in turn, increase the co-occurrence of drinking, tobacco use and IPV behaviors. For example, some research shows that the stress associated with increased acculturation may put individuals at increased risk of IPV (2) while other studies report that higher acculturation is protective against IPV. (3) Increased acculturation does appear to be protective against smoking and heavy drinking among Latino males, (4,5) but not necessarily IPV.

Researchers have explored extensively the factors associated with each of these behaviors independently, but they have not studied factors associated with the co-occurrence of these behaviors among Latino fathers. Therefore, the purpose of this paper is to describe the co-occurrence of daily smoking, binge drinking and IPV (victimization or perpetration) behaviors and to examine demographic and cultural factors associated with these behaviors. Knowing more about these behaviors can inform interventions to improve the health of Latino expectant fathers.

Methods

Study Design

We conducted secondary analyses, approved by the local IRB using data from the Parejas Trial, which was a randomized controlled trial to help Latino expectant fathers quit smoking. (see Pollak et al., 2014 for full study details). (6)

Sample

Pregnant Latinas and their male partners were recruited from 10 clinics in North Carolina. Eligibility criteria for Latino men included being at least 16 years of age, having smoked at least 100 cigarettes in their lifetimes, and having smoked in the past 30 days. Baseline data from all 348 Latino expectant fathers randomized into the trial were used in the analyses in this paper.

Measures

Cigarettes per day—We asked men, "How many of the past 30 days did you smoke cigarettes even a puff?" Men could be in the trial if they did not smoke daily. Those men who stated they smoked all 30 days were considered daily smokers. (7)

Alcohol use—We assessed binge drinking in the past 30 days with the following questions: First, "During the past 30 days, on or about how many days a week did you drink alcoholic beverages?" Those men who drank one or more days a week were then asked, "Consider a drink to be a can or bottle of beer, a 4-ounce glass of wine, or one cocktail containing 1 ounce of liquor. On average, when you drink alcoholic beverages how many drinks do you have each day?" Men who answered five or more drinks a day were considered to be binge drinkers. (8)

IPV Victimization and Perpetration—IPV victimization was assessed by asking the men the following questions: 1) "Has your partner ever threatened you or made you feel unsafe for any reason?" 2) "Has your partner every pushed, hit, slapped, kicked or otherwise physically hurt you?" and 3) "Has your partner every forced you to take part in any sexual activity when you did not want to including touching that made you feel uncomfortable?" If men answered yes to any of these questions, they were considered an IPV victim. IPV perpetration was measured using the same questions, but was asked of the women in the study. Those women who answered yes to any of the questions were linked to their partners, and that was classified as IPV perpetration.(9)

Demographics—Age, race, education, income, length of time in the United States, country of origin, and number of children were collected from all men.

Acculturation was assessed—with a 5-item scale. First, we asked the men if they speak or read a language other than English or Spanish. Then, we asked: "What languages do you: speak, speak at home, do you think in, and do you speak to your friends? Answers ranged from only Spanish, Spanish better than English, both equally, English better than

Spanish, and only English. Scores ranged from 4–20, with higher scores indicating greater acculturation. (10)

Perceived Stress—over the past week was measured using the seven stress-related questions from the Depression Anxiety Stress Score (DASS-21). Scores ranged from 0–21 with higher scores indicating higher stress levels. (11)

Data Analysis

A baseline multi-behavior measure was derived by summing the co-occurrence of behaviors with values ranging from 0 for no co-occurrence to 3 for all three behaviors: smoking status (daily vs. non-daily smoker), alcohol use (binge drinking, yes/no) and IPV (male victim or perpetrator vs. neither). We explored the relationship of the multi-behavior measure combined with father's age, length of time living in the United States (< 3years vs. 3 years), Country of Origin (Mexico, Central American and Other), household income, financial burden, number of children (1 vs. 2), acculturation (3–15) and perceived stress (0 –21), with frequencies, means and Kruskal-Wallis test statistic. Analyses were performed using SAS software version 9.4. (SAS Institute, Inc.).

Results

Demographic results and the prevalence of behaviors are presented in Table 1. Of the participants, 39% were daily smokers, 51% reported binge drinking, and 30% reported IPV. Among participants, 13% were perpetrators, 12% were victims, and 5% reported bi-directional violence. Table 2 presents the multi-behavior scores (ranging from 0–3). For co-occurrence of the behaviors, 21% of the sample did not report any of the three behaviors of interest, 42% engaged in one behavior, 32% engaged in two behaviors and 5% engaged in all three behaviors. In the bivariate analyses, higher stress (3 risk factor: Mean Score=210, vs. no co-occurrence: Mean Score= 159) p=0.01 and number of children (3 risk factors: Mean Score=210 vs. no co-occurrence: Mean Score=148, p=0.004) were found to be positively significantly associated with the number of behaviors. As stress and the number of children increased so did the number of behaviors. Acculturation was not significantly associated with the number of behaviors.

