

Leaning on syrup

The misuse
of opioid cough
syrup in Houston



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Leaning on Syrup: The Misuse of Opioid Cough Syrup in Houston

Interviews with 25 abusers of opioid cough syrup reveal distinctive pictures of the practices and patterns of usage in several Houston neighborhoods. The initial selection of neighborhoods was based on reports received from law enforcement and community agencies concerning increasing visibility and observed prevalence of recreational syrup usage. The sample was selected based on a “snowball” procedure in which one respondent would refer the investigator to others. The final result of this procedure was a sample which was predominately African-American, although limited statewide death certificate data suggest that the problem may be more prevalent among other populations in other parts of the state. In particular, Anglo females in the Dallas/Fort Worth area may be an appropriate target for a future study of this type of substance abuse.

Although these findings are anecdotal and may not be generalized to other users or neighborhoods elsewhere in the state, they provide useful ethnographic snapshots which will be of interest to service providers and others who work with poly-drug users such as those reported in this study.

There is apparently a lively street market for abusable cough syrup in Houston. News stories in recent years have featured stories of inappropriate patterns of use of cough syrup. The *Houston Chronicle* reported that Missouri City police confiscated 500 bottles of Dimetane EX/DC, a Mexican codeine cough syrup, and charged five people with possession and intent to deliver. The paper noted, “The drug—sold on the street for \$20 a bottle—recently was brought across the border from Mexico and is often used by heroin addicts as a substitute” (“Ex-convict gets,” 1988).

In 1992, the Texas State Board of Pharmacy found that more than 148 gallons of hydrocodone syrup used in many prescription cough syrups was diverted to illegal use between 1986 and 1991 (Hunt, 1992; SoRelle, 1992). Although the Board acknowledged that any diversion is a serious problem, the amount diverted was only .007 percent of the

A Texas State Board of Pharmacy investigation finds that more than 148 gallons of hydrocodone syrup was diverted to illegal use between 1986 and 1991. – Houston Chronicle, 1992.

*Sources of information
for this report:*

- *Literature search*
- *Interviews with community authorities*
- *Guided interviews with 25 adults who reported using codeine cough syrup*

nearly 1.4 billion milligrams recorded as distributed in Texas during the same time period. Because of opposition from health care practitioners regarding additional restrictions of Schedule II drugs, the state health commissioner decided not to move hydrocodone from Schedule III to Schedule II, the same category as morphine and Dilaudid (Keeton, 1992b).

This research brief describes the procurement, use, and misuse of cough syrup, usually prescription-strength with codeine or hydrocodone, for intoxication. In Houston, such cough syrup is usually called *lean*—for the side effect causing users to lose their coordination—and, simply, *syrup*. Other terms for syrup used in Houston include AC/DC, barr, down, Karo, and nods.

Data and Method

Data for this report come from several sources. First, a literature search of medical, psychological, and social science journals and print news media was conducted. Second, the author interviewed knowledgeable members of the community, including law enforcement officials and treatment providers. Third, the author conducted in-depth guided interviews with 25 adults who reported using codeine cough syrup in the 30 days before their interviews (see Appendix A).

Interviewees were identified and recruited based on referrals by other interview participants. This method generates a convenience sample instead of a random sample, and participants should not be assumed to represent any population or geographic area.

In-depth guided interviews are akin to structured conversations in which the researcher poses open-ended questions to prompt and guide a participant's extended descriptions (Marshall & Rossman, 1989, p. 82). This interviewing structure acknowledges the ethnographic principle that, except under unusual circumstances, the research participant is the instrument (Lincoln & Guba, 1985, p. 250). Nevertheless, data also must be collected systematically; the in-depth guided interview provides a balance between the two. Within this format, the investigator encourages the participant to expand on topics mentioned by the respondent that may provide additional insight into the acquisition and use of codeine cough syrup and the consumption of other substances. In

this way, these interviews can collect data that may not have been anticipated but are relevant to the project. The audiotaping of interviews allowed the investigator to reproduce the data exactly as collected (Lincoln & Guba, 1985) and, thus, analyze the research participants' actual descriptions. The investigator used an interview guide of topics formulated by the author and Texas Commission on Alcohol and Drug Abuse (TCADA) officials and received informed consent from all participants before data collection commenced.

Data were collected using a semi-structured interview guide which included questions regarding sociodemographic characteristics, drug use history, syrup procurement methods, syrup use patterns, psychoactive effects, and activities engaged in before, after, or during syrup use. Although the schedule of questions served as a prompt and guide for the interviewer, participants were encouraged to elaborate on topics that appeared to contain information relevant to the study. Field notes were written as soon as possible following each interview and consisted of the interviewer's overall impressions of the participants, their responses, and additional data (Hammersley & Atkinson, 1983). According to Anderson (1987), field notes are critical to this form of elicitation research because they allow researchers "to carefully note those critical moments when some meaning of the social action was revealed" (p. 258). Interviews were audio recorded and transcribed verbatim into text files; field notes became part of participant text files for analysis. Text files were content coded using a subjective/objective analytical strategy (Maxwell, 1996). The coding scheme was derived from the *Outline of Cultural Materials* (OCM), "a manual which presents a comprehensive subject classification system pertaining to all aspects of human behavior and related phenomena" (Murdock et al., 1985, p. xi). Although originally created by and for anthropologists, the OCM was revised in its fifth edition for research in "psychology, sociology, political science, economics, geography, and general science," and can be adapted for use on individual studies (p. xi). For example, the OCM includes only one code, 276, for "narcotics and stimulants—drugs consumed for nontherapeutic purposes" (p. 33). For this project, this one code was expanded through additional letters and numbers to describe such phenomena as "effects/actions attributed to drug use" (276A) and "codeine cough syrup" (276B7g).

