Marijuana Use in HIV-Positive and AIDS Patients: Results of an Anonymous Mail Survey

Stephen Sidney

SUMMARY. While there is a great deal of anecdotal reporting regarding the medical use of marijuana in HIV-positive patients, there have been few systematic surveys performed. The prevalence of medical use of marijuana in HIV-positive and AIDS patients was assessed by an anonymous mail survey of 1970 attendees of HIV clinics in the San Francisco, Oakland, and South Sacramento medical centers of the Kaiser Permanente Medical Care Program (KPMCP) in California. Of 442 responders (22.4% response rate), 147 (33.3%) reported current use of marijuana for medical purposes. Among current users, the most common reasons for using cannabis were: to feel better mentally/reduce stress (79%), improve appetite/gain weight (67%) and decrease nausea (66%). Patterns of use were heterogeneous, with daily use of cannabis reported by 34% of current users. Nearly half of participants reported buyers' clubs as a source for obtaining cannabis, a finding of particular interest because of recent successful government efforts in closing down these clubs in California. In combination with other reported surveys, these data suggest that the use of marijuana for medical purposes is relatively common in HIV-positive and AIDS patients. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: <getinfo@haworthpressinc.com> Website: <http://www.HaworthPress.com>*

Stephen Sidney, MD, is affiliated with Kaiser Permanente Medical Care Program, Oakland, CA.

Address correspondence to: Dr. Sidney, Division of Research, 3505 Broadway, Oakland, CA 94611 (E-mail: sxs@dor.kaiser.org).

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INTRODUCTION

The medical use of marijuana has become a highly political issue in the United States, with several states having passed initiatives approving its use for this purpose in the face of prohibition of its use for any purpose by federal law. Cannabis has specifically been advocated as a therapeutic adjunct to ameliorate the nausea and loss of appetite commonly associated with the wasting syndrome in AIDS (Grinspoon and Bakalar 1993). Media reports estimated that in 1996 up to 11,000 San Francisco Bay Area residents with HIV infection or AIDS were utilizing cannabis buyers' clubs to obtain marijuana for medical use (Abrams 1998).

While there are many anecdotal reports regarding the use of marijuana in HIV-infected individuals, there are few data available on its prevalence in this population. In order to provide information regarding this important issue, we conducted an anonymous mail survey of HIV-infected patients in 3 medical centers of the Kaiser Permanente Medical Care Program in Northern California to determine the prevalence of medical marijuana use and information regarding reasons for use, frequency of use, and sources. We report here the findings of this survey.

METHODS

The study population was composed of the attendees of HIV clinics in the San Francisco, Oakland, and South Sacramento medical centers of the Kaiser Permanente Medical Care Program, a prepaid medical care program which provides medical care to over 25% of the population of the greater San Francisco Bay area. In order to comply with the legal and administrative concerns of Kaiser Permanente, we performed an anonymous survey, i.e., no identifying information was included on the questionnaire. The initial mailing was sent to San Francisco members in January 1998. Because of a low response rate to the initial mailing of a 6-page questionnaire (about 10%), we developed an abbreviated 4-page questionnaire containing key questions from the longer questionnaire and re-mailed it in a subsequent newsletter in May, 1998, thanking those who had responded and requesting questionnaire completion from those who had not. Oakland members also were mailed the 6-page questionnaire with a flyer from the clinic in May 1998, with a later mailing of the 4-page questionnaire in July 1998. South Sacramento members were sent only the 4-page questionnaire in August 1998. A total of 1,970 members were sent questionnaires (1,200 from San Francisco, 650 from Oakland, and 120 from

South Sacramento). A postpaid return envelope was provided for the questionnaires.

The questionnaire was mostly composed of check-off responses (yes/no, or choices of categorical responses). Data from the questionnaire responses were entered and processed into a SAS data set. A section was provided at the end of the questionnaire for participants to voluntarily provide identification information and to indicate whether we could have permission to review their medical records in the next year to determine if they had experienced medical complications from AIDS, and if they were interested in being notified about other research projects in the future. The questionnaire and survey procedures were approved by the Institutional Review Board of the Kaiser Foundation Research Institute.

