CLAUDIA MASUR DE ARAUJO CARLINI

FATORES AMBIENTAIS ASSOCIADOS AO USO DE ÁLCOOL E OUTRAS DROGAS, VIOLÊNCIA E SEXO INSEGURO NAS BALADAS DE SÃO PAULO, BRASIL

Tese apresentada à Universidade Federal de São Paulo – Escola Paulista de Medicina, para obtenção do título de Doutor em Ciências.

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Orientadora: Prof.ª Dr.ª Zila van der Meer Sanchez

Co-orientadora: Prof.ª Dr.ª Solange Andreoni

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Coordenador do Programa de Pós-graduação em Saúde Coletiva:

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Prof.ª Dr.ª Eroy Aparecida da Silva: Departamento de Psicobiologia, Unidade de dependência de drogas, Universidade Federal de São Paulo.

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DEDICATÓRIA

Aos amores infinitos da minha vida, meus filhos, Pedro e Felipe.

“Ver de um jeito agora e de outro jeito depois, ou melhor ainda,ver na mesma hora os dois.”
Saudades de você, mãe!

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Prof.ª Dr.ª Zila van der Meer Sanchez Dutenhefner, minha orientadora. Muito complicado esse monte de vogais e consoantes. Posso simplificar para: Zila, Zi ou Zilosvky? Se não podia já o fiz! Pensei em diversas palavras para expressar o que eu gostaria de dizer... Não achei. Por outro lado, me senti aliviada em saber que determinados sentimentos não podem ficar restritos a semântica de uma palavra. Pensei em fazer um "pop up" de um divã, outro de raios e trovoadas, um de girassol e outro de um "p" estatisticamente significante com um intervalo de confiança minúsculo. O divã é meu, dividimos os raios e trovoadas, o girassol é para você e o "p" representa o valor da nossa amizade para mim. Considerando a minha formação em comunicação social, acho que esta é a melhor forma de me expressar, por outro lado, seria um tanto quanto estranho, as pessoas serem "atacadas" por "pop up" em uma tese de doutorado. Ainda bem que existe o espaço da dedicatória onde podemos nos expressar de outra forma. Você sempre dizia: *"Clau, muito legal, mas estamos escrevendo um artigo, guarde para outra ocasião"*. Aqui está à ocasião!! Finalmente posso misturar o "muito legal" com os dados acadêmicos. Com muito carinho, eu!

Prof.ª Dr.ª Solange Andreoni, minha co-orientadora. Solange, você fez um milagre. Nunca imaginei que pudesse ficar horas frente a uma regressão logística. Nossos bate-papos me divertiram e tudo ficou mais simples, pensando bem, simples talvez seja muita coisa, mas com certeza quebrei um paradigma e agradeço muito pela sua dedicação e paciência. Espero que possam fazer outras regressões não tão logísticas assim!! Beijo, Clau!

Adriana. Que bom que encontros inusitados aconteçam. Minha sensação é que não nos encontramos antes por alguma falha no "sistema". Não sei como você aquenta essa miga maluquinha e tão "antiestatística". Você era minha última esperança - e no momento a única - para dizer a Zila: *"Poxa Zi, é óbvio que essa cabeça rascunhada e depois rascunhada novamente, é a representação clássica de um estudo de método misto"*. Pois é, não deu muito certo, mas garantimos boas risadas e talvez estas diferenças sejam exatamente o que da sentido a nossa amizade. Admiro muito você e acho o máximo nossos filhos serem próximos. Sei que estaremos juntas em momentos que vão do rosa claro até vermelho mais intenso que eu não me lembro o nome. Na verdade não importa, pois sei que posso contar "com a gente" nos diversos espectros de acontecimentos, mas espero que os rosas prevaleçam. Pensando bem, talvez nosso encontro não tenha sido tão inusitado como parece. Beijo, Clau!

Ana Paula. Um dia quero aprender com você o que fazer para ter um pouco mais de calma, talvez no meu caso, não tão pouco assim (rs). Quando conversamos as coisas parecem mais leves e menos complicadas. Mesmo quando o "caos" se instala você observa, ouve, para, pensa e consegue mostrar que tudo pode ser visto sob outra perspectiva. Valoriza e valida às tentativas – mesmo quando atrapalhadas – quando tentamos explicar algo que talvez fosse melhor não explicar naquele momento. Para tentar ajudar, você se esforça para organizar o que parece ser "inorganizável" (poderia ter esta palavra no dicionário) e aos poucos começamos a nos acalmar e a perceber que momentos assim também fazem parte e podem ter outros contornos! Espero contar com você para estes momentos! Bjs, Clau!

Janae Josi. Tentei "separar" vocês duas, mas não consegui. Por que? Porque somente nós conseguimos entender nossas conversas e rir com elas. Se um terceiro ouvisse iria pensar: "nossa, do que elas estão falando e porque estão rindo deste jeito?" Talvez não tenha uma explicação100% racional (aliais, impossível em se tratando de nós), de qualquer forma, nos divertimos com estes momentos "non sense" o que particularmente valorizo muito. O bom do JJC – O C sou eu – é não perdemos algumas das nossas características mesmo quando o assunto merece seriedade. "Non sense" ou não, curto muito a companhia de vocês! Nossa quase me esqueci. Obrigada pela ajuda nos grupos focais e transcrições das fitas que foram além da execução meramente técnica. Bjs e Bjs, Clau!

"Herbs", Paty e Val. Também não consigo separar vocês três. Faz tempo, muito tempo que vocês me ajudam, seja com meu "velhinho", seja com as minhas dificuldades tecnológicas que não são poucas. Mudamos uma vez, mudamos uma segunda vez, mudamos a terceira vez e,honestamente,espero que não tenha a quarta! Em todas elas vocês sempre presentes! Pelo tempo que nos conhecemos e por tudo que passamos e vimos, compartilhamos muitas ideias que foram além dos "muros" de todas as mudanças que fizemos. Paty, eu e você já temos cabelos brancos, ou seja, nos conhecemos há muito tempo. "Herbs" e Val, não se preocupem que um dia vocês vão chegar (rs). Obrigada pelo carinho, pela paciência com meu "BIOS" e pelas histórias que compartilhamos. Bjs, Bjs e Bjs, Clau!

Julino. Quantas conversas sobre o "cosmo e a vida" tivemos ao longo dos últimos 12 meses anteriores ao doutorado. Não sei se você lembra, mas você me deu um livro sobre Shiva ou será Brahma? Confesso que na segunda página já não conseguia avançar, acho que não estava preparada naquele momento para tal literatura já que os valores de "p", as triangulações dos dados etc., estavam ocupando um espaço um tanto quanto pragmático. Vou tentar novamente, mas se mesmo assim não conseguir, sei que você vai entender e

outras conversas virão. Talvez possamos falar sobre Baco, acho que depois destes 4 anos tenho muita história para contar para vocês “dois”! Beijo, Clau!

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Paizoca, Solange e meus irmãos que não são poucos. Não vai ser possível agradecer neste momento. Conversas familiares não são possíveis de serem expostas, pois seriam necessárias muitas e muitas páginas! Com certeza vamos ter muito tempo para elas. Com muito afeto, Clau!

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RESUMO

O excesso de ingestão de bebidas alcoólicas e o consumo de outras drogas nas casas noturnas e bares têm sido associados a mais episódios de agressão física, comportamento sexual de risco e violência sexual nestes ambientes. Acredita-se que fatores ambientais destes estabelecimentos e característica pessoais de seus frequentadores podem aumentar o risco da ocorrência destes eventos. Objetivando a compreensão da relação entre fatores ambientais e individuais e comportamentos de risco em baladas da cidade de São Paulo, propôs-se um estudo de métodos mistos com coletas de dados realizadas entre os anos de 2013 a 2015. Utilizou-se de uma amostra com probabilidade proporcional ao tamanho das casas noturnas, permitindo a seleção de 31 estabelecimentos. Um inquérito de portal nestes locais permitiu que 2422 sujeitos fossem sorteados sistematicamente e entrevistados à entrada das baladas. Destes, 1822 foram novamente entrevistados à saída. Nos dois momentos de entrevista foi aplicado um teste de etilômetro. Nas mesmas noites, 307 horas de observação etnográfica foram conduzidas no interior dos estabelecimentos. Em momento posterior, a partir dos contatos obtidos na fase de inquérito de portal, 8 grupos focais com frequentadores das baladas (n=34) e 31 entrevistas semiestruturadas com funcionários destes estabelecimentos foram conduzidos. Análise multinível e regressão logística multinomial ponderadas foram utilizadas para os dados quantitativos do inquérito de portal. Análise de conteúdo e tipologia foram empregadas para a análise dos dados qualitativos. Quando avaliada a prática de binge drinking no estabelecimento (medida por uma dosagem alcoólica no ar expirado de BrAC≥0,38 mg/l), constatou-se que os fatores ambientais associados a esta prática foram a venda open bar, o número de pistas de dança e a pressão sonora medida no local. No entanto, o “esquenta” (beber antes de entrar no estabelecimento) foi o preditor mais forte para a medida de binge drinking à saída. No caso do relato de consumo de drogas ilícitas, a venda open bar de álcool e efeitos luminosos aumentaram a chance deste comportamento. Por outro lado, o número de seguranças per capita e a presença de mais pistas de dança apareceram associados inversamente a este consumo. A partir dos dados qualitativos, foi possível a identificação de 4 grupos de baladas levando-se em consideração os 4 eixos temáticos avaliados: Baladas Intoxicantes, Violentas, Dançantes e Altamente

Sexualizadas. O consumo abusivo de álcool foi observado em quase todos os estabelecimentos, enquanto o uso de drogas ilícitas foi observado em cerca de um terço dos estabelecimentos. A triangulação dos dados sugere que fatores ambientais estão associados a presença mais marcante de comportamentos de risco, especialmente, as estratégias e promoções de venda de bebidas alcoólicas e a oferta de ambientes destinados a práticas sexuais. O estudo evidencia que as baladas são estabelecimentos em que os comportamentos de risco se agravam pelas facilidades disponibilizadas pelo meio, bem como pela falta de legislação para restringir o abuso de álcool incentivado pelas diversas estratégias de promoção presentes nestes estabelecimentos.

ABSTRACT

Excessive alcohol consumption and the use of other drugs in nightclubs and bars have been associated with more episodes of physical aggression, sexual risk behavior, and sexual violence in these environments. It is believed that environmental factors of the establishments and personal characteristics of the patrons may increase the risk of these events to occur. Aimed at understanding the relationship between both environmental and individual factors and risk behaviors in São Paulo's nightclubs, we have proposed a mixed methods study with data collection conducted between the years of 2013 and 2015. The sample used had a probability proportional to the size of the nightclubs allowing the selection of 31 venues. A portal survey allowed us to systematically raffle and interview 2422 subjects at the entrance of the nightclubs. Among them, 1822 were interviewed again at the exit of the same nightclub. In both interview moments, a breathalyzer test was conducted. At total, 307 hours of ethnographic observation were conducted inside the premises while the interviews were happening on the outside. In a second moment, among subjects contacted during the portal survey study, 8 focus groups with patrons (n = 34) and 31 semi-structured interviews with nightclubs employees were conducted. Weighted multilevel analysis and multinomial logistics regression were used for quantitative data. Content analyses and typology were used for the analysis of qualitative data. When the practice of binge drinking inside the venues was evaluated (as measured by Breath Alcohol Concentration – BrAC $\geq$0.38 mg/l), it was found that the environmental factors associated with this behavior were: all you can drink service, the number of dance floors and the sound level. However, pre-drinking (drink before entering the nightclub) was the strongest predictor of binge drinking inside the venue. The following environmental variables were associated with illicit drug use in nightclubs: all-you-can-drink service and light effects. The number of security guards per capita and the presence of two or more dance floors were inversely associated with the use of illicit drugs. From qualitative data, four nightclub types were defined based on four analyzed thematic axes (Intoxicating, Violent, Dancing and Highly Sexualized nightclubs). Excessive alcohol use was detected in almost all of the investigated nightclubs, and drug use was observed in approximately one-third of them. Triangulation of the data revealed a relationship among environmental factors (especially alcohol sales strategies and promotion and

the availability of areas for sexual intercourse) and a more considerable presence of high-risk behaviors. The study shows that nightclubs are places in which high-risk behaviors are potentiated by facilitating the environmental factors as well as by the lack of laws restricting excessive alcohol use, which is stimulated by the promotion strategies applied at these venues.

SUMÁRIO

APRESENTAÇÃO

APRESENTAÇÃO

A presente tese, intitulada *"Fatores ambientais associados ao uso de álcool e outras drogas, violência e sexo inseguro nas baladas de São Paulo",*apresenta os resultados de um dos subprojetos da pesquisa *"Padrões de consumo de álcool e outras drogas em baladas: epidemiologia, etnografia e intervenção*", que posteriormente passou também a ser conhecida por "Balada Com Ciência" (http://www.baladacomciencia.com.br), coordenada pela Profª Drª Zila van der Meer Sanchez e financiada pela Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP). A referida pesquisa foi desenvolvida com a finalidade de compreender, dentro do campo da saúde coletiva, o cenário recreativo noturno da cidade de São Paulo preenchendo, em parte, a lacuna de dados científicos existentes sobre este tema no Brasil.

Em diversos países, desenvolver um ambiente de lazer noturno seguro se tornou sinônimo de reduzir especialmente o consumo excessivo de álcool, indiretamente reduzindo a violência, acidentes e outros agravos a saúde, gerando bem-estar aos indivíduos que saíram na busca de lazer e, indiretamente, para a coletividade que se protege de eventos traumáticos em sua vizinhança e famílias. No entanto, pouco tem sido estudado e divulgado no meio científico sobre a realidade das baladas brasileiras e os reais comportamentos de risco de seus frequentadores.

O diagnóstico do que ocorre na vida noturna de São Paulo é fundamental para a implantação de programas de prevenção e políticas públicas adequadas. Assim, o primeiro passo para o direcionamento de ações destinadas à população exposta, é o diagnóstico da realidade local. Para prevenir um risco, temos que

intervir sobre os processos que condicionam seu aparecimento, o que inevitavelmente nos leva à necessidade de conhecer os fatores e os mecanismos que podem explicar por que se produzem e o que o agrava ou o diminui. Notando as inúmeras evidências científicas, veremos que o consumo de álcool e outras drogas por jovens e os riscos associados a esse consumo adquirem grande parte de sua lógica e coerência no contexto recreativo noturno.

Os estudos sobre baladas têm despertado cada vez mais o interesse da comunidade científica internacional devido às inúmeras evidências que apontam que o abuso de álcool e o uso de outras drogas nestes locais estão associados à violência verbal, sexual e física, comportamento sexual de risco, gravidez não planejada, transmissão de doenças sexuais, intoxicação severa, poliuso de drogas, acidentes de trânsito e outros comportamentos de risco à saúde. Estes mesmos estudos apontam também que fatores ambientais dos próprios estabelecimentos de lazer noturno podem aumentar o risco destes eventos ocorrerem, como por exemplo: limpeza, iluminação, ruído, lotação, mobiliário, ventilação, pista de dança, preços das bebidas, promoções de bebidas alcoólicas, estilo de música, público alvo do estabelecimento, entre outros.

No Brasil este tema é pouco estudado, merecendo maior atenção por parte da comunidade científica e órgãos competentes. Ressalta-se que a Organização Mundial de Saúde (OMS) considera os locais de lazer noturno, nos quais há uma cultura de beber estabelecida, como ambientes-chave para intervenções que visem diminuir os agravos já mencionados. No entanto, para o planejamento de intervenções eficazes que visem diminuir o consumo abusivo de álcool, outras drogas e os demais comportamentos de risco, é necessário compreender os fatores que condicionam seu aparecimento. Considerando-se que os comportamentos de

risco não se apresentam da mesma forma e intensidade nestes ambientes, as intervenções devem prever estas diferenças, respeitando as particularidades de cada perfil de estabelecimento.

Desta forma, o objetivo do presente estudo foi o de compreender quais os fatores ambientais destes estabelecimentos que se encontram associados ao abuso de álcool, uso de outras drogas e os demais comportamentos de risco.

A fim de atingir o objetivo proposto foi realizado um estudo de métodos mistos, a partir de métodos epidemiológicos e qualitativos, que se desdobrou em 4 etapas:

1) Estudo epidemiológico utilizando o método de inquérito de portal entre 2422 frequentadores em 31 casas noturnas, através de entrevista na entrada e 1822 frequentadores na saída dos estabelecimentos, para investigar comportamentos de risco e consumo de drogas ilícitas por auto relato e medida de dosagem alcoólica aferida no ar expirado através do etilômetro;

2) Pesquisa de observação etnográfica de 307 horas em 31 casas noturnas através de dois instrumentos: I) preenchimento de um roteiro de observação com perguntas abertas e fechadas sobre variáveis ambientais e a construção de 31diários de campo onde se registrou os acontecimentos ocorridos durante o trabalho de campo, bem como as dificuldades encontradas durante este processo;

3) Condução de 31 entrevistas semiestruturadas com funcionários de baladas com o objetivo de identificar como os fatores ambientais destes estabelecimentos podem influenciar no consumo de álcool, uso de outras drogas e comportamentos de riscos, como violência e a prática de sexo sem proteção;

4) Condução de 8 grupos focais (GF) com 34 frequentadores de diversos estilos de baladas,visando identificar a percepção destes sobre os comportamentos de riscos acima mencionados e fatores ambientais associados.

De acordo com as orientações do Programa de Pós-Graduação em Saúde Coletiva vinculado ao Departamento de Medicina Preventiva da Universidade Federal de São Paulo, a presente tese foi estruturada em “formato alternativo”, ou seja, apresentando os artigos publicados ou submetidos à publicação, decorrentes do estudo. Desta forma, os elementos textuais obrigatórios se apresentam de forma compacta, dividindo-se em: Introdução, Artigos, Considerações Finais, Referências Bibliográficas e Anexos.

O primeiro artigo *Environmental characteristics associated with alcohol intoxication among patrons in Brazilian nightclubs,* publicado em 2014 na revista *Drug and Alcohol Review*, indexada no *Pubmed*, teve como objetivo compreender quais os fatores ambientais associados ao “beber pesado episódico”, ou o binge drinking, avaliado entre indivíduos nas saídas de estabelecimentos noturnos da cidade de São Paulo. Para tal, foram utilizados dados da pesquisa de observação, diário de campo, coleta de medidas biológicas através do etilômetro e entrevista de entrada.

O segundo artigo *Environmental Factors associated with consumption of psychotropic drugs in Brazilian nightclubs*, foi submetido à publicação em 2016 na revista *Plos One*, indexada no *PubMed*e, encontra-se em fase de análise. Teve como objetivo compreender quais os fatores ambientais associados ao uso de drogas psicotrópicas dentro das baladas da cidade de São Paulo. Para este manuscrito foram utilizados os dados da pesquisa de observação, entrevistas de

entrada e saída com os frequentadores dos estabelecimentos, medida de etilômetro e as entrevistas semiestruturadas com profissionais das casas noturnas.

O terceiro artigo, *Typology of nightclubs in São Paulo, Brazil: alcohol and illegal drug consumption, sexual behavior and violence in the venues,* foi submetido à publicação em 2016 na revista *Social Science & Medicine*, indexada no *PubMed*, encontra-se em fase de análise. Teve como objetivo a construção de uma tipologia das baladas a fim de identificar o agrupamento dos diferentes comportamentos de risco praticados nestes estabelecimentos. Para tal, foram utilizados os dados das observações etnográficas, grupos focais e entrevistas semiestruturadas.

INTRODUÇÃO

1. INTRODUÇÃO

1.1 Baladas e comportamentos de risco à saúde

As “baladas” são definidas como locais de recreação noturna (casas noturnas, boates, discotecas, pubs e bares), frequentadas, em geral, por jovens, onde há música, dança e venda de bebidas alcoólicas. Estar na balada é uma atividade de lazer comum a muitos jovens em diversos países, principalmente nos finais de semana. Nestes locais, busca-se a socialização, diversão, relacionamento amoroso e o consumo de substâncias que podem potencialmente gerar prazer (Lomba et al., 2009).

Trata-se de um importante espaço de socialização para os jovens, onde é possível romper com as responsabilidades do cotidiano, como as atribuições regulares do trabalho ou dos estudos (Calafat et al., 2009; Cavan, 1996).

Parker (2003) defende que vivenciar o contexto da balada ajuda na transição para a vida adulta, pois as pessoas adquirem maior capital social, culminando em maior conhecimento de si e do outro. Entretanto, este mesmo contexto pode estar associado a diversos “eventos adversos”, ou seja, eventos que ocorrem especialmente entre os jovens que se excedem na prática de comportamentos de risco.

Devido à escassez de estudos nessa área, nota-se que não tem sido dada a atenção necessária a estes ambientes como locais de risco potencial. Porém, existem diversos pesquisadores, em sua maioria europeus, que afirmam que a intoxicação por álcool nas baladas está associada a diversos comportamentos de risco, como violência, práticas sexuais, agressão física e principalmente acidentes

de trânsito antes, durante e após estes eventos (Livingston, Chikritzhs e Room, 2007; Belliset al., 2008; Kelley-Bakeret al., 2008). Aparentemente, o contexto recreativo de casas noturnas, a baixa fiscalização e o abuso de álcool e outras drogas nestes locais contribuem para maior prevalência destes comportamentos de risco (Duff, 2008). Além disso, frequentadores de festivais de música e de todos os tipos de eventos de dança têm sido descritos como mais experientes com as drogas ilegais do que outros grupos da população geral (Winstock et al., 2001; Chinet et al., 2007).

No Reino Unido, uma pesquisa sobre a vida noturna demonstrou que a grande maioria dos usuários de drogas nas baladas podiam ser classificados como poliusuários, sendo que mais de 70% destes também relataram consumo perigoso de álcool (Winstock et al., 2001). Uma das principais preocupações com a utilização de múltiplas drogas é que os efeitos dos fármacos individuais são geralmente potencializados (Quek et al., 2013) e aumentam a probabilidade de dano físico e fisiológico (Smith et al., 2011).

Além disso, em vários países europeus, a preferência musical e a balada de escolha parecem prever o uso ilegal de drogas (Calafat et al., 2008). Um estudo dinamarquês encontrou que os frequentadores de eventos de hip-hop ou música eletrônica eram mais propensos a serem usuários de múltiplas drogas quando comparados a frequentadores de baladas de outros estilos musicais. Por outro lado, frequentadores de baladas de música pop eram menos propensos a terem usado qualquer droga ilícita, mas não álcool (Hesse e Tutenges, 2012).

No Brasil, nenhum levantamento epidemiológico identificou, até o momento, os padrões de consumo de álcool e drogas nestes locais de lazer. Os principais estudos sobre vida noturna e comportamentos de risco à saúde foram conduzidos,

em países da Europa (Bellis et al., 2008), América do Norte (Carlson et al., 2005) e Oceania (McKetin et al., 2014), deixando uma grande lacuna no conhecimento deste fenômeno em países menos ricos e mais desiguais.

1.2 Abuso de álcool nas baladas

O álcool é apontado como a substância psicoativa mais consumida no mundo. Estima-se que existam cerca de dois bilhões de pessoas que consomem bebidas alcoólicas regularmente. Além disso, cerca de 5,9% dos casos de morte no mundo estão associados ao consumo de álcool, ou seja, a porcentagem de mortes associadas ao álcool é maior do que os óbitos causados por AIDS, violência e tuberculose. O efeito em cascata do uso nocivo do álcool é responsável por cerca de 3,3 milhões de mortes no mundo a cada ano (OMS, 2014).

As comparações de estimativas da carga global de doenças atribuíveis a diferentes fatores de risco entre os anos de 1990 e 2010 sugerem que, globalmente, as mortes e os anos de vida perdidos ajustados por incapacidade (DALY - *Disability-Adjusted Life Years)* atribuídos ao álcool têm aumentado. Este aumento alterou a posição do álcool no ranking das principais causas de morte e incapacidade no mundo, passando do oitavo lugar em 1990 para o quinto lugar em 2010. Além disso, os dados disponíveis sugerem que o uso nocivo do álcool é o principal fator de risco para morte e incapacidade em algumas partes do mundo, bem como para pessoas de 15 a 49 anos (Lim et al., 2012).

Na década de 80, Silvia-Filho e Masur (1985) apresentaram uma compilação de estudos que discutiam a influência das variáveis individuais (sujeito), ambientais e situacionais nos efeitos do álcool. Já naquele momento os estudos evidenciavam que, para além dos aspectos farmacológicos do álcool, como metabolismo, via de

administração, dose, absorção e sexo, variáveis não-farmacológicas – a tríade sujeito, ambiente e situação – modulavam o efeito do álcool. Desta forma, as diversas reações comportamentais que um indivíduo pode apresentar ao ingerir bebidas alcoólicas, estão sujeitas à influência de aspectos relacionados ao contexto no qual o consumo ocorreu, bem como à expectativa do sujeito sobre seus efeitos (Del Porto e Masur, 1984; Zeichner, 1980).

Em geral a literatura científica tende a ser dicotômica quando se trata da discussão sobre o uso de álcool e outras drogas, dicotomizando os efeitos entre "positivos" (prazer) ou "negativos" (risco). De acordo com Demant (2013), a literatura que reforça os riscos decorrentes do abuso destas substâncias, encontra-se principalmente no campo da saúde pública onde as melhorias gerais em saúde são o ponto ontológico central. Já a literatura que enfatiza o prazer, situa-se especialmente no campo da antropologia e sociologia, onde os aspectos hedonísticos do uso sobressaem-se sobre os riscos. Considerando ambas as perspectivas, os estudos sobre o uso de álcool e outras drogas no contexto recreacional noturno vêm despertando cada vez mais o interesse da comunidade científica devido à tênue linha que separa o risco do prazer.

Estudos indicam que as pessoas que ingerem bebida alcoólica ficam mais propensas a sofrer lesões não intencionais, sob influência do álcool, como por exemplo, aquelas decorrentes de acidentes com veículos automotores e violência física (Hingson, Heeren e Zakocs, 2001; Hingson *et al.*, 2002; Wells *et al.*, 2005; Zakrajsek e Shope, 2006; Schnitzer *et al.*, 2010). Neste sentido, o abuso de bebida alcoólica tem sido reconhecido como um importante problema de saúde pública entre os jovens, pois seu consumo é associado a diversos agravos à saúde. No

entanto, problemas relacionados ao uso nocivo do álcool não afetam somente o consumidor, mas toda a comunidade (Babor et al., 2010).

Considerando que os clientes saem de bares e baladas com uma concentração alcoólica elevada (Hughes et al., 2011), há uma probabilidade maior de alguns comportamentos de riscos se perpetuarem fora do estabelecimento, como o beber e dirigir.

Um estudo conduzido por Andreuccetti et al. (2010) apontou que a maior parte dos acidentes automobilísticos fatais e homicídios, na cidade de São Paulo, ocorrem durante a madrugada dos finais de semana. Segundo dados do Instituto Médico Legal, 42% dos motoristas mortos em acidentes de trânsito, em 2005, apresentavam dosagem alcoólica superior a 0,6 g/l, indiretamente indicando que há uma associação entre o lazer da madrugada, o consumo de álcool e as mortes violentas na cidade.

Além disso, de acordo com uma pesquisa nacional domiciliar, 42% dos homens entrevistados afirmaram ter dirigido alcoolizados pelo menos uma vez no ano anterior à pesquisa. Nesta amostra, o binge drinking estava associado ao comportamento de beber e dirigir (Pechansky et al., 2009).

As diferenças de gênero no consumo de álcool representam um fenômeno universal (Wilsnacket al., 2005), sendo que os homens geralmente bebem mais que as mulheres (Kuntsche et al., 2004, Wilsnack et al., 2009, Holmila e Raitasalo, 2005). Porém, alguns autores sugerem que, em países europeus, o uso de álcool e a embriaguez durante a noite está aumentando entre as mulheres, o que pode estar associado à interação sexual e, assim, em breve estas diferenças de gênero podem deixar de existir (Hibell et al., 2004, Hughes et al., 2008).

1.3 Binge drinking nas baladas e fatores ambientais associados

Há pouco mais de uma década, o ato de beber de forma mais intensa em um curto espaço de tempo foi definido como *binge drinking (BD)* ou “beber pesado episódico” (Wechsler e Nelson, 2001). O BD costuma ser caracterizado pelo consumo de no mínimo 4 doses de álcool em uma única ocasião para mulheres e 5 doses para homens, o que leva a uma concentração de etanol no sangue de 0,08% ou superior [NIAAA, 2004]. No entanto, a definição de BD é controversa e permeada por conflitos de conceituação, que são influenciados pela cultura e aspectos farmacocinéticos do álcool (Courtney et al., 2009; Lange e Voas, 2001). Apesar das divergências, há um consenso sobre as consequências negativas associadas a está prática.

Beber em padrão BD está diretamente associado a inúmeros problemas de saúde e de ordem social, tais como: suicídio, sexo desprotegido, gravidez não intencional, violência física e sexual, acidentes de transito, ferimentos não intencionais, infarto do miocárdio, pancreatite e mortes (Bellis et al., 2008; Kelley-Baker et al., 2008; Livingston et al., 2007; Brewer et al., 2005).

O primeiro levantamento nacional sobre os padrões de uso de álcool na população brasileira identificou que o BD foi praticado por 28% da população adulta, chegando a 40% nas faixas etárias de 18 a 24 anos, considerando-se o ano anterior à pesquisa (Laranjeira., 2010). Neste mesmo estudo, verificou-se que 53% dos adolescentes brasileiros de 14 a 17 anos praticaram o BD ao menos uma vez na vida, mesmo estando na faixa etária para a qual a venda de bebidas alcoólicas é proibida (Pinsky et al., 2010). Chama a atenção que bares e baladas são os locais de escolha para a prática do BD por brasileiros (Laranjeira et al., 2007). No mesmo sentido, um estudo representativo dos estudantes do ensino médio de escolas

particulares da cidade de São Paulo revelou uma alta prevalência BD no ano entre os alunos (35%). Novamente, as baladas apareceram como o local de preferência para tal prática (Sanchez et al., 2011).

Amnésia alcoólica, uso de drogas ilícitas, continuação do consumo de bebidas alcoólicas e envolvimento em comportamento sexual de risco após a balada, são mais presentes após a balada entre aqueles que beberam em BD (Sanchez et al., 2015).

A estreita relação entre o BD e as baladas pode ser melhor compreendida através dos fatores ambientais presentes nestes locais, que se encontram associados a esta prática, entre eles: promoções de bebidas alcóolicas, venda irresponsável de álcool (venda para quem já se encontra embriagado), alto volume da música e lotação da casa (Hughes et al., 2008).

Um bom exemplo de promoção de bebidas alcóolicas fortemente associada ao BD é o open bar – caracterizado pelo pagamento de uma única taxa na entrada do evento que permite consumo irrestrito de álcool (Thombs et al., 2009; Kuo et al., 2003). Noto e colabotadores (2015) chamam a atenção para a estreita ligação do open bar ao contexto de baladas universitárias. Uma pesquisa envolvendo 60 universidades do Brasil revelou que 58 estabeleceram contratos formais com a indústria do álcool (Pinsky et al., 2008). O intuito era o de obter bebidas a preço abaixo do mercado para a realização da balada open-bar, em troca, selava-se um acordo de exclusividade de imagem, ou seja, somente as marcas disponibilizadas pela indústria podiam ser oferecidas. Ressalta-se que em 2015 um jovem de 23 anos morreu em uma destas festas, após consumir 23 doses de vodka, e três foram internados em estado grave por coma alcóolico[1].

