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A qualitative analysis of GHB use among gay men: Reasons for use despite potential adverse outcomes

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Abstract

This paper examines the use of gamma-hydroxybutyrate (GHB) among a sample of gay men in New York City, who identify GHB as their most frequently used club drug. The sample was drawn from a larger longitudinal investigation of club drug using men. Thematic analysis yielded findings regarding perceived stigma for GHB use, tolerance of potential adverse side effects, and reasons for why some prefer this substance to other club drugs. Specifically, our findings suggest that GHB is viewed unfavorably in many social circles, that side effects are tolerated by frequent GHB users, and that the drug is chosen over other substances because the short duration of action, energy boost, sleep assistance, increase in libido, and limited after-effects. Examining the reasons why men use this substance will lead to the development of GHB specific prevention strategies, which accurately address the consequences of use as well as the motivations that individuals possess for using the substance.

Keywords

gamma-Hydroxybutyrate; GHB; Club drugs; Stigma; Sex; Gay men

In recent years, club drugs, which include MDMA (ecstasy), methamphetamine, powdered cocaine, ketamine, and gamma-hydroxybutyrate (GHB) (Halkitis, Green, & Mourgues, 2005; Li, Stokes, & Woeckner, 1998), have become a very popular and accepted part of gay socialization (Green, 2003; McDowell, 2000). Club drugs are widely used throughout the gay and bisexual male community and are often used in the context of nightclubs and bars (Halkitis & Parsons, 2002). While these drugs remain a popular aspect of gay social culture, GHB has been frowned upon by many club drug users because of its potentially dangerous physiological effects (Nguyen & Bersten, 2004). The social stigma that surrounds the use of this drug is likely related to its high overdose prevalence. Many GHB users themselves predict that other users will eventually over-dose at some point (Degenhardt, Darke, & Dillon, 2003). High overdose rates are demonstrated in the DAWN Report, which shows that GHB emergency room mentions in U.S. hospitals have recently peaked at 4969 mentions in 2000 (Drug Abuse Warning Network, 2004).

GHB, a central nervous system depressant, affects the body in much the same way as alcohol (Gessa et al., 2000). Users report that GHB induces a pleasant state of relaxation and tranquility (McDowell, 2000) and enhances one's libido (Nicholson & Balster, 2001). However, GHB has a steep dose-response curve (Galloway et al., 1997); small increases in dose greatly increase GHB's effect, oftentimes leading to adverse reactions such as

drowsiness, nausea, vomiting, myoclonic seizures (irregular, involuntary muscle contractions), coma of short duration, or death (Kam & Yoong, 1998). Adverse effects are most commonly reported at doses greater than 1 tsp. (2.5 g) (Chin, Kreutzer, & Dyer, 1992; Dyer, 1991) and overdoses are likely to occur because concentrations of the drug vary, and thus users are not always aware of the amount they are ingesting. In addition, GHB overdose is likely when combined with alcohol and/or other illicit substances (Galloway et al., 1997; Miotto et al., 2001).

Thus, it is important to examine why people use this drug. Although numerous studies document GHB as being used less frequently than other club drugs (Colfax et al., 2001; Mattison, Ross, Wolfson, Franklin, & HNRC Group, 2001; Winstock, Griffiths, & Stewart, 2001), there are few studies that consider the motivations for GHB use. In particular, there is no data regarding use of GHB among those who consistently use this drug. The goal of our paper is to examine behaviors and motivations for GHB use among a cohort of gay and bisexual men who frequently use this drug.

Methods

Project Boy's Using Multiple Party Substances (BUMPS), funded by the National Institute on Drug Abuse, was a longitudinal, mixed-methodologies study of 450 club-drug using gay and bisexual men in NYC. Participants were assessed via quantitative and qualitative measures in four waves of data collection over the course of a year (baseline, 4, 8, and 12 months post-baseline). The overall purpose of the study was to examine frequency of club drug use, behaviors associated with use, as well as psychological and behavioral correlates of use.

Procedure

Participants were recruited from February 2001 through October 2002 using active and passive techniques in venues frequented by gay and bisexual men. Potential participants were screened for eligibility via telephone interviews. Eligibility requirements included being 18 years of age or older, self-identifying as gay or bisexual, and self-reporting six instances of club drug use in the year prior to assessment. For the purposes of our study, club drugs were defined as GHB, ketamine, ecstasy (MDMA), methamphetamine, and powdered cocaine. Those who met eligibility requirements were scheduled for a baseline interview, when the initial assessment, consent, and confirmation of HIV status occurred.