Interviews were coded searching expressly for sociodemographic characteristics, drug history, procurement methods, syrup usage patterns, and psychoactive effects. Subjective analytical coding criteria were developed using the principles of grounded theory (Glaser & Strauss, 1967). Coded data were assessed for behavioral patterns that became apparent as data were analyzed. Data that best illustrate analytical patterns were excerpted for presentation in this research brief. In the excerpts that follow, the one- or two-digit codes (e.g., 5, 19) that follow data excerpts represent unique participant identifiers (see Appendix A).

Presentation of Data

What do we know about the extent of the problem?

In Houston, the misuse of codeine cough syrup was first reported as one of TCADA's substance abuse trends three years ago. In 1997, Elwood reported that African-American club-goers paid \$55-\$65 per eight-ounce bottle in Third Ward nightclubs, while the same bottle sold for \$25 on the streets. At that time, people in clubs normally mixed their syrup with soft drinks or cocktails, while polydrug users—mostly crack cocaine smokers—drank their syrup undiluted from Styrofoam or other cups when they were in public. In 1998, the same eight-ounce bottle that had sold for \$25 now costs \$60-\$80. Usage patterns appeared unchanged; however, new information emerged of individuals complaining to physicians of symptoms that would result in prescriptions of Robitussin AC (with codeine) although these individuals did not suffer such symptoms when they sought the prescriptions. According to this report, some individuals obtained syrup to generate cash or to trade for goods or services (Elwood & Moore, 1998). By 1999, codeine cough syrup prices had risen to more than \$200 per eight-ounce bottle on the street, with drug users reportedly paying \$15-\$20 per ounce for high quality syrup. According to the 1999 report, the increase in the price of syrup has accompanied increases in its use with other substances including alcohol and marijuana (Elwood, 1999). Codeine cough syrup was one of the principal substance abuse trends discussed in TCADA's June 1999 report (Maxwell, 1999, p.1).

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These user-based reports on codeine cough syrup in Houston are corroborated by reports from law enforcement. A Drug Enforcement Administration report on diversion drug trends for first quarter 1999 found that “promethazine with codeine is taken with Vicodin ES” (Di Leonardo, 1999, p. 4). According to the report and other agents, codeine cough syrup accounted for at least 25 percent of diversion investigations through the summer of 1999 (Wheeler, 1999). The following section provides answers to questions that come to mind in the face of this growing drug trend.

What’s in cough syrup?

There are two primary types of cough syrups: antitussives (cough suppressants) and expectorants. Antitussives stop the coughing action, while expectorants help thin the secretions that may be causing the health problems. Antitussive substances raise the stimulus level at the brain’s “cough center” to stop the cough reflex and they usually have psychoactive effects and include codeine, dextromethorphan, and diphenhydramine. At the turn of the century, heroin was used in cough syrup and other home remedies (Boyd, 1992). A series of articles in the now-defunct *Collier’s* magazine disclosed the fact that these nostrums included heroin—and that many middle- and upper-class women had become addicted to those products (Elwood, 1991; Musto, 1987).

Codeine, like heroin, is an opioid (methyldorphine). It has good antitussive properties and a limited analgesic effect. As codeine affects the central nervous system, it is an effective cough suppressant. Common side effects include drowsiness, dry mouth, constipation, urinary retention, itchiness, confusion, and—of course—addiction. This latter side effect accounts for its being a controlled substance, available in the United States only by a physician’s prescription, although it is available for purchase in nearby Mexico without a prescription. In most people, 10 percent of a codeine dose is transformed to morphine through demethylation in the liver (Informed drug guide, 1996, Taylor, 1988; “UF researchers,” 1997).

Brand names of cough syrup with codeine include Robitussin AC, Dectuss, Phenergan with Codeine, Phensedyl, Pherazine with Codeine,

Ingredients in cough syrups that lead to abuse:

- *Codeine or hydrocodone*
- *Dextromethorphan, often called DXM*
- *Diphenhydramine*

and others. Many insurance companies will cover this prescription drug (AIC,1999).

Hydrocodone is used as an alternative to codeine in some cough syrups. Hydrocodone is a semisynthetic narcotic analgesic (pain reliever) and a cough suppressant similar to codeine. The most common side effects are constipation, drowsiness, dry mouth, urinary retention, and light-headedness. It is related to morphine and can be addictive. Some common brand names are Tussionex, Endal HD, Codimal DH, and Hycodan.