[1]http://g1.globo.com/sp/bauru-marilia/noticia/2015/03/apos-morte-anuncio-de-festa-open-bar-e-flagrado-na-unesp-em-bauru.html

Outro fator ambiental associado ao maior consumo de álcool em padrão BD é o volume da música. Um estudo experimental conduzido em bares franceses evidenciou que em ambientes cujo som da música apresentava volume mais alto, batidas mais aceleradas e um tom mais agudo, a quantidade de álcool consumida pelos frequentadores era maior e o tempo gasto no consumo de cada dose era menor (Guéguen et al., 2008). Uma das explicações para este comportamento é a menor interação entre os indivíduos – dificuldade de se estabelecer uma conversa - levando as pessoas a “prestarem mais atenção” a sua bebida, diminuindo o tempo entre uma dose e outra. Outra hipótese pode ser vista sob o aspecto da "excitação" (arousal hypothesis). De acordo com Roballey (1985), o maior nível de ruído produz agitação e excitação entre as pessoas, levando-as a beber maiores quantidades e mais rapidamente. Além disso, Macintyre e Homel (1998) sugerem que locais que excedem sua capacidade máxima - comum nas baladas - causam um desconforto maior entre as pessoas, como calor, dificuldade de locomoção e maior contato físico não intencional, como “esbarrões”, favorecendo que as pessoas bebam mais como uma forma de lidar com o incômodo vivenciado.

1.4 Violência física e sexual nas baladas

A Organização Mundial da Saúde define violência como “*o uso intencional da força física ou do poder, real ou em ameaça, contra si próprio, contra outra pessoa, ou contra um grupo ou uma comunidade, que resulte ou tenha grande possibilidade de resultar em lesão, morte, dano psicológico, deficiência de desenvolvimento ou privação”* (WHO, 1996).

O impacto da violência é mundial e a cada ano mais de um milhão de pessoas são violentadas fatalmente e outras sofrem ferimentos não fatais resultantes de agressões interpessoais ou de violência coletiva. Mundialmente, a violência é a principal causa de morte entre pessoas de 15 a 44 anos e gera altos custos em despesas anuais com cuidados à saúde, acrescidos de outros custos que impactam a economia dos países (Dahlberg and Krug, 2006).

Estudos internacionais apontam que pessoas que bebem em grandes quantidades, tendem a beber com mais frequência (Rossow, 1996) e se submetem a maiores riscos de violência (Bonomo et al., 2001; Wells e Graham, 2003; Swahn e Donovan, 2005). Além disso, a intoxicação causada pelo álcool é associada ao aumento da agressividade e gravidade das lesões sofridas (Leonard, Quigley e Collins, 2003; Graham et al., 2006).

No estudo de Wells e Graham (2003) constatou-se que entre os jovens do sexo masculino frequentadores de baladas envolvidos em episódios de violência, o álcool foi o fator facilitador para as agressões, aumentando a autoconfiança para assumirem riscos e reduzindo a capacidade de julgar as consequências de seus comportamentos.

Pesquisas realizadas sobre violência em baladas, apresentam as agressões físicas como a principal manifestação de comportamentos violentos (Hughes et al., 2008, Hughes et al., 2011), entretanto, a violência é manifestada também de outras formas como agressão verbal e sexual (Graham et al., 2003).

Estudos têm mostrado a relação entre a quantidade de álcool ingerida nos estabelecimentos e a violência sofrida e praticada (Flatley et al., 2010, Hughes et al., 2008). Um estudo realizado em 2007, entre 440 jovens espanhóis, revelou que 5,2%

dos frequentadores de casas noturnas portavam armas e 23% tinham se envolvido em brigas neste contexto (Blay et al., 2010).

A violência sexual é definida como "*qualquer ato sexual, tentativa de obter um ato sexual, comentários ou avanços sexuais não desejados, (...) usando a coerção frente a uma pessoa, independentemente da sua relação com a vítima, em qualquer configuração, incluindo, mas não se limitando, à casa e trabalho "*(WHO, 2013). Vários estudos indicam bares e discotecas como os principais locais para ataques sexuais, como estupro, tentativa de estupro, perseguição, assédio e outras formas de agressão sexual (Anderson et al., 2007; Buddie et al., 2003; Graham e Wells, 2001; Parks., 2000; Fox et al., 2000). Este tipo de comportamento dentro de bares baladas costuma ocorrer durante a madrugada, especialmente entre as 12:00h e 2:30h, quando os níveis de intoxicação alcoólica entre os clientes geralmente tendem a ser a mais elevada (Fox et al., 2000).

Segundo Abbey et al., (1996) a violência sexual relacionada com ao abuso de álcool é mais provável de ocorrer dentro bares e festas do que em casa. De acordo com Graham et al. (2006) os altos níveis de competição sexual entre clientes em locais de diversão noturna aumentam o risco de violência sexual, enquanto que o abuso de álcool colocam especialmente as mulheres em maior risco de violência sexual (Testa e Parks, 2006).

No Reino Unido o número de mulheres jovens abusadas na vida noturna quase triplicou no período de 2000 a 2009. Estes abusos, tanto físicos quanto sexuais, ocorrem geralmente quando as jovens estão voltando para casa, no final da noite (Flatley et al.,2010). Na cidade mexicana de Tijuana, para a qual jovens americanos fazem “turismo alcoólico” aos finais de semana, há diversos relatos de agressões sexuais nas casas noturnas. Cerca de 53% das jovens que cruzaram a

fronteira sofreram algum tipo de vitimização e 38% relataram agressões sexuais moderadas (Kelley-Baker et al., 2008).

O abuso do álcool é associado também a comportamentos sexuais de risco não caracterizados como violência sexual, ou seja, que envolvem atos sexuais consentidos, mas de risco, por não englobarem o uso de preservativos. Um estudo realizado com 1341 frequentadores de casas noturnas, com idade entre 16 e 35 anos, de nove cidades europeias, visando investigar a associação entre sexo e uso de drogas, mostrou que os indivíduos que ingeriram grandes quantidades de álcool nas 4 semanas anteriores à pesquisa, foram os mais propensos a apresentar comportamento sexual de risco, como ter relações com vários parceiros, ter relações desprotegidas e ter relações e se arrepender após terem bebido ou usado outros tipos de drogas. (Belliset al., 2008).

E não é apenas o álcool que se mostra associado ao comportamento sexual de risco nestes eventos noturnos. Nas Ilhas Baleares espanholas, também conhecidas pela diversidade e intensidade de sua vida noturna, encontros sexuais casuais e desprotegidos, foram extremamente comuns e mediados pelo uso de diversas drogas ilícitas (Downing et al., 2011). Desta forma, há correlação entre o consumo de álcool, quase sempre no padrão de BD (Hughes et al., 2008) e outras drogas (Downing et al., 2011) não apenas com atos de violência nas ruas durante a madrugada, como também com diversos tipos de violência dentro dos estabelecimentos.

1.5 Ambiente e comportamentos de risco em baladas

Uma revisão sistemática da literatura evidenciou que pouquíssimos são os estudos sobre os fatores ambientais que favorecem o consumo abusivo de álcool nos ambientes de lazer noturno e, consequentemente, os riscos associados a este consumo. Os estudos existentes foram realizados em países desenvolvidos e, na maior parte deles, os dados foram coletados há mais de uma década (Hughes et al., 2011). Os fatores ambientais investigados que influenciam no uso de álcool podem ser categorizados em 3 grupos: fatores físicos (limpeza, iluminação, barulho, lotação, mobiliário e ventilação), fatores sociais (preços das bebidas, comida e tipo de música) e perfil dos empregados (idade, aparência e venda irresponsável de bebida).

Diversos fatores ambientais podem ser manipulados em bares e baladas a fim de diminuir a ocorrência de episódios de violência graves ou moderadas, que estão, na maior parte das vezes, associados a um consumo intenso de álcool pelos frequentadores. No entanto, não é apenas o álcool que determina a ocorrência destes eventos, mas depende também de aspectos relativos ao ambiente físico e social do estabelecimento. Por exemplo, bares em que os funcionários bebem, são grosseiros e agressivos, registram maiores incidentes de brigas (Graham et al., 2006).

Estudo etnográfico em Sunny Beach, na Bulgária, identificou que os maiores riscos de acidentes nas baladas eram a presença de funcionários agressivos, superlotação, copos quebrados no chão, dançar em cima de móveis e a venda de bebidas alcoólicas para jovens já embriagados. Este estudo também aponta que a prevalência de consumo de drogas ilícitas nestes locais é baixa (5%) e que o BD é o

comportamento de risco mais prevalente, tendo sido relatado por 86,7% dos frequentadores (Tutenges, 2009; Tutenges e Hesse, 2008).

A OMS (2006) descreve uma série de iniciativas ambientais que devem ser consideradas a fim de reduzir a violência relacionada ao consumo de álcool nas instalações de diversão noturna, incluindo: aumentos de preços das bebidas alcoólicas, regulamentação das vendas de álcool, restrições efetivas de vendas para menores, a aplicação da lei para aqueles com comportamento impróprio sob os efeitos do álcool e outros tipos de restrições sobre o consumo. Além disso, sugere-se aprimoramento da rede de transporte público noturno, melhor iluminação pública e sistemas de televisão em circuito fechado.

De acordo com Calafat et al. (2007), uma abordagem eficaz e preventiva contra a exposição ao risco em locais de diversão noturna envolve a compreensão dos comportamentos individuais, dos fatores ambientais e da maneira como eles interagem estimulando tais comportamentos. Assim, muitos países estão tentando criar medidas destinadas a reduzir a violência, acidentes e outros riscos associados à vida noturna, através do aprimoramento das estratégias de policiamento para controle de dosagem alcoólica em motoristas (Jones et al., 2011), seguranças treinados nos estabelecimentos e mudanças no ambiente (Hughes e Bellis, 2007; Graham et al., 2013).

Em termos mais amplos, políticas públicas que visem à maior taxação das bebidas alcoólicas, diminuição do período de funcionamento do bar, proibição da venda de álcool para pessoas embriagadas e outras políticas públicas são o que aparentemente há de mais eficaz no controle da embriagues e índices de violência nas cidades (Babor et al., 2010). No entanto, tais medidas dependem de apoio político e não são de fácil implantação. Diante do fato de que o “beber ao extremo”

em ambientes noturnos e o “beber e dirigir” passam do limite do risco individual e comprometem a coletividade, fazem-se necessários programas de prevenção que atinjam, pelo menos, os bebedores de maior risco, alertando para os danos pessoais e sociais dos episódios de embriaguez, independente das medidas que deveriam ser tomadas no campo político (Calafat et al., 2009).

Cabe, porém, destacar que a compreensão sobre os mecanismos socioecológicos que operam nos ambientes de baladas e sobre seus frequentadores é ainda muito limitada e poucos são os estudos que combinam dados pessoais com dados ambientais (Clapp et al., 2009). Além disso, a linha de pesquisa sobre comportamentos de risco nas baladas ainda é incipiente no Brasil e pouco se sabe sobre os fatores ambientais associados ao abuso de álcool, consumo de drogas ilícitas, atos violentos e comportamento sexual de risco nestes estabelecimentos.

ARTIGOS

2. ARTIGO 1

Environmental characteristics associated with alcohol intoxication among patrons in Brazilian nightclubs

Claudia Carlini[1]

Solange Andreoni[1]

Silvia S Martins[2]

Miguel Benjamin[1]

Adriana Sañudo [1]

Zila M Sanchez[1]

1 - Department of Preventive Medicine, Universidade Federal de São Paulo, Brazil

2 - Department of Epidemiology, Columbia University, NY, USA.

Environmental characteristics associated with alcohol intoxication among patrons in Brazilian nightclubs

Abstract

Introduction. Few studies have investigated the association between environmental factors and patrons' binge drinking in nightclubs, and such studies are rare in developing countries. **Objective.** To identify environmental factors associated with binge drinking among patrons in nightclubs in São Paulo, Brazil, using a mixed-methods design. **Method.** The study used atwo-stage cluster sampling survey design. Two levels of data were collected: observational data and portal survey data. Individual-level data were collected by a portal survey of 2422 subjects at the entrance and 1822 subjects at the exit of 31nightclubs.Weighted multilevel analysis was used to investigate the association between patrons' binge drinking (as measured by breath alcohol concentration ≥0.38 mg L^{-1}) at nightclub exit, with environmental-level variables collected through observation and controlled for individual-level data. **Results.** Pre-drinking was the variable most strongly associated with binge drinking BrAC levels when exiting the venue [adjusted odds ratio (aOR) = 5.98, 95% confidence interval (CI) [4.37, 8.17], P < 0.001). The environmental variables significantly associated with binge drinking were 'all you can drink' service (aOR = 2.44, 95% CI [1.03, 0.79]; P = 0.043), two or more dance floors (aOR = 1.92, 95% CI [1.16, 3.18]; P = 0.011), and higher sound levels (aOR = 1.04 per each decibel increased,95% CI [1.01, 1.08];P = 0.048).Data triangulation showed an association between lower alcohol intoxication and ketamine use in three LGBT nightclubs. **Discussion.** Pre-drinking showed that individual-level characteristics could be more important in binge drinking than the venues' environmental characteristics. Previous studies failed to include pre-drinking in environmental analysis. **Conclusion.** Environmental control interventions, isolated from individual-level approaches, may have limited efficacy in the prevention of alcohol abuse in nightclubs.

Keywords: Nightclubs; alcohol; Binge drinking; Alcohol Intoxication; Drinking Environments; Young People; Brazil

Introduction

Research has shown that environmental characteristics in nightclubs, such as sound level, alcoholic beverage discounts, a large amount of people in a venue and a high temperature may increase the consumption of alcoholic beverages by patrons [1, 2]. The same is true for individual level variables such as gender, youth and intention to drink, which is correlated with increased alcohol consumption in these venues [3].

Nightclubs and bars are places of choice for the practice of binge drinking (which is defined as drinking so much that within approximately 2 hours, blood alcohol concentration (BAC) levels reach 0.08%) [4], among young adults and adolescents [5,6,7]. However, it is important to note that the term binge drinking can represents diverse measures in different settings [8].

Because binge drinking is a dangerous pattern of alcohol consumption and is associated with physical aggression, risky sexual behaviour, sexual violence [9,10,11] and mortality [12] at these venues, it is considered to be a public health concern.

Understanding the environmental and individual level characteristics that can facilitate alcoholic intoxication in the nightlife economy would be important in informing licensing policy and harm reduction initiatives to reduce intoxication-related harm in nightclubs and bars [13].

Although there has been an increase in the scientific literature on this topic over the last decade, all extant studies were conducted in countries in Europe, North America and Oceania, leaving a large gap in the knowledge of this behaviour in less wealthy and more unequal countries [2,14].

Binge drinking has recently emerged as a public health issue in Brazil [15], and until now, no epidemiological study of alcohol consumption in nightclubs has

ever been published in that country, where the legal drinking age is 18 and current policies allow drinking in public areas, including streets, beaches and parks. The unregulated sale of alcohol is common and most existing regulations are poorly enforced [16].

Thus, the objective of this study is to identify environmental level factors that may be associated with binge drinking among patrons in nightclubs in São Paulo, Brazil, in order to provide important data that may support alcohol control policies in nightclubs in a developing country.

Methods

A mixed-methods design was used to investigate the alcohol use behaviour of patrons at nightclubs and environmental factors that might promote alcohol consumption in these establishments.

Sampling of Nightclubs and Patrons

This study was a two-stage cluster sampling portal survey, defined as a form of intercept sampling specifically designed to capture at-risk individuals at the entrance to and exit from locales of increased alcohol and other drug risks [17]. The nightclub selection (first stage) consisted of a systematic sample of 40 nightclubs, with probability of inclusion proportional to their maximum capacity. The patron selection (second stage) was a systematic sample of every third person in the entrance line of the selected nightclubs [17] (see Supporting Information Appendix S1 for details).

In this survey, nightclubs were defined as leisure venues that sell alcoholic beverages, have one or more dance floors, and offer individual control of patron entry and exit through the payment of an entrance fee.

The nightclub frame list was created by an active search of magazines and guides specialising in leisure activities and a search of the first ten pages returned from a Google search using the following key words: “São Paulo Bars, Nightclubs and Discos” (in Portuguese). The final frame list consisted of 150 nightclubs meeting the inclusion criteria, from which 40 nightclubs and potential replacements were drawn (see Supporting Information Appendix S1 for details) [18].

The inclusion criteria for patrons to participate in the study were the following: intention to enter the nightclub and being 18 years or older. If the patron refused to participate, data on age and gender were registered and the next person in line was approached.

A sample size of 1,600 patrons was calculated so that the prevalence of alcohol intoxication could be estimated to within 5% points (absolute precision) of the true value set to 50% (maximum variance) with 95% confidence, two-stage of cluster sampling and a design effect of 2 [19]. Taking into account a refusal rate of 30% and a maximum follow up loss of 40% from patron entrance to patron exit, grounded in previous studies by Clapp *et al* [18], it was determined that 2912 patrons should be initially approached.

Data collection and instruments

Two levels of data were collected in the study: environmental data (characteristics of the nightclub) and individual level data (patrons of the nightclub).

Nightclub instruments

Observational research was conducted inside the nightclubs that agreed to participate in the study. Each nightclub was observed one time for an average of 8.5

h- i.e. from the time the club opened to the time it closed - by two trained researchers. Two instruments were used: (i) a structured questionnaire based on the KAReN (Kit for Assessment of Recreational Nightlife) venue questionnaire [20] and Safer Bars [21] (details in Supporting Information Appendix S1); and (ii) a field diary filled out during and immediately after the observational research, with 4 thematic axes: drinking behaviour, violence, sexual behaviour and illicit drug use in the nightclubs. The observational procedure follows the guidelines of Patton and Bernard [22, 23]. Humidity (%) and temperature (°C) were measured by a professional thermohygrometer (INSTRUTHERM HT, model 270; INSTRUTHERM, São Paulo, Brazil) and sound level (dB) by a sound level meter (INSTRUTHERM DEC, model 490).

Patrons' instruments

The patrons who agreed to participate took entrance and exit survey interviews and a breathalyser (Dräger Alcotest 7410 Plus RS, Dräger, Lübeck, Germany) test after each interview. The patrons received a bracelet with a unique code to identify them at the exit. Seven field researchers used Samsung Galaxy tablets to collect data from the interviews and send those data to a central database in real time. The entrance questionnaire investigated socio-demographic variables, pre-drinking (a positive result on the breathalyzer test with breath alcohol concentration (BrAC) ≥0.01 mg L^{-1}), drinking patterns, drug use and risk behaviours in nightclubs in the year prior to the survey. The exit questionnaire asked about alcohol consumption, drug use and risk behaviours patrons engaged in on that specific night inside the venue.

Variables

The outcome variable for the statistical analysis was breath alcohol concentration levels equivalent to those of binge drinking (defined here as 'binge drinking alcohol concentration') at the time of exit (0 = no, 1 = yes). Patrons' binge drinking (alternately, alcohol intoxication) was defined as a BrAC ≥0.38 mg L^{-1}, which corresponds to a blood alcohol concentration of 0.08% (the mean concentration of a binge drinking episode) [4,24].The aspects of the nightclubs that were evaluated as explanatory variables are presented in detail in Supporting Information Appendix S1.

Statistical Analyses and weighting

We computed weights for nightclubs, patrons within each nightclub and patrons overall. Post-stratification adjustments were made using the information about the sex of all customers present at each nightclub (a total of 23 100 patrons were present in the 31 nightclubs on the days of data collection, 59% men and 41% women). Non-participation adjustment rates for the nightclub weights were also calculated.

Descriptive and inferential statistics of the sampled patrons and nightclubs were computed using survey weight estimates. We also investigated the patterns of non-response for patrons under this approach.

Multilevel logistic models with random intercepts were used to evaluate the association of binge drinking BrAC at the exit of nightclub with patrons' individual characteristics (level 1) and the nightclubs' characteristics (level 2). The maximisation of a pseudo-likelihood through an adaptive quadrature approach was used for estimation because it can accommodate the probability weights of each level of sampling [25]. It is necessary to scale the sampling weights at each level, and this step was performed here, as is recommended for informative sampling methods used

to select units at both levels of sampling [25, 26]. In multilevel analysis, the weights should be given for each level of analysis (details about weighting are presented in Supporting Information Appendix S1)

First, a null multilevel model with explanatory variables was fitted. Second, models for each characteristic and the bivariate association of binge drinking BrAC at exit were fitted. Then, models that examined the association of the outcome and all predictor variables of each block, controlling for pre-drinking, were fitted. Variables with $P < 0.20$ in the models by block were used to build a final model. Explanatory variables with $P < 0.05$ composed the final model. Coefficients are presented in terms of odds ratio (OR) and adjusted odds ratio (aOR) to facilitate interpretation (see Supporting Information Appendix S1 for details).

An additional model including a variable (yes/no) for venues exhibiting ketamine use at the nightclub level ("ketamine venue") was investigated under the same modelling approach and using the same variables presented in Table 1 replacing illicit drug use by ketamine use.

The models were estimated using GLLAMM Stata 2012 software [27].

Content analysis of field diaries

Each night of observation in the field diary was identified by a numeric code and was analysed using the content analysis technique described in Bardin's theoretical framework. Field notes were sorted into major themes (i.e. portions in agreement with each thematic axis) and grouped into reports [28]. At this stage, the computer software NVivo-10 was used [29].

The themes identified were analysed to provide meaning, taking into consideration the emic approach [28]. This step, defined as categorisation, was

performed by three researchers working together to ensure consistency and coherence in the analysis [22].

Ethics

The Research Ethics Committee of the Universidade Federal de São Paulo (protocol 21477) approved this study. No interview was conducted with patrons showing signs of severe intoxication, following the guidelines for screening described in Perham et al. [30].

Results

Sample Characteristics

Of the 40 original nightclubs selected for sampling, 31 including replacements, agreed to participate, resulting in an acceptance rate of 66%.

A total of 3063 patrons of the 31 nightclubs were recruited to answer questions in an entrance and exit portal survey. An entrance acceptance rate of 80% generated a sample of 2422 of completed entrance interviews and a follow up rate of 76%, representing 1832 complete exit interviews (1822 with breathalyser result).

Non-responses in the exit interview stemmed from different reasons: refusal to participate (n = 12, 2.1%), inability to answer due to severe intoxication (n = 67, 11.3%) and loss to follow-up (n = 511, 86.6%). There were no statistically significant differences in the sex (χ^2 = 0.02, P = 0.889) or pre-drinking (χ^2 = 0.88, P = 0.355) distributions or the mean age (t = 0.11, P = 0.917) among the participants who were interviewed at both time points (entrance and exit) and those who were interviewed at entrance but not at exit.

Table 1 presents the environmental characteristics of the nightclubs that were hypothesised to be associated with patrons' drinking behaviour. Table 2 presents the demographic characteristics and pre-drinking status of patrons re-interviewed at exit.

Table 1. *Environmental characteristics of the 31 randomly selected São Paulo nightclubs.*

	Variable	*n*	Unweighted percentage(SE)	Weighted percentage(SE)
Venue entrance	Consumption fee[ac]	15	48.39(9.12)	52.32(10.40)
	Identity checking[a]	19	61.29(8.89)	62.52(9.76)
	Queue[a]	22	70.97(8.29)	62.48(10.82)
	Minors(<18yearsold)[a]	9	29.03(8.29)	34.33(10.78)
Beverages and food	'All you can drink' service[a]	4	12.90(6.12)	9.97(5.00)
	Alcohol discounts[a]	10	32.26(8.53)	37.21(10.30)
	Food availability[a]	13	41.94(9.01)	35.79(9.54)
	Water fountain availability[a]	4	12.90(6.12)	9.87(5.09)
Type of nightclub	LGBT[a]	9	29.03(8.29)	29.33(9.42)
Physical environment	Reserved area for smokers[a]	25	80.65(7.21)	82.74(7.03)
	Reserved area for sexual relations[ab]	4	12.90(6.12)	8.89(4.56)
	Three or more bars[a]	12	38.71(8.89)	29.55(8.56)
	Two or more dance floors[a]	9	29.03(8.29)	31.81(10.69)
	Big screen or TV[a]	23	74.19(7.99)	70.59(10.39)
General characteristics	Humidity (%)	31	70.60(1.50)	69.18(2.32)
	Temperature(°C)	31	23.40(0.47)	23.20(0.39)
	Sound(dB)	31	96.88(1.21)	97.17(1.47)
Health conditions	Crowding[a]	16	51.61(9.12)	46.63(10.36)
	Cleanliness[a]	20	64.52(8.74)	68.99(9.19)
Illumination	Dark[a]	7	22.58(7.63)	25.15(9.18)
	Semi-dark[a]	19	61.29(8.89)	59.75(10.25)
	Light[a]	5	16.13(6.72)	15.10(7.20)
	Light effects[a]	12	38.71(8.89)	34.74(9.68)
Drugs	Use of illicit drugs[a]	17	54.84(9.09)	49.85(10.50)

Data collected by structured questionnaire during ethnographic observation.[a]Yes category.[b]Specific area for sexual relations (some clubs host a darkened room that patrons can use for casual sex). [c]Patrons pay a more expensive entrance fee (usually double the price of the regular fee) and then consume the total amount of money spent at the entrance in beverages. Once the total amount is paid, any money not consumed through beverages will not be refunded.

Table 2.*Sociodemographic characteristics of patrons interviewed at nightclub exit (n = 1822).*

	Variables	Sample n	Unweighted Percentage (SE)	Weighted Percentage (SE)
Demographic characteristics				
Sex	Male	1111	60.98(1.14)	60.71(5.89)
	Female	711	39.02(1.14)	39.29(5.89)
Age	18–24years	897	49.23(1.17)	59.47(4.57)
	25–66years	925	50.77(1.17)	40.53(4.57)
Patrons' behaviour				
Pre-drinking	Yes	683	37.49(1.13)	34.33(3.85)
Binge drinking BrAC at entry	Yes	186	10.21(0.71)	9.35(1.61)
Binge drinking BrAC at exit	Yes	569	31.22(1.09)	31.11(3.06)

Data from the entrance interview. BrAC, breath alcohol concentration.

Pre-drinking was observed in 34.33% (SE=3.85) of patrons, binge drinking alcohol concentration at entry in 9.35% (SE=1.35) of patrons, and binge drinking alcohol concentration at exit in 31.11% (SE=3.06) of patrons.

Multilevel analysis

The final multilevel model showed that pre-drinking had the strongest significant association with alcohol intoxication at exit [aOR = 5.98, 95% confidence interval (CI) [4.37, 8.17], $P < 0.001$]. 'All you can drink' service (patrons pay a fixed value at the entrance allowing them completely unrestricted alcohol consumption inside the establishment) had the next strongest association with alcohol intoxication (aOR = 2.44, 95% CI [1.03, 5.79], $P = 0.043$). Dance floors and sound levels were also statistically significantly associated with exit intoxication (Table 3).

The preliminary verification of a multilevel model without explanatory variables for alcohol intoxication at exit indicated a between cluster variability of 0.96 (SE=0.44); the final multilevel model reduced to 0.47 (SE=0.16).

Table 3. *Multilevel models for the associations between environmental characteristics and binge drinking BrAC for patrons at exit (n = 1822 interviewees in 31 nightclubs).*

Block	Variable	OR	*P*	aOR	*P*	aOR	95%CI	*P*
Patrons								
Patrons' behaviour	Pre-drinking[a]	5.80	<0.001			5.98	[4.37,8.17]	<0.001
Demographics	Male	1.24	0.370	0.91	0.698		—	
	Age18–24	1.13	0.419	1.24	0.224		—	
Nightclubs								
Venue entrance	Consumption fee[ad]	2.28	0.051	1.70	0.184		—	
	Identity checking[a]	1.01	0.978	0.90	0.807		—	
	Queue[a]	1.53	0.477	1.22	0.699		—	
	Minors(<18years.old)[a]	1.66	0.184	1.39	0.398		—	
Beverages and food	'All you can drink' service[a]	2.65	0.013	3.19	0.005	2.44	[1.03,5.79]	0.043
	Alcohol discounts[a]	0.52	0.224	0.73	0.439		—	
	Food availability[a]	0.47	0.146	0.58	0.175		—	
	Water fountain availability[a]	1.36	0.581	1.39	0.501		—	
Type of nightclub	LGBT[a]	1.20	0.649	0.83	0.626		—	
Physical environment	Reserved area for smokers[a]	1.66	0.152	1.08	0.851		—	
	Reserved area for sexual	1.27	0.749	0.97	0.975		—	
	Three or more bars[a]	0.86	0.757	1.13	0.781		—	
	Two or more dance floors[a]	2.39	0.013	2.71	0.002	1.92	[1.16,3.18]	0.011
	Big screen or TV[a]	0.50	0.059	0.49	0.051	0.50	[0.28,0.90]	0.011
Atmospheric characteristics	Humidity (%)	0.99	0.421	0.98	0.322		—	
	Temperature (°C)	1.00	0.981	0.95	0.579		—	
	Sound (dB)	1.05	0.119	1.06	0.060	1.04	[1.01,1.08]	0.048
Health conditions	Crowding[a]	1.14	0.766	1.17	0.730		—	
	Cleanliness[a]	0.54	0.096	0.63	0.229		—	
Illumination[b]	Semi-dark[a]	0.86	0.619	1.12	0.813		—	
	Light[a]	0.20	0.033	0.31	0.208		—	
	Light effects[a]	1.52	0.292	0.96	0.949		—	
Drugs	Use of illicit drugs[a]	1.80	0.203	1.39	0.494		—	

[a]Yes category. [b]Reference category: dark. [c]Specific area for sexual relations (some clubs host a darkened room that patrons can use for casual sex). [d]Patrons pay a more expensive entrance fee (usually double the price of the regular fee) and then consume the total amount of money spent at the entrance in beverages. Once the total amount is paid, any money not consumed through beverages will not be refunded. aOR, adjusted odds ratio; BrAC, breath alcohol concentration; OR, odds ratio.

The field diary content analysis (presented below) raised the hypothesis concerning the inverse association of ketamine use with alcohol intoxication using multilevel analysis (data not shown in tables). Ketamine use was observed by researchers and declared by patrons in three LGBT venues. Using the same modelling approach, analysis supported that intoxication was less prevalent in these "ketamine use" venues (aOR = 0.37, 95% CI [0.23; 0.58], p<0.001). For the model that includes ketamine use in the venue as a nightclub level variable, a similar final model is obtained, however sound level (dB) effects became marginally significant (p=0.060), when ketamine use venues are added the model.

Content analysis

Content data analysis of the field diaries supported the association between open bars and alcohol intoxication. The majority of the quotes from the thematic node "alcohol intoxication" came from the observations conducted where "all you can drink" service was present.

In "all you can drink" venues, pre-drinking was less visible in the entrance line; however, people drank until the last possible moment and it was usual to see people handling glasses at closing time.

> *"People were drinking a lot during the night. Signs of intoxication were evident, especially after 2 am. (…) Many people with uncoordinated movements, bloodshot eyes, slurred speech. There were clear signs of vomiting in the bathrooms. (…) Some people tried to talk with me, but they were so drunk that I could not quite understand what they were saying (…) In the exit row, a patron participating in the survey passed out when approached to answer the exit interview*." **(field diary 27)**

The need to include pre-drinking as a control variable of statistical analysis emerged from field observation, as in almost all venues, several patrons were

drinking in the entrance line and alcohol was being sold outside the venue by peddlers in cars or tents or through local trade such as street bars, diners and bakeries. In some places, people came to the club already drunk, which would work as confounding factor for environmental variables.