All quantitative assessments were administered via the *Audio CASA system (ACASI)*, using a computer and voice recording so that the participant heard (through headphones) and saw (on the screen) each question and response list. After completing the quantitative portion of the assessment, trained staff members conducted semi-structured qualitative interviews covering a variety of topics related to drug use, sexual behavior and psychological states. The Institutional Review Board of New York University approved the protocol for this study.

The transcribed interviews from men who identified GHB as their most frequently used drug were selected for this analysis. The qualitative data derived from these participants were analysed using a multilevel process to determine reoccurring themes. Two authors independently identified important points discussed by the participants and a consensus was reached regarding the occurrences and classification of significant themes, and yielded an agreement of over 90%.

Sample

The sample consisted of 192 men who identified GHB use in the 4 months prior to baseline assessments (42.7% of the BUMPS sample). Of these 192, only 15 men identified GHB as their most frequently used club drug. We chose to focus on these men who were frequent GHB users to more fully understand the motivations for consistent use of this drug in the gay population. In addition, all of these 15 men, also had used each of the other four club drugs that we key to our study (i.e., cocaine, ketamine, methamphetamine, MDMA) but at less frequent rates at which they were using GHB.

This sub sample from Project BUMPS consisted of 15 gay men from the New York City Metropolitan Area. With respect to race/ethnicity, one participant identified as African American, three identified as Asian/Pacific Islander, one identified as Latino/Hispanic, and ten identify as White. This ethnic/racial distribution of GHB users paralleled the diversity of the total sample. In terms of education, five had a level less than a B.A., nine possessed a B.A., and one held a graduate degree. The participants ranged in age from 24 to 50 years old. In terms of HIV status, 12 participants tested negative at baseline and 3 tested positive. Again, the characteristics of the sub-sample reflect the sociodemographic characteristics of the overall sample.

Results

Our thematic analysis of these 15 transcripts provided information on three main domains: perceived stigma associated with GHB use, tolerance of potentially deadly outcomes associated with GHB use, and explanations for why GHB is preferred over other substances. Each of these themes is described below.

GHB stigma

A common theme involving social stigma surrounding GHB use was prevalent within this sub-sample of men. Unlike the stigma many club drug users suffer from mainstream society (Ritson, 1999), GHB users tend to be additionally stigmatized by other club drug users who have heard of or seen incidents of GHB overdose within their own social circles. In fact, a subset of participants in our own study held such beliefs about GHB prior to initially using the substance; three participants described their original negative attitudes toward GHB yet decided to try the drug anyway. One participant explained overcoming his initial fears of the drug and gaining confidence in safety as his use increased.

At first I was afraid to try G (GHB) because I saw a few of my friends passing out on it, but then I started on it with small dosage and it doesn't really do much, and then I went up in dosage to like another level and it hit me really good and I-since I have started on G, I have never passed out on G on any occasion. (Asian/Pacific Islander, age 27, HIV-negative)

I had only heard bad, bad things about G at that time . . . I kind of didn't know what to expect. (African American, age 36, HIV-negative)

One other summarized the perception of the community as follows:

. . . people think it's just suicidal or stupid to take G, but I think that it's the cleanest drug. (White, age 39, HIV-positive)

Interestingly, one participant who stigmatized GHB inadvertently used the substance because he was unaware that the brand name he believed was another substance was actually GHB:

I never would take G. I always said, “There’s no way I’ll ever do G.” But I would take *Renewtrient*, because I didn’t really think it was the same thing. I was like, “I got this legally, with my own money.” I didn’t take it from anybody, you know; I trust it. But I wouldn’t take anymore than six capfuls. So, I didn’t feel unsafe about that at all. (White, age 32, HIV-negative)

In addition, participants indicated stigma regarding their GHB use which they experienced within their own social circles. One participant described his partner’s disapproval of GHB as follows:

I think he’s just scared of it. He’s never had a bad experience but everyone’s told him ‘it’s dangerous’ and I just think he’s kind of against it. (White, age 28, HIV-negative)

Other club drugs may be perceived as less risky, even by many drug dealers, which in turn contributes to the social stigma. This lack of acceptance even by some drug dealers further suggests the stigma surrounding GHB use and is further described by the following:

I remember once in the early, early days mentioning to a dealer in New York, and he was like, “Oh my God, I don’t go near that stuff.” And here he is, a drug dealer, I mean he’s getting all judgmental on me . . . (White, age 40, HIV-negative)

Stigma towards GHB seems to be widespread even within the club drug using community, thus potentially leading to use that is “hidden,” difficult to detect, and not open to preventative or intervention approaches.