Dextromethorphan, sometimes abbreviated as DXM, is the cough suppressant found in many over-the-counter cough medicines, cold and flu medicines, and in gel capsules. Doses of 15 milligrams or higher are recommended to ensure cough suppression (“UF researchers,” 1997). DXM is similar in chemical structure to codeine, but is believed to lack codeine’s more addictive qualities. Side effects of excessive dextromethorphan use include feelings of euphoria and enhanced awareness.

Diphenhydramine is one of the oldest antihistamines. It is known as Benadryl, or by its generic name, diphenhydramine hydrochloride. Typical adult doses range between 75 to 300 mg. per day. In syrup form, it relieves coughs (e.g., Benylin syrup) and it is also an ingredient in creams and ointments used in the treatment of skin allergies (e.g., Benadryl or Caladryl lotion). Diphenhydramine is used for treating allergies such as allergic rhinitis and hives and hypersensitivity reactions to food, drugs or insect stings (e.g., anaphylactic shock).

When taken by mouth, this drug has a strong sedative action and often causes drowsiness. This side effect occurs so frequently that it is the main ingredient in over-the-counter sleep aids including Nytol, Sleep-Eze, and Somnex.

Diphenhydramine also is used to prevent and treat vertigo and motion sickness, and to relieve nausea and vomiting in pregnancy. The antihistamine has anticholinergic properties; in other words, it prevents the transmission of acetylcholine across synapses in the autonomic nervous system. Consequently, physicians have prescribed it to treat movement disorders that are caused by Parkinson’s disease and by the use of antipsychotic drugs. Other side effects such as a dry mouth and blurred vision are due to its anticholinergic action. Large overdoses

may cause agitation, confusion, dizziness, disturbed coordination, drowsiness, headaches, insomnia, and vertigo—in short, most of the symptoms it ameliorates in smaller doses. Drowsiness is the most common adverse effect of this drug and consumers generally are warned not to consume alcohol when taking this drug (Delmar Publishers, 1999; Taylor, 1988).

In short, the antitussives used most frequently in cough syrups can have psychoactive side effects. Codeine and diphenhydramine generally induce drowsiness; high doses of dextromethorphan may generate feelings of happiness and relaxation. For people in search of these effects, cough syrup provides a legal method to achieve these feelings.

Interview Summaries

What reasons did users report for abusing opiate cough syrup?

It's legal. The harsh judicial sentences for cocaine and crack possession are well documented (e.g., Benjamin & Miller, 1991). The gentrification of downtown Houston neighborhoods and other cities has resulted in heightened police patrols and arrest charges for illegal drug possession, prostitution, and even vagrancy for individuals suspected of those activities (3, 5, 6, 9, 10, 13, 15, 19). In contrast to these and other illegal substances, procurement and possession of cough syrup is not necessarily an illegal activity. According to a 50-year-old man who started using illegal drugs in Vietnam, “You don’t have to worry about going places to go and get it, you got no trouble with the law. With crack, you get all paranoid and hyper, running all around and arousing suspicion” (3).

It's free. For syrup users with Medicaid or private health insurance, and physicians who cooperate with them, prescription codeine cough syrup costs nothing—or the price of a co-payment. This does not mean to posit that all physicians who provide prescriptions for cough syrup are complicit in drug users’ procurement plans. Although some drug users interviewed for this project said some physicians comply with the diversion process, many participants demonstrated that they simply know how to use the entire health care system to suit their aims.

Users gave several reasons for abusing codeine cough syrup:

- *The abuse of cough syrup carries far fewer legal consequences than other drugs*
- *It's free or inexpensive for those users with private insurance or Medicaid*
- *It's perceived as safer than other illegal drugs*

“Sometimes they won’t give me the codeine syrup. When that happens, I’ll go back to the doctor and say it hasn’t worked and I need something stronger and then I get it.”

A 33-year-old woman with HIV said that she complains of “a cough that keeps me up at night” when she sees her physician at a public health clinic in Northwest Houston. The physician normally prescribes codeine cough syrup and antibiotics. “I sip syrup all day, everyday,” she said, as she became visibly more anxious about being interviewed (7). When asked if she completed her course of antibiotics, she responded, “I stopped taking them because I started to feel better. Besides, I hate pills.” Another woman reported that she can call her pediatrician, tell him her three-year old daughter has a chest cold, and the physician’s office will call a prescription for codeine cough syrup into her pharmacy (11).

A male participant relied on his health coverage through the Veterans’ Administration to supply his needs: “Sometimes they won’t give me the codeine syrup. Or instead of Tylenol 4s, they’ll give me Motrin, 750 [milligram] strength. When that happens, I’ll go back to the doctor and say it hasn’t worked and I need something stronger and then I get it. If that doesn’t work, though, I’ll just go to the emergency room around shift change. They wanna get you in and out, basically, and will give you what you want” (3).

A 20-year-old man who uses cough syrup with a childhood friend explained that his friend has a standing prescription for the substance due to his respiratory problems. Apparently still covered by his parents’ health insurance coverage, the participant said, “His mother picks it up and brings it home for him. I don’t think she knows how we use it, though” (9).