> *"The nightclub is located in a very busy street ... some street bars and bakeries are on the same sidewalk of the venue. Patrons are pre-drinking in front of the nightclub and some of them are showing signs of intoxication in the line (…) Entrance of intoxicated patrons is authorised with no concerns"* **(field diary 07)**

Before the multilevel models were fitted, an experience in the field inspired researchers to hypothesise about the poor quality of interactions when loud music is playing, as well as its consequences for alcohol use:

> "*The loud sound seems to decrease the degree of interaction between the patrons, and it was virtually impossible to talk there, and thus each one pays attention only to the drink and the dancing drink. We have to consider the hypothesis that loud sound decreases interactions and increases alcohol consumption in our analysis."* **(field diary 13)**

Another theme that emerged from the field diaries concerns the role of the "agglomeration" of patrons that seems to increase consumption of alcohol. Notes from observations indicate that extremely crowded and messy nightclubs seem to be associated with higher alcohol consumption, shown by the interaction between nodes analysis "agglomeration" and "intoxication", grouped by N-Vivo.

> *"The dance floor was crowded and the sound coming out of the boxes was very loud (...) people were drinking a lot (really a lot) and (…) people were* knocking into each other all the time during dancing"**(field diary 12)**

Considering the data triangulation [22], ketamine use was visible in 3 specific venues and, simultaneously, alcohol intoxication was described as less prevalent in these venues. The ketamine and alcohol intoxication N-Vivo nodes were integrated when considering low alcohol use:

> *"I was astonished with the amount of people snorting ketamine ... I asked a guy (he was busy and with red eyes) if he had enjoyed the go-go boy show. He replied in serious, "what show?" (…) "I replied thinking that he was joking, "You do not remember the scene with those two guys who were up on stage?" Aggressively he replied, "You are mistaken, there was no show today". The consume of alcohol beverages was not so high when comparing with others nightclubs(…) People left the venue high, but "high" from other drugs, not alcoholic intoxication"* **(field diary 21)**

Discussion

The most relevant finding of this study refers to the fact that the variable most strongly associated with exiting patrons' alcohol intoxication BrAC was pre-drinking behaviour (or pre-loading). Among the 24 environmental variables analysed, only 4 were significantly associated with alcohol intoxication after controlling for pre-drinking: number of dance floors, big screens or televisions, sound level and "all you can drink service".

Pre-drinking, the main predictor of the study, has already been investigated in other countries (particularly in the US and UK) and seems to occur when patrons aim to save money and to facilitate peer and sexual interactions [31]. It is important to note that binge drinking also occurs during the pre-drinking episodes [32], as getting drunk seems to be one of the main objectives of young people who go out for nightlife activities, independently of being inside or outside the destination venue [33,5,6].

Considering the nightclub characteristics, “all you can drink” service had the strongest significant association with patrons’ intoxication at nightclub exit. These data corroborate an American study showing that in college bar districts in the United States, this discount practice is associated with a higher potential to boost patron intoxication [34].

In Brazil in 2008, a bill (number 3414/08) prohibiting parties offering “all you can drink” service was presented to the Chamber of Deputies. The project has since stalled, although the Chamber’s official web site states that this is a priority project. Moreover, in Brazil, alcohol sales are unregulated and it is legal to serve alcohol to intoxicated patrons [16], which suggests that “all you can drink” service may be more harmful in Brazil than it is in regulated markets.

Although there is little scientific evidence to date, higher levels of sound seem to be significantly associated with patrons’ intoxication, which was supported by qualitative and quantitative evidence in our study. An experimental study conducted in French bars showed that high levels of sound lead to an increase in alcohol consumption among clients [35]. The “arousal hypothesis” for patrons in nightclubs argues that high sound levels create a high level of excitement in patrons, which leads them to increase their alcohol consumption and reduce their waiting time between each new serving of alcohol [36].

We found a statistically significant association between the number of dance floors and binge drinking alcohol concentration at the exit. A possible explanation for this association is that higher availability of dance floors results in more people clustering around them and that crowded dance floors are associated with heavy drinking. This occurs because patrons try to alleviate their discomfort by drinking faster, as suggested in other studies [37]. Dance floors are usually the place where

sound is loudest in the nightclub; thus, the arousal theory would also be an explanation. The variable “crowding” was based on the average number of people present at the venue, independent of where people were socialising. Consistent with the finding above, crowding per se was not associated with heavy drinking. Future studies should explore alternative methods to measure “crowding” by taking into consideration the crowd distribution.

Big-screens or televisions in nightclubs were a protective factor. We assume that this is due to distinct reasons based on three different profiles of nightclubs that feature screens and televisions: 1) induced motion sickness: extreme visual stimulus from the transmission of fast, colourful, psychedelic images can generate feelings of dizziness and motion-sickness [38], reducing the desire to drink. 2) Ballroom dancing: the second group of nightclubs with big-screens or televisions catered to older adults who appreciate ballroom dancing, so people seemed to be more focused on dancing than drinking. 3) Distraction: patrons watch programs on the televisions and therefore dance less. It may be less the big-screen or television itself that is the protective factor, but the type of nightclub and patrons that feature and attend it, respectively. Studies of televisions in bars have only aggression as the outcome: televisions showing fights or aggressive programs increased the violence among intoxicated patrons [39].

Several limitations are noted. The follow up rate of 75% shows that part of the entrance sample was lost. Our hypothesis is that patrons who were drunk were more likely to leave the establishment without worrying about the exit interview. Moreover, we did not interview extremely drunk patrons. Thus, the number of intoxicated patrons may be underrated. Additionally, the variable for illicit drug use in the venue

that was used in the multilevel analysis was not self-reported by participants, but observed by those conducting observational research inside the nightclub.

Another limitation is that BrAC were measured only twice during the night for each patron--some of them may have engaged in binge drinking earlier in the night but stopped drinking a few hours before leaving the nightclub, meaning that due to blood clearance, their initial binge drinking was not detected in the exit interview. Moreover, the authors opted for an objective definition of alcohol intoxication, i.e., a biological measure proposed by NIAAA for a binge drinking [4], although we know that there are patrons who become intoxicated even at lower alcohol dosages.

Because the study is a cross sectional survey, it is not possible to infer causation from statistical association. It is also important to note that there are likely many other influences on BrAC that were not measured in this study (i.e., length of drinking session, body adiposity and race).

Despite its limitations, this study has several strengths. The most important is the inclusion of pre-drinking in the multilevel analysis, which has not typically been included in published studies with similar scope. The second strength is the acceptance rate of patrons (80%) at the entrance of nightclubs in one of largest cities in the world [40]. Moreover, the use of a mixed-methods design, considering different approaches for data collection and data analysis, increases the validity of results.

Considering that binge drinking in nightclubs is associated with the practice of “drinking and driving” and aggressive and risky sexual behaviour [15], methods to reduce the amount of alcohol consumed by patrons must be tested. Data support the interpretation that although some environmental variables are associated with alcohol intoxication, personal decisions can be stronger than the influence of the environment itself [41] as pre-drinking was the strongest predictor of alcohol

intoxication. Thus, environmental control approaches that are isolated from individual level approaches may not show efficacy in the prevention of alcohol intoxication in nightclubs. On the other hand, the “all-you-can-drink” service is one environmental factor that could be addressed by public policy to limit alcohol accessibility and availability in nightclubs.

References:

[1] Green J, Plant MA. Bad bars: a review of risk factors. J Subst Abuse 2007;12:157–89.

[2] Hughes K, Quigg Z, Eckley L, *et al*. Environmental factors in drinking venues and alcohol-related harm: the evidence base for European intervention. Addiction 2011;106 (Suppl. 1):37–46.

[3] Clapp JD, Reed MB, Min JW, *et al*. Blood alcohol concentrations among bar patrons: a multi-level study of drinking behavior. Drug Alcohol Depend 2009;102:41–8.

[4] National Institute of Alcohol Abuse and Alcoholism. National institute of Alcohol Abuse and Alcoholism council approves definition of binge drinking. NIAAA Newsletter 2004;3:1–4.

[5] Laranjeira R, Pinsky I, Zaleski M, Caetano R. I levantamento nacional sobre os padrões de consumo de álcool na população Brasileira [First national survey on patterns of alcohol consumption in the Brazilian population]. Brasília: Brazilian National Antidrug Secretariat (SENAD), 2007. In Portuguese.

[6] Sanchez ZM, Martins SS, Opaleye ES, Moura YG, Locatelli DP, Noto AR. Social factors associated to binge drinking: a cross-sectional survey among Brazilian students in private high schools. BMC Public Health 2011;11:201.

[7] Beets MW, Flay BR, Vuchjnich S, Li KK, Acock A, Snyder FJ. Longitudinal patterns of binge drinking among first year college students with a history of tobacco use. Drug Alcohol Depend 2009;103:1–8.

[8] Courtney KE, Polich J. Binge drinking in young adults: data, definitions, and determinants. Psychol Bull 2009;135:142–56.

[9] Bellis MA, Huges K, Calafat A, Juan M, Ramon A, Rodriguez JA. Sexual uses of alcohol and drugs and the associated health risks: a cross sectional study of young people in nine European cities. BMC Public Health 2008;8:155.

[10] Kelley-Baker T, Mumford EA, Vishnuvajjala R, Voas RB, Romano E, Johnson M. A night in Tijuana: female victimization in a high-risk environment. J Alcohol Drug Educ 2008;52:46–71.

[11] Livingston M, Chikritzhs T, Room R. Changing the density of alcohol outlets to reduce alcohol-related problems. Drug Alcohol Rev 2007;26:557–66.

[12] Leifman H. A comparative analysis of drinking patterns in 6 EU countries in the year 2000. Contemp Drug Probl. 2002;29:501–48.

[13] Miller AB, Holder HD, Voas RB. Environmental strategies for prevention of drug use and risks in clubs. J Subst Abuse 2009;14:19–38.

[14] Tutenges S. Safety problems among heavy-drinking youth at a Bulgarian nightlife resort. Int J Drug Policy 2009;20:444–6.

[15] Silveira C, Silveira C, Silva J, Silveira L, Andrade A, Andrade L. Epidemiologia do beber pesado e beber pesado episódico no Brasil: uma revisão sistemática da literatura [Epidemiology of heavy drinking and heavy episodic drinking in Brazil: a systematic review of literature]. Rev Psiquiatr Clín 2008;35:31–8. In Portuguese.

[16] Laranjeira R. Brazil's market is unregulated. BMJ 2007;335:735.

[17] Voas RB, Furr-Holden D, Lauer E, Bright K, Johnson MB, Miller B. Portal surveys of time-out drinking locations: a tool for studying binge drinking and AOD use. Eval Rev 2006;30:44–65.

[18] Clapp JD, Holmes MR, Reed MB, Shillington AM, Freisthler B, Lange JE. Measuring college students' alcohol consumption in natural drinking environments: field methodologies for bars and parties. Eval Rev 2007;31:469–89.

[19] Lwanga SK, Lemeshow S. Sample size determination in health studies: a practical manual. Geneva: World Health Organization, 1991.

[20] Calafat A, Hughes K, Jerez MJ, *et al*. KAReN—Kit for Assessment of Recreational Nightlife. Available at:
http://www.irefrea.org/uploads/PDF/KAREN_Full%20Set_EN.pdf (accessed March 2013).

[21] Graham K. Training manual for observers on the Safer Bars Study. London, Canada: Centre for Addiction and Mental Health, 2002.

[22] Patton MQ. Qualitative research and evaluation methods, 3rd edn. Thousand Oaks, CA, USA: Sage Publications,2002.

[23] Bernard HR. Social research methods: qualitative and quantitative approaches, 7th edn. London: Sage Publications,2000.

[24] Haffner HT, Graw M, Dettling A, Schmitt G, Schuff A. Concentration dependency of the BAC/BrAC (blood alcohol concentration/breath alcohol concentration) conversion factor during the linear elimination phase. Int J Legal Med 2003;117:276–81.

[25] Rabe-Hesketh S, Skrondal A. Multilevel modeling of complex survey data. J R Statist Soc A 2006;A169:805–27.

[26] Pfeffermann D, Skinner CJ, Holmes DJ, Goldstein H, Rasbash J. Weighting for unequal selection probabilities in multilevel models. J R Statist Soc B 1998;60:23–40.

[27] Rabe-Hesketh S, Skrondal A, Pickles A. GLLAMM manual. Technical Report 160. Berkeley: Division of Biostatistics, University of California, Berkeley, 2004.

[28] Bardin L. Análise de conteúdo [Content analysis], 3rd edn. Lisbon: Edições70, 2004. In Portuguese.

[29] Gibbs GR. Qualitative data analysis: explorations with NVivo. NewYork: Open University Press, 2009.

[30] Perham N, Moore SC, Shepherd J, Cusens B. Identifying drunkenness in the night-time economy. Addiction 2007;102:377–80.

[31] Foster JH, Ferguson C. Alcohol 'pre-loading': a review of the literature. Alcohol Alcohol 2013;49:213–26.

[32] Dejong W, Dericco B, Schneider SK. Pre-gaming: an exploratory study of strategic drinking by college students in Pennsylvania. J Am Coll Health 2010;58:307–16.

[33] Measham F, Brain K. Binge drinking, British alcohol policy and the new culture of intoxication. Crime Media Cult 2005;1:262–83.

[34] Thombs L, O'Ma R, Dodd VJ, *et al*. A field study of bar-sponsored drink specials and their associations with patron intoxication. J Stud Alcohol Drugs 2009;70:206–14.

[35] Gueguen N, Jacob C, Le Guellec H, Morineau M, Lourel M. Sound level of environmental music and drinking behavior: a field experiment with beer drinkers. Alcohol Clin Exp Res 2008;32:1795–8.

[36] Roballey T, McGreevy C, Rongo R, *et al*. The effect of music on eating behaviours. Bull Psychon Soc 1985;23:221–2.

[37] Macintyre S, Homel R. Danger on the dance floor: a study of interior design, crowding and aggression in nightclubs. In: Homel R, ed. Policing for prevention: reducing crime, public intoxication and injury, Vol. 7. Monsey, NY, USA:Criminal Justice Press, 1997:91–113.

[38] Kennedy RS, Drexler J, Kennedy RC. Research in visually induced motion sickness. Appl Ergon 2010;41:494–503.

[39] Graham G, Homel R. Raising the bar: preventing aggression in and around bars, pubs and clubs. Abingdon, UK: Willan Publishing, 2011.

[40] Brazilian Institute of Geography and Statistics. Estimativas da população residente nos municípios brasileiros com data de referência em 1° de Julho de 2013 [Estimates of resident populations in Brazilian municipalities with reference date of 1 July 2013]. Rio de Janeiro: Brazilian Institute of Geography and Statistics, 2013. Available at: ftp://ftp.ibge.gov.br/Estimativas_de_Populacao/Estimativas_2013/estimativa_2013_dou.pdf (accessed March 2014). In Portuguese.

[41] Silva-Filho A, Masur J. Modulação dos efeitos do álcool por fatores individuais, situacionais e ambientais [Modulation of alcohol effects by individual, situational and environmental factors]. Ciênc Cult 1985;38:749–59. In Portuguese.

Supporting Information of "Environmental characteristics associated with alcohol intoxication among patrons in Brazilian nightclubs"

1) Sampling details:

A) The final frame list consisted of 150 nightclubs in the city of São Paulo that met the inclusion criteria, from which 40 nightclubs were drawn. At least 30 nightclubs were needed to participate in the study in order for us to be able to use "large" sample properties for statistical modelling and inferences. Information about the nightclubs' maximum capacity size, region and nightclub type (LGBT or not) was obtained from their web sites, magazine advertisements or personal contact.

The sample consisted of a systematic sample of 40 nightclubs with a probability of inclusion proportional to each nightclub's maximum capacity *(S_j)*, so that larger nightclubs had a greater chance of being included in the sample. The nightclubs were selected using the following steps:

1. The list of 150 *(M_c)* nightclubs was ordered from smallest to largest capacity.
2. The cumulative sum of the capacities was calculated for each nightclub in this ordered list and added as another column in the list.
3. The total sum of capacities *($TS = \sum_{j=1}^{M_c} S_j$)* of all nightclubs should be last number in this list.
4. A sampling interval *(SI)* was obtained by dividing the total sum of the capacities of all nightclubs by the number m_c of nightclubs to be sampled (in this study, m_c=40).
5. A random start *(RS)* for the selection of nightclubs was provided by choosing a random number between *1* and the *SI* (Excel command: *RS= rand()*SI*).
6. The first nightclub sampled from the list was the one that contained this *RS* in the cumulative capacity size column.
7. The following series was calculated: *RS; RS+SI; RS+ 2*SI; ….; RS+(m_c -1)*SI.*

8. The nightclubs selected were those for which the cumulative capacity size contains one of the serial numbers calculated in item 7.
9. The sampled nightclubs were marked in another column.
10. Calculate for each one of the originally sampled nightclubs the probability of each nightclub to be sampled *(p_j^o):*

    $p_j^o = (m_c * S_j)/ TS \quad , j=1,...,m_c,$

    wherem_c = number of nightclubs in the sample (40), S_j = maximum capacity size of nightclub *j*,*TS*= total sum of capacity sizes in the population frame list.

More details on how to draw a systematic sample proportional to size see reference Bierrenbach, AL. Steps in applying Probability Proportional to Size, WHO, Training workshops on TB prevalence surveys**,** AUGUST 2008, GENEVA, WITZERLAND. Available at: http://www.who.int/tb/advisory_bodies/impact_measurement_taskforce/meetings/prevalence_survey/psws_probability_prop_size_bierrenbach.pdf

1.1) Replacement of nightclubs:

Replacements for the selected nightclubs were chosen from the ordered list in the event that any of the nightclubs that were originally selected refused to participate in the study. The replacements had the same capacity, were located in the same neighbourhood, and were subject to the same probability of selection as the original nightclub sampled.

Some difficulties arose with this sampling method. Thirty-one nightclubs, including replacements, agreed to participate, rather than the 40 originally planned. First, the sample obtained could not reflect the original systematic sample that was proportional to the nightclubs' capacity. Second, replacements for moderate to large nightclubs were more difficult to obtain due to the lack of availability in a universe of

150 nightclubs in this kind of sampling. Fortunately, the sample of nightclubs still contained some moderate to larger clubs, the largest nightclubs agreed to participate, and smaller to moderate sized ones were easily replaced. Thus, the probability of a nightclub being selected had to be adjusted to reflect the original sampling scheme based on 40 nightclubs. This was accomplished by calculating a non response adjustment factor to the original probability of any particular nightclub being selected, creating a data set of 40 “nightclubs”, their maximum capacities and a variable called *Agreed* (coded 1 if the sampled/replaced nightclub of that size agreed to participate, 31 cases; and 0 otherwise, 9 cases). A logistic model having *Agreed* as the dependent variable and maximum capacity as the explanatory variable was run. Under this model, one can obtain an estimate of the probability of a nightclub agreeing to participate based on its capacity size (p_j^a). Note that region and type of nightclub was not necessary for the prediction because the replacements were all matched on them. The non response adjustment factor becomes $a_j = 1 / p_j^a$.

The statistical model used in this study (draw and inferential process for large samples in clusters) requires at least 30 primary sample units (PSU) to allow a proper performance of the statistical analyses (Levy & Lemeshow, 1980) because we were using clusters–patrons within nightclubs--and multilevel analysis. To guarantee that we would have at least 30 nightclubs participating in the survey, we draw 40.

Moreover, Clapp et al. (2007) & Voas et al. (2006) used 30 bars as the minimum expected for clustering analysis in similar studies. We followed their lead.

Clapp JD, Holmes MR, Reed MB, Shillington AM, Freisthler B, Lange JE. Measuring college students' alcohol consumption in natural drinking environments: field methodologies for bars and parties. *Eval Rev* 2007;31(5):469-89.

Voas RB, Furr-Holden D, Lauer E, Bright K, Johnson MB, Miller B. Portal surveys of time-out drinking locations: a tool for studying binge drinking and AOD use. Eval Rev 2006; 30(1):44-65.

1.2) Calculation of the sample size for patron's interview:

The calculation we have presented for the sample is not a power calculation, but a "one sample size for proportions" (population proportion with specified absolute precision).

We used Lwanga and Lemeshow's (1991) formula:

$$n_1 = \frac{z^2_{1-\alpha/2}(1-p)}{\varepsilon^2 p}$$

Where:

n_1 = expected sample size

Z = area under the curve (1,96)

α = level of confidence (95%)

ε = absolute precision (5%)

p = expected proportion for the event (50%), with a maximum variance of 50% because no other studies have been carried out among this population in Brazil.

Details can be found in Chapter 1 (One-sample situations) of Lwanga and Lemeshow's (1991) book.

Considering the formula, the minimum sample size would be 384 subjects; however, we multiply this figure by 2 to consider the design effect (people in each cluster are more similar than in a simple random sample, so we must increase sample size to

find differences) and multiply the result of that calculation by 2 to consider the two stages of sample drawing (drawing the nightclub sample and drawing the nightclub patrons' sample) = 384 x 2 x 2 = 1536 (this figure was rounded to 1600).

The refusal to participate at the entrance and in the follow up was a "guess" for the São Paulo population because it was the first survey carried out in nightclubs in Brazil. We used Clapp et al.'s (2007) estimations of refusal rates in the US to "guess" our baseline refusal rate because we were collecting these data for the first time in a very different country and were not confident about the expected rates. The good news is that we made a good guess. We had lower levels of refusal than expected (real data: 20% refusal rate and 25% loss to follow up rate). Thus, the sample size was able to describe the patterns of binge drinking among São Paulo's nightclub patrons, and even with a smaller sample, we would still be able to calculate the expected population estimation of binge drinking in nightclubs in São Paulo.

X = 1600 x 1.3 (refuse) x 1.4 (loss)= 2912 patrons to be approached.

Lwanga SK, Lemeshow S. Sample size determination in health studies: a practical manual. Geneva: World Health Organization; 1991.

Clapp JD, Holmes MR, Reed MB, Shillington AM, Freisthler B, Lange JE. Measuring college students' alcohol consumption in natural drinking environments: field methodologies for bars and parties. Eval Rev 2007; 31 (5):469-89.

1.3) Drawing a sample of patrons:

Our original intention was to use a sample of 40 patrons per nightclub; however, due to the complexity of completing this task at night, and the researchers' decision to stay until the last customer left the nightclub, this sample size scheme was modified. Every third person in the entrance line of the nightclubs was invited to participate in

the study. If the person refused to participate, data on age and gender were registered and the next person in line was approached. Information about the total number of patrons present at each nightclub and their sex was recorded.

Under this scenario, the *probability of each patron i being sampled in each nightclub j* ($p_{i/j}$) becomes approximately $p_{i/j}{}^{o} = n_j / N_j$, $j=1, ..., m_c$, where n_j = number of patrons sampled in nightclub j and N_j= total number of patrons present at the nightclub that night. Non-response was considered non informative based on an analysis of non-response patterns, so n_j in this study corresponds to the number of patrons who responded to the exit interview in nightclub jin for most analyses.

1.4) Calculation of sampling weights:

Several types of sampling weight components were computed to obtain the final weights for the statistical analysis (final weights for the nightclubs, final weights for patrons within a nightclub, overall final weight for each patron and rescaled final weights for patrons within a nightclub for use in the multilevel analysis).

The final sampling weights for the nightclubs were calculated as follows. First, the base weight for a nightclub ($w_j{}^{o}$) was calculated as the inverse of the probability of the nightclub of being selected from the frame list, considering a sample size of 40 nightclubs in the systematic approach described previously; i.e., the nightclub base weight is given by $w_j{}^{o}=1/p_j{}^{o}$. The final nightclub weight was the product of the nightclub base weight and the non-response adjustment factor for that nightclub, $w_j = a_j * w_j{}^{o}$.

The base weight of an individual within a nightclub was calculated as the inverse of the probability of the patron being selected, i.e.,$w_{i/j}{}^{o} = 1/ p_{i/j}{}^{o}$. A post-stratification adjustment, $s_{i/j,}$ was made using information about the sex distribution of all

customers present at each nightclub. The final patron weight within a nightclub was the product of the patrons' base weight and post stratification weight, $w_{i/j} = s_{i/j} * w_{i/j}^{o}$.

Not all patrons in the population had the same probability of being selected irrespective of their nightclub; nor is the patron sample self-weighting. Descriptive and inferential statistics of the sampled patrons and nightclubs were computed using survey weight procedures (*svy*) in Stata 12.These procedures use a patron's overall sampling weight, which was calculated as the product of the final patron weight within a nightclub and the final nightclub weight, that is, $w_{ij} = w_{j} * w_{i/j}$.

In multilevel analysis, the weights should be given for each level of analysis. More specifically, at the individual level (level 1), the patrons' final weight within a nightclub must be scaled to reflect the sample size of patrons within a nightclub. This was accomplished by multiplying the final weights of the subjects within a nightclub *j* by the a factor *f* used for scaling, i.e., $w_{i/j}^{(1)} = f_j * w_{i/j}$, where $f_j = n_j / \sum_{i=1}^{n_j} w_{i/j}$. For estimation purposes, it is not necessary to scale the weights at the nightclub level (level 2), and so the level 2 weights for nightclubs are given by $w_j^{(2)} = w_j$.

2) Details about nightclubs:

Bars and pubs in São Paulo typically differ from nightclubs in their physical space and the ability to control individual patrons at the venue entrance and exit. While nightclubs are indoor establishments with loud music and dance floors, bars and pubs usually have both outdoor and indoor areas without loud music and in most cases, do not have dance floors. Bars and pubs also usually lack a controlled entry/exit for patrons. For our method of study, defined by interviewing the same patron at the entrance and exit, we did not include bars and pubs in our sample. In most bars and pubs it is very difficult to control people who are entering and exiting

because there are several tables and chairs on sidewalks, which creates a mass of people entering and leaving the venue. Thus, to improve our control over the participant patrons, we decided to include only those venues known as “nightclubs”, i.e., where people can dance, because all of these venues have a controlled entrance and exit for patrons. Without control over the exit and entrance, the 75% exit follow-up rate would have been impossible to achieve because we would not have been able to contact all of the people who were leaving the venue from the sidewalk tables.

In São Paulo, the most popular nightclubs usually operate from11 pm to 7am, depending on their location because each neighbourhood is governed by specific ordinances. Most of the nightclubs in our sample were open from 11:00pm to 7:00am. We visited only 3 nightclubs that closed after 7:00am (9:00am, 9:30am and 12:00 pm).

In sampling the nightclubs, we did not stratify for sexual options (LGBT vs. non-LGBT), only for capacity (to guarantee the inclusion of small, medium and large nightclubs). The nightclubs in the sample were distributed across São Paulo’s five regions (North, East, South, Center and West).The patronage of each club varies according to the entrance price (ticket price) and type of music played.

To account for this variability in patronage per nightclub, the multilevel approach takes into account the variability inside the cluster (first level – environmental level).

Because we collected data from different kinds of nightclubs (different regions, social classes, sexual orientations, etc.), the nightclubs that refused to join the survey belonged to the same variety of nightclubs approached by our team. To conclude, patronage and trading hours were basically the same across all nightclubs contacted, even if a particular owner chose not to participate.

A. Consumption fees: Most nightclubs charge a mandatory entrance fee (from U$ 3.65 to U$70,00 to enter the nightclub. There are usually two options for payment:

1. People can pay the regular entrance fee and then purchase drinks separately inside.

2. People can pay a more expensive entrance fee (usually double the price of the regular fee) and then consume the total amount of money spent at the entrance, in beverages. Once the total amount is paid, any money not consumed through beverages will not be refunded.

This practice is considered abusive and illegal in Brazil (São Paulo state law number 4.198/2003). In spite of that law, 45% of nightclubs ignore it and maintain this practice.

3)Details about data collection:

Data collection took place from January to July 2013 (from summer to winter, with an average temperature of 20ºC). It is important to note that São Paulo is not prone to extreme temperatures and that there are often different “weathers” in the same day (10ºC variation in temperature from morning to afternoon). Paulistanos (Brazilians from São Paulo) like to say that we have the four seasons of the year in the same day.

3.1) Patron’s interview:

Per patron, the entrance interview took 10 minutes and the exit interview about 5 minutes, on average.

3.2) Patrons refusal:

We had a screen on the tablet to register refusals after patrons were approached to participate in the survey (Agreed to participate? Yes or no. If no, the tablet opened a window with 3 variables about the refusal). The variables registered for each refusal to participate at the entrance were: (1) gender (male/female); (2)

apparent age group (18 to 24, 25 to 32, 33 to 40, + 40) and (3) evidence of alcoholic state (Perham scale). No gender or age differences were found among the refusals and acceptances to participate at the entrance (p_{sex} = 0.945, p_{age}= 0.801)".

3.3) Nightclub observation:

Each nightclub was observed once on a specific night, from the beginning of the "party" (approximately 10h30 pm) until the club closed (approximately 7h00 am), meaning we performed one full night of observation for each nightclub. The observations and the interviews were performed on the same day by two different teams (an outside team and an inside team).Some of the staff (usually managers and doormen) were aware of our presence because we needed the nightclub's permission to develop data collection. The patrons were not told about our presence inside the nightclubs, but they saw our outside team (performing interviews with patrons).

Our team visited 31 nightclubs, each one on a different night. The observations (mainly inside) and patron interviews (outside at the entrance) were performed on the same day.

To define the day of data collection in each nightclub, we asked the manager to indicate to us the most popular day at each venue. In most of the nightclubs, we collected data on Friday and Saturday nights (75%) as per the managers' suggestions. The other 25% data collection days were distributed among the other 5 possible nights of the week. As explained previously, the nightclubs were usually open from 11h00 pm to 7h00 am, and we observed each nightclub once from open to close.

4) Details about data analysis:

4.1) Variables

The aspects of the nightclubs that were evaluated as explanatory variables (1) “Venue Entrance” (presence of a consumption fee, a fixed value paid to enter the venue; identity checking; queue; minor’s entrance (for patrons under 18 years old); (2) “Beverages and food” (“all you can drink” service, where patrons pay a fixed value at the entrance allowing them completely unrestricted alcohol consumption inside the establishment; there is no serving limit or alcohol promotion discount, and no food is available; presence of a water fountain); (3) “Type of Nightclub” (LGBT = Lesbian Gay Bisexual and Transgender and not LGBT nightclub; (4) “Physical Environment” (area for smokers; specific area for sexual relations (some clubs host a darkened room that patrons can use for casual sex); presence of three or more bars; presence of two or more dance floors; presence of big-screens or televisions); (5) “Atmosphere Characteristics” (humidity; temperature and level of sound, considering the mean of the spaces in the venue – bars, lounge and dance floors); (6) “General Conditions” (crowding: considering the average crowding of the spaces in the venue with the possible answers: (1) Enough space; (2) A bit crowded but easy to move; (3) Crowded and difficult to move; or (4) Crowded and almost impossible or impossible to move. Answers 1 and 2 were grouped as “No” (crowding) and 3 and 4 as “Yes” (crowding); cleanliness (also the average of the spaces in the venue with the possible answers: (1) Very clean; (2) Maintained clean; (3) Moderately clean; (4) Sticky floor; (5) Filled wastebaskets; or (6) Tables or seats or very dirty floor due to vomit, broken glass or spilled drinks. The answer “cleanliness – yes” for the multilevel analysis was number 1 or 2; the remaining 4 options were categorised as

“cleanliness- no”); (7) “Illumination” (dark; semi-dark; light; light effects); and (8) “Drugs” (use of illicit drugs inside the nightclub). Variables were coded as 0=no/1=yes, with the exception of temperature (ºC), sound (DB) and humidity (%), which were used as continuous explanatory variables. The socio-demographic individual explanatory variables used were the following: age (18-24, 25 or older), gender (1=male, 0=female) and individual behaviour control covariate: pre-drinking (0=no, 1=yes). Any value above 0.01 mg/L at the breathalyser test at the entrance was considered to be indicative of pre-drinking or pre-loading (a positive case in the breathalyser test with any BrAC measure >=0.01 mg/L).