Tolerance of overdose and adverse effects

The stigma surrounding GHB use appears to be a result of the high incidence of overdose and adverse effects due to use of this drug. The men in this sub-sample of our study used GHB more frequently than the rest of the overall sample, yet many of them shared experiences of adverse effects or overdose.

The most common causes of overdose from GHB are due to its steep dose–response curve and its effects which are easily potentiated by other prescribed drugs (e.g., tranquilizers) and illicit drugs (e.g., ketamine) (Nicholson & Balster, 2001). One participant described an experience of mistakenly combining GHB with ketamine, which he believed was methamphetamine:

I actually took K when I was on G once, and it was a mistake . . . what happened was, I had a fever, like cold sweat, and um, and other than that, I could not move; I feel like I’m about to move, but I can’t move because the K keeps me down and it’s actually dangerous. (African American, age 36, HIV-negative)

Participants reported numerous adverse reactions to GHB including nausea, vomiting, headaches, and difficulty breathing. Similar adverse effects from GHB have been reported by many other authors (Degenhardt, Darke, & Dillon, 2002; Miotto et al., 2001). One participant described it as follows:

Side effects with me are more- I think from using too much-it gives me heartburn-not heartburn- it gets me bloated. You can’t burp and I have a hard time breathing. And just um it affects your digestive system- for me. (Asian/Pacific Islander age 36, HIV-negative)

And one other stated:

I haven’t had any (negative experiences), personally, but my friends that live in Palm Springs [have]. Every once in a while it makes them puke, and it like just

happens out of the blue and you know I'm with them, so it's negative in that respect because you know, its never a fun thing puking, especially with G, you don't just like puke . . . it comes shooting out of you. (White, age 40, HIV-negative)

Similar to the findings of Degenhardt et al. (2003), accidental overdose was common in this sample. Two participants reported overdose from accidentally consuming too much GHB. Even though overdose is very common with this drug, GHB users in this sub-sample were confident that overdoses would lead to unconsciousness and not death. Users sometimes refer to this GHB overdose state as "falling out" or being in a "G-hole." One participant felt that his overdose would only put him into a deep sleep:

I had taken some (GHB) and kind of like forgot about it and a friend of mine came and offered me the last of his drink, which had some in it, so I guess I took too much. At that point I was still kind of new to it and I just prayed that I woke up (*laughs*). But . . . I knew that I would just be going into a deep sleep. (African American, age 36, HIV-negative)

These expectations of safety during overdose situations may lead to further acts of carelessness, thus increasing overdose incidents. While GHB overdose is associated with unconsciousness, ironically, GHB was once marketed and sold over the counter as a sleep aid. Since GHB was once marketed to induce sleep, unconsciousness was the promoted effect. Recreational users aim to ingest smaller doses in which they will experience the dopamine high, yet remain conscious. Since overdose can be examined as a "relative" term (Jansen, 2001), these users may not consider falling unconscious as a true GHB overdose if it is expected or enacted deliberately to ensure sleep.

Even though users can develop tolerance to GHB (Itzhak & Ali, 2002), it is dissimilar to other club drugs such as MDMA where users can tolerate multiple doses within a short time period (Hansen, Maycock, & Lower, 2001; Winstock et al., 2001). GHB's steep dose-response curve makes overdose more likely than other club drugs. Even so, there are reasons why certain users prefer GHB over other club drugs.