It’s perceived as safe. Unlike crack and other illegal drugs, codeine cough syrup is an approved drug product and its quality is regulated by the federal government. Furthermore, it is a substance that can be used to cure some side effects of crack smoking—chest congestion and coughing. These connections to physical well-being, as well as its psychoactive properties, explain participants’ references to the “healthy” qualities of codeine cough syrup and a reliance on consistent quality—unlike illegal drugs.

The young man whose friend maintains a syrup prescription for a respiratory ailment said, “It’s clean, a pharmaceutical—so it can’t be that bad for you. And it makes you sleepy, makes everything cool” (9). A 23-year-old married man who was employed full-time explained his

preference for codeine cough syrup by saying, “It’s healthier for you than that [stuff] out there on the streets. And it’s good for a cold, too” (5).

As the previous quotation suggests, cough syrup was considered “healthy” by participants not simply because of its primary curative purpose, but also because the people interviewed also considered syrup to have less harmful qualities than some illegal drugs. Simply put, “It’s not as addictive as crack” (17). Furthermore, “You never know what they cut crack, powder (cocaine), or heroin with out there. Now, there’s something called **alacut**—I don’t know what’s in it or what it means—it looks like rock, it sizzles like it, but it blows up in your face!” For one’s enemies, he says, “Someone can cut crack with battery acid if you want somebody dead” (20).

In contrast, “With syrup, I know just what I’m getting. It’s hard to get ripped off with syrup. Even if you get some diluted syrup [through the underground economy], you’re still going to get messed up,” according to a 29-year-old polydrug-using man (10). A 46-year-old man has similar experiences. He uses Phenergan with codeine. “It doesn’t lose the potency when you cut it,” although, “Tussionex is better than all of them. It’s stronger than Phenergan with codeine; one ounce will hold you eight hours” (4). [Note: Tussionex contains hydrocodone, not codeine].

How is cough syrup used?

It’s drunk straight up. Among participants with apparently well-developed habits, the preferred method for consuming codeine cough syrup is undiluted, whether direct from the bottle or poured into another container. In the group interviewed, users 30 years and older tended to drink syrup alone, while those under 30 consumed it with one or two friends while engaging in leisure activities.

For those over 30, syrup is something to consume to escape other people and the harsh realities of life. According to the 50-year-old veteran, “It lets me sit down and be still, because I don’t want to be bothered with nobody.” Syrup is a drug best consumed in solitude because, “It gives you the nods and the scratches, and lets you get some sleep—especially if you like downers” (10). The qualities associated with the manufactured pharmaceutical facilitate this function for

There are several ways users choose to consume cough syrup:

- *Chronic users tend to drink the syrup undiluted*
- *Infrequent users tend to mix syrup in cocktails or soft drinks*
- *Some people use syrup with other drugs, particularly marijuana*

“I drink syrup when I’m upset and mad, or when I feel bitchy and want to pass out. It’s like taking a lot of downers.”

the 30-plus set: “I always say that you should never get high by yourself because it can kill you. That’s why syrup’s so nice. You know the quality is good when you get it by prescription, and it’s just peaceful and mellow, nothing extreme” (3). The 29-year-old man said, “I drink syrup when I’m upset and mad, or when I feel bitchy and want to pass out. It’s like taking a lot of downers” (10).

Syrup’s effects are compatible with the desire to escape the present moment in solitude. They facilitate “the nods” and abate the sexual drive: “Sex? It’s the last thing on your agenda. You know how crack like stimulates your sexuality? Well, with syrup, it’s the complete opposite” (13).

For some members of the older age groups, there appears to be a retrospective, nostalgic quality to codeine cough syrup use. Several respondents recalled a time during adolescence and young adulthood, when there were fewer restrictions on codeine cough syrup than the present and one could purchase the substance off the shelf in pharmacies. During this time, codeine cough syrup was called “nods and sniffles” (Jones, 1999). “We used to pool our lunch money and go to the drug store and buy a bottle,” recalled a 49-year-old woman (8). “Back in those days, you had to sign a register, but you could sign any name you wanted. We never signed our own” (8). Another older man recalls an easier way to procure the substance: “We’d put a couple of bottles in our pockets and walk out the door, or head to the back and drink it there, put the bottle back on the shelf and leave with a buzz” (17). The theft and misuse problems involved with this substance contributed to more stringent controls.

For those under 30, syrup is consumed with another person or in a group. The man whose friend has a standing prescription for codeine cough syrup said, “I go over to his house, we hang, talk, play video games—just be mellow” (9). The married man gets “together with my cousin, play some basketball, drink some syrup, conversate some, you know, just chillin’” (5). In a group, he and his friends are more likely to smoke a *candycoated fry stick* (a marijuana joint soaked in embalming fluid into which PCP has been suspended, then covered in codeine cough syrup—and then smoked) or a *candyblunt* (a store-bought cigarillo that is emptied of tobacco, replaced with marijuana, re-rolled, and coated with codeine cough syrup (for a description of making these

two substances, see Elwood, 1998). A third altered marijuana product is a *primo* (marijuana joint that includes bits of crack or cocaine powder mixed with the leaves) treated with codeine cough syrup, although the two participants who reported smoking this combination could not provide a unique name for a syrup-treated primo—leaving the investigator curious as to how common this last combination substance is.