3. Artigo 2

Environmental factors associated with consumption of psychotropic drugs in Brazilian nightclubs

Claudia MA Carlini

Solange Andreoni

Zila M Sanchez

Abstract

Aim: To identify environmental factors associated with the consumption of psychotropic drugs in nightclubs.

Design: Mixed methods were used to investigate psychotropic drug use among patrons of 31 nightclubs in 2013. The observational data were collected through 307 hours of observational research using a structured guide to record environmental factors.

Setting: Thirty-one nightclubs in the city of São Paulo, Brazil.

Participants: A total of 1822 patrons at the entrance and exit of the venues and 30 staff members of the nightclubs were interviewed.

Measurements: Psychotropic drug use in nightclubs was classified into three categories (1: no drugs; 2: legal drugs [e.g., alcohol and tobacco]; or 3: illicit drugs regardless of alcohol and tobacco use). The dependent variable “illicit drugs used” was self-reported by patrons, and the dependent variable “alcohol use” was measured using a breathalyzer. The data were analyzed in clusters using correlated multinomial logistic regression models.

Findings: The following environmental variables were associated with illicit drug use in nightclubs: all-you-can-drink service (adjusted odds ratio (aOR) = 11.84, 95%CI [4.06;34.57]) and light effects(aOR = 24.49, 95%CI [8.48;70.77]). The number of bouncers per capita*100 and the presence of two or more dance floors were inversely associated with the use of illicit drugs (aOR = 0.26, 95%CI [0.11;0.65], and aOR=0.13, 95%CI [0.06;0.29], respectively]). Legal drug use was associated with all-you-can-drink service (aOR = 2.17, 95%CI [1.43;5.04]), the presence of two or more dance floors (aOR = 2.06, 95%CI [1.40;3.05]) and the number of bouncers per capita*100 (aOR = 1.39, 95%CI [1.22;1.59]).

Conclusion: This is a multivariate phenomenon that would required an integrated approach involving the venue owners, staff members, patrons, local governments and law enforcement agencies

Keywords: Methods; Psychotropic Drugs; Alcohol; Environmental Factors; Nightclub; Brazil

INTRODUCTION

Although alcohol and tobacco are the primary drugs used in the nightlife environment (i.e., nightclubs, bars and pubs) [1,2], illicit drugs are increasingly being used to intensify social experiences [3] and to facilitate a good time [4]. Patrons who attend nightclubs are more engaged in alcohol abuse and illicit drug use than other young groups in the general population [3]. Thus, in the last decade, nightclubs have become intensely studied, and special attention has been given to environmental factors associated with drug use within these establishments, such as the type of nightclub (such as lesbian, gay, bisexual and transsexual, (LGBT)), the use of alcohol promotions, temperature, sound volume, crowding and individual-level variables [5,6].

Considering that the combination of drugs and the exciting “clubbing experience” distracts patrons from how these substances are affecting their health, [7] the use of drugs in nightclubs is a major mental and physical health concern. Polydrug use [8], dehydration, violence [9], injuries [10], and risky sexual behavior [11] are known risk behaviors to which patrons are exposed during a night out. Furthermore, the use of drugs by patrons can lead to long-term consequences such as depression, memory loss [12] and addiction [13].

The increased concern regarding drug use and its association with environmental factors [6,7] have led many countries to develop prevention programs to decrease intoxication-related harm among patrons of nightclubs and bars [7,14]. As an example, positive results were observed in a randomized controlled trial of the “Safer Bars” intervention, which used a protocol based on observational evidence from bars [15]. This program was developed to minimize alcohol abuse, aggression,

injuries and other problems at licensed premises by identifying environmental factors that were believed to exacerbate such problems.

However, most of these studies were performed in developed countries [6], and few focused on environmental characteristics associated with illegal drug use [16]. Moreover, the consumption of psychotropic drugs in the nightlife context differs between countries [17,18] and within an individual country [9]. Therefore, understanding these differences is necessary in order to support effective actions [7], as basic alterations to the environment can decrease substance-related harm [6].

São Paulo, the most populous city in Brazil and in the Southern Hemisphere, contains more than 11 million people [19]. The night entertainment market in this city accounts for US$770 million (R$2.4 billion) annually [20]. The market of nightclubs in Brazil is experiencing strong growth, which has attracted the attention of foreign franchises [21]. Despite the global importance of Brazilian night entertainment in the international context, to our knowledge, this is the first epidemiological study conducted in South America to evaluate drug use in nightclubs. Thus, the purpose of the present study was to identify environmental factors associated with the consumption of drugs in São Paulo nightclubs. From these results, it will be possible to develop interventions focused on harm reduction and support for planning public policies in these settings, inserting Brazil into the setting of this important scientific health discussion.

METHOD

Study Design and Sample Selection

A mixed-methods study was performed using quantitative and qualitative analysis methods over the following four independent stages of data collection: 1) patron entrance interviews; 2) patron exit interviews; 3) environmental data collected

inside nightclubs (on the same night of the patron interviews); and 4) in-depth interviews conducted with staff members of the nightclubs. The following three sources of data were collected: 1) environmental data; 2) patron data; and 3) staff data. The first two sets of data (1 and 2) were obtained from a portal survey, and the third dataset (3) was obtained from a qualitative study.

Sampling of nightclubs

This study used a two-stage cluster sampling portal survey, which is a form of intercept sampling specifically designed to capture at-risk individuals at the entrance to and exit from a locale with increased alcohol and other drug risk [22]. The first stage of data collection included a systematic sample of 40 nightclubs, with a probability of inclusion proportional to their maximum capacity. The second stage of data collection consisted of a systematic sampling of every third patron in the entrance line of the selected nightclubs. The creation of the nightclub frame list was previously described by Carlini et al. [23].

Of the 40 original nightclubs selected for sampling, 31 nightclubs, including 7 replacements, agreed to participate, resulting in an acceptance rate of 66%.

Sampling of patrons

A total of 3063 patrons were recruited to answer questions in entrance and exit portal surveys. Of these, 2422 entrance interviews and 1822 exit interviews were considered for the final analyses [23]. The criteria for inclusion of patrons in the study included the following: intention to enter the nightclub and age of 18 years or older. In accordance with the screening guidelines described by Perham et al. [24], no interview was conducted with patrons showing signs of severe intoxication. If the

patron refused to participate, data on age and gender were recorded, and the next patron in line was approached.

A sample size of 1600 patrons was calculated so that the prevalence of alcohol intoxication could be estimated within 5% (absolute precision) of the true value, which was set to 50% (maximum variance) with 95% confidence, two-stage cluster sampling and a design effect of 2.[25] A refusal rate of 30% and a maximum rate of loss to follow-up from patron entrance to patron exit of 40% were assumed on the basis of a previous study by Clapp et al. [26]; thus, it was determined that 2912 patrons should initially be approached.

Instruments and Data Collection

Patron-specific Instruments

The patrons who agreed to participate took entrance and exit surveys via a face-to-face interview as well as a breathalyzer test (Dräger Alcotest 7410 plus RS) after each interview. The participants received a bracelet with an exclusive code to identify them at the exit. Seven field researchers used Samsung Galaxy tablets to collect data from the interviews. In case of refusal, the age and sex of the person were entered into the system. The entrance questionnaire investigated socio-demographic variables, pre-drinking patterns, drinking patterns, drug use and risky behaviors in nightclubs in the year prior to the survey. The exit questionnaire investigated alcohol consumption, drug use (marijuana, ecstasy, ketamine, inhalants, cocaine, ecstasy, hallucinogens, amphetamines and crack) and risky behaviors that patrons engaged in on that specific night within the venue.

Nightclub-specific Instruments

For the observational generation of environmental data, a structured questionnaire based on the Kit for Assessment of Recreational Nightlife (KAReN) venue questionnaire [27] and the “Safer Bars” program [28] was used. The investigated variables are described below. The questionnaire was performed by two trained researchers over a total of 307 hours of observational study (an average of 8:30h per nightclub).

Variables

Outcome variable

The dependent variable was the use of psychotropic drugs inside the nightclub, which was classified into three categories (1: no drugs; 2: legal drug use [e.g., alcohol and/or tobacco]; or 3: illicit drug use with or without use of licit drugs). The use of tobacco, marijuana, ecstasy, ketamine, inhalants, cocaine, ecstasy, hallucinogens, amphetamines and crack was self-reported. Alcohol consumption was measured using a breathalyzer, and any instance of BrAC ≥0.01 mg/L at the entrance or exit of the nightclub was considered a positive result.

Covariates

The socio-demographic explanatory variables included the following: gender (male, female); age (used as a continuous explanatory variable); occupation (employed, unemployed, student); marital status (married, single, other); education (post-graduate, university, high school, elementary school/no diploma/illiterate); religion (declare to have a religion, declare to not have a religion) and socio-economic status, which was determined according to the Brazilian Population Studies Association score (Associação Brasileira de Empresas de Pesquisa [29] and

classified as A (A1/A2), B (B1/B2) or C/D/E (class A is the highest, and class E is the lowest).

Pre-drinking (no/yes) was used as a covariate controlling individual behavior, and a positive result was defined a breathalyzer test finding of a BrAC≥0.01 mg/L (milligram of ethanol per liter of breath) at the nightclub entrance.

The aspects of the nightclubs that were evaluated as explanatory variables were categorized into the following 8 blocks.

(1) Venue Entrance: presence of a consumption fee (a mandatory value charged to enter the venue that patrons can use to purchase alcoholic beverages but cannot otherwise recoup); identity checking; a queue; entrance of a minor (<18 y.o.); and individual inspections to determine whether patrons are carrying weapons or drugs (no/yes).

(2) Beverages and food: an all-you-can-drink service in which patrons pay a fixed value at the entrance, allowing them completely unrestricted alcohol consumption inside the establishment; an alcohol discount; food availability; and presence of a water fountain (no/yes).

(3) Type of Nightclub: LGBT nightclub (no/yes).

(4) Physical Environment: presence of an designated smoking area; a specific area for sexual relations - some clubs host a darkened room that patrons can use for casual sex; three or more bars; two or more dance floors; and big screens or televisions (no/yes).

(5) Atmospheric Characteristics: humidity (%); temperature (ºC) as measured using a commercial thermohygrometer (INSTRUTHERM HT, model 270); and sound volume (dB) as measured using a decibel meter (INSTRUTHERM DEC, model 490)

were used as continuous explanatory variables, considering the mean obtained from 3 different spaces in a given venue – bar, lounge and dance floor.

(6) Health Conditions: crowding, i.e., the amount of space in the venue (none, enough space or a bit crowded but easy to move; crowded and difficult to move; or crowded and almost or completely impossible to move); cleanliness (no: sticky floor, filled wastebaskets, garbage on tables or seats, or very dirty floor due to vomit, broken glass or spilled drinks; yes: very clean, maintained clean, moderately clean).

(7) Illumination: dark (no/yes); semi-dark (no/yes); light (no/yes); and light effects (no/yes).

(8) Venue Security: insufficient coverage (no/yes); partial coverage (no/yes); complete coverage (no/yes); and number of bouncers per capita*100.

Statistical Analyses

Descriptive and inferential statistics of the sampled patrons and nightclubs were computed using survey weight estimates.

Weights for nightclubs, patrons within a nightclub and overall patrons were calculated using the study design and the study population counts. Post-stratification weights were calculated using information about the sex of all patrons at each nightclub. Nonparticipation adjustment rates for the nightclub weights were also computed to adjust their probability of selection [23]. Weighted data were analyzed considering that the patrons were nested within a venue (cluster) through correlated multinomial logistic regression models using socio-demographic factors, pre-drinking and general venue characteristics as explanatory variables.

First, models of the crude associations between each characteristic and drug use category were fitted. Then, models of the associations between the outcome and

all predictor variables of each block were fitted. Characteristics with $p<0.20$ in the models for a given block were used to build a final model. Explanatory variables with $p<0.05$ composed the final model. Coefficients are presented in terms of the odds ratio (OR) or adjusted OR (aOR) and 95% confidence interval (95%CI) to facilitate interpretation. Models were estimated using STATA 13 software [30].

Qualitative Study

Staff sampling

Staff members were contacted during the observational research inside the nightclubs, and a semi-structured interview was scheduled for another day. The first interviewees identified other possible participants, thereby using the snowball technique [31] to compose the sample. Different chains of interviewees were recruited while aiming to include the largest possible number of job types in the sample satisfying the proposed inclusion criteria, including the following staff members: 8 bouncers, 6 bartenders, 5 managers, 3 waiters, 2 firefighters (responsible for providing first aid to intoxicated patrons), 2 DJs, 1 promoter, 1 hostess, 1 cashier and 1 bathroom cleaner.

The sample size for the qualitative portion of the study was 30 staff members; this sample size was adequate to cover the main topics of interest. The interviewees' responses became redundant when no new information was obtained from further data [31,32].

Qualitative Instruments

For the qualitative interviews with members, we used the following two instruments**: 1)** a guide composed of 31 previously standardized questions focusing on the following 4 main axes: 1) abuse of alcohol; 2) illicit drugs; 3) risky sexual

behavior; and 4) violence; for this study, we analyzed axes 1 and 2; **2)** in-depth interviews based on the topic guide, which were used to perform a detailed exploration of staff member perspectives and experiences using a flexible and responsive approach [33]. Additional questions were produced to clarify specific topics that were relevant to this study.

Content analysis

We used the content analysis technique described by Bardin [34] as a theoretical framework. The interviews were grouped into major themes (i.e., portions in agreement with each thematic axis) as well as into thematic reports [34]. Thematic analyses were conducted through the following four steps: immersion, coding, categorization and generation of topics. Data from the interviews were analyzed by three researchers to ensure consistency and coherence in the analysis [33]. In this stage, NVivo-10 computer software was used to provide increased consistency in data analysis and to facilitate the storage of materials as well as organization and codification of the notes [35]. In cases of inconsistency among researchers during the categorization process, discussions were held with a fourth researcher to validate the finding as proposed by Patton [32]. The themes identified were analyzed in order to provide meaning via the emic approach.

Ethics

The Research Ethics Committee of the Universidade Federal de São Paulo (protocol 21477) approved this study and recommended the verbal informed consent considering that the survey involved illicit behaviors practiced during data collection such as use of illicit drugs, driving under the influence, physical and sexual

aggression. Moreover, the request of a signature in a document containing personal data, breath alcohol concentration and driving information could incriminate the participants by Brazilian driving law. The positive or negative answers for the informed consent were recorded in Samsung Galaxy tablets used for data collection and sent to a central database in real time.

RESULTS

Quantitative Results

The demographic characteristics and pre-drinking status of the patrons are presented in **Table 1**.The majority of the sample was composed of men (60.7%). The mean age of the patrons was 25.0 (SD=0.91) years; according to the ABEP index, more than half of the patrons belonged to a medium socio-economic status (52.4%) and were university students (58.9%). Most of the patrons reported having a religion (67.5%) and being single (89.8%). Pre-drinking behavior was identified in 34.3% (SE=3.85%) of the patrons.

Table 1. *Socio-demographic characteristics of patrons interviewed at nightclub exit, N= 1822 patrons, São Paulo, Brazil.*

Patrons	Variables	Sample n	Unweighted % (SE)	Weighted % (SE)
Total		1822	100	100
Demographic characteristics				
Sex	Male	1111	60.98 (1.14)	60.71 (5.89)
	Female	711	39.02 (1.14)	39.29 (5.89)
Age (years)	Mean (SE)	1822	26.37 (0.15)	25.03 (0.91)
Occupation	Unemployed	144	7.90 (0.63)	8.24 (1.04)
	Student	208	11.42 (0.75)	11.40 (2.64)
	Employed	1470	80.68 (0.93)	80.37 (2.28)
Social Class	A	482	26.45 (1.03)	25.92 (4.0)
	B	1013	55.60 (1.16)	52.42 (1.69)
	C/D/E	327	17.95 (0.90)	21.65 (3.81)
Education	Elementary education	46	2.53 (0.37)	3.11 (0.60)
	High School	480	26.34 (1.03)	31.08 (5.07)
	University	1130	62.02 (1.14)	58.92 (4.49)
	Postgraduate	66	9.11 (0.67)	6.89 (1.4)
Marital status	Married	147	8.07 (0.64)	6.91 (1.93)
	Single	1589	87.21 (0.78)	89.96 (2.16)
	Other	86	47.72 (0.50)	3.13 (0.66)
Religion	Yes	1170	64.22 (1.12)	67.57 (2.75)
Patrons' behavior	Pre-drinking*	683	37.49 (1.13)	34.33 (3.85)

*Yes category; SE=standard error

The environmental characteristics that were hypothesized to be associated with drinking behavior and use of illicit drugs inside the venue are presented in **Table 2**. Alcohol discounts were offered by 37% of the nightclubs, and 10% of the venues offered all-you-can-drink services.

Table 2. *Environmental characteristics of the 31 nightclubs randomly selected in São Paulo*.

Nightclubs	Variable	Sample n	Unweighted % (SE)	Weighted % (SE)
Total		31	100	100
Venue entrance	Consumption fee*#	15	48.39 (9.12)	52.32 (10.40)
	Identity checking*	19	61.29 (8.89)	62.52 (9.76)
	Queue*	22	70.97 (8.29)	62.48 (10.82)
	Minors (<18 y.o.)*	9	29.03 (8.29)	34.33 (10.78)
	Inspection	25	80.65 (7.21)	83.67 (6.63)
Beverages and food	"All-you-can-drink-service"*	4	12.90 (6.12)	9.97 (5.00)
	Alcohol discounts*	10	32.26(8.53)	37.21 (10.30)
	Food availability*	13	41.94 (9.01)	35.79 (9.54)
	Water fountain availability*	4	12.90(6.12)	9.87 (5.09)
Type of nightclub	LGBT*	9	29.03 (8.29)	29.33 (9.42)
Physical environment	Reserved area for smokers*	25	80.65 (7.21)	82.74 (7.03)
	Reserved area for sexual relations*•	4	12.90 (6.12)	8.89 (4.56)
	Three or more bars*	12	38.71 (8.89)	29.55 (8.56)
	Two or more dance floors*	9	29.03 (8.29)	31.81 (10.69)
	Big screen or TV*	23	74.19(7.99)	70.59 (10.39)
General characteristics	Humidity (%, mean SE))	31	70.60 (1.50)	69.18(2.32)
	Temperature (ºC, mean SE)	31	23.40 (0.47)	23.20(0.39)
	Sound (dB, mean SE)	31	96.88 (1.21)	97.17(1.47)
Health conditions	Crowding *	16	51.61(9.12)	46.63 (10.36)
	Cleanliness *	20	64.52(8.74)	68.99 (9.19)
Illumination	Dark*	7	22.58(7.63)	25.15 (9.18)
	Semi-dark*	19	61.29(8.89)	59.75 (10.25)
	Light*	5	16.13(6.72)	15.10 (7.20)
	Light effects*	12	38.71(8.89)	34.74 (9.68)
Venue security	Number of bouncers per capita*100 (mean, SE)	31	1.95 (0.21)	2.16 (0.25)
	Coverage			
	Insufficient coverage	6	19.35 (7.21)	13.13 (5.51)
	Partial coverage	5	16.13 (6.72)	12.44 (5.63)
	Complete coverage	20	64.52 (8.74)	74.43 (7.75)

*Yes category; SE=standard error; •Specific area for sexual relations (some clubs host a darkened room that patrons can use for casual sex) #Patrons pay a more expensive entrance fee (usually double the price of the regular fee) and then consume the total amount of money spent at the entrance in beverages. Once the total amount is paid, any money not consumed through beverages will not be refunded.

The prevalence of psychotropic drug use by patrons in the 31 nightclubs is presented in the ternary plot (Fig 1). Three nightclubs stood out by presenting contrasting results. Nightclub 27 presented the highest consumption of only legal drugs by patrons (approximately 95%). The second highest prevalence of illicit drug use was reported in nightclub 21 (approximately 48%). This nightclub had the lowest percentage of only legal

drug use (18%). The highest percentage of non-drug use was identified in nightclub 17 (approximately 67%), and the percentage of legal drug consumption was approximately 33%.

Figure 1. *Percentage of drug users in venues. Ternary plot presenting the percentage of drug use by patrons in a sample of 31 nightclubs*.

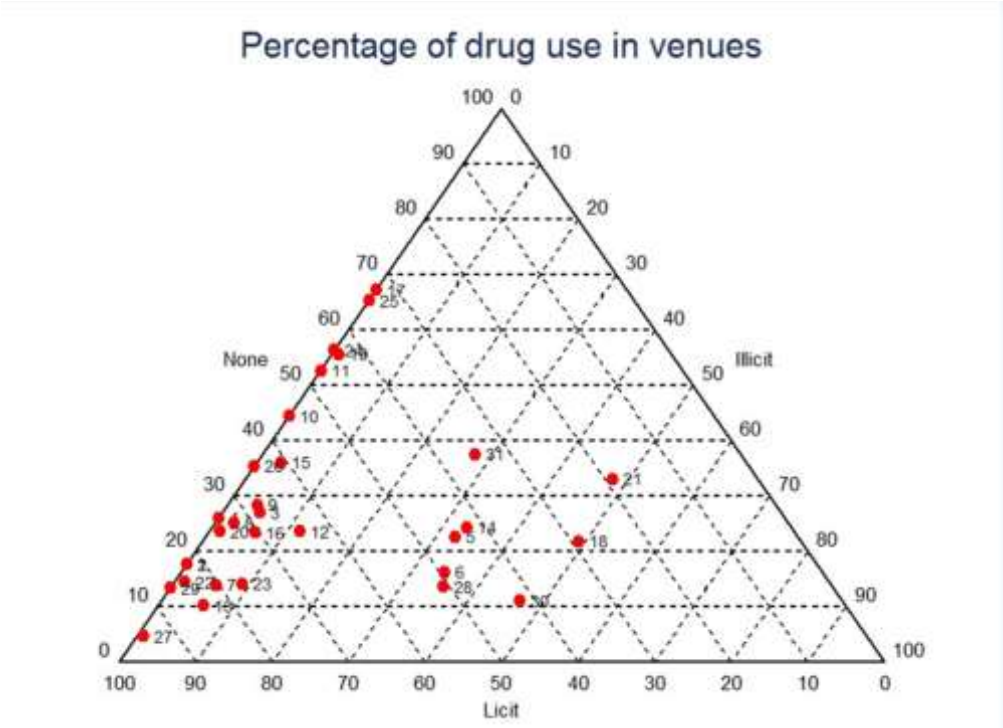

Table 3 presents the multinomial logistic regression models for the association of psychotropic drug use inside the venue with environmental characteristics, adjusted for patron socio-demographic variables and pre-drinking status.

Table 3. *Multinomial logistic regression models for the association between psychotropic drug use and behavior, demographic and environmental nightclub characteristics (n=1822 interviewees in 31 nightclubs).*

		Bivariate						Block						Final Model					
		Psychotropic drug use						Psychotropic drug use						Psychotropic drug use					
		Licit drugs			Illicit drugs			Licit drugs			Illicit drugs			Licit drugs			Illicit drugs		
Block	Variable	OR	95%CI	p	OR	95%CI	p	aOR	95%CI	p	aOR	95%CI	p	aOR	95%CI	p	aOR	**95%CI**	**p**
Behavior	Pre-drinking*																		
	No	1			1			1			1			1			1		
	Yes	8.31	[5.61; 2.32]	<0.001	5.77	[2.47; 3.48]	<0.001	8.62	[5.98;12.42]	<0.001	4.90	[2.22;10.83]	<0.001	9.27	[6.22; 3.81]	<0.001	4.01	[2.17; 7.39]	<0.001
Demographics	Sex																		
	Female	1																	
	Male	1.35	[0.73; 2.50]	0.336	3.91	[1.73; 8.83]	0.001	1.08	[0.60; 1.93]	0.806	3.65	[1.76;7.58]	0.001	1.04	[0.62; 1.74]	0.887	3.59	[1.59; 8.11]	0.002
	Age (years)	0.97	[0.94; 0.99]	0.015	0.96	[0.90; 1.03]	0.284	0.95	[0.94; 0.97]	<0.001	0.94	[0.88; 0.99]	0.045						
	Occupation																		
	Unemployed	1			1			1			1								
	Student	1.18	[0.48; 2.92]	0.714	1.15	[0.26; 5.09]	0.854												
	Employed	0.93	[0.48; 1.78]	0.816	0.97	[0.52; 1.81]	0.934												
	Social class																		
	A	1			1														
	B	0.89	[0.66; 1.20]	0.453	1.07	[0.57; 2.00]	0.829	1.05	[0.72;1.53]	0.808	1.22	[0.67;2.22]	0.507						
	C/D/E	0.52	[0.33; 0.83]	0.006	0.70	[0.22; 2.22]	0.550	0.56	[0.32;0.99]	0.045	0.79	[0.28;2.27]	0.661						
	Education																		
	Elementary Education	1			1														
	Postgraduate	0.51	[0.17; 1.49]	0.218	3.33	[0.30;38.51]	0.324	0.49	[0.10;2.34]	0.372	3.28	[0.45;23.63]	0.239						
	University	0.50	[0.16; 1.58]	0.238	2.92	[0.35;24.58	0.324	0.41	[0.08; 2.13]	0.287	2.92	[0.23;36.43]	0.406						

	High school	0.51	[0.15; 1.71]	0.272	2.98	0.57;15.47]	0.194	0.61	[0.12;3.08]	0.547	4.86	[0.40; 9.77]	0.217						
	Marital status																		
	Married	1			1														
	Single	1.10	[0.49; 2.47]	0.820	1.21	[0.48; 3.07]	0.683												
	Other	0.57	[0.32; 1.01]	0.052	0.12	[0.01; 0.91]	0.041												
	Religion																		
	No	1			1			1			1								
	Yes	0.60	[0.41; 0.87]	0.006	0.50	[0.28; 0.89]	0.019	0.68	[0.44;1.03]	0.068	0.56	[0.33;0.95]	0.031						
Venue entrance	Consumption fee*#	1.82	[1.16; 2.86]	0.009	1.73	[0.40; 7.58]	0.466												
	Identity checking*	1.54	[0.81; 2.91]	0.186	4.18	0.76;23.08]	0.101												
	Queue*	1.94	[1.16; 3.25]	0.012	18.79	[2.92;20.97]	0.002	1.94	[1.16; 3.25]	0.012	18.79	[2.92; 0.97]	0.002						
	Minors (<18 y.o)*	0.83	[0.43; 1.58]	0.566	0.39	[0.06; 2.55]	0.327												
	Inspection	1.34	[0.61; 2.90]	0.465	1.26	[0.27;5.80]	0.767												
Beverages And food	All-you-can-drink-service*	2.76	[1.32; 5.79]	0.007	6.16	2.30;16;51]	<0.001	4.12	[2.69; 6.30]	<0.001	7.71	[1.46; 0.54]	0.016	2.17	[1.43; 5.04]	0.002	11.84	[4.06; 4.57]	<0.001
	Alcohol discounts*	1.29	[0.76;2.21]	0.347	0.37	[0.09;1.57]	0.177	1.83	[1.14; 2.95]	0.012	0.95	[0.22; 4.16]	0.944						
	Food availability*	0.62	[0.37;1.04]	0.071	0.75	[0.17; 3.34]	0.708	0.49	[0.33; 0.74]	0.001	0.53	[0.17; 1.66]	0.274						
	Water fountain availability*	1.16	[0.61;2.20]	0.653	4.97	1.76;14.05]	0.002	1.67	[1.03; 2.70]	0.037	5.91	[1.72; 0.28]	0.005						
Type of nightclub	LGBT*	1.15	[0.68; 1.96]	0.597	1.73	[0.41; 7.20]	0.453												
Physical Environment	Reserved area for smokers*	1.66	[1.04;2.66]	0.034	1.29	[0.23;7.16]	0.771												
	Reserved area for sexual intercourse*•	1.40	[0.61; 3.21]	0.423	3.46	[1.27; 9.41]	0.015												
	Three or more bars*	0.76	[0.44; 1.29]	0.306	0.78	[0.18; 3.39]	0.740												
	Two or more dance floors*	2.05	[1.27; 3.29]	0.003	2.64	[0.71; 9.87]	0.148	2.05	[1.27; 3.29]	0.003	2.64	[0.71; 9.87]	0.148	2.06	[1.40; 3.05]	<0.001	0.13	[0.06; 0.29]	<0.001
	Big screen or TV*	0.63	[0.35; 1.14]	0.129	0.55	[0.12; 2.47]	0.439												
Atmosphere Characteristics	Humidity (%)	1.01	[0.97; 1.05]	0.589	1.11	[1.03; 1.19]	0.008	1.01	[0.97; 1.05]	0.589	1.11	[1.03; 1.19]	0.008						
	Temperature (ºC)	1.03	[0.92; 1.14]	0.612	1.17	[0.96; 1.43]	0.125												

	Sound (DB)	0.99	[0.93; 1.05]	0.783	1.01	[0.89; 1.15]	0.844												
Health conditions	Crowding*	0.90	[0.48; 1.69]	0.740	0.68	[0.18; 2.56]	0.57												
	Cleanliness*	0.77	[0.42;1.42]	0.401	0.27	[0.06; 1.25]	0.093												
Illumination[&]	Dark	1			1			1			1								
	Semi-dark[*]	0.71	[0.44; 1.17]	0.181	0.30	[0.07; 1.25]	0.098	1			1								
	Light[*]	0.44	[0.21; 0.90]	0.024	0.01	[0.01; 0.03]	<0.001	0.70	[0.31;1.57]	0.389	0.03	[0.01;0.30]	0.002						
	Light effects*	1.59	[0.94; 2.70]	0.084	8.50	2.15;33.61]	0.002	1.54	[0.88;2.69]	0.130	7.74	[1.85;32.38]	0.005	0.87	[0.59; 1.27]	0.474	24.49	[8.48;70.77]	<0.001
Venue security	Number of bouncers per capita*100	1.35	[1.04; 1.74]	0.023	0.49	[0.18; 1.36]	0.172	1.34	[1.04;1.74]	0.026	0.45	[0.16;1.23]	0.120	1.39	[1.22; 1.59]	<0.001	0.26	[0.11; 0.65]	0.004
	Coverage																		
	Insufficient coverage	1			1			1			1								
	Partial coverage	1.78	[0.66; 4.83]	0.255	3.02	[0.45;20.34]	0.255	1.15	[0.51;2.57]	0.741	3.24	[1.17;9.03]	0.024						
	Complete coverage	1.54	[0.77; 3.06]	0.219	1.52	0.20;11.44]	0.683	1			1								

*Yes category; [&]Reference category= Dark;•Specific area for sexual relations (some clubs host a darkened room that patrons can use for casual sex);[#]Patrons pay a more expensive entrance fee (usually double the price of the regular fee) and then consume the total amount of money spent at the entrance in beverages. Once the total amount is paid, any money not consumed through beverages will not be refunded.

The final multinomial logistic regression model showed that two socio-demographic variables had a significant association with psychotropic drug use inside the venue, using no drug use as the reference for the analysis. Male gender was positively associated with the use of illicit drugs (aOR=3.59, 95%CI [1.59;8.11], p=0.002) but not with legal drug use (aOR=1.04, 95%CI [0.62;1.74], p=0.887). In contrast, age was a protective factor for alcohol use – an increase in age of 1 year results in a 3% decrease in the odds of alcohol use (aOR=0.97, 95%CI [0.95;0.98], p<0.001) but was not a significant factor related to the use of illicit drugs (aOR=0.97, 95%CI [0.91;1.03], p=0.283). Pre-drinking behavior was positively associated with legal (aOR=9.27, 95%CI [6.22;13.81], p<0.001) and illicit drug use (aOR=4.01, 95%CI [2.17;7.39], p<0.001).