Why GHB is preferred over other drugs

Being that such a stigma and physical danger surrounds GHB use, it is important to know what qualities the drug possesses that attract people to use it. Four participants mentioned how GHB is often considered "less of a commitment" compared to other drugs such as MDMA (Ecstasy), and allows people to dose according to the duration that they would like to feel the effects. While methamphetamine has a half-life greater than 10 h (Harris et al., 2003) and MDMA has a half-life of roughly eight hours (Mas et al., 1999), the half-life of GHB is only about a half-hour (Brenneisen et al., 2004). This short half-life allows users to feel the effects of the drug for only a short period of time. One participant described it as follows:

I kind of consider it less of a commitment. Like E [ecstasy] is like a whole 4-hour thing and you're kind of wasted the next day and kind of like in bed and G is like, you know, you maybe feel it for maybe an hour and you're not really hung over the next day and it's more just like if you don't want to be totally obliterated at work the next day. (White, age 28, HIV-negative)

Another stated:

. . . its (GHB's) effect is very predictable and you know that in a half an hour- 45 minutes- an hour, you're gonna be back to normal. (White, age 39, HIV-positive)

The after-effects of GHB were noted to be less severe than those of alcohol and ecstasy. Alcohol frequently leads to hangover (Swift & Davidson, 1998) and ecstasy depletes serotonin (Kish, Furukawa, Ang, Vorce, & Kalasinsky, 2000). In comparison, the rise in dopamine levels from GHB (Mamelak, 1989) potentially leave the user feeling more refreshed, rather than hung over. One of our study participants indicated these ideas:

G, I describe as liquid ecstasy. The sensation I received from G was the same as the first time I was doing ecstasy. [But] there's no hangover feeling, there's no depression feeling like other drugs. (White, age 38, HIV-negative)

And one other suggested:

G is fine by itself, it's really- to me it's most like alcohol without the bad side effects; you don't get messy and no hangover, so to me that's like an ideal drug. (White, age 40, HIV-negative)

Even though GHB is a central nervous system depressant similar to alcohol, four participants report using GHB to induce energy boosts. Other studies report GHB being used for energy as well (Camacho, Matthews, & Dimsdale, 2004). Although there is a lack of literature suggesting that GHB has stimulant properties, the feeling of energy may be due to its ability to stimulate the sympathetic nervous system (Hicks, Kapusta, & Varner, 2004). GHB's biphasic effect of stimulation and sedation is similar to the effect of alcohol (Papineau, Roehrs, Petrucelli, Rosenthal, & Roth, 1998). One participant stated:

With G I found you've got the feeling and energy to really like jump up and down and like you know, move a different way that you probably wouldn't be able to. You just have more stamina I think. (Asian/Pacific Islander, age 27, HIV-negative)

Participants reported that they used GHB not only for energy, but also to help themselves "come down" from stimulants such as methamphetamine, which depletes dopamine (O'Shea, Sanchez, Camarero, Green, & Colado, 2003) and has a high that can last 6–8 h.

You just take a capful . . . I use it sometimes just to sleep well, because you would sleep for six hours and then, boom you would wake up at the end of six hours and feel like a million bucks. You just feel amazing. So, it's really good for sleep. (White, age 32, HIV-negative)

One other suggested:

I've also found that coming down off ecstasy that sometimes the GHB has relaxed me so that I can go to sleep. (White, age 50, HIV-negative)

While many men in this sub-sample used GHB to induce sleep or increase energy, *all* 15 men reported that GHB increases their sexual excitation, decreases their inhibitions, and enhances their sexual promiscuity.

. . . it definitely makes you feel very sexual . . . every male looked beautiful; it's only because you're feeling very sexual. And then I remember telling myself you know, that person on a normal day I wouldn't have imagined to be attracted to, but now you know, I think he's attractive . . . (Asian/Pacific Islander, age 24, HIV-negative)

The men from this sub-sample not only spoke about increased attraction to other men on this drug, but a few also talked about increased sensation and intensity during sex. Compared to ecstasy, which has been described as a sensual, not sexual drug in past literature (Buffum & Moser, 1986), these men describe GHB as purely sexual. Although GHB is reported to have a similar high to that of ecstasy, GHB raises libido without the enhanced emotional closeness and potential penile dysfunction that comes from ecstasy (Zemishlany, Aizenberg, & Weizman, 2001).