Regardless, participants said, one should “coat the paper before rolling and it makes a good burn. You could dunk the ends instead, but it’ll flame up on you” (19). Nyquil is a recommended substitute when no codeine cough syrup is available (5). According to the same informant, “You can also make a candycoated fry stick, but it’s not as good a trip as a regular fry stick.” Candyblunts, however, have universal appeal: “white, brown, Chinese, Iranians, Africans—everybody smokes em” (5). Participants’ reports differed in regards to the quality of ready-made “Swishers” and candyblunts. For example, a resident of the Greenspoint neighborhood said, “You can’t tell what kind of weed it is or how much syrup is on [a candyblunt] until you smoke it. Those sellers use poorer quality everything” (5). A young man who hangs out in Montrose and visits his old neighborhood of Willow Bend believes that the “weed in ready-made Swishers is just as good as if you rolled it yourself. The candyblunts are just fine” (9).

Many participants reported that codeine cough syrup was the preferred drug of crack dealers in their twenties. Although reasons reported for this included prestige and assumed preference for depressants, the most frequently occurring rationale was “It’s good business. You don’t want to be using what you’re selling. Look at how many old crack sellers are down and out now” (3). Also reported were young people who sold crack solely to support their syrup habits (4, 9), although these individuals were unable to be recruited for this project.

It’s drunk in cocktails. Study participants who used syrup infrequently usually mixed syrup in alcohol cocktails or in soft drinks. This simply may occur because, “you can’t drink it straight; it tastes nasty!” (10). This opinion regarding syrup’s flavor was basically universal—“but then, you’re not drinking it for the taste” (6). Consequently, a cocktail or soda covers the bad taste for occasional users.

Some syrup users casually drink it in alcoholic beverages at dance clubs: “There’s a prestige to it, like Tommy Hilfiger” clothing (4, 10,

Many participants reported that codeine cough syrup was the preferred drug of crack dealers in their twenties.

“I know people who get their hair done, like the perm and the weave and that kind of stuff, for half a bottle of lean.”

15). One participant even reported a variant on the current “shot” craze at bars catering to 20-somethings, as patrons will drink shotglasses filled half with alcohol and half with codeine cough syrup (6). At least one man reported drinking syrup with a vodka cocktail and sometimes with other illegal drugs before a night on the town (10). Although some individuals reported this was a popular trend that may continue to grow, at least one participant described syrup and alcohol as “a mean combination, one of the worst drunks you’ll ever have,” including moodswings, blackouts, nausea, and headaches. In short, “You can get downright ignorant on it” and should avoid that combination (6).

In contrast, those who reported drinking codeine cough syrup in soft drinks did so throughout their day. According to a 26-year-old woman who has an unlicensed beauty shop in her home—and who frequently accepts bottles of syrup as payment for her labor, “I’ll just be drinking syrup all day long in my house! I have my glass full of Big Red [soda] and keep pouring in syrup or pop so the taste and the buzz are just right” (14). A woman who pays for the labor on her hair with cough syrup commented that “if the owner hears that someone is selling syrup down the street, she’ll leave her customer sitting there with permanent [wave] solution on her head and go get herself some. She’s a fiend for it” (11). Another participant, reported, “I know people who get their hair done, like the perm and the weave and that kind of stuff, for half a bottle of lean” (13).

It’s used with other drugs. As stated above, some people interviewed reported smoking marijuana treated with codeine cough syrup. Some users reported consuming the same two substances, but separately: “I drink an ounce of syrup. Then I might have myself a little beer. Not always, though. Then I’ll fire up some weed, smoke half the joint, put it out. Then I’ll sit and nod for a little while, appreciating it. And then start over” (3). Another participant, who mainly used heroin, corroborated, saying, “The high lasts longer when you smoke weed and take syrup. It’s even better if you can get a Xanax or a Tylenol 3” (4). Cocaine, apparently, “keeps the high at a good level. I enjoy it a lot better” (6, 18, 19). If you drink syrup “with Valium, you’ll pass out” (6), but with Elavil, “you’ll blackout or die” (20). These effects were confirmed subtly by another participant who said, “I love my Tylenol

3s and 4s, but I don't want to O.D. either. I take them [syrup, Tylenol 3-4s] separately" (9).

What are the effects of cough syrup?

The high itself. As stated earlier, cough syrups generally contain three types of substances: dextromethorphan, codeine (or hydrocodone), and diphenhydramine. Codeine and hydrocodone are opioids with antitussive effects and are the only syrup ingredients that require a physician's prescription. Dextromethorphan (DXM) is an antitussive similar in chemical structure to codeine; it lacks codeine's more addictive qualities, although DXM in high doses may frequently induce euphoria and relaxation. Diphenhydramine is an antihistamine that can relieve coughs in liquid form. It has strong sedative qualities—so much so that it is the main ingredient in products including Nytol and Sominex.