The only environmental factor positively associated with alcohol and/or tobacco use and illicit drug use inside the nightclub was all-you-can-drink service (aOR=2.17, 95%CI [1.43; 5.04], p=0.002, and aOR=11.84, 95%CI [4.06;34.57], p<0.001, respectively). The presence of two or more dance floors was positively associated with legal drug use (aOR=2.06, 95%CI [1.40;3.05], p<0.001) but was inversely associated with illicit drug use (aOR=0.13, 95%CI [0.06;0.29], p<0.001). The same pattern was observed for the number of security professionals per capita*100, which showed a positive association with the use of legal drugs (aOR=1.39, 95%CI [1.22;1.59], p<0.001) but an inversely association with illicit drug use (aOR=0.26, 95%CI [0.11;0.65], p=0.004). The presence of light effects was only statistically significantly associated with the use of illicit drugs (aOR=24.49, 95%CI [8.48;70.77], p<0.001).

Non-responses in the exit interview stemmed from different reasons: refusal to participate (n=12, 2.1%), inability to answer due to severe intoxication (n=67, 11.3%)

and loss to follow-up (n=511, 86.6%). There were no statistically significant differences in the sex (χ^2=0.02, p=0.889) or pre-drinking status (χ^2=0.88, p=0.355) distributions or in the mean age (t=0.11, p=0.917) between the participants who were interviewed at both time points (entrance and exit) and those who were interviewed at the entrance but not at the exit.

Qualitative Results

The interviewees had a shared perception that the all-you-can-drink was the most harmful practice promoting alcohol consumption. The low price of this service facilitated heavy alcohol consumption and the supply of adulterated (mixing very cheap products with “good” products) or falsified beverages further increased alcohol intoxication by patrons. It appeared that there was a series of factors facilitating drug use that was exacerbated by the lack of emergency services for those who required assistance for their intoxication.

> *“I receive order to put poor or falsified labels in the bottle of nice labels, this is very normal in all-you-can-drink (…) Patrons drink until the last drop of alcohol, poor alcohol, which is dangerous and worst when they mixture other drugs which is frequent, mainly inhalants and marihuana (…) There is no ambulance for the serious cases of intoxication”* **Bartender with 8 years of experience.**
>
> *“I’m responsible for buying the alcoholic beverages and there are no original or good labels in all-you-can-drink (...) People are extremely drunk - much more than in other types of alcohol promotions (…) It’s very expensive to pay for an ambulance, obligatory just in big events, and the staff members has a lot of problems with so many drunk people"* **Manager with 22 years of experience.**

Before the multinomial models were fitted, the researchers evaluated the association of light effects with drug use inside the venue. The qualitative analyses

showed that light effects were presented mainly in nightclubs with electronic music. According to our interviewees, the presence of intermittent light effects in combination with the repetitive beat of the music boosted the effects of drugs that the patrons planned to use.

Similarly to all-you-can drink service a series of factors facilitating drug use that was exacerbated by the lack of emergency services for those requiring assistance due to their intoxication.

> *"The use of illicit drugs mainly ecstasy, LSD are part of the cultural scene level of electronic music (…) The light effects, the beat of the sound are special to patrons who attend these nightclub, they want to use these drugs in these setting to boosting their experience (…) There is no staff member with pharmacological knowing to know what to do in the cases of intoxication of drugs like ecstasy, ISD and ketamine for example"* **DJ with 20 years of experience.**
>
> *"The intense light effect in electronic venues is essential since there is an "interaction" with the effects of drugs such as LSD and ecstasy (…) They mix these drugs with alcohol and sometimes faint (...) We avoid calling to the ambulance for not expose the use of illicit drugs inside the venue"* **Fire man (responsible to the first aid) with 12 years of experience.**

Analysis of the number of bouncers per capita showed that the bouncers were not there to restrain the use of alcohol; however, they ultimately constrained the use of illicit drugs by patrons. The qualitative data still showed that nightclubs with more bouncers usually are places where are worried with drunk patrons and violence which can explain the quantitative data about the positive association between bouncers and use of alcohol.

> *"Our simple presence restricts patrons from using illicit drugs (…) I work in different nightclubs, and my colleagues and I have never received an order to tell patrons to stop drinking even when they are almost fainting (…) If they are causing trouble (patrons) - because are very drunk - we just kick them out"* **Bouncer with 12 years of experience.**

> *“We have patrons that enjoy to get completely drunk and the manager have to hire more bouncers to avoid problems like fights among them (…) They are ordered to avoid problems but not to make them stop drinking".* **Cashier with 9 years of experience**

DISCUSSION

The results showed that different environmental factors are associated with the consumption of drugs by patrons inside nightclub venues. The use of legal drugs was positively associated with the following 3 environmental factors: all-you-can-drink service, the presence of two or more dance floors and the number of bouncers per capita*100. All-you-can-drink service and light effects were positively associated with illicit drug use, whereas the number of bouncers per capita*100 and the presence of two or more dance floors were inversely associated with the use of illicit drugs.

Among all variables analyzed in the multinomial logistic regression models, only one environmental factor was positively associated with use of both licit and illicit drugs by patrons: all-you-can-drink service. According to Thombs et al., [36] because patrons pay a fixed value at the entrance for unrestricted alcohol consumption, all-you-can-drink service boosts patron intoxication compared with other types of alcohol promotions [36]. We noted by the qualitative data that Brazil has weak control of alcohol sales and failure in health surveillance policies. Because there is no taxation of alcohol, nightclubs can sell alcohol for a “bargain” price, which is what happens at locations offering all-you-can-drink service. Furthermore, Brazil has an unregulated market in which it is legal to serve alcohol to intoxicated patrons [37]. Once there are no public policies to avoid, there is no effective enforcement to restrain these practices that appear to be more harmful in countries such as Brazil than in countries with regulated markets. Another important issue that warrants attention is that

Brazilian nightclubs operate without limited closing hours, thereby increasing customer exposure to alcohol and other drugs. These factors appear to be related to ill-conceived Brazilian legislation that has failed to address basic issues, such as alcohol control and the monitoring of nightclubs. With regard to the association of all-you-can-drink service with the use of illicit drugs, the qualitative data analyses showed that patrons attending all-you-can-drink nightclubs were more inclined to use other drugs; because one of the main pharmacological effects of alcohol is impairment of judgment,[38] patrons were more likely to participate in other risky behaviors, such as the use of illicit drugs. Another widespread perception is that these high-risk environments facilitate further risky behavior by attracting individuals and groups who are interested in engaging in such behavior (synergy between the drinking venues and their customers that sustains these practices).

In contrast with these results, 30% of patrons reported not using any drugs. Because the venues were selected from a probabilistic sample, different profiles of establishments were given an opportunity to participate in this study. These data corroborate other studies that have shown that it is not possible to homogenize clubbers with respect to the use of alcohol and other drugs [39] and that patrons have different motivations for nightclubbing that extend beyond intoxication [39,40].

This evidence still corroborates our observation that certain nightclubs attract patrons who are more interested in enjoying a low-risk evening with good dancing, moderate drinking and conversation. These nightclubs deserve more attention because they can inform the development of harm reduction polices focused on this population. These results contribute to a greater understanding of the Sao Paulo nightclub scene, and this understanding is essential in order to generate different interventions for drug use that respect the different profiles of patrons.

According to Macintyre and Homel [41], patrons in crowded nightclubs attempt to alleviate their discomfort (i.e., restricted space for movement and heat) by drinking more and faster. These results corroborate our study because the nightclubs with 2 or more dance floors were usually more crowded than the others and because the patrons of these nightclubs spent more time dancing. One of the consequences of this environment was that these patrons typically drank more [41]. The literature indicated that people who share the same space and have the same focus of attention typically exhibit group behavior [42], as is the case for heavy drinking [43]. Regarding the negative association of these venues with the use of illicit drugs, the observational survey showed that it was not the “small” size of the venue (maximum capacity of 500 patrons) per se that was associated with the use of illicit drugs. These establishments appear to be more permissive to the use of drugs because the attending patrons enjoyed electronic, hip-hop and alternative (e.g. goth) music, which was associated with the use of illicit drugs [44].

Light effects were positively associated with illicit drug use and were negatively associated with the use of legal drugs. The qualitative data suggested that it was not light effects per se that was associated with illicit drug use because these light effects were mainly present in electronic nightclubs. It appears that similar to the situation in all-you-can-drink establishments, electronic nightclubs attracted patrons who were already interested in engaging in high-risk behavior, and the environmental factor acted as a facilitator to enhance the effects of the drugs. According to the literature and our data, patrons who attend this type of venue are more likely to use synthetic drugs and engage in polydrug use [45,46] than patrons who attend other types of venues. The use of these drugs may be negatively associated with alcohol use. The pharmacological effects of certain synthetic drugs, such as ecstasy and

ketamine, are potentially dangerous in combination with alcohol, as such behavior may lead to serious adverse effects such as overdosing [47]. Another major concern about this practice is that the effects of individual drugs are usually exacerbated by polydrug use, and these physiological adverse effects accumulate in the body [48].

According to the Pan-American Health Organization [49], Brazil has the highest rate of alcohol-attributable deaths among adolescents 15–19 years of age and has the fifth highest number of deaths directly associated with the consumption of alcohol in the American continents. In the city of São Paulo alone, the literature shows that homicides and fatal car accidents [50] occur mainly during the early hours of the weekends, indirectly indicating an association between alcohol consumption in bars, nightclubs, and parties and violent deaths in this city [51]. Many scientific studies have shown that deaths linked to alcohol consumption can be prevented by implementing public policies and interventions that reduce alcohol intake, including restrictions on product availability, increases in prices and control of marketing and advertising [52].

The use of illegal drugs inside nightclub venues requires future studies. Nightclubs should address the use of illicit drugs because this practice can increase their vulnerability to official sanctions as well as legal problems for the patrons, staff, and owners. Some nightclubs are more permissive than others regarding the use of illicit drugs. Is this permissiveness a method used to gain the loyalty of patrons considering the profiles of certain nightclubs and patrons?

This study has some limitations. The first limitation is the loss of participants from the exit interviews. Despite the good follow-up rate at the exit interviews (76%), we must consider that the number of alcoholic beverages consumed and illicit drugs used by patrons may be underestimated. We hypothesize that patrons who were

very drunk and/or “high” on drugs were more likely to leave the establishment without completing the exit interview. Furthermore, the use of illicit drugs was self-reported, and patrons may have felt fearful about reporting their drug use because it is an “illegal behavior” with legal consequences. Another important point concerns ethical issues; [24] patrons who were clearly very “high and/or drunk” were not interviewed. Additionally, because this study was a cross-sectional survey, it was not possible to infer causation from the observed statistical associations.

Despite these limitations, this study has important strengths. To our knowledge, this is the first epidemiological survey of the association of environmental factors with the use of psychotropic drugs in nightclubs in Latin America. Furthermore, the use of mixed methods to triangulate data from three different sources strengthens the findings because these methods provide important additional qualitative data that is complementary to the quantitative results. On the other hand, a portion of the data collection occurred in a natural setting, which reduces the likelihood of memory bias by patrons. Finally, the use of biological measures of alcohol consumption improved the results for this variable.

The results presented in this study may support governmental decisions regarding public health policies focused on this issue. The failure of Brazil to implement health surveillance policies related to these establishments increases the likelihood that patrons will participate in risky behaviors. Considering the different profiles of nightclubs and patrons, an integrated approach involving the venue owners, staff members, patrons, local governments and law enforcement agencies appears to be the best approach for developing interventions focused on reducing the harm associated with drug use inside nightclubs while retaining their fun nature as a central feature of nightlife.

REFERENCES

1. Rossheim ME, Thombs DL, O'Mara RJ, N Bastian, Suzuki S. Associations between bar patron alcohol intoxication and tobacco smoking. Am J Health Behav. 2013; 37:794-9.

2. Van Havere T, Vanderplasschen W, Lammertyn J, Broekaert E, Bellis M. Drug use and nightlife: more than just dance music. Subst Abus Treat Prev Policy. 2011; 6:18.

3. Lomba L, Apóstolo J, Mendes F. Drugs and alcohol consumption and sexual behaviours in night recreational settings in Portugal. Adicciones. 2009; 21:309-25.

4. Demant J. Affected in the nightclub. A case study of regular clubbers. Int J Drug Policy. 2013;24:196-202.

5. Green J, Plant MA. Bad bars: a review of risk factors. J Subst Use. 2007;12:157-89.

6. Hughes K, Quigg Z, Eckley L, Bellis M, Jones L, Calafat A, et al. Environmental factors in drinking venues and alcohol-related harm: the evidence base for European intervention. Addiction. 2011;106 (1): 37-46.

7. Bellis MA, Hughes K, Lowey H. Healthy nightclubs and recreational substance use. From a harm minimization to a healthy settings approach. Addict Behav. 2002; 27:1025-35.

8. Ramo DE, Grov C, Delucchi K, Kelly BC, Parsons JT. Typology of club drug use among young adults recruited using time-space sampling. Drug Alcohol Depend. 2010;107:119-27.

9. Blay N, Calafat A, Juan M,Becoña E, Mantecón A, Ros M, et al. Violence in nightlife environments and its relationship with the consumption of alcohol and drugs among young Spaniards. Psicothema. 2010;22:396-402.

10. Hughes K, Bellis MA, Calafat A, Juan M, Schnitzer S, Anderson Z. Predictors of violence in young tourists: a comparative study of British, German and Spanish holidaymakers. Eur J Public Health. 2008; 18:569-74.

11. Wells BE, Kelly BC, Golub SA, Grov C, Parsons JT. Patterns of alcohol consumption and sexual behavior among young adults in nightclubs. Am J Drug Alcohol Abus. 2010; 36:39-45.

12. Freese TE, Miotto K, Reback CJ. The effects and consequences of selected club drugs. J Subst Abus Treat. 2002; 23:151-6.

13. Järvinen M, Ravn S. From recreational to regular drug use: qualitative interviews with young clubbers. Sociol Health Illn. 2011; 33:554-69.

14. Bolier L, Voorham L, Monshouwer K, van Hasselt N, Bellis M. Alcohol and drug prevention in nightlife settings: a review of experimental studies. Subst Use Misuse. 2011;46:1569-91.

15. Graham K, Osgood DW, Zibrowski E, Purcell J, Gliksman L, Leonard K, et al. The effect of the safer bars programme on physical aggression in bars: results of a randomized controlled trial. Drug Alcohol Rev. 2004;23:31-41.

16. Akbar T, Baldacchino A, Cecil J, Riglietta M, Sommer B, Humphris G. Polysubstance use and related harms: a systematic review of harm reduction strategies implemented in recreational settings. Neurosci Biobehav Rev. 2011; 5:1186-202.

17. Bellis MA, Hughes K, Calafat A, Juan M, Ramon A, Rodriguez JA, et al. Sexual uses of alcohol and drugs and the associated health risks: a cross sectional study of young people in nine European cities. BMC Public Health. 2008; 8:155.

18. Calafat A, Blay NT, Hughes K, Bellis M, Juan M, Duch M, et al. Nightlife young risk behaviours in Mediterranean versus other European cities: are stereotypes true? Eur J Public Health. 2011; 21:311-5.

19. Brazilian Institute of Geography and Statics. Síntese da população estimada em 2014 [summary of estimated population in 2014]: Rio de Janeiro 2014. http://cidades.ibge.gov.br/xtras/perfil.php?codmun=355030 (accessed:07-09-2015).

20. Muniz KM, Silva WV, Maffezzolli ECF. Proposal as a model for measurement of consumer satisfaction for parties and clubs. Braz J Mark. 2014;13:93-105.

21. Müller KM, Muniz Rocha DT. Comportamento de consumo em festas e baladas: segmentação baseada nas motivações e análise das dimensões da satisfação. XXXV Encontro da Associação dos Programas de Pós-Graduação em Administração, Rio de Janeiro 2011:1-17.

22. Voas RB, Furr-Holden D, Lauer E, Bright K, Johnson MB, Miller B. Portal surveys of time-out drinking locations: a tool for studying binge drinking and AOD use. Eval Rev. 2006; 30:44-65.

23. Carlini C, Andreoni S, Martins SS, Benjamin M, Sañudo A, Sanchez ZM. Environmental characteristics associated with alcohol intoxication among patrons in Brazilian nightclubs. Drug Alcohol Rev 2014; 33:358-66.

24. Perham N, Moore SC, Shepherd J, Cusens B. Identifying drunkenness in the night-time economy. Addiction. 2007; 102:377-80.

25. Lwanga SK, Lemeshow S. Sample Size Determination in Health Studies: A Practical Manual. Geneva: World Health Organization 1991.

26. Clapp JD, Holmes MR, Reed MB, Shillington AM, Freisthler B, Lange JE. Measuring college students' alcohol consumption in natural drinking environments: field methodologies for bars and parties. Eval Rev. 2007; 31:469-89.

27. Calafat A, Hughes K, Jerez MJ, et al. Kit for assessment of recreational nightlife 2007.http://www.emcdda.europa.eu/html.cfm/index35635EN.html.

28. Graham K, Homel R. Raising the Bar: Preventing Aggression in and Around Bars, Pubs and Clubs. Cullompton: Willan Publishing 2008.

29. Associação Brasileira de Empresas de Pesquisa (ABEP). Critério de classificação econômica no Brasil. Rio de Janeiro: Associação Brasileira de Empresas de Pesquisa 2012.

30. Stata Corporation. Stata 2013. Statistical software: release 13. College Station, TX: Stata Corp LP.

31. Creswell JW. Research Design: Qualitative, Quantitative and Mixed Methods Approaches, 3rds ed. London: Sage Publications 2009.

32. Patton M. Qualitative Research and Evaluation Methods, 3rds ed. Thousand Oaks, CA: Sage Publications 2002.

33. Ritchie J, Lewis J. Qualitative Research Practice. A Guide for Social Science Students and Researchers. London: Sage Publishing House 2003.

34. Bardin L. Análise de Conteúdo [Content Analysis], 3rds ed. Lisboa: Edições 2004:70.

35. Gibbs GR. Qualitative Data Analysis: Explorations with NVivo. New York: Open University Press 2009.

36. Thombs DL, O'Mara R, Dodd VJ, Hou W, Merves ML, Weiler RM, et al. A field study of bar-sponsored drink specials and their associations with patron intoxication. J Stud Alcohol Drugs. 2009; 70:206-14.

37. Laranjeira RR. Brazil's market is unregulated. BMJ 2007;335:735.

38. Peterson JB, Rothfleisch J, Zelazo PD, Pihl RO. Acute alcohol intoxication and cognitive functioning. J Stud Alcohol. 1990; 51:114-22.

39. Anderson TL, Kavanaugh PR, Rapp L, Daly K. Variations in clubber's substance use by individual and scene-level factor. Adicciones. 2009;21:289-308.

40. Reingle J, Thombs DL, Weiler RM, Daly K. An exploratory study of bar and nightclub expectancies. J Am Coll Health. 2009; 57:629-3.

41. Macintyre S, Homel R. Danger on the dance floor: a study of interior design, crowding and aggression in nightclubs. In: Homel R, ed. Policing for Prevention: Reducing Crime, Public Intoxication and Injury, vol. 7. Monsey: Criminal Justice Press 1997:91–113.

42. Durkheim E. The elementary forms of the religious life. Mineola: Dover Publications.

43. Tutenges S. The Road of excess young partiers are searching for communion, intensity and freedom (Vol. 41. Nos 1 &2). Harvard Divinity Bulletin Winter / Spring 2013.

44. Sañudo A, Andreoni S, Sanchez ZM. Polydrug use among nightclub patrons in a megacity: A latent class analysis. Int J Drug Policy. 2015; 26(12):1207-14.

45. Chinet L, Stéphan P, Zobel F, Daly K. Party drug use in techno nights: a field survey among French-speaking Swiss attendees. Pharmacol Biochem Behav. 2007;86:284-9.

46. Hesse M, Tutenges S, Schliewe S. The use of tobacco and cannabis at an international music festival. Eur Addict Res. 2010; 16:208-12.

47. Freese TE, Miotto K, Reback CJ. The effects and consequences of selected club drugs. J Subst Abus Treat. 2002; 23:151-6.

48. Quek LH, Chan GC, White A, Connor JP, Baker PJ, Saunders JB, et al. Concurrent and simultaneous polydrug use: latent class analysis of an Australian nationally representative sample of young adults. Front Public Health. 2013; 61:1-9.

49. Pan American Health Organization. Regional Status Report on Alcohol and Health in America. Washington, DC: Pan American Health Organization 2015.

50. de Carvalho Ponce J, Muñoz DR, Andreuccetti G, de Carvalho DG, Leyton V. Alcohol-related traffic accidents with fatal outcomes in the city of Sao Paulo. Accid Anal Prev. 2011; 43:782-7.

51. Andreuccetti G, de Carvalho HB, de Carvalho Ponce J, de Carvalho DG, Kahn T, Muñoz DR, Leyton V. Alcohol consumption in homicide victims in the city of Sao Paulo. Addiction. 2009;104:1998-2006.

52. Monteiro MG. Alcohol and Public Health in the Americas: A Case for Action. Washington, DC: Pan American Health Organization 2007.

4. Artigo 3

Typology of nightclubs in São Paulo, Brazil: alcohol and illegal drug consumption, sexual behavior and violence in the venues

Claudia M Carlini

Zila M Sanchez

ABSTRACT

Nightclubs are venues in which excessive alcohol use and illegal drug consumption occur in addition to other high-risk behaviors, such as violence and sexual risk behaviors. Environmental factors common in nightclubs and the personal characteristics of patrons might increase the risk of these events. To better understand the relationship between these factors, typologies were formulated that clustered nightclubs according to definite profiles to allow differences among them to be taken into consideration in preventive interventions and public policies. The aim of the present study was to construct a typology of nightclubs in São Paulo, Brazil.

This typology was constructed using mixed methods research through the triangulation of several data sources as follows: 307 hours of ethnographic observation at 31 nightclubs, 8 focus group sessions with nightclub patrons (n=34) and semi-structured interviews with 31 nightclub employees. Content analysis and qualitative typology were used. Four nightclub types were defined based on four analyzed thematic axes (Intoxicating, Violent, Dancing and Highly Sexualized nightclubs). Excessive alcohol use was detected in almost all of the investigated nightclubs, and drug use was observed in approximately one-third of them. Triangulation of the data revealed a relationship among environmental factors (especially alcohol sales strategies and promotion and the availability of areas for sex) and a more considerable presence of high-risk behaviors. The study shows that nightclubs are settings in which high-risk behaviors are potentiated by facilitating environmental factors as well as by the lack of laws restricting excessive alcohol use stimulated by the promotion strategies applied at these venues.

Keywords: Typology, Nightclubs, High Risk Behaviors, Qualitative Research

1) INTRODUCTION

Nightclubs provide a setting for leisure activities in which the concept of socially acceptable behavior is more “flexible” [Duff, 2008] and making new friends, escaping routine and relaxing are facilitated [Reingle *et al.*, 2009]. Therefore, nightclubs represent an appropriate environment for youth socialization and social capital acquisition [Parker *et al.*, 2003].

However, nightclubs are venues in which excessive alcohol use and illegal drug consumption occur in addition to other high-risk behaviors [Studer*et al.,* 2015; Calafat *et al.*, 2007]. This setting is associated with higher odds of sexually transmitted disease acquisition [Eileen *et al*, 2016], physical, verbal or sexual violence [Bellis*et al.*, 2015], serious intoxication [Calafat *et al.*, 2008] and driving under the influence of alcohol [Sanchez *et al.*, 2015], which evidence a relationship between context, substance abuse and high-risk behaviors.

Typologies of nightclubs have been used to better understand the relationship between the personal characteristics of patrons and their engagement in high-risk behaviors as well as the role of environmental factors common in nightclubs; these typologies consist of relevant categories for clustering nightclubs to allow their different profiles to be considered for preventive interventions and public policies [Chatterton *et al.*, 2002; Cavan, 1966]. According to Clapp *et al.* [2007].The current understanding of the socioecological mechanisms in operation at nightclubs and in their patrons is quite limited, and few studies have combined personal and environmental data.

The differences among studies of nightclub typologies [Anderson *et al.*, 2009; Purcell *et al.*, 2005] notwithstanding, there is consensus on the strong influence of music genres and environmental factors on the high-risk behaviors displayed at

them. However, these studies were conducted in developed countries, where the laws for alcohol and drug sales and consumption are different from the laws applied in Brazil, which is widely known for its fragility concerning the regulation of the sale of alcohol [Laranjeira, 2008], which is the most widely consumed drug in nightclubs [Sañudo *et al.*, 2015]. Additionally, cultural factors strongly influence patrons' behavior. Therefore, data collected in one country cannot be extrapolated to other countries with different economic conditions.

São Paulo is the largest city in South America and is ranked fourth among the world's top nightlife cities in a survey conducted by CNN (Cable News Network). São Paulo has a wide variety of nightclubs open 24 hours that cater to many different types of patrons [Manson, 2014]. Because environmental factors common in nightclubs and the individual characteristics of patrons might increase event risk and both aspects are susceptible to sociocultural influences specific to each country, the aim of the present study was to formulate the first typology of São Paulo nightclubs through the triangulation of several data sources (ethnographic observations, semi-structured interviews and focus groups) to establish how the various types of high-risk behaviors practiced at these venues might be clustered.

2) METHODS

The present study was approved by the ethics committee of Federal University of São Paulo, ruling no. 21477.

2.1) Study design

This was a mixed methods study [Creswell, 2009]. Data were collected in 5 stages as follows: 1) interviews with patrons upon arrival at nightclubs; 2) interviews

with patrons upon leaving nightclubs; 3) collection of environmental data inside nightclubs using ethnographic observation; 4) semi-structured interviews with nightclub employees; and 5) focus groups (FGs) conducted with nightclub patrons.

The present article describes the integrated results of stages 3, 4 and 5 obtained through triangulation of the data collected using ethnographic observations, focus groups and semi-structured interviews. A total of 31 nightclubs and 2,422 patrons were randomly selected. The epidemiological interviews with nightclub patrons (closed questionnaire and alcohol breath test at the time of entering and leaving the premises) and the ethnographic observations (closed questionnaire for observation and filling of field notebooks at the venues) were performed first. Next, some of the previously interviewed nightclub patrons were recruited to participate in focus group sessions. Additionally, employees at the investigated nightclubs were recruited to participate in semi-structured interviews.

2.2) Participant selection

2.2.1) Nightclubs

A portal survey was performed using two-stage cluster sampling, with the clusters consisting of the nightclubs and nightclub patrons [Voas*et al.*, 2006].

In the present study, nightclubs are defined as leisure venues that sell alcohol, have one or more dance floors, a 300-person capacity and are able to check each patron's arrival and departure. To make a list of São Paulo nightclubs, an active search was performed in magazines and guides specializing in leisure activities as well as across the first 10 pages of Google that appeared when the following search terms were used: "Nightclubs and São Paulo", "Party Scene and São Paulo", "Discos and São Paulo", "Bars and São Paulo" and "Nightlife and São Paulo". The final list included

150 entertainment venues, from which 40 venues and potential replacements were selected using the lottery method with probability proportional to size sampling. From the 40 initially selected venues, 31 (including 7 replacements) agreed to participate. These venues were the setting for ethnographic observation, which was performed by two trained investigators for a total of 307 hours (i.e., 8 h and 30 min per nightclub on average during their entire opening hours and on their busiest day according to the information provided by the managers). At the same time, epidemiological data were collected from patrons at the entry and exit doorways; these data were published by Carlini *et al.* [2014] and Santos *et al.* [2015], among others.

2.2.2) Focus groups with nightclub patrons

Based on the data collected during the ethnographic observation at the investigated nightclubs and recorded in the aforementioned environmental questionnaire, the FGs were defined according to the following profiles: **1)** lesbian, gay, bisexual and transgender (LGBT) nightclubs (n=7); **2)** “university” nightclubs (UNI) (n=8) that were primarily attended by university students; **3)** “alternative” nightclubs (ALT) (n=6) essentially serving the underground culture (i.e., rockers or goths); and **4)** “eclectic” nightclubs (ECL) (n=3) attended by an eclectic public and playing various music styles. The nightclub profiles funk (n=3) and ballroom dancing (n=4) were also considered, but no patrons agreed to participate in the FGs.

Using the data collected by the portal survey, such as the patrons’ e-mail addresses and telephone numbers, 145 subjects were randomly selected to participate in a FG stratified per gender and nightclub profile. Subtracting losses (individuals who confirmed participation but did not show up), 34 subjects participated in eight FGs.

The population was stratified per nightclub profile and gender because the participants could have felt intimidated if they expressed their opinions and experiences to people from very different groups, with a negative impact on the discussions [WHO 1994].

2.2.3) Semi-structured interviews with nightclub employees

Employees met and contacted at the selected nightclubs during the first stage of the study were invited to participate in semi-structured interviews. These interviewees named other possible participants for inclusion according to the snowball sampling technique [Biernack, 1981].

Several chains of interviewees were recruited to include the largest possible number of employees with different profiles. Thus, 8 security guards, 6 bartenders, 5 managers, 3 waitresses, 2 firemen, 2 DJs, 1 promoter, 1 hostess, 1 cashier and 1 cleaner were included; their characteristics are described in **Table 1**. The inclusion criteria were as follows: at least 2 years of experience, having worked at more than one nightclub, and a minimum age of 18 years. The final sample comprised 30 nightclub employees, which sufficed to attain the theoretical saturation point for the main subjects approached [Patton, 2002].

Table 1. ***Characteristics of the 30 interviewees: job and corresponding code, age, gender, education level, length of work experience at nightclubs and number of nightclubs in which the interviewees worked***

Job and corresponding code	Age	Gender	Education level	Work experience in nightclubs (years)	Number of nightclubs in which he/she worked
Security guard (SG)	24	Male	Complete secondary school	2	10
Security guard	20	Male	Complete secondary school	4	10
Security guard	29	Male	Complete secondary school	3	3
Security guard	29	Male	Complete secondary school	5	4
Security guard	29	Male	Complete secondary school	2	3
Security guard	35	Male	Complete secondary school	12	10
Security guard	35	Male	Complete secondary school	10	10
Security guard	39	Male	Complete secondary school	2	7
Security guard	35	Male	Complete secondary school	5	3
Bartender (BA)	28	Male	Complete secondary school	2	2
Bartender	26	Male	Incomplete secondary school	8	10
Bartender	27	Male	Complete secondary school	7	10
Bartender	40	Male	Complete secondary school	20	7
Bartender	27	Male	Complete secondary school	3	2
Manager (MA)	56	Male	Incomplete secondary school	25	7
Manager	51	Male	Complete higher education: Business Administration and International Trade	22	9
Manager	41	Male	Complete higher education: Chemical Engineering	18	2
Manager	35	Male	Incomplete secondary school	3	3
Manager	26	Male	Complete higher education: Social Sciences	4	2
Waitress (WA)	48	Female	Incomplete secondary school	7	4
Waitress	23	Female	Nutrition undergraduate student	4	4
Waitress	24	Female	Economics undergraduate student	5	7
Fireman* (FI)	51	Male	Complete secondary school	12	4
Fireman	26	Male	**	5	10
DJ (DJ)	38	Male	Complete higher education: Business Administration	20	10
DJ	34	Male	**	9	10
Event promoter (PR)	36	Male	Complete higher education: Engineering	3	10
Hostess (HO)	45	Female	Complete secondary school	21	5
Cashier (CA)	46	Male	Complete secondary school	9	5
Cleaner (CL)	57	Female	Complete secondary school	19	2

*responsible for first aid; **data not collected

2.3) Instruments and data collection

2.3.1) Nightclubs

A structured questionnaire based on two instruments and the procedures suggested in the following studies were used in the ethnographic observation and environmental data collection: **1)** Kit for Assessment of Recreational Nightlife (KAReN) [Calafat *et al*.] and **2)** Safe Bars [Graham, 2008]. Among the collected data, the main data used in the present study were as follows: **Nightclub**: targeted public (heterosexual or LGBT) and music style; **Patrons' behavior**: aggressiveness, sexual behavior, alcohol and drug consumption patterns, and physical, verbal and sexual violence; **Alcohol sales**: minimum purchase amount (cover charge) and modalities of alcohol promotion; and **Physical environment**: lighting, temperature, areas for sex, and capacity (number of people in the premises).