... the orgasm is much more intense ... GHB basically raises your sexual desire and it's very similar to hunger. (Asian/Pacific Islander, age 24, HIV-negative)

It enhances whatever mood you're in, so if you're on the prowl and you're all keyed up and you're horny; it's gonna make it more intense. (White, age 35, HIV-positive) ... you could feel this like warm energy emanating up your body and you just feel sort of tingly and very sexual ... and sometimes I think it gives you a hard on ... it makes you feel a little more sexual. (White, age 39, HIV-positive)

This sub-sample of GHB users prefers this substance over other club drugs because of perceived benefits which included limited after-effects, and increased pleasure associated with sexual experiences.

Discussion

This study examined beliefs about GHB among frequent users of this substance. Our sample was drawn from a larger study of club drug use among gay men in New York City. GHB users were diverse in terms of key demographic factors as well as HIV serostatus. Our thematic analysis suggested that gay men who frequently use GHB hold preference for this substance despite the stigma associated with its use. Specifically, the men in our study explained how they experienced social stigma associated with GHB as well as negative attitudes from their peers (as well as drug dealers) about use of this substance. Our participants simultaneously expressed their preference for GHB over any other club drug. Common reasons that participants cited for this preference included their perceptions that the effects of GHB wear off quickly, that the drug does not produce after-effects such as hangover, the similarity in sensation to alcohol and ecstasy, as well as the sexual enhancement caused by the drug. Some indicated that they use GHB for energy boosting and assistance with sleep while high on stimulants. We are among the first to document the complex interplay between GHB use and social norms. In addition, our findings corroborate ideas put forward in previous research (Degenhardt et al., 2002; Miotto et al., 2001).

To date, there is a lack of literature demonstrating reasons why people use GHB, but, as we have shown, preference for this substance may be related to the relatively short half-life of the drug (Brenneisen et al., 2004), its energy inducing qualities (Camacho et al., 2004), and its association with disinhibited sexual encounters (Colfax et al., 2001; Mattison et al., 2001). Furthermore, despite the potential for overdose and death due to GHB use, the participants in our study expressed a tolerance for these potential harmful outcomes in light of the benefits encountered by using the drug.

Limitations

It is important to keep in mind that the sub sample size used in our analysis was relatively small and the findings from this sub-sample may not be generalizable to all GHB users, or to those who use the drug less frequently. In addition, our sample consisted of gay men, and motivations for use as well as perceptions may be different in this population from use as it is manifested in heterosexual emergent adults. There is a current lack of data that focuses on GHB use in the heterosexual population with exception to Degenhardt et al. (2003). Furthermore, our sample consisted of men who are experienced in the use of GHB and have a preference for this drug over other substances. Another limitation of this study is the way in which participants were selected for this sub-sample; only men who used GHB more frequently than any of the other club drugs were evaluated in this analysis.

In addition, the data we have analysed were drawn from self-report through semi-structured interviews and thus may be subject to issues of social desirability. While every attempt was made to minimize response bias, it is likely that some responses were rooted in social

desirability. In addition, each of the men did not have the same interviewer, thus interview techniques and probing methods may have yielded varying degrees of participant explanation.

Finally, it is important to note that in our analysis of club drug use, all the participants reported also using other club drugs, but not with the frequency that they were using GHB. Every man in this sub-sample was a poly-drug user and all but two men used all five club drugs that were being studied (i.e., GHB, cocaine, methamphetamine, ketamine, and MDMA), and thus we are drawing our data from a cohort of very active club drug users.

Conclusions

Findings from this analysis provide directions for the future on the psychology of GHB use, and also provide guidance for the development of psychoeducational approaches to combating this drug phenomenon. Specifically, future research studies need to focus on how social stigma is related to use of GHB among less frequent users, among those who are not gay identified, and among women. Qualitative and quantitative approaches seem particularly relevant especially among emergent adults as they enter social circles in which drug use is prevalent. Data should also seek to examine the psychosocial states which may predispose some to become frequent versus occasional GHB users.

In addition, there is a lack of non-didactic educational materials available to the public covering club drug use, especially GHB. Scare tactics are often inadequate in deterring use, especially when a person's social network includes experienced GHB users similar to the ones in this sample. Many of the participants in this sample have witnessed peers using the substance without adverse outcomes and have thus adopted the belief that GHB is a safe drug. Users need to become educated about the potentially deleterious outcome of misuse in an objective manner that will allow for informed decision-making. This use of GHB and its potential consequences require our immediate attention, especially in educating those who are in the developmental stage of adolescence and transitioning into adulthood.

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