Given the sedative qualities of all three chemicals used more frequently in cough syrups, and users' reported predilections for codeine cough syrup, it is not surprising that users reported this effect: "The high is as close as you can come to heroin, even better than Dilaudids—and I ain't shot heroin in 14 years" (14). Codeine cough syrup "makes you drowsy. I sleep very well" (9). Another user described the effect as "mellow, lasts about five hours" (20). Similarly, a younger user said that syrup, "gives you a slow-moving feeling [that] helps you sleep." It makes him feel "mellow, easy-going . . . numb" (6). Finally, he said, "When you're coming down off a crystal or coke high, it takes the geeking away, better than weed or alcohol will" (6). Indeed, codeine cough syrup can ameliorate the paranoia associated with crack and fry use (5, 6, 12, 13, 15, 17).

Not only is syrup used to ameliorate the effects of a drug binge, but it also is used as an aid in self-treatment for drug abuse. One participant said he was treating his crack addiction by using codeine cough syrup: "It makes everything cool, man. I don't crave anything when I'm using syrup. I use heroin for that, too, but I never inject myself. I don't want to learn how either, because then I'll get addicted to that" (9, see Biernacki, 1986 for a discussion of individuals who treat themselves for drug addiction).

The side effects of cough syrup:

- *A high that makes users drowsy and relaxed*
- *Sense of mellowness*
- *Fatigue*
- *Loss of coordination*
- *Constipation and urinary retention*

“Peace of mind.” Older drug users reported they value the serenity it brings them. Perhaps the most cogent quotation that exemplifies this theme came from a 44-year-old man who did not have a history of illegal drug use:

“It takes the edge off, man. You know, I just get to chill, zone in and out. Sometimes I just want to forget that I have HIV, that I have to take all these pills, and use a condom whenever I have sex, ‘cause all that reminds me that I’m sick. Drinking syrup is the only thing that lets me do that. . . . I’ve never had a problem with any drugs. I never even thought I had a problem with drugs until I started thinking about my appointment here, and I realized that I’m nothing but a tired old syruphead who’s been hiding my habit from my doctor” (2).

As reported in earlier examples, drug users like the mellowness that codeine provides—a peaceful feeling that contrasts with the stimulus and paranoia of crack use. Older drug users frequently consume lean/syrup alone, augmenting the serenity with solitude. Young people who appreciate the “nods” associated with syrup use tend to engage in smaller group activities with their friends—although there is a contingent of users who consume syrup cocktails in night clubs.

Side effects. Despite the many positive qualities that users attributed to codeine cough syrup, its misuse has negative consequences. The most frequently mentioned negative effect—aside from syrup’s bad taste—was relaxation or fatigue that lasted longer than desired: “Man, I just stay tired” (10). Some users understood the effects and planned for them, for example, the young man who spent the day playing video games with his friend, or the older man who drank some syrup, had some beer or marijuana, took a nap, and repeated the cycle. Those who did not appreciate codeine’s lethargy simply self-medicated to escape it: “I have to jumpstart myself with uppers to get over the high” (6).

A second frequently occurring side effect was a loss of coordination similar to drunkenness, but with lethargy. Frankly put, “I get messy” (10), and “Why else do think we call it *lean*?”(15). Individuals reported the inability to stand up straight, to perform simple tasks, and even to stand.

A third side effect commonly reported was constipation and urinary retention. Some participants who reported these side effects thought little of them and did nothing to resume more regular elimina-

tion. Other participants reported treating these side effects including drinking more water and taking laxatives (3, 4, 15, 19, 20). Other infrequently reported side effects included violent outbursts (5, 6, 10), overdose-related deaths (6), and a consequence that can be said of most addictions: “It leaves you broke” (3).

How does one get cough syrup?

According to the people who participated in this study, codeine cough syrup is available by prescription from physicians and through the underground illegal drug market. As typically reported, one complains to one’s doctor of symptoms appropriate for a codeine cough syrup prescription. One presents a legitimate prescription to a pharmacy. Generally, such visits and prescriptions are covered by public and private health insurance—although some participants reported paying cash for visits to medical doctors rumored to unquestioningly provide prescriptions at patients’ requests. On the underground market, syrup is available from individuals who obtain large quantities of cough syrup for sale by typical bottle sizes or by individual doses, or from individuals with legitimate prescriptions or actual bottles of prescribed codeine cough syrup.

Codeine cough syrup is available by prescription from physicians and through the underground illegal drug market.

Using the health care system to get codeine cough syrup

As discussed previously, some participants reported that they would describe respiratory symptoms to their physicians that would frequently result in prescriptions for codeine cough syrup. They then would use the syrup to get high or to trade to others for money, goods, or services. In these cases, physician office visits, hospital emergency room visits, and prescriptions were covered by some form of health insurance; however, participants also reported cash payments for office visits to other physicians who satisfy their patients’ requests “because you’re paying your money and you deserve to get something” (4). Participants who report using this method state that they don’t want to jeopardize their health insurance coverage for when they’re truly sick. According to the same informant, “The doctors who write prescriptions for syrup and pills only take cash. They don’t take insurance and they don’t take Medicaid. There used to be a doctor who sold syrup without

“You can always find some doctor who will give [prescribe] you some syrup, and when you do, folks’ll pass the word.”

a prescription, but he was run out of town. It was even on *City Under Siege* [television program]” (4).