2.3.2) Focus groups

The focus groups included one observer who recorded the participants' nonverbal reactions and wrote a data pre-analysis report and a moderator charged with orienting the discussions based on a semi-structured script following Krueger's [2009] global recommendations. The focus group sessions lasted 1 hour and 40 min on average and were audio recorded.

From the thematic axes considered in the script, the axes comprising the following key questions were used in the present study: "*Do you think that there are environmental factors (examples) in nightclubs that stimulate excessive alcohol use? Which ones? Why?"* These same questions were posed relative to illegal drugs, violence and sexual risk behaviors. The key questions had a subdivision (i.e., "*Which*

are the main types of nightclubs that stimulate excessive alcohol use?") for all of the other subjects approached (sexual risk behaviors, violence and use of illegal drugs).

2.2.3) In-depth interviews with nightclub employees

In-depth interviews were conducted with 30 nightclub employees. The interviews took place at a time (morning, afternoon, night or dawn) and place (home, office, bakeries, or parks) selected by the interviewees, and the procedure followed the guidelines proposed by Patton (2002). The interviews lasted 1 h and 30 min on average.

Three of the thematic axes considered in the script were used in the present study: 1) sociodemographic data; 2) opinion on the nightclub profiles (environmental factors) that promote high-risk behaviors (excessive alcohol use, illegal drug consumption, violence and sexual risk behaviors) and profiles of the patrons most exposed to them; and 3) how nightclubs and patrons address high-risk behaviors. The question style was the same as in FGs.

2.4) Data analysis

2.4.1) Compilation of the material

The data analysis was based on the triangulation (Patton, 2002) of three data sources: focus groups, semi-structured interviews and ethnographic observations.

The narratives of the participants in the focus groups and semi-structured interviews were fully transcribed and coded as follows: **Focus groups** – initials FG followed by nightclub profile and participant's gender [e.g., FG_LGBT_F (focus group_LGBT_female)] and **Individual interviews** – the first two letters correspond to the employees' job, followed by their age and length of work experience at nightclubs

in years [e.g., SG24_2 (security guard, 24 years old, 2-year work experience)], as shown in **Table 1**.

The analysis was performed using the content analysis technique developed by Bardin (2004), which includes the following steps: immersion, coding, definition of categories, and definition of themes. The participants' narratives were clustered into major themes (according to each thematic axis), resulting in thematic reports. The identified themes were analyzed to provide meaning according to the emic view, which seeks to understand a given culture from within its own cultural references. The NVivo-10 software was used to facilitate the handling and storage of the material and the organization and coding of notes (Gibbs, 2009).

The data collected by ethnographic observation were quantified to describe the characteristics of the investigated nightclubs and to facilitate the formulation of the corresponding typology. For this purpose, the data were tabulated in Excel spreadsheets, and simple frequencies were calculated to describe the environmental and behavioral characteristics found in the investigated nightclubs.

2.4.2) Typology

Integration of the data collected from the three aforementioned sources allowed the construction of a typology (Kluge, 2000) of nightclubs according to the following thematic axes, which represented potential high-risk behaviors displayed at this particular setting: patterns of drinking and violence, sexual behavior and use of illegal drugs. The nightclubs were clustered according to the intensity of each high-risk behavior as estimated based on the ethnographic observations and the recorded narratives.

3) RESULTS

3.1) Nightclub typology

Four different types of nightclubs were defined according to the main characteristics of the investigated nightclubs relative to the four analyzed thematic axes: *Intoxicating*, *Violent*, *Dancing* and *Highly Sexualized*. The details of each type are provided in **Table 2**.

The distribution of music styles at the investigated nightclubs was as follows: 29% electronic music, 13% pop-rock, 10% dance-pop, 10% rock, 10% country (*sertaneja*), 10% eclectic, 6% hip-hop, 6% funk and 6% *forró*. Relative to the sexual orientation of the patrons, 23% of the nightclubs targeted the LGBT public, 6% targeted heterosexuals and homosexuals and 71% targeted heterosexuals

.

Table 2. ***Typology of 31 São Paulo nightclubs after triangulation of ethnographic observation, focus groups and individual interviews***

Type	High-risk behaviors	% (N)	Description
Intoxicating nightclubs	High alcohol consumption; High illegal drug consumption; Non-violent; Sex not allowed	35% (11)	Most nightclubs in this group targeted a heterosexual public seeking rock, gothic rock, electronic music, funk and hip-hop. High level of illegal drug consumption, including marijuana, ecstasy, ketamine, LSD, cocaine and inhalants. Patrons were very altered due to the excessive consumption of alcohol and other drugs. Regarding environmental factors, these nightclubs had strong light effects (e.g., strobe lights), very loud sound levels and overcrowding above the maximum allowed capacity. Although excessive consumption of alcohol and other drugs occurred in all of these nightclubs, some significant differences allowed them to be divided into two subgroups: **1)** the environment at electronic music, rock and gothic nightclubs was friendlier due to patron loyalty; the main drugs used were marijuana, ecstasy, LSD and ketamine; and **2)** the environment was less friendly at hip-hop and funk nightclubs; the main drugs used were marijuana, cocaine and inhalants; synthetic drugs were not used. The presence of an ambulance was observed at a single nightclub, and none of the nightclubs had adequate structures for the staff to provide care to seriously intoxicated patrons.
Violent nightclubs	High alcohol consumption; Negligible illegal drug consumption; Violent; Sex not allowed	26% (8)	All of the nightclubs in this group targeted a heterosexual public. This group exhibited the widest variety of alcohol sales strategies: **1)** “Combos”: kits composed of one liter of vodka or whisky and energy drink cans; **2)** “Open bar”: a fixed fee is charged at entry for unlimited alcohol consumption in the premises; **3)** “Buy one, take two”: two bottles of vodka or whisky are sold for the price of one; **4)** “Sale”: alcoholic beverages are sold below their market price (1 beer can= BRL 0.99); and **5)** “Cover charge”: a fixed fee is charged at entry that allows the purchase of the corresponding amount of alcohol; customers are not reimbursed if they consume less than the paid fee. Excessive alcohol use and sexual competition among patrons contributed to the occurrence of physical, sexual and verbal violence characterized by punching and kicking, touching of intimate parts without permission, aggression through the use of offensive

			language with strong sexual connotations and quarrels. The music styles included electronic music, country, dance-pop and eclectic music; different genres are played in the same event. Regarding environmental factors, these nightclubs had strong light effects, very loud sound levels and overcrowding above the maximum allowed capacity.
Dancing nightclubs	Low alcohol consumption; Negligible illegal drug consumption; Non-violent; Sex not allowed	23% (7)	Most nightclubs in this group targeted a heterosexual public. The largest numbers of patrons consuming non-alcoholic drinks were found in this type of venue. The nightclubs played *zouk* and *forró* (i.e., typical ballroom dance music) as well as flashbacks from the 70s and 80s. Patrons were mainly interested in dancing with their partners. The environment was very friendly; drug consumption or violence of any type was not observed at any time. The environmental factors were not remarkable: few or no light effects, moderate sound levels and numbers of patrons below the maximum allowed capacity.
Highly sexualized nightclubs	High alcohol consumption; Negligible illegal drug consumption; Non-violent; Sex allowed	16% (5)	All nightclubs in this group targeted homosexual patrons, with a single exception. Three types of areas for sex were found: **1)** Nightclubs targeting male homosexuals had darkrooms with a 50-person capacity; these areas are widely known for their high-intensity sexual activities, the most common practices being group oral and anal sex; only electronic music was played in these venues; **2)** Large couches were available outdoors at the one nightclub for female homosexuals, where women engaged in masturbation were observed; the music played included older rock and dance-pop; and **3)** Rooms for sex were available at the one nightclub for heterosexuals; couples masturbating were seen even in the common areas; the music played was mainly country, pop-rock, dance-pop and funk. The environment was friendlier at the nightclubs targeting homosexuals. With the exception of two nightclubs for male homosexuals in which illegal drug consumption occurred, few or no instances of substance use were observed. Regarding environmental factors, these nightclubs had strong light effects, loud sound levels and overcrowding above the maximum allowed capacity.

3.2) High-risk behaviors detected at nightclubs

3.2.1) Drinking

Alcohol was the only drug consumed in all of the investigated nightclubs. Nevertheless, differences were found in the drinking patterns as a function of the nightclub typology established according to patrons' profiles, sexual orientations and music styles. Drinking was most prevalent in the *Intoxicating Nightclubs* (**Table 2**). Excessive alcohol use seemed to be one of the main reason for patrons to attend this type of nightclub, as shown in the following transcript:

> *"No one goes to nightclubs to drink water or milk (laughs), people go there to drink, drink and drink. It doesn't matter whether you're young or old, have more or less money".* **FG_8_UNI_M**

3.2.1.1) Sales strategies and promotion

As shown in **Table 2**, several sales strategies to promote excessive alcohol use were detected, especially at the *Violent Nightclubs*. Open bar availability stood out as the strategy that most promoted excessive alcohol use. Additionally, data triangulation showed that the drinks served at the open bars were seemingly fake or had low quality, although this practice was not exclusive to open bars.

> *"The outcome of open bars is 95% of the people will get completely blasted. It's the worst possible promotion [strategy] because the drinks are of the lowest quality and you keep drinking until getting blasted."* **FG_ECL _F**

> *"Sure, when everybody's drunk they start serving 'pig in a poke' and no one notices (…) Or do you believe that someone will*

> *check whether drinks are fake or not? (…) 'Open' [bars] serve to drink until you drop."* **FG_ECL _F**

This scenario is only possible and is perpetuated by a lack of control of the quality of beverages by competent agencies and the laws regulating the various types of alcohol sales.

> *"There's no control, therefore, no more than 5% of nightclubs work with authentic brands (…) Putting Natasha vodka into Smirnoff bottles is 'routine' and we do this all the time (…) In open bars, we serve drinks which we don't even know whether they have a brand."* **BA26_8**

A cover charge was another strategy used to promote greater alcohol consumption and was applied at 45% of the investigated nightclubs. This practice seems to stimulate patrons to consume an amount of alcohol corresponding to the fee paid upon entering the premises.

> *"It was banned at some time, right? But they always charge it, because it guarantees some profit for the venue, and people don't complain, because they do want to drink, and if they can drink [an amount of alcohol corresponding to] the fee they've paid, it's OK with them."* **WA23_4**

3.2.1.2) Responsible alcohol sales

No instance of staff members warning people to stop drinking or refusing to sell alcohol to clearly drunk patrons was observed during the ethnographic observations. Data triangulation corroborated these findings and detected a lack of acceptance of the proposal of enacting measures to restrict alcohol sales to drunk individuals. These data show that the lack of alcohol sale regulations is relevant for drinking behavior.

> **P1_***"Nightclubs will never do such a thing. They don't even serve water, no way they'll tell people to stop drinking because they're already drunk, and also, we go there exactly to do that [get drunk]."*

> **P2_***"No one will agree to that. We'll get mad, the owner won't agree to have less profit, and even if it becomes a law, who's going to control it? (…) Fat chance, that's not partying."* **FG_ECL_M**

3.2.1.3) Physical environment

Environmental factors seem to play a relevant role in the stimulation of drinking, including manipulation of the nightclub environment by employees, as shown in the following transcript:

> *"You set up the place for people to be stimulated to drink more. Sound, lights, temperature, promotion, filling the place up, etc. This is what a nightclub is all about."* **PR36**

> *"Nightclub owners aren't stupid. They know that if the club is full they'll make a profit because people drink more. At times they even turn the air conditioner off."* **WA48_7**

3.2.1.4) Moderate alcohol use

Alcohol consumption was moderate or low in 16% of the investigated nightclubs, and few cases of alcohol intoxication were observed. These were venues targeting an older public, the focus of which was on dancing, whether ballroom dancing or choreographed dancing to flashback music. These venues were characterized as *Dancing Nightclubs*, as shown in **Table 2**. There seemed to be a type of "self-regulation" in operation at this type of nightclub because getting drunk was viewed negatively by the patrons.

> **MA26_2:** "*People go to ballroom dancing places to dance a choreography, and that [getting drunk] is difficult (…) They don't drink, because if they do they can't dance, and that's how they have fun, not by drinking (…) They're older and seldom you get to see someone drunk here, it's not good."*

3.2.2) Illegal drugs

High levels of illegal drug consumption were found in 35% of the investigated nightclubs, all of which were *Intoxicating Nightclubs* (**Table 2**). The drugs most frequently used were marijuana, ecstasy, ketamine, LSD and inhalants, and drug use in combination with drinking was a common occurrence. This pattern of consumption was stronger in the electronic music nightclubs in which environmental factors were a part of the drug use rituals.

> *"I go to electronic music nightclubs and everybody knows that ecstasy, pot and LSD are used a lot there because they're a part of the history of electronic music, just like pot is a part of the history of reggae (…) The lights and the music are important, they interact with the drug and we get much more high."* **FG_ALT_M**

The interviewees showed concern with the use of these substances because they were aware that nightclubs were not duly prepared to address cases of intoxication. Furthermore the use of illegal drugs is perceived as a safety problem by the nightclubs' employees because it can cause legal problems for both venues and patrons.

> *"I've worked at several nightclubs and it's indeed a fact, people do too many drugs (…) The nightclub staff can't do much more than call an ambulance in some cases because they don't know what to do and might make things worse".* **DJ_38_20**

> "*Gee, everybody's doing it, and if the police come and the nightclub [staff] doesn't do that famous 'trick' [bribing]*

> *everybody ends up in jail and you can be sure the following day the names of the nightclub and its owner will make the newspaper headlines."* **FG_ECL_F**

> *"Nightclubs shouldn't let these drugs in because everybody might end up in jail (…) If someone gets too sick and we can't do anything to help, it's a problem to call an ambulance because someone might tell what they saw in there."* **MA41_18**

3.2.3) Violence

Physical, sexual or verbal violence was observed at 26% of the nightclubs, which were classified as "*Violent Nightclubs*" (**Table 2**). Excessive alcohol use, overcrowding above the maximum capacity and strong sexual competition among the men for the women make these venues more prone to sexual violence, eventually ending in physical violence.

> **P1_***"The songs say that women will 'agree to everything', then guys go around groping all the women indiscriminately, but here comes one and gropes another guy's woman, and the fight begins (…) There's a lot of quarreling because there's hardly any room to move and people bump into each other. If everybody wasn't so upset, perhaps they wouldn't quarrel so much about that."* **FG_UNI_M**

> "*They believe that if a woman goes to a nightclub it's because she's always 'wanting to do it' [sex] and they make advances in a very nasty way (…) There's at least four fights every night and I don't even need to say that they're all drunk."* **SG35_10**

One environmental factor characteristic for this setting is the aggressive lyrics of the songs played, which stimulate sexual violence and excessive alcohol use, eventually validating the actual display of these behaviors in the premises.

> *"Every night they play a song saying to drink and go 'get a woman', but women don't always want to be 'taken' with no warning whatsoever. When partying no one ever asks for permission, and there's always quarrels about women. Also, everybody's drunk and it suffices for someone to step on someone else's foot for fighting to begin."* **FG_UNI_M**

3.2.4) Sexual behavior

Areas for sex were available in 16% of the nightclubs, which were characterized as *Highly Sexualized* (**Table 2**). These areas were primarily found at nightclubs for homosexual men. Approximately half of these venues had so-called "darkrooms", where group sex was practiced in the dark, at times with several partners at once or partner swapping. Because condoms do not seem to be commonly used in this setting, even when they are available on the premises free of charge, this practice represents a sexual risk behavior.

> **P1_** *"It's madness, one in front [of you] another behind [you] all the time… You're 'no one' there and when you get out, you don't have a clue whom you had 'intercourse' with (laughs)."* **FG_LGBT_M**
>
> **P2-**"*There are [free] condoms at some nightclubs, but they become balloons (laughs) (…) With so much oral and anal sex going on, it's difficult to keep the condom intact and no one's going to keep changing it!"* **FG_LGBT_M**

> *"The guys from the city government distribute [condoms] and there are free [condoms] at the nightclub where I work, but almost nobody gets them. The idea of 'darkroom' and safe sex doesn't make much sense."* **CA46_9**

The sexual behavior displayed at the LGBT nightclub exclusively for women was more discrete compared to the nightclubs for men. There seems to be a considerable difference in how homosexual women view and react to the nightclub environment.

> *"We don't really like to be exposed. This is why there are few nightclubs for the female LGBT public and there isn't that sex stuff that happens at nightclubs for boys (…) Masturbation is more discrete and at times it even happens on the 'couches', but this doesn't happen in all the nightclubs because it isn't a part of the gay female universe as it is for the men."* **FG_LGBT_F**

> "*There're few nightclubs for gay women, and only one of them has these 'couches' (…) It can't be compared to the nightclubs for men. The girls are always in couples, and the most that happens is fingering [masturbation], but even this not too much. I've only seen oral sex twice."* **MA35_3**

Areas for sex are not common at nightclubs for heterosexuals. Only one of the nightclubs investigated in the present study had such an area. Most of the sexual activity at heterosexual nightclubs is hidden and patrolled by the security guards, and special areas for this purpose are not available.

> "*There are no places for sex at heterosexual nightclubs. We're always warned to be wary and not to let [patrons do it], but I've worked at nightclubs for university students before. They 'close' one just for themselves, and things then truly change, and there's sex for everybody who wants it (…) Condoms (laughs) seldom, right?"* **SG26_5**

> "*There're some university parties where there's sex, because there are rooms for the ones who want to have sex, and even so it's not 'group sex' (…) No matter the nightclub type, I can't vouch for condoms, too much drinking and little time (laughs)."* **FG_UNI_F**

4) DISCUSSION

A typology of the investigated nightclubs was constructed based on ethnographic observation and the narratives of the patrons and employees according to the following four analyzed categories of behaviors: patterns of drinking, violence, sexual behavior and illegal drug use. As a result, the nightclubs were categorized as *Intoxicating, Violent, Dancing* and *Highly Sexualized*.

Excessive alcohol use in this setting increases the odds for patrons engaging in other types of high-risk behaviors (Sloan, Eldred, & Davis, 2014; Townshend *et al*, 2014). Nevertheless, the results of the present study indicate that drinking as such was not the single trigger of these behaviors because environmental and individual factors seemed to be strongly associated not only with the different high-risk behaviors but also with their intensity [Silva-Filho & Masur, 1985]. This finding provides further support for the clustering of patrons by nightclub type.

Excessive alcohol use was the only type of risk behavior found at three of the four types of nightclubs (*Intoxicating, Violent* and *Highly Sexualized*). Alcohol

promotion and sales strategies influence the excessive drinking behavior. Our data agree with the data from studies indicating that open bars are the alcohol sales strategy most associated with excessive drinking [Thombs *et al.,* 2009] moreover, young people are more affected by price of alcohol [Knom et al., 2003]. Open bars are permitted in Brazil; there was an attempt in the past to pass a law banning them (bill proposal no. 3,414/08), but it was tabled and the law was never passed.

Cover charges were another alcohol sales strategy found at the investigated nightclubs, even though this strategy was banned by federal law no. 8,078/90 for being unfair because customers were not reimbursed when they did not drink the full amount of alcohol for which they paid a priori.

Concerning legal issues, the interviewees overtly rejected the idea of legislation imposing controls on alcohol sales to heavily drunk people, as is the case in several developed countries [Babor*et al.*, 2010].

In contrast to the *Intoxicating, Violent* and *Highly Sexualized* nightclubs, the main focus of the *Dancing* nightclubs, which play ballroom dance and flashback music, was on dancing, either in couples or group choreography. Thus, neither excessive alcohol use nor the other types of analyzed high-risk behaviors were part of this setting, as was also observed by Anderson *et al*. [2005].

Illegal drug use was primarily observed at the *Intoxicating Nightclubs*. The most common venues were the ones that played electronic music, as also shown by the typologies formulated by Anderson *et al.* [2005] and Purcell *et al.* [2009]. According to Purcell *et al.* [2009], the main expectation of electronic music club patrons is to interact with the “scene” through the excessive use of illegal drugs and alcohol. Interestingly, the results of the present study indicate that users do not seem to be unaware of the dangers posed by some drugs. The factors the interviewees

rated as risks were the lack of structure and training of staff in nightclubs to address intoxicated patrons and the legal penalties for alcohol and drug consumption. Curiously, the interviewees did not judge drug combinations, which are ubiquitous at nightclubs and are potentially responsible for more serious physical effects on the body [Martin *et al.*, 2008], to be a problem.

Regarding violence, the aggressive environment characteristic of the *Violent Nightclubs*, which are permeated by song lyrics promoting sexual abuse, seemed to lead male patrons to adopt aggressive sexual behaviors of self-affirmation towards women. This behavior profile was also identified in other studies, which described attempts at touching someone who did not want to be touched as a typical sign of sexual aggression [Graham *et al*., 2006]. In agreement with the results of a study conducted in Canada [Graham, 2002], violence among patrons was strongly associated with drinking and nightclubs characterized by high levels of sexual competition and overcrowding.

Regarding sexual risk behaviors, the outstanding factor in the present study was the availability of darkrooms for unsafe sex practices, which were generally performed without condom protection, in addition to intercourse with a large number of different partners on the same night. The lack of condom use, even when condoms were distributed free of charge at the nightclubs, should be given special attention and addressed more thoroughly in future studies. It is noteworthy that in Brazil a study conducted by [Kerr *et al.*, 2013] showed that the recrudescence of the human immunodeficiency virus (HIV) epidemic was mostly concentrated among men who have sex with men aged 20-25 years, which coincidently was the main age range analyzed in the present study [Santos *et al.,* 2015].

The present study has some limitations. First, the environmental factors common in nightclubs, such as strong light effects, overcrowding and darkness, and even acts of intimidation experienced by the investigators, interfered with the ethnographic observation. Additionally, because the present study investigated illegal behaviors, underreporting might have occurred in the interviews and focus groups. However, the study also has strengths, such as the use of different data sources and triangulation, with consequent greater validity of the typology obtained. Additionally, this is the first study to cluster nightclubs in the largest Brazilian city according to the identified risk behaviors.

The present study shows that nightclubs are venues in which risk behaviors are adopted; for this reason, they are relevant targets for public health actions. Thus, public health managers and professionals should consider the specificities of nightclubs to formulate specific preventive measures and efficient public policies to reduce risk among patrons.

The present study also notes the need to regulate alcohol sales and restrict the promotion of alcoholic beverages. Moreover, Brazilian laws need to be enforced more rigorously because law transgression seems to be a common practice in Brazilian society.

REFERENCES

Anderson TL, Kavanaugh PR, Rapp L, Daly K. Variations in clubber's substance use by individual and scene-level factor. Addiciones 2009;21(4): 289-308.

Babor T, Caetano R, Casswell S, Edwards G, Giesbrecht N, Graham Kea. Alcohol: No Ordinary Commodity-Research and Public Policy. Oxford, UK: Oxford University Press; 2010.

Bardin L. Análise de conteúdo [Content Analysis].3rd ed. Lisboa: Edições70, 2004.

Bellis MA, Quigg Z, Hughes K, Ashton K, Ferris J, Winstock. A. Harms from other people's drinking: an international survey of their occurrence, impacts on feeling safe and legislation relating to their control. BMJ Open 2015; 23:5(12).

Biernacki P, Waldorf D. Snowball sampling-problems and techniques of chain referral sampling. Sociol Meth Res 1981;10(2):141-63.

Calafat A, Fernadez C, Juan M, Becoña E. Recreational nightlife: Risk and protective factors for drug misuse among young Europeans in recreational environments. Drugs: Education, Prevention and Policy 2009;15(2):189-200.

Calafat A, Gomez CF, Juan M, Becona E. Weekend nightlife recreational habits: prominent intrapersonal "risk factors" for drug use? Subst Use Misuse 2007:42(9); 1443- 54.

Calafat A, Hughes K, Jerez M.J, Bellis MA, Stocco FMP, Schnitzer S, Kokkevi A, Siamou I, Steffan E, Kosir M, Bajcarova L, Bohrn K, Bohrn S, Valnoha J, Voboril J, Rubí MR, López ER, Franzke S. KAReN – Kit for Assessment of Recreational nightlife. http://www.irefrea.org/uploads/PDF/KAREN_Full%20Set_EN.pdf (accessed December 2015).

Carlini C, Andreoni S, Martins SS, Benjamin M, Sañudo A, Sanchez M. Environmental characteristics associated with alcohol intoxication among patrons in Brazilian nightclubs. Drug Alcohol Rev 2014;33(4):358-66.

Cavan S. Liquor license: an ethnography of bar behavior. Chicago. Aldine Pub. Co., 1966 -246 pg.

Chatterton P & Holland. R. Theorising urban playscapes: producing, regulating and consuming youthful nightlife city spaces. Urban Studies 2002;39(1): 95-117.

Clapp JD, Holmes MR, Reed M.B, Shillington AM, Freisthler B, Lange JE. Measuring college students' alcohol consumption in natural drinking environments: field methodologies for bars and parties. Eval Rev 2007;31(5):469-89.

Creswell JW. Research design: qualitative, quantitative and mixed methods approaches. 3rd ed. London: Sage Publications;2009.

Duff C. The pleasure in context. Int J Drug Policy 2008;(19):384-92.

Eileen V, Pitpitanl V, Kalíchman SC. Reducing HIV Risks in the Places Where People Drink: Prevention Interventions in Alcohol Venues. AIDS Behav 2016: 20;119–33.

Gibbs GR: *Qualitative Data Analysis: Explorations with NVivo.* New York: Open University Press, 2009.

Graham K, Homel R. Raising the Bar: Preventing Aggression in and Around Bars, Pubs and Clubs. Cullompton: Willan Publishing 2008.

Graham, K., Bernards, S., Osgood, D. W., & Wells, S. Bad nights or bad bars?Multi-level analysis of environmental predictors of aggression in late-night large-capacity bars and clubs. Addiction 2006:101(11):1569-80.

Kerr LR, Mota RS, Kendall C, Pinho Ade A, Mello MB, Guimaraes MD, Dourado I, De Brito AM, Benzaken A, McFarland W, Rutherford G.HIV among MSM in a large middle-income country. AIDS 2013;27(3):427-35.

Kluge S. Empirically Grounded Construction of Types and Typologies in Qualitative Social Research, 2000;1(1).

Krueger R &, Casey AM. Focus Groups: A Practical Guide for Applied Research. Sage Publishing 2009.

Laranjeira R, Pinsky I, Zaleski M, Caetano R. I Levantamento Nacional Sobre os Padrões de Consumo de Álcool na População Brasileira [I National Survey about Patterns of Alcohol Use in Brazilian Population]. Brasília. Brazilian National Antidrug Secretariat (SENAD); 2007.

Manson M, http://edition.cnn.com/2014/09/22/travel/best-nightlife-cities/index.html?sr=sharebar_facebook (accessed July 2016).

Martin CS. Timing of alcohol and other drug use. Alcohol Res Health 2008;31(2):96-99.

Parker, H. Pathology or modernity? Rethinking risk Factor analyses of young drug users. Addiction Research and Theory 2003;(11):141-44.

Patton MQ. Qualitative research and evaluation methods. 3rd edn. Thousand Oaks: Sage Publications, 2002.

Purcell J, Graham KA. Typology of Toronto Nightclubs. At the Turn of the Millennium. Contemporary Drugs Problems 2005;32:131-67.

Reingle J, Thombs DL, Weiler RM, Dodd VJ, O'Mara R, Pokorny SB. An exploratory study of bars and nightclubs expectancies. J Am Coll Health 2009;57(6):629-38.

Sanchez ZM, Ribeiro KJ, Wagner GA. Binge Drinking Associations with Patrons' Risk Behaviors and Alcohol Effects after Leaving a Nightclub: Sex Differences in the "Balada com Ciência" Portal Survey Study in Brazil. PLoS One 2015;19:10(8).

Santos NGR, Paes AT, Sañudo A, Sanchez ZM. Factors associated with pre-drinking among nightclub patrons in the city of Sao Paulo. Alcohol and Alcoholism 2015;50 (1):95-102.

Sañudo A, Andreoni S, Sanchez ZM. Polydrug use among nightclub patrons in a megacity: A latent class analysis. Int J Drug Policy 2015;26(12):1207-14.

Sloan FA, Eldred LM, Davis DV. Addiction, Drinking Behavior, and Driving Under the Influence. Subst Use Misuse 2014:49(6):661-76.

Studer J, Baggio S, Deline S, N'Goran AA, Henchoz Y, Mohler-Kuo M, Daeppen JB, Gmel G. Drinking locations and alcohol-related harm: Cross-sectional and longitudinal associations in a sample of young Swiss men.Int J Drug Policy 2015; 26(7):653-61.

Thombs DL, O'Mara R, Dodd VJ, Hou W, Merves ML, Weiler RM, Pokomy SB, Goldberg BA, Reingle J, Werch CC. A Field study of Bars-Sponsered drink special and their association with patrons' intoxication. J Stud Alcohol Drugs 2009;70 (2):206-14.

-Townshend JM, Kambouropoulos N, Griffin, A, Hunt, FJ., Milani, R. M. Binge drinking, reflection impulsivity, and unplanned sexual behavior: impaired decision-making in young social drinkers. Alcohol Clin Exp Res 2014;38 (4):1143-50.

-Voas RB, Furr-Holden D, Lauer E, Bright K, Johnson MB, Miller B. Portal surveys of time-out drinking locations: a tool for studying binge drinking and AOD use. Eval Rev 2006;30(1):44-65.

-World Health Organization. The focus group manual. Genebra: WHO, 1992.

CONSIDERAÇÕES FINAIS

5. CONSIDERAÇÕES FINAIS

O reconhecimento crescente de que os efeitos negativos do consumo de álcool e outras drogas estão intimamente relacionados com o ambiente no qual são consumidos, ao invés de simplesmente resultantes das propriedades tóxicas destas substâncias, tem reforçado a importância do estudo dos ambientes de lazer, nos quais este uso ocorre. Observando as inúmeras evidências científicas, nota-se que o consumo de álcool e outras drogas por jovens, e os riscos associados ao consumo, adquirem grande parte de sua lógica e coerência no contexto recreativo noturno.

Desta forma, o primeiro passo para o direcionamento de ações destinadas à proteção de frequentadores de baladas é a compreensão do contexto e dos fatores ambientais associados ao abuso de álcool e outras drogas nestes locais, de maneira a permitir intervenção junto aos processos que condicionam o aumento do risco, seguindo a lógica e expectativa dos envolvidos.