Discussion

Over a quarter of the sample reported engaging in at least two behaviors, with the combination of daily smoking and binge drinking and binge drinking and IPV reported as the most frequent combinations. These results support the importance of assessing and addressing these behaviors in tandem especially in underserved populations such as Latino expectant fathers who may not be frequently seen by health care providers. Providers should be cued to screen Latino male smokers for binge drinking and those who binge drink for IPV. Further, addressing these behaviors in tandem, given the shared behavioral pathways such as increased levels of stress and ineffective coping mechanisms that are related to both alcohol use and IPV may be beneficial (3,4,5). Further, given increased motivation to engage in healthy behaviors during new fatherhood, capitalizing on this motivation to address multiple risk behaviors may be effective.

Stress was associated with the co-occurrence of smoking, binge drinking and IPV behaviors in Latino expectant fathers; as stress increased so did the number of behaviors. Interventions that address stress and these behaviors may lead to reductions in the co-occurrence of these behaviors. For example, mindfulness-based stress reduction has been successful in promoting smoking cessation in Hispanics (12) decreasing alcohol use, (13) and has been used as a treatment modality for IPV victims. (14)

Number of children was also associated with the co-occurrence of risk factors. As the number of children increased so did the number of behaviors. Number of children (four or more) has been associated with IPV victimization in Mexican-American couples. (15) Given that an increase in children increases stress—most notably financial stress that is also linked to smoking, binge drinking and IPV—this finding is not surprising. These findings further support the need for providing stress management techniques to new Latino fathers. Other key interventions include educational programming to help families manage budgets and ensuring families are connected to appropriate financial support systems, such as WIC, Medicaid, Temporary Assistance to Needy Families, and service providers for immigrants.

Limitations of the current analysis include the definition used for binge drinking, which did not take quantity (blood alcohol level) or duration of drinking into consideration. Further, self-report was used to assess all behaviors, and therefore may not be a true estimation of the actual behaviors in this population. We also did not assess the seriousness of the violence reported. This analysis included only Spanish speakers with the majority originating from Mexico; thus, our findings might not generalize to English-speaking Latinos or those from other countries.

Conclusions and New Contributions

Interventions that address multiple behaviors during the teachable moment of new fatherhood could help expectant Latino fathers make healthful choices. Interventions that focus on stress may be especially beneficial given that new fatherhood is a stressful period and increased stress is linked to an increase in the co-occurrence of these behaviors.

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Table 1:

Demographics and Behavior Data

Characteristics	
	Total N=348
Demographics	**Mean (SD)/ Percent(N)**
Age	30 (6)
Race (missing n=6)	
White	49 (166)
More than one race	46 (157)
Other[b]	5 (18)
Monthly income (missing n=13)	
$500	22 (75)
$501–$1000	32 106)
$1001–$1,500	25 (84)
$1501	21 (70)
Perceived financial burden (missing n=1)	
Enough money for special things	5 (17)
Enough money to pay bill but little spare money	42 (144)
Pay the bills but cut back on things	15 (52)
Difficulty paying the bills	38 (131)
Education (missing n=1)	
<9 th grade	66 (229)
Country of origin (missing n=1)	
Mexico	78 (269)
Central America	17 (59)
Other	5 (19)
Length of stay in US	
3 years$^{\pm}$	6 (22)
>3 years	94 (326)
Number of Children	
None	23 (81)
One	31 (108)
Two	26 (90)
Three or more	20 (69)
Smoking Variables	
Days smoked in past 30 days (range 1–30)	18 (11)
Cigarettes smoked (range 1–20)	5 (4)
Daily smoker	39 (136)
Alcohol use	
Alcohol use in the past 30 days	
None	17 (58)

Characteristics	
	Total N=348
Demographics	**Mean (SD)/ Percent(N)**
< once a week	26 (89)
One day a week	36 (124)
Two days a week	12 (43)
3 days a week	10 (34)
Binge Drinker	51 (177)
Violence Variables	
Any Intimate Partner Violence	30 (106)
Male perpetrator	13 (46)
Male victim	12 (41)
Male perpetrator and victim	5 (19)
Related Variables	
Perceived stress (range 0–21)	6(6)
Acculturation (range 4–20)	7 (2)

[±] Length of stay in US 3years includes: < 6 months (n=2), 6 months years<2 (n=4) and 2 years< 3 (16).

Table 2:

Patterns of Risk Behaviors: Daily Smoking, Binge Drinking and IPV (N=348)

Number of Risk Behaviors	N	Daily Smoking	Binge Drinking	Intimate Partner Violence	Percent
3	17	X	X	X	5
2	41	X	X	O	12
2	29	X	O	X	8
2	41	O	X	X	12
1	49	X	O	O	14
1	78	O	X	O	22
1	19	O	O	X	6
0[b]	74	O	O	O	21

[a]X denotes self-report of risk behavior and O denoted no report of risk behavior.

[b]0 denotes men with risk behavior of non-daily smoking.