A second participant stated, “You can always find some doctor who will give [prescribe] you some syrup, and when you do, folks’ll pass the word. . . . The doctors compete for customers and will lower their rates” (8). At least one participant reported a monthly pattern to visit a physician to obtain prescription drugs that he then sold for cash to purchase crack cocaine:

“I know personally of a physician at... I’m not calling any names. Anyhow, I’ll go to him once a month myself and complain about my lower vertebrate (sic). I’m suffering with insomnia, and I have a wheezing in my chest. He’ll give me 40 Tylenol #4s. He’ll give me 40 Valium 10 milligrams, and give me a 16-ounce bottle of guaifenesin syrup. It’s all charged next door at his drug store. And I sold it all to one individual for \$250” (13).

Some of these supply patterns already have been broken. The Harris County Hospital District’s clinic for people with HIV/AIDS allows only a few of its physicians to prescribe narcotics, including all prescription drugs with codeine. The clinic director implemented this policy when they realized that some of their patients were diverting their codeine prescriptions by selling them to people who would drive up to the clinic, knowing they could purchase such drugs from patients. Apparently, the line of cars extended out the parking lot and around the block, eventually alerting authorities to the problem.

Buying codeine cough syrup at “syrup houses”

Most participants who reported obtaining their syrup through the underground economy made their purchases at “syrup houses,” residences where codeine cough syrup is sold—“you know, like crack houses, only they sell syrup. You just about never find both of those being sold at the same place” (15). At these sites, one usually can buy bottles of syrup and ready-made candyblunts (cigarillos in which the tobacco is replaced with marijuana and the cigar paper is treated with syrup, see above). According to one participant, a police crackdown in March 1999 closed many syrup houses (5), although other participants who purchased syrup on the street said the substance was “every-

where—just as easy to get as [crack] rocks. You just need to know who to go to” (6).

There was wide divergence in reported prices for syrup in the underground economy. Participant reports of prices for eight-ounces of codeine cough syrup ranged from \$20 to \$700, with reports between those amounts of \$50, \$140, and \$200. According to DEA reports, street prices for promethazine with codeine range between \$200-\$300 per eight-ounce bottle (Di Leonardo, 1999). Given the exorbitant prices, smaller doses are available: a capful for \$10, two ounces for \$7, four ounces for \$15, and a 12-ounce solution of wine and syrup for \$40. According to one participant, “For \$275, you can get a quarter-pound of weed and a bottle of syrup” (5).

Drug users report that the syrup available on the streets is diverted from hospitals and pharmacies and smuggled into the country from Mexico. Other users stated that syrup is stolen from local hospitals or comes to Houston from thefts in Austin and San Antonio because of Houston’s stronger market for the substance. Participants acquainted with syrup-house dealers believe that supply comes directly from Mexico: “He’s got these big jugs he fills the bottles with and the labels are all in Spanish. He’s got to be getting his stuff from there” (3).

Drug users report that the syrup available on the streets is diverted from hospitals and pharmacies and smuggled into the country from Mexico.

Trading goods and services for syrup

According to the mother who obtains syrup from her daughter’s pediatrician, “You can trade almost anything you want for syrup” (5). As stated earlier, one can trade syrup for hair styling in Third Ward—so long as you bring the supplies (5, 13). Syrup also can be traded for meat, groceries, or to borrow someone’s car (5, 13, 14, 17). Apparently, “You can even get sex for syrup if you say, ‘Let’s party’” (5).

Other diversion activities

Two other methods reported for procuring codeine cough syrup are paying individuals for their written prescriptions and paying or stealing syrup from one’s friends and family members. According to two participants, “You can pay someone for their prescription and get it filled on your own, so long as the pharmacist doesn’t ask for ID” (5, 8). These two participants also reported purchasing bottles of

“You can pay someone for their prescription and get it filled on your own, so long as the pharmacist doesn’t ask for an ID.”

Robitussin AC from people who have prescriptions and recommended stealing it from sick, elderly relatives (5, 8).

What do we know about syrup?

This descriptive qualitative study has explained the effects of cough syrup abuse and the patterns of procurement and use of a sample of 25 individuals involved in its use. From these interviews, it appears that syrup use is related to poor quality illegal drugs and relative ease of procurement without fear of arrest. Much of that procurement involves the abuse of Medicaid or other health insurance benefits, or the diversion of syrup from hospital dispensaries, pharmacies, and distributors. Although usage patterns differ among groups older and younger than age 30, all individuals interviewed reported enjoying the peaceful euphoria provided by codeine. Although many side effects are of minimal health risk, overdose deaths have occurred.

An examination of 1998 Texas death certificates finds 13 drug-related deaths that involved codeine, hydromorphone, dextromethorphan, or diphenhydramine (see Appendix B). With one exception, all decedents are over age 30; most are Anglo and female. Multiple drugs are listed as the cause of death, suggesting that most of these individuals were “chronic” substance abusers who used syrup along with other drugs of abuse. Some causes of death list multiple opiates or other depressants; these individuals may have been similar to some of the participants in this project who reported using lean/syrup because the psychoactive effects were similar to heroin. Interestingly, nine of the 13 deaths occurred within the Dallas-Fort Worth area; three deaths occurred in the Houston area. This finding suggests that syrup use is not limited to a specific sociodemographic group or to Houston.