Os resultados do presente estudo evidenciaram algumas características importantes das baladas da cidade de São Paulo. Primeiramente, destaca-se o papel extremamente relevante da venda de álcool no formato “open bar” como potencial estímulo à prática do binge drinking e, mais surpreendente, também aumentando a chance do consumo de drogas ilícitas. Esta foi a única variável ambiental associada ao consumo de drogas lícitas, ilícitas e padrão binge de consumo de álcool. Destacou-se, porém, que o principal preditor da intoxicação alcoólica nos estabelecimentos foi a prática do esquenta, um fator individual que sugere que o baladeiro já está predisposto a se intoxicar antes mesmo de adentrar o estabelecimento. Neste sentido, as abordagens de controle ambiental isoladas de abordagens de nível individual podem não fazer sentido na prevenção da intoxicação alcoólica em casas noturnas. Por outro lado, o open bar é um fator

ambiental que poderia ser amenizado pela política pública, através de controle mais rigoroso sobre a venda do álcool. Assim, o presente estudo aponta também para a necessidade da regulamentação das vendas de álcool e restrição das promoções de bebidas alcoólicas. Porém, ainda, é necessária uma aplicação rigorosa das leis brasileiras, uma vez que a violação das leis existentes parece ser uma prática comum em nossa sociedade.

Neste sentido, uma abordagem adequada dependeria de uma colaboração das partes envolvidas, como a indústria do álcool, os donos e funcionários dos estabelecimentos, os gestores e desenvolvedores de políticas públicas, os frequentadores, as agências de saúde e regulação, além dos pesquisadores que poderiam avaliar o impacto das intervenções preventivas, tanto no âmbito da alteração de legislação, como no âmbito da implantação de programas nos estabelecimentos.

Além disso, o presente estudo evidenciou que as casas noturnas oferecem diferentes graus de risco, alicerçados em 4 grandes eixos: álcool, drogas ilícitas, sexo e violência. O álcool é o fator de risco mais prevalente nos estabelecimentos, já que oferece danos imediatos decorrentes do consumo e ainda facilita o envolvimento com os outros 3 eixos. Porém, não pode deixar de ser registrado que parte das baladas oferece baixo grau de risco e intoxicação alcoólica menos presente, evidenciando que não é possível generalizar comportamentos nestes ambientes. No entanto, os excessos observados em alguns estabelecimentos, nos 4 eixos, evidenciam falta de política públicas claras de redução de danos e de proteção social.

O lazer noturno costuma ser visto de forma muito positiva pelos envolvidos, o que faz com que as pessoas tendam a ignorar os problemas relacionados a estes

ambientes. Os jovens, principais atores neste contexto, tendem a enxergar medidas de redução de danos como uma forma de controle sobre suas escolhas pessoais, sendo necessário levar em consideração o aspecto simbólico que este contexto representa para esta população.

A partir dos dados obtidos neste estudo e investigações do que já foi testado em cenário internacional, algumas recomendações preventivas visando a redução do risco nas baladas são propostas, sendo elas:

1) Controle sobre a venda do álcool (legislação):

- ✓ Venda responsável (não vender para sujeitos já intoxicados);
- ✓ Limitar vendas promocionais: open bar, leve 2 e pague 1, venda abaixo do preço de mercado;
- ✓ Aumentar taxação geral sobre a venda de bebidas alcoólicas e aumentar custo específico das bebidas alcoólicas após um determinado horário;
- ✓ Estipular um preço mínimo para a venda de bebidas alcoólicas.

2) Controle sobre aspectos ambientais dos estabelecimentos:

- ✓ Limite controlado de decibéis;
- ✓ Disponibilização gratuita de bebedouros ou de água por preço pequeno;
- ✓ Fiscalização de capacidade máxima excedida;
- ✓ Limite controlado de temperatura ambiente.

3) Capacitação da equipe:

- ✓ Para venda responsável de bebida alcoólica;
- ✓ Para prevenir episódios de violência dentro dos estabelecimentos;
- ✓ Para atuar e reconhecer pessoas intoxicadas por álcool e outras drogas.

4) Conscientizar gerentes e donos:

- ✓ Sobre os agravos que os fatores ambientais podem favorecer;
- ✓ Respeitar a capacidade máxima que o ambiente comporta.

5) Para frequentadores:

- ✓ Incentivar o uso de transportes públicos, ex: parceria com cooperativas de taxi e similares;
- ✓ Ofertar informações sobre redução de danos, especialmente para reduzir episódios de intoxicação alcoólica.

No entanto, todas as propostas sugeridas acima dependem de colaboração dos diversos atores envolvidos e a complexidade da execução é notável. Por exemplo, a implementação de algumas medidas como a extensão do horário de funcionamento dos ônibus e metrô, podem ser inviáveis pelo aumento de custo que estas empresas teriam. Uma forma de minimizar os custos seria uma parceria com o governo que poderia diminuir os encargos tributários destas empresas nestes horários. Porém, sem efeitos de curto prazo na redução dos acidentes de trânsito pelo beber e dirigir noturno, não faria sentido para o próprio governo.

Coibir práticas abusivas como o open bar e as demais promoções de bebidas alcoólicas, depende, em boa parte, da conscientização dos donos de baladas, legislação e fiscalização. Se levarmos em consideração que estas bebidas ofertadas em open bar são muito baratas e de péssima qualidade (inclusive ilegais e adulteradas) e, por este motivo, podem geram altas taxas de lucro, é difícil imaginar que seja de interesse imediato dos donos dos estabelecimentos a substituição deste modelo de venda. Neste sentido, talvez uma legislação efetiva que coíba os abusos praticados seja necessária, mas sem uma rigorosa fiscalização destes ambientes, a

tendência é que a pratica se perpetue. A venda de alimentos e o fornecimento gratuito de água também podem se enquadrar neste caso.

O treinamento da equipe de funcionários das baladas, de uma forma geral, é outro aspecto que merece atenção. Boa parte desta é terceirizada e muitos trabalham nestes estabelecimentos como “bico”, no aguardo de um emprego melhor e alternando, frequentemente, entre estabelecimentos e segmentos comerciais. A identificação de quais são os funcionários que apresentam menor rotatividade, talvez seja uma opção para se iniciar programas de treinamento, pensando na sustentabilidade do mesmo. O foco seria o serviço responsável de bebidas que indiretamente reduziria a violência nos estabelecimentos (física e sexual, especialmente), além do treinamento para lidar com as situações de intoxicação e agressão, enquanto estiverem ocorrendo.

Para se desenvolver técnicas criativas que mobilizem os frequentadores de baladas a pensaram sobre seus hábitos nestes estabelecimentos, envolvê-los neste processo parece um bom modelo. Se pensarmos que a recusa para participar do projeto foi muito pequena, mesmo com a coleta de medidas biológicas que poderia ser intimidadora, nota-se interesse por parte destes sujeitos para colaborar para a redução dos comportamentos de risco.

Por fim, é importante destacar que este estudo apresenta algumas limitações. Os fatores ambientais destes locais como intensos efeitos de luz, intensa aglomeração de pessoas, escuridão e até mesmo a intimidações sofridas pelos pesquisadores, interferiram na observação etnográfica. Além disso, por se tratar de um estudo de alguns comportamentos ilícitos, estes podem ter sido subrelatados durante as entrevistas e grupos focais. Outra limitação diz respeito às perdas de acompanhamento, entre entrada e saída. Nossa hipótese é que os clientes que

estavam mais alcoolizados eram mais propensos a deixar o estabelecimento sem se preocupar com a entrevista de saída. Além disso, não foram entrevistados clientes extremamente intoxicados, limitando a análise dos resultados referentes à prática de binge drinking e consumo de drogas dentro do estabelecimento apenas àqueles que responderam ao questionário de saída. Assim, o número de clientes intoxicados pode ter sido subestimado. É necessário também levar em consideração que a dosagem alcoólica não foi medida dentro do estabelecimento, desta forma, os sujeitos que praticaram o binge ao longo da noite e pararam horas antes de sair do local, não foram classificados como caso em nosso estudo.

Entretanto este trabalho apresenta pontos fortes como a utilização de diferentes fontes de dados, permitindo a triangulação e maior validade da tipologia obtida. Além disso, é o primeiro estudo brasileiro que agrupa as baladas da maior cidade do país de acordo com comportamentos de risco identificados nestes estabelecimentos e que avalia prevalência de consumo de drogas nestes estabelecimentos e os associa a fatores ambientais. Por fim, destaca-se o alto índice de aceite em participar (80%) por parte dos baladeiros do inquérito de portal, o que aumenta a validade externa do estudo.

Deseja-se com este estudo elucidar gestores, donos e gerentes de baladas, pesquisadores e sociedade civil sobre as relações entre fatores ambientais e comportamentos de risco em baladas da cidade de São Paulo. A partir dos dados aqui apresentados, espera-se que ações que visem a redução de riscos e danos nestes estabelecimentos sejam discutidas pelos múltiplos atores. Porém, sem amparo da mudança da legislação referente à venda de bebidas alcoólicas, pouco será conquistado.

REFERÊNCIAS BIBLIOGRÁFICAS

REFERÊNCIAS

Abbey A, Ross LT, McDuffie D, McAuslan P. Alcohol and dating risk factors for sexual assault among college women. *Psychology of Women Quarterly*. 1996; 20:147-69.

Anderson Z, Hughes K, Bellis MA. *Exploration of young people's experience and perceptions of violence in Liverpool's nightlife*. Liverpool: Centre for Public Health, Liverpool John Moores University; 2007.

Andreuccetti G, de Carvalho HB, de Carvalho Ponce J, de Carvalho DG, Kahn T, Muñoz DR, Leyton V. Alcohol consumption in homicide victims in the city of Sao Paulo. *Addiction* 2009;104(12):1998-2006.

Babor T, Caetano R, Casswell S, Edwards G, Giesbrecht N, Graham K, Grube J, Hill L, Holder H, Homel LR, Linvington M,Osterberg E, Rehm J, Room R, Rossow I. *El alcohol: un producto de consumo no ordinario. Investigación y políticas públicas.* Washington, DC: Organización Panamericana de la Salud, 2010. 372.

Babor T, Caetano R, Casswell S, Edwards G, Giesbrecht N, Graham Kea. *Alcohol: No Ordinary Commodity.* Research and Public Policy. Oxford, UK: Oxford University Press; 2010.

Bellis M, Hughes K, Calafat A, Juan M, Ramon A, Rodriguez J, Mendes F, Schnitzer S, Phillips-Howard P. Sexual uses of alcohol and drugs and the associated health risks: a cross sectional study of young people in nine European cities. *BMC Public Health*.2008;8:155.

Blay N, Calafat A, Juan M, Becoña E, Mantecón A, Ros M, Far A. Violence in nightlife environments and its relationship with the consumption of alcohol and drugs among young Spaniards. *Psicothema*. 2010;22(3):396-402.

Bonono Y, Coffey C, Wolfe R, Lynskey M, Bowes G, Patton G. Adverse outcomes of alcohol use in adolescents. *Addiction.* 2001;96(10):1485-96.

Brewer RD, Swahn MH. Binge drinking and violence. *JAMA*. 2005;294(5):616-8.

Buddie AM, Parks KA. The role of the bar context and social behaviors on women's risk for aggression. *J Interpers Violence*. 2003;18(12):1378-93.

Calafat A, Fernández Gómez C, Juan M, Becoña E. Recreational nightlife in Spanish young people as a risk factor in comparison with more traditional ones. *Adicciones*. 2007;19(2):125-31.

Calafat A, Fernández C, Juan M, Becoña E. Recreational nightlife: Risk and protective factors for drug misuse among young Europeans in recreational environments. *Drugs: education, prevention and policy*. 2008;15:189-200.

Calafat A, Juan M, Duch MA. Preventive interventions in nightlife: a review. *Adicciones.* 2009;21(4):387-413.

Carlson RG, Wang J, Falck RS, Siegal HA. Drug use practices among MDMA/ecstasy users in Ohio: a latent class analysis. *Drug Alcohol Depend*. 2005; 79:167-179.

Cavan S. *Liquor licensean ethnography of bar behavior*. Chicago. Aldine Pub. Co.1966. 246 pg.

Chinet L, Stéphan P, Zobel F, Halfon O. 2007. Party drug use in techno nights: A field survey among French-speaking Swiss attendees. Pharmacol Biochem Behav. 2007; 86: 284-289.

Clapp JD, Holmes MR, Reed MB, Shillington AM, Freisthler B, Lange JE, Measuring college students' alcohol consumption in natural drinking environments: field methodologies for bars and parties*. Eval Rev*. *2007;* 31:469-489.

Courtney KE, Polich J. Binge drinking in young adults: Data, definitions, and determinants. *Psychol Bull.* 2009;135(1):142-56.

Dahlberg LL, Krug EG. Violência: um problema global de saúde pública. *Ciência & Saúde Coletiva.* 2006;11:1163-1178.

Del Porto JA e Masur J. The effects of alcohol, THC and diazepam in two differents social seetings. A study with human volunteers. Research Comunications in Physiology. *Psychiatri and Behavior*. 1984; 9(2):201-212.

Demant J. Affected in the nightclub.A case study of regular clubbers' conflictual practices in nightclubs. *Int J Drug Policy*. 2013;24:196-202.

Downing J, Hughes K, Bellis MA, Calafat A, Juan M, Blay N. Factors associated with risky sexual behaviour: a comparison of British, Spanish and German holidaymakers to the Balearics. *Eur J Public Health*. 2011;21(3):275-81.

Duff C. The pleasure in context. *International Journal of Drug Policy*. 2008; 19(5):384-92.

Flatley J, Kershaw C, Smith K, Chaplin R, Moon D. *Crime in England and Wales 2009/10*. Home Office Statistical Bulletin.UK. 2010.

Fox JG, Sobol JJ. Drinking Patterns, Social Interaction, and Barroom Behaviour: A Routine Activities Approach. *Deviant Behavior*. 2000;21:429 -50.

Graham K, Bernards S, Osgood DW, Wells S. Bad nights or bad bars? Multi-level analysis of environmental predictors of aggression in late-night large-capacity bars and clubs. *Addiction* 2006;101(11):1569-80.

Graham K, Miller P, Chikritzhs T, Bellis MA, Clapp JD, Hughes K, Toomey TL, Wells S. Reducing intoxication among bar patrons: some lessons from prevention of drinking and driving. *Addiction*. 2014;109(5):693-8.

Graham K, Tremblay PF, Wells S, Pernanen K, Purcell J, Jelley J. Harm, intent, and the nature of aggressive behavior: measuring naturally occurring aggression in barroom settings. *Assessment.* 2006;13(3):280-96.

Graham K, Wells S. Aggression among Young Adults in the Social Context of the Bar. *Addiction Research and Theory*. 2001;9:193-219.

Guéguen N, Jacob C, Le Guellec H, Morineau M, Lourel M. Sound level of environmental music and drinking behavior: a field experiment with beer drinkers. *Alcohol Clin Exp Res*. 2008; 32(10):1795-8.

Hesse M, Tutenges S. Music and substance preferences among festival attendants. *Drugs and Alcohol Toda.* 2012;12: 82-88.

Hingson R, Heeren T, Levenson S, Jamanka A, Voas R. Age of drinking onset, driving after drinking, and involvement in alcohol related motor-vehicle crashes. *Accid Anal Prev*. 2002;34(1): 85-92.

Hingson R, Heeren T, Zakocs R. Age of drinking onset and involvement in physical fights after drinking. *Pediatrics.* 2001;108(4): 872-7.

Hughes K, Bellis MA. Use of environmental harm to tackle alcohol-related harm in nightlife environments: the UK experience. Lisbon: European Monitoring Centre of Drugs and Drug. *Addiction*; 2007.

Hughes K, Bellis MA, Calafat A, Blay N, Kokkevi A, Boyiadji G, Mendes MR, Bajcarova L. Substance use, violence, and unintentional injury in young holidaymakers visiting Mediterranean destinations. *J Travel Med***.** 2011;18(2):80-9.

Hughes K, Quigg Z, Bellis MA, et al. Drinking behaviours and blood alcohol concentration in four European drinking environments: a cross-sectional study. *BMC Public Health*. 2011;11:918.

Hughes K, Quigg Z, Eckley L, Bellis M, Jones L, Calafat A, Kosir M, van Hasselt N.. Environmental factors in drinking venues and alcohol-related harm: the evidence base for European intervention. *Addiction*. 2011;106(1):37–46.

Jones L, Hughes K, Atkinson AM, Bellis MA. Reducing harm in drinking environments: a systematic review of effective approaches. *Health Place*. 2011;17(2):508-18.

Kelley-Baker T, Mumford EA, Vishnuvajjala R, Voas RB, Romano E, Johnson M. A Night in Tijuana: Female Victimization in a High-Risk Environment. *J Alcohol Drug Educ*. 2008;52(3):46-71.

Kuo M, Wechsler H, Greenberg P, Lee H. The mato college students: the role of low prices and special promotions. *Am J Prev Med*. 2003;25(3):204-11.

Lange JE, Voas RB. Defining binge drinking quantities through resulting blood alcohol concentrations. *Psychol* Addict Behav. 2001;15(4):310-6.

Leonard KE, Quigley BM, Collins RL. Drinking, personality, and bar environmental characteristics as predictors of involvement in barroom aggression. *Addict Behav*. 2003; 28(9)1681-700.

Livingston M, Chikritzhs T, Room R. Changing the density of alcohol outlets to reduce alcohol-related problems. *Drug Alcohol Ver*. 2007;26(5):557-66.

Laranjeira R, Pinsky I, Sanches M, Zalesky M, Caetano R. Alcohol use patterns among Brazilian adults. *Rev Bras Psiquiatr*. 2010.

Laranjeira R, Pinsky I, Zaleski M, Raul CR. *I Levantamento Nacional sobre os padrões de consumo de álcool na população brasileira.* Brasília:Secretaria Nacional Antidrogas. 76p. 2007.

Lim SS, Vos T, Flaxman AD, Danaei G, Shibuya K, Adair-Rohani H, Amann M, Anderson HR, et al. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet*. 2012;380:2224−60.

Measham F. The decline of ecstasy, the rise of “binge” drinking and the persistence of pleasure. *Probation Journals*. 2004; 57:309-26.

Macintyre S, Homel R. Danger on the dancefloor: a study of interior design, crowding and aggression in nightclubs. In: Homel R., editor. *Policing for Prevention: Reducing Crime, Public Intoxication and Injury*.vol. 7. Monsey: Criminal Justice Press; 1997, p. 91–113.

McKetin R, Chalmers J, Sunderland M, Bright DA. Recreational drug use and binge drinking: stimulant but not cannabis intoxication is associated with excessive alcohol consumption. *Drug Alcohol Rev*.2014;33:436-445.

Noto AR, Botéquio MC, Lucas Dos Santos E, Bedendo A, Pinsky I. The Hidden Role of the Alcohol Industry in Youth Drinking in Brazil. *J Stud Alcohol Drugs*. 2015;76(6):981.

Parker H. Pathology or modernity? Rethinking risk Factor analyses of young drug users. *Addiction Research and Theory*. 2003;(11):141-44.

Parks KA. An event-based analysis of aggression women experience in bars. *Psychol Addict Behav*. 2000;14(2):102-10.

Pechansky F, De Boni R, Diemen LV, Bumaguin D, Pinsky I, Zaleski M, Caetano R, Laranjeira R. Highly reported prevalence of drinking and driving in Brazil: data from the first representative household study. *Rev Bras Psiquiatr.* 2009;31(2):125-30.

Pinsky E, Jundi SA. Alcohol advertising and alcohol consumption among youngsters: review of the international literature. *Rev Bras Psiquiatr*. 2008;30(4):362-74.

Quek LH, Chan GC, White A, Connor JP, Baker PJ, Saunders JB, Kelly AB. Concurrent and simultaneous polydrug use: latent class analysis of an Australian nationally representative sample of young adults. *Front Public Health.* 2013;1(61).

Roballey T, McGreevy C, Rongo R, Schwantes M, Steger P, Winiger M, Gardner E. The effect of music on eating behaviours. *Bull Psychon Soc*. 1985;23:221-222.

Rossow I. Alcohol-related violence: the impact of drinking pattern and drinking context. *Addiction*. 1996;91(11):1651-61.

Sanchez ZM, Martins SS, Opaleye ES, Moura YG, Locatelli DP, Noto AR. Social factors associated to binge drinking: a cross-sectional survey among Brazilian students in private high schools. *BMC Public Health*. 2011;11:201.

Sanchez ZM, Ribeiro KJ, Wagner GA. Binge Drinking Associations with Patrons' Risk Behaviors and Alcohol Effects after Leaving a Nightclub: Sex Differences in the "Balada com Ciência" Portal Survey Study in Brazil. *PLoS One.* 2015;19:10(8).

Schnitzer S, Bellis MA, Anderson Z, Hughes K, Calafat A, Juan M, Kokkevi A. Nightlife violence: a gender-specific view on risk factors for violence in nightlife settings: a cross-sectional study in nine European countries. *J Interpers Violence.* 2010; 25(6):1094-112.

Silva-Filho A, Masur J. A modulação dos efeitos do álcool por fatores individuais, situacionais e ambientais. *Ciência e Cultura*.1985;38(5):749-759.

Smith GW, Farrell M, Bunting BP, Houston JE, Shevlin M. Patterns of polydrug use in Great Britain: findings from a national household population survey*. Drug Alcohol Depend*. 2011;113:222-228.

Testa M, Parks KA. The role of women's alcohol consumption in sexual victimisation. *Aggression and Violent Behavior*.2006;1:217-34.

Tutenges S. Safety problems among heavy-drinking youth at a Bulgarian nightlife resort. *Int J Drug Policy*. 2009;20(5):444-6.

Tutenges S, Hesse M. Patterns of binge drinking at an international nightlife resort. *Alcohol Alcohol*. 2008;43(5):595-9.

Thombs L, O'Ma R, Dodd, VJ, Hou W, Merves ML, Weiler RM, Pokorny SB, Goldberg BA, Reingle J, Werch CC. A Field study of Bars-Sponsered drink special and their association with patrons intoxication. *J Stud Alcohol Drugs.* 2009;70:206-14.

Wechsler H, Nelson TF. Binge drinking and the American college student: what's five drinks?. *Psychol Addict Behav.* 2001;15(4):287-91.

Wells S, Graham K. Aggression involving alcohol: relationship to drinking patterns and social context. *Addiction*. 2003;98(1):33-42.

Wells S, Graham K, Speechley M, Koval JJ. Drinking patterns, drinking contexts and alcohol-related aggression among late adolescent and young adult drinkers. *Addiction.* 2005;100(7):933-44.

World Health Organization. *Global consultation on violence and health*. Violence: a public health priority Geneva. WHO; 1996.

World Health Organization. *Global status report on alcohol and health*.WHO; 2014.

World Health Organization. *Interpersonal violence and alcohol*. Liverpool, UK: John Moores University, Centre for Public Health;WHO; 2006.

World Health Organization. *Responding to intimate partner violence and sexual violence against women*.Geneve;WHO; 2013.

Winstock AR, Griffits P, Stewart D. Drugs and the dance music scene: a survey of current drug use patterns among a sample of dance music enthusiasts in the UK. *Drug and Alcohol Depend*. 2001;64:9-17.

Zakrajsek JS, Shope JT. Longitudinal examination of underage drinking and subsequent drinking and risky driving. *J Safety Res .*2006;37(5):443-51.

Zeichner A , Phl RO. Effects of Alcohol and instigator intent on human aggression. *Journal of Studies on Alcohol*. 1980;41(3):265-276.

ANEXOS

ANEXO 1

Roteiro para entrevista semiestruturada com funcionários das baladas

1) Dados Gerais

1.1) Qual sua idade?

1.2) Qual o seu grau de escolaridade? (universidade perguntar a formação)

1.3) Há quanto tempo você trabalha em baladas? (deixar claro que não é para mencionar os nomes das baladas

1.4) Você trabalha ou já trabalhou em outras baladas? (deixar claro que não é para mencionar os nomes das baladas)

1.5) Qual a sua função na balada? E nas demais (quando for o caso)

1.6) Você tem outro trabalho? Caso sim, pergunta qual.

2) Comportamentos de Risco

2.1) De acordo com sua experiência ocorreram mudanças de comportamento dos frequentadores de baladas ao longo dos anos com relação ao consumo de álcool e outras drogas, comportamento sexual e agressividade/violência? Alguma outra mudança?

2.2) Na sua opinião existem diferentes comportamentos de risco entre os frequentadores de acordo com o perfil da balada? Caso sim, quais seriam?Levar em consideração estilo de música (forró, eletrônica, funk, sertaneja, rock etc), público (Gays, heteros etc.) e custos (preço da entrada, preço das bebidas etc)?

2.2.1)De acordo com os principais comportamentos de riscos é possível definirmos um perfil de frequentadores que se expões mais aos mesmos, ex: homens de classe social alta se expõe mais a “tal” comportamento de risco?

→ Perfil de risco para agressividade/violência;

→ Perfil de risco para consumo abusivo de álcool;

→ Perfil de risco para consumo de outras drogas;

→ Perfil de Risco para comportamento sexual.

2.3) Na sua opinião quais são os principais comportamentos de risco praticados antes, durante e depois das baladas pelos frequentadores?

3) Potencial de Intervenção

3.1) Como você vê a pratica do “esquenta” (beber antes de ir para balada)pré-balada? Por quem ele costuma ser praticado e por quê? Isto afeta a balda de alguma maneira?

3.2) Beber e dirigir pré e pós-balada e comum entre os frequentadores? É papel da balada intervir de alguma forma neste comportamento?

3.3) Quais são os principais motivos que desencadeiam as brigas que ocorrem nas baladas? Comente também sobre a frequência em que ocorrem e quando – se existe um período da noite mais “suscetível”.

3.4) Além do álcool quais são as drogas mais consumidas nas baladas ? Existe diferença de consumo de acordo com o “tipo” de balada?

3.5) Na sua opinião existe associação entre violência física e sexual e uso de álcool e outras drogas na balada?

3.6) Como a balada lida com as pessoas que estão usando drogas ilícitas? Como isso afeta a balada?

3.7) Quais são as principais medidas tomadas pela balada para evitar que pessoas entrem com drogas ilícitas na balada? É possível identificar um perfil de frequentador que traz/tenta trazer a droga ilícita para a balada?

3) Staff

4.1) A maior parte do staff que trabalha nas baladas é terceirizado? Caso sim, donos e gerentes de baladas tem autonomia para fornecer capacitação para os mesmos?

4.2) Na sua opinião o staff em geral está preparado para lidar com os diversos públicos e situações que ocorrem nas baladas?

4.3) A maior parte das brigas/discussões que ocorrem nas baladas são entre os próprios frequentadores ou entre frequentadores e o staff da balada? Quando o staff está envolvido quais são as principais razões que levam as brigas/discussões com os frequentadores?

4.4) Na sua opinião é comum o staff está diretamente envolvido em outras situações como assédio e uso de outras drogas?

5) Fatores ambientais:

5.1) Quais são as principais meios utilizados pelas baladas para incentivar o uso de bebidas alcoólicas? (caso não comente sobre fatores ambientais como temperatura, som etc. perguntar)

ANEXO 2

Roteiro de Grupo Focal com frequentadores de baladas

Rodada geral: perguntar individualmente a idade e quantas vezes foi nas baladas nos últimos 12 meses

1) O que é diversão para vocês? (PERGUNTA "ESQUENTA")?

1.1 ⇒ O que é diversão para vocês?

1.1 ⇒ Para onde vocês vão quando querem se divertir? (caso ninguém mencione as baladas, perguntar onde elas se "encaixam")

1.2 ⇒ O que não pode "faltar" na "diversão" (caso ninguém fale de álcool e outras drogas perguntar).

2) Como vocês classificariam os principais estilos de baladas existentes na cidade de São Paulo?

2.1 ⇒ Quais vocês frequentam? Por que? Quais vocês não frequentam? Por que?

2.2 ⇒ Vocês acham que existem fatores ambientais (DAR EXEMPLOS) destes estabelecimentos que estimulam o uso abusivo de álcool? Quais? Por que?

2.3 ⇒ Vocês acham que existem fatores ambientais destes estabelecimentos que estimulam o consumo de outras drogas? Quais? Por que?

3) Quais os fatores ambientais (DAR EXEMPLOS) que estimulam o comportamento sexual de risco e a violência? Quais? Por que?

3.1 ⇒ O que é considerado violência para vocês?

3.2 ⇒ O que é considerado sexualidade de risco para vocês?

3.2 ⇒ Estas duas questões estão sempre ligadas ao consumo de álcool e outras drogas?

4) O que vocês pensam sobre intervenções nas baladas e junto a seus frequentadores que visem diminuir o uso abusivo de álcool, outras drogas, comportamento sexual de risco e violência?

3.1 ⇒ O que vocês sugeririam para minimizar estes comportamentos de riscos?

3.2 ⇒Vocês acham que os donos de balada bem como os frequentadores estão "abertos" a estas possibilidades?

5) O uso de álcool e outras drogas na balada por homens e mulheres tem a mesma "finalidade", as razões para o uso são as mesmas?

5.2 ⇒ Vocês gostariam de falar mais alguma coisa?

ANEXO 3

Questionário de entrada (aceite e recusa) – registrado em tablete Samsung Galaxy

Parte A - Questionário de ACEITE a ser aplicado na ENTRADA da balada:

Entrevistador:
Número da balada:
Código do entrevistado:
Email:
Celular:

1) Sexo:
   a) Masculino
   b) Feminino

2) Idade:
3) Peso:
4) Altura:

5) Você trabalha?
   a) Trabalho registrado
   b) Trabalho sem registro (sem carteira assinada)
   c) Desempregado e procurando emprego
   d) Desempregado e não procurando emprego
   e) Estudando apenas
   f) Aposentado

6) Com quem mora?
   a) Família (pais/irmãos)
   b) Marido/mulher/namorado (a)
   c) Amigos
   d) Sozinho
   e) República
   f) Outra

7) Estado civil:
   a) Solteiro com namorada
   b) Solteiro sem namorada
   c) Casado/união estável
   d) Separado/divorciado
   e) Viúvo

8) Qual a sua etnia?
   a) Branco
   b) Negro
   c) Pardo/mulato
   d) Asiático
   e) Indígena

9) Qual o principal motivo que o levou a escolher esta balada?

a) Não foi decisão minha
b) Tipo de música
c) Preço
d) Ambiente
e) Staff/ empregados/ funcionários
f) Características dos frequentadores
g) Localização
h) Outros

10) Qual a sua religião?
a) Não tem religião
b) Católico
c) Evangélico/ protestante
d) Espírita
e) Outras

11) Se tem religião, é praticante?
a) Sim
b) Não

12) Qual sua escolaridade?
a) Nunca estudou
b) Ensino fundamental incompleto
c) Ensino fundamental completo
d) Ensino médio completo
e) Universitário completo
f) Pós-graduação

13) Está estudando no momento?
a) Sim
b) Não

14) Nos últimos 12 meses, você tomou 5 doses (para homens e 4 doses para mulheres) ou mais de bebida alcoólica num período de cerca de 2 horas? – ***mostrar cartão ilustrativo de doses***
a) Não
b) Sim

15) Nos últimos 30 dias, você tomou 5 doses (para homens e 4 para mulheres) ou mais de bebida alcoólica num período de cerca de 2 horas? - ***mostrar cartão ilustrativo de doses***
a) Não
b) Sim

Se sim, em quantos dias do mês isto correu? ☐

Se sim, onde isso ocorreu principalmente:
a) Balada, bar ou casa noturna.
b) Casa (de amigo ou sua)
c) Restaurante
d) Outros: ☐

16) Nos últimos 30 dias, quantas vezes você freqüentou bares/baladas? ☐

17) Destas vezes, quantas vezes você praticou esquenta pré-balada? [ ]

18) Você ingeriu qualquer tipo de bebida alcoólica ANTES de chegar à balada?
   a) Não
   b) Sim

SE NÃO FEZ ESQUENTA, PULAR PARA QUESTÃO 27

19) Se sim, a que horas você começou a beber hoje? [ ]

20) Você poderia me dizer qual o tipo de bebida que você ingeriu antes de chegar à balada? (+ de 1)
   a) Cerveja
   b) Vinho
   c) Vodka
   d) Uísque
   e) Cachaça
   f) Ice
   g) Batidas ou misturas
   h) Tequila
   i) Energético
   j) Bebidas não alcoólicas (suco, água, refrigerante, isotônico)
   k) Outras

21) Quantas doses de álcool você ingeriu neste esquenta? (mostrar novamente cartão ilustrativo de doses)
   a) Cerveja: [ ]
   b) Ice: [ ]
   c) Vinho: [ ]
   d) Destilados: [ ]
   e) Energéticos: [ ]

22) Quanto embriagado você se sente?
   a) Nada embriagado
   b) Pouco embriagado
   c) Razoavelmente embriagado
   d) Muito embriagado
   e) Muitíssimo embriagado

23) Você consumiu algum alimento durante o esquenta?
   a) Não consumi alimentos
   b) Sim, petiscos
   c) Sim, uma refeição

24) Qual o PRINCIPAL motivo que o leva a praticar o esquenta?
   a) Economia de dinheiro
   b) Chegar na balada já desinibido
   c) Outro motivo principal: [ ]

25) Quanto você gastou com álcool no esquenta? [ ]

26) Onde você fez o esquenta?
   a) Na rua
   b) Casa (de amigo ou sua)

c) Bar
d) Restaurante
e) Posto de gasolina
f) Outros: [ ]

27) Em quantas das vezes que você vem para a balada você pretende ficar bêbado?
a) Nunca
b) Poucas vezes
c) Às vezes
d) Na maioria das vezes
e) Sempre

28) Hoje, que meio de condução você utilizou para vir à balada?
a) Carona de amigo ou conhecido
b) Dirigindo carro
c) Dirigindo moto
d) Taxi
e) Transporte público (ônibus/ metrô)
f) Outros (Quais?) [ ]

29) Hoje, que tipo de condução utilizará na volta para casa?
a) Carona de amigo ou conhecido
b) Dirigindo carro
c) Dirigindo moto
d) Taxi
e) Transporte público (ônibus/ metrô)
f) Outros (Quais?) [ ]

30) Qual a escolaridade do chefe da sua família:
a) Nunca estudou
b) Ensino fundamental I incompleto
c) Ensino fundamental I completo ou II incompleto
d) Fundamental II completo ou médio incompleto
e) Ensino médio completo ou superior incompleto
f) Ensino técnico completo (equivalente ao ensino médio)
g) Universitário completo

Na sua casa tem:	**Quantos?**				
	0	**1**	**2**	**3**	**4 +**
TV (em funcionamento ou em conserto)					
Videocassete ou DVD(em funcionamento ou em conserto)					
Rádio (em funcionamento ou em conserto, não vale rádio do automóvel)					
Banheiros (incluindo de empregada e lavabo com vaso sanitário)					
Carros (uso de " passeio")					
Empregados domésticos (mensalista e que trabalhe pelo menos de 2ª a 6ª)					
Geladeira (em funcionamento ou em conserto)					
Freezer (aparelho independente ou parte de geladeira duplex)					
Máquina de lavar (em funcionamento ou em conserto)					

31) **<u>No último ano</u>**, algum destes eventos ocorreu **<u>durante ou logo após a balada</u>** com você?

	Não	Sim, 1 ou + vezes	Sim, 3 ou + vezes
Dirigiu um carro ou moto sob efeito do álcool			
Se sim, houve algum acidente (batidas, atropelamento, capotar)			
Pegou carona com um motorista que havia bebido			
Se sim, houve algum acidente (batidas, atropelamento, capotar)			
Teve outros tipos de acidentes em decorrência da embriaguês			
Envolveu-se em brigas			
Alguma vez não se lembrou do que ocorreu na noite da balada			
Desmaiou em decorrência do álcool			
Teve um coma alcoólico			
Alguma vez já ficou alcoolizado e não se lembra se o sexo foi consensual			
Manteve relações sexuais com alguém sob efeito de álcool			
Não utilizou preservativo numa relação sexual sob efeito de álcool			
Teve uma relação sexual da qual se arrependeu sob efeito do álcool			

32) Da lista abaixo, quais destas drogas você já utilizou (esta questão será respondida diretamente pelo entrevistado no tablet):

	Nunca	Mais de 1 ano	Últimos 12 meses	Últimos 30 dias	Hoje
Maconha ou haxixe					
Cocaína pó					
Ecstasy					
Tabaco					
Crack					
Inalantes (lança, loló, cola, etc)					
Ketamina (ex: special K)					
Metanfetamina (ex: cristal, ice)					
Outras anfetaminas (ex: femproporex, mazindol)					
Calmantes “tarja preta” (ex: diazepam, valium, rivotril)					
Alucinógenos (cogumelos, LSD, lírio, peyote, etc)					

33) Qual a sua renda média mensal (esta questão será respondida diretamente pelo entrevistado no tablet):
   a) Até um salário mínimo (R$ 622,00)
   b) De R$ 623,00 a R$ 1.244,00
   c) De R$ 1.245,00 até R$ 2.488,00
   d) De R$ 2.489,00 até R$ 3.732,00
   e) Mais de R$ 3.732,00
   f) Não quer informar

***Estas questões serão preenchidas pelo aplicador:**

- **Medida da dosagem alcoólica via etilômetro -** ☐

O respondente estava:

- Com a fala pastosa? Sim ☐ Não ☐
- Com dificuldade para andar ou movimentos lentificados? Sim ☐ Não ☐
- Com os olhos petrificados? Sim ☐ Não ☐
- Exalava odor alcoólico? Sim ☐ Não ☐

<u>Parte B</u>: Para indivíduos que recusaram participar na ENTRADA da balada:

Entrevistador:
Número da balada:

1) Sexo:
   a) Homem
   b) Mulher

2) Idade aproximada:
   a) Menor que 18 anos
   b) Entre 18 – 25 anos
   c) Entre 26 – 35 anos

O recusante estava:

- Com a fala pastosa? Sim ☐ Não ☐
- Com dificuldade para andar ou movimentos lentificados? Sim ☐ Não ☐
- Com os olhos petrificados? Sim ☐ Não ☐
- Exalava odor alcoólico? Sim ☐ Não ☐

ANEXO 4

Questionário de saída para frequentadores de baladas (registrado em tablete Samsung Galaxy)

Parte A: Questionário de ACEITE a ser aplicado na SAÍDA da balada:

Entrevistador:
Número da balada:
Código do entrevistado:

1) Quais das bebidas abaixo, você bebeu dentro da balada?
   a) Cerveja
   b) Vinho
   c) Vodka
   d) Uísque
   e) Cachaça/Pinga
   f) Ice
   g) Batidas
   h) Bebidas não alcoólicas (suco, água, refrigerante, isotônico)
   i) Energético
   j) Outras: [ ]

2) Quantas doses das bebidas abaixo, você bebeu dentro da balada? (explicar doses com cartão ilustrativo de doses)
   a) Cerveja: [ ]
   b) Ice: [ ]
   c) Vinho: [ ]
   d) Destilados: [ ]
   e) Energéticos: [ ]

3) Quanto foi seu gasto total na balada? R$ [ ]

4) Qual foi seu gasto com bebidas alcoólicas na balada? R$ [ ]

5) Você comeu algo enquanto consumiu bebida alcoólica?
   a) Sim
   b) Não

6) Quanto embriagado você se sente?
   a) Nada embriagado
   b) Pouco embriagado
   c) Razoavelmente embriagado
   d) Muito embriagado
   e) Muitíssimo embriagado

7) Você consumiu alguma destas drogas na balada?
   a) Maconha
   b) Cocaína em pó
   c) Ecstasy

d) Tabaco
e) Crack
f) Inalantes
g) Ketamina
h) Anfetaminas
i) Alucinógenos

8) Para onde você pretende ir agora?
   a) Casa ou casa de amigos
   b) Local para comer
   c) Outro bar/balada
   d) Motel/hotel
   e) Não decidiu ainda

9) Pretende beber mais nesta noite?
   a) Sim
   b) Não

10) Você pretende manter relação sexual hoje?
   a) Sim
   b) Não

11) Se você mantiver relações, pretende usar preservativo?
   a) Sim
   b) Não

12) Você pretende dirigir agora?
   a) Sim
   b) Não

Na balada que você estava...

	Sim	**Não**
Você viu alguma briga com agressão física?		
Você viu se houve uso de drogas ilícitas (cocaína, ecstasy, etc)?		
Você viu se houve consumo de cigarros?		
Você quebrou intencionalmente objetos do estabelecimento, como copos, mesas, cadeiras, lâmpadas?		
Você se envolveu em alguma briga (agressão física)?		
Se sim, você iniciou a briga?		
Você empurrou alguém de forma bruta?		
Você bateu ou machucou alguém de alguma outra forma?		
Você beijou ou tocou alguém de maneira sexual sem permissão do outro?		
Você tentou manter relações sexuais contra a vontade do outro?		

Na balada que você estava...

	Sim		**Não**
	Por alguém conhecido	**Por alguém desconhecido**	
Alguém te incomodou (xingou, gritou com você, etc)?			
Alguém bateu em você ou te machucou de alguma outra forma?			
Alguém te beijou ou tocou de maneira sexual sem sua permissão?			
Alguém tentou manter relações sexuais com você contra sua vontade?			
Se sim, você manteve relações sexuais contra sua vontade?			

Medida da dosagem alcoólica via etilômetro - [ ]

O respondente estava:

- Com a fala pastosa? Sim ☐ Não ☐
- Com dificuldade para andar ou movimentos lentificados? Sim ☐ Não ☐
- Com os olhos petrificados? Sim ☐ Não ☐
- Exalava odor alcoólico? Sim ☐ Não ☐

<u>Parte B</u> – Para indivíduos que se recusaram a participar na SAÍDA da balada:

Entrevistador:
Número da balada:
Código do entrevistado:

1) Motivo de recusa na saída:
   a) Não está se sentindo bem
   b) Está com pressa
   c) Outros

O respondente estava:

- Com a fala pastosa? Sim ☐ Não ☐
- Com dificuldade para andar ou movimentos lentificados? Sim ☐ Não ☐
- Com os olhos petrificados? Sim ☐ Não ☐
- Exalava odor alcoólico? Sim ☐ Não ☐

ANEXO5

Roteiro de observação das baladas

Nome do observador:

Código da balada:

Dia da semana:

Data:

Horário de entrada:

Horário de saída:

Parte I

A balada é open bar: ( ) Sim ( ) Não

Caso positivo, foi open bar o tempo todo?( ) Sim ( ) Não

Selecione as bebidas que entraram no open bar: ( ) Cerveja ( ) Vinho

( ) Bacardi Big Apple ( ) Bebidas Mistas/Batidas ( ) Whisky ( )Shots

( ) Vodka ( ) Outros

PARTEI I: Entrada da balada (Características situacionais da balada)

Quantos seguranças haviam na porta?_____

Tipo de Segurança

( ) Policial Militar

( ) Segurança particular

O segurança da porta monitorava o número máximo de pessoas que entravam na balada? ( ) Sim ( ) Não

Havia sinais de que os seguranças da porta haviam consumido/estavam consumindo álcool? ( ) Sim ( ) Não

Alguém que parecia intoxicado na fila entrou na balada? ( ) Sim ( ) Não

Alguém que parecia menor de idade entrou na balada? ( )Sim ( ) Não

Alguém foi proibido de entrar por alguma razão? ( ) Sim ( ) Não

Se sim, descreva a razão:
Quantas vezes foi verificada a carteira de identidade na porta?

( ) Solicitada para todos

( ) Solicitada a apenas algumas pessoas que estavam entrando

( ) Solicitada apenas às pessoas que pareciam menores de idade

( ) ID não foi verificada

Formou fila para entrar na balada? ( ) Sim ( ) Não

Quanto tempo em média as pessoas demoram para entrar na balada? _____

Quantas pessoas que esperavam para entrar consumiam álcool na fila?_____

De onde vinha este álcool? (perguntar onde comprou se preciso)

( ) Bar próximo

( ) Carrinho de rua

( ) Vendedor ambulante sem ponto de venda

( ) Própria balada

( ) Outros

Nível de intoxicação das pessoas na fila (assinale o que representar <u>A MAIORIA</u> DAS PESSOAS na fila):

( ) Sem sinais de intoxicação

( ) Sinais leves de intoxicação

( ) Sinais moderados de intoxicação

( ) Embriagadas com sinais claros de intoxicação

Houve quaisquer condições meteorológicas desagradáveis que afetaram a fila?

Não ( ) Chuva ( ) Garoa ( ) Excesso de vento ( ) Frio ( )

Havia valet na porta de entrada da balada?

( ) Não ( ) Sim, qual o preço R$_____

PARTE II: Dentro da Balada

Os frequentadores são todos revistados? ( ) Sim ( ) Não

Havia aglomeração de pessoas na entrada? ( ) Sim ( ) Não

Qual valor da consumação mínima?

Para homens_____

Para mulheres_____

Qual o valor da entrada?

Para homens_____

Para mulheres_____

Organização do espaço na balada:

Número de pistas de dança:

Número de bares:_____

Número de sofás, mesas/ cadeiras ou bancos (para sentar):_____

Número de vasos sanitários\mictórios:_____

Presença de escadas ou degraus: Não ( ) Sim ( )

Presença de área exclusiva para fumantes: Não ( ) Sim ( )

Presença de bebedouros: Não ( ) Sim ( )

Se sim: os bebedouros estavam funcionando? Não ( ) Sim ( )

Se sim: a água do bebedouro estava agradável? Não ( ) Sim ( )

Na pista de dança:

Medida de temperatura:_____

Medida de ruído via decibelímetro: _____

Medida de umidade:_____

No bar:

Medida de temperatura:_____

Medida de ruído via decibelímetro:_____
Medida de umidade:_____

No lounge ou mesas:

Medida de temperatura: _____

Medida de ruído via decibelímetro:_____

Medida de umidade:_____

Sobre a balada em geral:

Limpeza da balada (copos no chão, líquidos derramados, etc):

( ) Muito limpa

( ) Mantido(s) limpa(s) constantemente

( ) Moderadamente limpa(s) (alguns lugares não atendidos

( ) Chão pegajoso, cestos de lixo cheios

( ) Assentos ou mesas ou piso muito sujos: vomito, vidros quebrados ou bebida derramada

Sensações subjetivas de lotação:

( ) Bastante espaço

( ) Um pouco cheia, embora fácil de se deslocar

( ) Lotado,com dificuldade de se movimentar

( ) Lotado, quase impossível ou impossível de se movimentar

Locais para descanso:

( ) Quantidade suficiente de assentos caso quisesse sentar

( ) Dificuldade de encontrar assento vago caso quisesse sentar

( ) Não havia locais livres para sentar.

Havia fumantes\fumaça em local não designado para fumantes?

( ) Não visível ou detectável

( ) Fumaça minimamente aparente

( ) Perceptível névoa no ar

( ) Extremamente esfumaçado

Quanto à iluminação:

( ) Ambiente escuro

( ) Ambiente em penumbra

( ) Ambiente claro

Quanto aos efeitos luminosos:

( ) Poucos efeitos luminosos

( ) Muitos efeitos luminosos

Estimar o tempo de espera na fila para usar o banheiro: _____

Aglomeração ou congestionamento no banheiro e nas imediações?

( ) Sim ( ) Não

Limpeza de banheiros:

( ) Extremamente limpo, bem abastecido, sem odor

( ) Bastante limpo, mas não regularmente, abastecido com papel higiênico, etc.

( ) Toalhas de papel no chão, áreas com odor, levemente sujo

( ) Pisos e superfícies sujas, sem sabão ou toalhas

( ) Extremamente sujo, odor forte

Sobre as escadas e degraus:

Características das escadas e degraus:

( ) Presença de degraus (batente)

( ) Presença de escadas (curtas)

( ) Presença de escadas (longas e com apenas um lance)

( ) Presença de escadas (longas e com mais de um lance)

Limpeza das escadas e degraus:

( ) Muito(s) Limpo(s)

( ) Mantido(s) Limpo(s) constantemente

( ) Moderadamente Limpo (alguns lugares não atendidos

( ) Degraus pegajosos, escorregadios, aspecto sujo

Aglomeração ou congestionamento na área em questão: ( ) Sim ( ) Não

Descreva o tipo de música tocada (preencher todos os que se aplicam):

( ) Heavy metal/hard rock ( ) Forró ( ) Forró universitário ( ) Sertanejo

( ) Axé ( ) Country ( ) Funk ( ) Reggae ( ) Pagode ( ) Dance

( ) Eletrônica ( ) Rap/Hip-Hop ( ) Pop-Rock ( ) Samba ( ) Outros

Há TVs ou telões mostrando programas? Sim ( ) Não ( )

Se sim, descrever o que foi mostrado (preencher todos os que se aplicam):

( ) Esportes ( ) Lutas ( ) Clipes musicais ( ) Filmes ( ) desenhos

( ) Psicodélicos ( ) Outros

Há venda de alimentos além de bebidas?( ) Sim ( ) Não

Indique o percentual de pessoas que comem:_____

Preço de uma porção de batata frita:_____

Preço médio de um sanduíche:_____

Qual é a bebida mais presente nas mãos dos frequentadores?

( ) Cerveja ( ) Batidas/bebidas mistas ( ) Shots ( ) Vinho

( ) Whisky ( ) Vodka ( ) Bacardi Big Apple

( ) Outros:_____

Você viu pessoas bebendo nos banheiros? Sim ( ) Não ( )

As bebidas alcoólicas eram promovidas em uma das seguintes formas?

a) Preços com desconto – promoção: ( ) Sim Não ( )

b) Leve 2 pague 1 especiais: ( ) Sim Não ( )

c) Mais barato para doses duplas: ( ) Sim Não ( )

f) Pôsteres de propaganda de bebidas: ( ) Sim Não ( )

g) Existia esquema de refil livre para algum tipo de bebida alcoólica?

( ) Sim ( ) Não

h) Menus ou sinais indicam a venda de bebidas não alcoólicas?

( ) Sim ( ) Não

i) Bebidas não alcoólicas eram mais baratas do que a bebida alcoólica mais barata:

( ) Sim ( ) Não

Existia algum estímulo para o "motorista da vez"?

( ) Não

( ) Descontos em alimentos

( ) Descontos em bebidas não alcoólicas

( ) Brindes

( ) Outras

De que maneira as bebidas são servidas:

( ) Retiradas no bar

( ) Levadas à mesa por um garçom

( ) Ambos

Anotar os preços das bebidas abaixo?

Preço de uma lata de cerveja: _____

Preço do chopp:_____

Preço de uma dose de whisky:_____

d) Preço de uma lata de energético:_____

e) Preço de uma caipirinha de vodca:_____

f) Preço de uma garrafa de água:_____

Preço de um copo de suco:_____

g) Preço de uma lata de refrigerante:_____

A dose de uísque parece conter

1 – menos de 40 ml
2 – 40 ml
3 – mais de 40 ml

A dose de vodca parece conter?

1 – menos de 40 ml
2 – 40 ml
3 – mais de 40 ml

PARTE III: Atividades da balada e Atmosfera Geral

Você notou:

	Sim	Não
Pessoas vomitando		
Pessoas quebrando objetos da balada de propósito		
Brincadeiras com bebidas do tipo: vira-vira, escravos de jó, quem bebe mais (etc)?		
Discussões acaloradas?		

Na pista de dança:

Dança fisicamente arriscada (em geral), ou seja, que poderia machucar outros frequentador:

( ) Muito calmo, nenhum risco de colisão

( ) Dança animada, mas controlada

( ) Muito movimento com descuidos de espaço, mas esbarrar não era intencional

( ) Constantes colisões

Comportamento sexual visível (o mais alto nível envolvendo duas ou mais pessoas):

( ) Nenhum

( ) Com toques ou carícias em áreas não erógenas

( ) Com toque e carícias nos seios ou quadris

( ) Contato sexual explícito e mais intenso

Toque indesejado no corpo ou assédio (com conotação sexual) a clientes do sexo feminino e/ou funcionários:

( ) Nenhum

( ) Pouco

( ) Moderado

( ) Muito

Existe uma área na balada reservada para "pegação" forte que possibilite inclusive uma relação sexual?

( ) Sim ( ) Não

Havia disponibilidade de preservativos na balada?

( ) Sim ( ) Não

Grau de intoxicação geral de clientes no pico de ingestão alcoólica – "avaliação global" levando em consideração a proporção de pessoas em vários níveis de intoxicação. Esteja atento a sinais como vermelhidão, deficiência motora, fala arrastada ou discurso lento, diminuição do estado de alerta ou agir, transpiração excessiva, olhos vidrados ou vermelho):

( ) Sem sinais de intoxicação

( ) Sinais leves de intoxicação

( ) Alguns sinais de intoxicação

( ) Sinais moderados de intoxicação

( ) Muitas pessoas bêbadas, tropeçando

Qual é o percentual de clientes que parecem estar visivelmente embriagados de alguma forma?

( )Todos

( ) Quase todos

( ) Metade

( ) Poucos

( ) Nenhum

Classifique o clima geral de clientes do sexo masculino:

( ) Todos agradáveis/alegres

( ) Mais agradáveis que hostis

( ) Neutro

( ) Maioria eram hostis

( ) Quase todos eram hostis

Classifique o clima geral de clientes do sexo feminino:

( ) Todas agradáveis/alegres

( ) Mais agradáveis que hostis

( ) Neutro

( ) Maioria eram hostis

( ) Quase todas eram hostis

A polícia entrou na balada, enquanto você estava lá?

( ) Sim ( ) Não

a) Os seguranças do estabelecimento tiveram que atender algum episódio de agressão?

( ) Sim ( ) Não

b) Se sim, descreva:_____

_____

a) Existem quaisquer sinais de uso de drogas ilegais?

( ) Sim ( ) Não

b) Se sim, descreva:_____

_____

a) Você viu algum tráfico de drogas?

( ) Sim ( ) Não

b) Se sim, descreva:_____

_____

PARTE IV: Bar Staff

a) Número total aproximado de funcionários:_____

Seguranças: _____

Barmen:_____

Caixas:_____

Garçom:_____

Limpeza:_____

Som/iluminação:_____

Promoters:_____

Dançarinos:_____

Outros:_____

b) Proporção de funcionários do sexo masculino_____%

c) Os funcionários eram facilmente identificados? (ex: uso de uniformes)

( ) Sim ( ) Não

Quantas vezes você viu cada um dos seguintes fatos acontecer?

	Nunca	Uma vez	Mais de uma vez
Funcionário humilhado/ envergonhado ou repreendido			
Funcionário utiliza a força física para resolver um problema			
Os clientes sofreram assédio verbal ou físico de funcionário			
Funcionário intimidou clientes			
Funcionário assistiu a um conflito, mas não tomou nenhuma ação até haver agressão física			
Funcionário permitiu que as pessoas que foram fisicamente agredidas permanecessem na balada			
Funcionário permitiu que as pessoas que agrediram permanecessem na balada			
Funcionário assiste a uma agressão sem intervir imediatamente			
A equipe parecia não ter controle das situações agressivas			
Funcionário levou as pessoas para brigar do lado de fora			

Até que ponto os funcionários geralmente monitoram as áreas da balada?

( ) Não tem pessoal suficiente para monitorar

( ) Existem áreas que não são cobertas

( ) Cobertura parcial

( ) Geralmente bem coberto

( ) Cobertura completa da balada

a) Houve áreas da balada que foram mal fiscalizados por funcionários?

( ) Sim ( ) Não

<u>Barmen e garçons</u>

Estado aparente de humor dos barmen e garçons?

( ) Todos eram alegres e amigáveis

( ) A maioria era alegre e amigável

( ) Indiferente

( ) A maioria era hostil

( ) Todos eram hostis

a) Você viu algum barmen ou garçom sendo particularmente rude, ofensivo ou desagradável?

( ) Sim ( ) Não

Garçons e barmen atendiam de forma profissional os clientes:

( ) Todos completamente profissionais

( ) Certo profissionalismo

( ) Se socializavam com os clientes

( ) Mais pareciam ser amigos dos clientes

( ) Todos se socializavam de forma muito familiar (ex: dançavam juntos, riam)

Houve sinais de que garçons ou barmen estavam bebendo?

( ) Não bebiam

( ) Foram vistos bebendo, mas não tenho certeza se continha álcool era alcoólico

( ) Vistos consumindo álcool, ou tinha hálito que os comprometiam

( ) Mostrando sinais de intoxicação leve

( ) Bebiam abertamente alcoolizados

Se algum bebeu, quantos % dos barmen e garçons pareciam ter bebido álcool?

Segurança Pessoal

Havia pessoal de segurança dentro da balada?

( ) Sim ( ) Não

Se a resposta for não, vá à PARTE V.

O pessoal de segurança estava regularmente posicionado em pontos diferentes da balada?

( ) Sim ( ) Não

Estado aparente de humor dos seguranças?

( ) Todos alegres e amigáveis

( ) A maioria cortês

( ) Indiferente

( ) A maioria hostil

( ) Todos eram hostis

Alguém da equipe de segurança foi particularmente rude, ofensivo ou desagradável?

( ) Sim ( ) Não

O pessoal da segurança manteve fronteiras profissionais com os clientes:

( ) Todos completamente profissionais

( ) Certo profissionalismo

( ) Se socializavam com os clientes

( ) Mais pareciam ser amigos dos clientes

( ) Todos se socializavam de forma familiar (ex dançavam juntos, riam)

Houve sinais de seguranças estarem bebendo álcool?

( ) Não bebiam

( ) Foram vistos bebendo, mas não tenho certeza se continha álcool era alcoólico

( ) Vistos consumindo álcool, ou tinha hálito que os comprometiam

( ) Mostrando sinais de intoxicação leve

( ) Bebiam abertamente alcoolizados

Se algum bebeu, quantos % dos seguranças pareciam ter bebido álcool?____

PARTE V: Dados finais

Como as bebidas foram servidas?

( ) Copos de plástico

( ) Copos de vidro

( ) Garrafas de vidro

( ) Garrafas de plástico

( ) Latas

Você viu algum cliente ser recusado pelo barman?

( ) Sim ( ) Não

Se sim, qual foi a razão aparente?_____

Indique se você presenciou algum destes comportamentos em qualquer momento e local da balada:

Alguém tocou, pegou, ou acariciou outra pessoa, quando ela não queria ser tocada,agarrada ou acariciada?

( ) Sim ( ) Não

Alguém desafiou alguém outra pessoa, procurando briga?

( ) Sim ( ) Não

Alguém fez algo ilegal?

( ) Sim ( ) Não

Alguém fez ameaças em geral?

( ) Sim ( ) Não

Duas ou mais pessoas se envolveram em uma discussão acalorada ou grave?

( ) Sim ( ) Não

Alguém empurrou ou agarrou outra pessoa de forma agressiva?

( ) Sim ( ) Não

Alguém bateu em outra pessoa (socos, chutes, outros)?

( ) Sim ( ) Não

Alguém fez ameaças com uma arma?

( ) Sim ( ) Não

Alguém usou uma arma em alguém?

( ) Sim ( ) Não

Duas pessoas se envolveram em uma briga física?

( ) Sim ( ) Não

Três ou mais pessoas se envolveram em uma briga física?

( ) Sim ( ) Não

Alguém jogou algo com raiva em alguém?

( ) Sim ( )Não

Alguém reclamou de algum objeto furtado?

( ) Sim ( ) Não

Quantas pessoas estiveram na balada esta noite? _____

Nome do observador:
Código da balada:
Dia da semana:
Data:
Horário de entrada:
Horário de saída:

ANEXO 6

Plataforma Brasil - Ministério da Saúde

Universidade Federal de São Paulo - UNIFESP/ Hospital São Paulo

PROJETO DE PESQUISA

Título: Padrões de consumo de álcool e outras drogas em "baladas": epidemiologia, etnografia e intervenção

Pesquisador: Zila van der Meer Sanchez **Versão:** 2

Instituição: Universidade Federal de São Paulo - UNIFESP/EPM **CAAE:** 00624212.1.0000.5505

PARECER CONSUBSTANCIADO DO CEP

Número do Parecer: 21477

Data da Relatoria: 02/03/2012

Apresentação do Projeto:

Padrões de consumo de álcool e outras drogas em "baladas": epidemiologia, etnografia e intervenção

Objetivo da Pesquisa:

O presente projeto apresenta os seguintes objetivos que vão estruturar o conhecimento sobre a realidade da vida noturna e consumo de drogas na cidade de São Paulo:
1) Descrever o padrão de consumo de álcool (especialmente BD) e outras drogas e sua associação com fatores pessoais e ambientais, em baladas da cidade de São Paulo, através de auto-relato e coleta de medidas biológicas;
2) Descrever o padrão de consumo de álcool e outras drogas (maconha, cocaína, crack, ecstasy benzodiazepínicos, anfetaminas e alucinógenos) realizado previamente à entrada na balada e os fatores associados a este comportamento;
3) Determinar os fatores ambientais (tais como: tamanho do estabelecimento, volume da música, iluminação, preços, disponibilidade de alimentos, etc) dos estabelecimentos que influenciam em maiores índices de consumo de álcool e de outras drogas nas baladas;
4) Determinar a prevalência da violência nas baladas e os preditores pessoais, sociais e ambientais associados à mesma;
5) Correlacionar dosagem alcoólica calculada baseada em auto-relato e medida real feita por etilômetro;
6) Traçar perfil sócio demográfico de indivíduos que procuram avaliar seu hábito de beber via internet;
7) Testar aceitabilidade, viabilidade e eficácia de uma intervenção virtual rápida para os sujeitos que pontuam 8 ou mais no AUDIT e/ou praticaram BD no último mês.

Avaliação dos Riscos e Benefícios:

Riscos:
Não há riscos potenciais trazidos pelo estudo.
Benefícios:
Os entrevistados poderão saber qual a dosagem alcoólica decorrente das doses de álcool que consumiram na balada e poderão receber uma intervenção via web para reduzir o consumo danoso de álcool, com eficácia ja demostrada para universitários australianos e neo-zelandeses.

Comentários e Considerações sobre a Pesquisa:

O presente projeto é de extrema relevância social, está bem elaborado e descrito.

Considerações sobre os Termos de apresentação obrigatória:

O pesquisador solicitou dispensa do Termo de Consentimento Escrito, uma vez que a solicitação para assinatura de um documento poderia inviabilizar a coleta de dados proposta. Foi solicitado uma autorização para TCLE oral. Concordo com a solicitação e creio que um TCLE escrito inviabilizaria a pesquisa, que é de grande importância social.
No corpo do protocolo foram inseridos os questionários que serão aplicados aos participantes, com uma explicação sobre a necessidade de sua adequação no decorrer no projeto de pesquisa.
Foi apresentado Termo de Autorga do CNPq aprovando o estudo e concedendo financiamento .

Recomendações:

Recomenda-se que sejam suprimidos os cartões de alerta aos participantes, uma vez que estes podem constituir provas contra os sujeitos da pesquisa. Os pacientes devem, portanto, ser avisados oralmente, se o teor alcoólico de seu exame está dentro, fora ou nos limites legais.

Conclusões ou Pendências e Lista de Inadequações:

PENDÊNCIAS ESCLARECIDAS E ATENDIDAS. PROJETO APROVADO COM RECOMENDAÇÃO.

Situação do Parecer:

Aprovado

Necessita Apreciação da CONEP:

Não

Considerações Finais a critério do CEP:

O colegiado acatou o parecer do relator. Projeto aprovado.

SAO PAULO, 14 de Maio de 2012

Assinado por:
José Osmar Medina Pestana