Limitations. This report has described patterns of procurement and use of cough syrup in Houston, and the psychoactive properties associated with three substances used most commonly in cough syrup. Readers should understand three limitations of this research project as they consider the findings.

First, the small convenience sample used for this study may not reflect all trends involved in the procurement and misuse of codeine cough syrup in the metropolitan Houston area. The study sample cannot be taken to indicate patterns of abuse that may exist on a state-

wide basis. Participants were 25 African-American and Anglo men and women of ages ranging from 18 to 50. The difference in ages allowed the study to capture the differences in uses; however, few participants in the study had private health insurance. It is unknown at this point whether it would be easier or more difficult to procure codeine cough syrup prescriptions from private physicians, or whether cough syrup is abused by other sociodemographic populations.

Second, some drug-using study participants became anxious when describing their procurement activities that involved Medicaid benefits. When they became anxious, such participants attributed bad behavior to others, or forestalled discussing procurement methods altogether. Still, the investigator was able to achieve a satisfactory degree of repetition in descriptions of procurement methods from subjects who were forthcoming with information. Similarly, none of the participants who frequented syrup houses were willing to refer us to sellers, likely for fear that they'd be perceived as police or DEA informants. Investigators who pursue this area of inquiry should be aware of these sensitivities in future projects.

Third, the nature of qualitative research limits this project to describing this developing drug trend and generating hypotheses regarding cough syrup procurement and misuse. Unlike survey research, these results cannot be generalized to a larger population. In fact, the hidden nature of illegal drug use leads few studies—qualitative or quantitative—to apply their findings to populations other than the survey's sample of individuals. Nevertheless, this study demonstrates that people from several different sociodemographic groups are involved in the procurement, misuse, and underground economy of syrup in several Houston neighborhoods.

Recommendations

Community agencies, parents and others involved in efforts to prevent or treat drug abuse should fully understand the risks associated with the abuse of opioid cough syrups. Young people as well as adults who are involved in abuse of multiple drugs should be made aware that abuse of cough syrups can cause problems. Codeine and hydrocodone cough syrups are opioids and are addictive. Furthermore, mixing cough syrups with other substances can produce toxic drug interactions which

can be harmful and even fatal (see Appendix B). Substance abuse and health care professionals should include cough syrups in their list of substances to be alert for with regard to their availability and usage patterns.

Appendix A. Characteristics of Persons Interviewed

Code	Race	Sex	Age
1	African American	Male	46
2	African American	Male	44
3	African American	Male	50
4	African American	Male	46
5	African American	Male	23
6	Anglo	Male	28
7	African American	Female	33
8	African American	Female	49
9	Anglo	Male	20
10	Anglo	Male	29
11	African American	Female	28
12	African American	Male	35
13	African American	Male	40
14	African American	Male	26
15	African American	Female	31
16	Anglo	Male	19
17	African American	Female	42
18	African American	Female	38
19	African American	Male	27
20	African American	Male	49
21	Anglo	Male	49
22	Anglo	Female	45
23	Anglo	Female	33
24	African American	Female	30
25	Anglo	Male	19

Appendix B. Deaths in 1998 with Mention of Diphenhydramine or Dextromethorphan

Sex	Age	Race	County of Residence	County of Death	Cause of Death
F	17	W	Denton	Dallas	Dextromethorphan/Levomethorphan, Diazepam, Demethyl Diazepam, Benzoyllecgonine, (Antemortem Morphine, Codeine Detected)
F	44	W	Montgomery	Montgomery	Imipramine, Desipramine, Diphenhydramine
F	55	W	Tarrant	Tarrant	Butalbital, Meprobamate, Diphenhydramine
F	48	H	Travis	Travis	Diphenhydramine, Phenobarbital, Soma
F	43	W	Harris	Harris	Fluoxetine, Diphenhydramine, Propoxyphene
M	39	W	Dallas	Dallas	Diphenhydramine, Salicylate, Cocaine
F	47	W	Dallas	Dallas	Amitriptyline, Nortriptyline, Diphenhydramine, Acetaminophen, Methadone, Diazepam, Demethyl Diazepam
F	48	W	Dallas	Dallas	Promethazine, Fentanyl, Fluoxetine, Norfluoxetine, Diphenhydramine, Hydrocodone
F	47	W	Tarrant	Tarrant	Ethanol, Diphenhydramine, Guaifenesin
M	38	W	Denton	Dallas	Methamphetamine, Diphenhydramine, Diazepam
F	35	W	Dallas	Dallas	Ibuprofen, Diphenhydramine, Valproic Acid, Cocaine, Cocaethylene, Codeine, Morphine
M	45	W	Dallas	Dallas	Morphine, Cocaethylene, Cocaine, Diphenhydramine
M	44	B	Harris	Harris	Diphenhydramine, Cocaine

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