RESULTS

A total of 458 questionnaires were returned. Voluntary self-identification was provided on 158 questionnaires from the San Francisco and Oakland centers, of which 16 represented duplicate responses, i.e., responses to both the initial and follow-up mailing. For these 16 responders (including 10 current users of marijuana for medical purposes), the initial questionnaire was included and the follow-up questionnaire excluded. This left 442 questionnaires (22.4% response rate) for the analysis, of which 229 were from San Francisco, 166 from Oakland, and 47 from South Sacramento. AIDS diagnosis was reported by 50% of responders, with 48% of the responders HIV positive without AIDS (2% unknown). Current use of cannabis for HIV or AIDS was reported by 147 patients (33.3%; 147/442), with 276 patients (62.4%) reporting that they did not employ it (19 [4.3%] unknown). The prevalence of current cannabis use was slightly higher for AIDS patients (35.7%) than for HIV-infected patients without AIDS (30.5%). The responses to several questions regarding use in current users are shown in Table 1. The most commonly reported reason for using cannabis from the 5 specific reasons listed on the questionnaire was to feel better mentally/reduce stress (79%), followed by improve appetite/gain weight (67%) and decrease nausea (66%). One-half of the patients did not know whether their doctor approved of their use of marijuana; of the remainder, 85% (63 of 74) reported that their doctor approved of their use of marijuana. The predominant mode of ingestion of cannabis was smoking (95%). Daily use was reported by 34% of current users, with 7% reporting use of less than once per week. About one-half of users reported use of cannabis once per day (49%), with 12% reporting use more than 3 times per day. The most common sources for obtaining cannabis were buying from a friend or someone you know (59%) and purchasing from a buyers' club (48%), with

TABLE 1. Responses of Current Users of Marijuana for Medical Purposes (N = 147) to Several Questions About Use

Question	Percent
Main reason(s) for using marijuana	
Feel better mentally	79
Improve appetite/gain weight	67
Decrease nausea	66
Decrease pain/discomfort	48
Decrease symptoms of other medications	39
Does your doctor approve of your use of marijuana?	
Yes	43
No	6
Don't know	50
Missing	1
Method(s) of marijuana ingestion used (current users)	
Smoking	95
Eating	20
Capsule	3
Days of marijuana use per week	
< 1	7
1-3	33
4-6	26
7	34
missing	1
Number of times marijuana used per day	
1	49
2-3	35
> 3	12
Missing	4
Current source(s) for obtaining marijuana	
Buy from a friend or someone you know	59
Buyers' club	48
Grow my own	16
Buy from someone you don't know	9
Other	1

16% reporting growing their own. The money currently spent per month for marijuana ranged from $0 to $500, with a median monthly cost of $80. Of the 55 current cannabis users who reported ever using Marinol , nearly all (98% [54 of 55]) reported that cannabis provided better relief of their symptoms; the other reported identical relief from both marijuana and Marinol.

In order to estimate the potential effect of duplicate form completion by San Francisco and Oakland survey participants on the prevalence of current use, we applied the duplicate form completion (i.e., completion of both initial and follow-up questionnaires by the same participant) rate for self-identified survey participants and the prevalence of current marijuana users among responders who completed forms in duplicate to the "anonymous" questionnaires, i.e., questionnaires from participants who did not self-identify. Using these data, of the 253 "anonymous" questionnaires from San Francisco and Oakland, 26 would be duplicates (253 × 10.1%) including those of 16 current users (26 × 62.5%). This would result in a current use prevalence estimate of 31.5% (131/416), slightly lower that the 33.3% estimate noted earlier.

DISCUSSION

The current study is larger than any that have been published regarding medical marijuana use in HIV-positive and AIDS patients. While the interpretation of the results of this survey must be tempered by the low response rate, the 33% prevalence of medical marijuana use in HIV-positive patients is comparable to that found in the few other published surveys. Wesner (1996) reported that 36.9% of a sample of 123 patients in Honolulu with HIV-positive status or AIDS responding to a mailed questionnaire survey responded that they had used cannabis as therapy. One-quarter of 228 HIV sero-positive men in the Sydney Men and Sexual Health study reported therapeutic use of cannabis (Prestage, Kippax and Grulich 1996). Thirty-two percent (32%) of 72 patients at a clinic in Alabama reported current use of cannabis (Dansak 1997).

The data regarding frequency of use are of interest because they demonstrated a heterogeneous pattern. Daily users were in the minority, and 40% of the responders indicated use on 3 or fewer days per week. On days of use, about half the current users reported using cannabis only once per day. In a survey of 102 HIV-positive clients of buyers' clubs in San Francisco and Oakland, more frequent use was reported compared to the Kaiser Permanente survey, with 26% of patients reporting cannabis use 3 times per day compared with the 12% in the Kaiser Permanente survey reporting use of at least 3 times per days (Child, Mitchell and Abrams 1998). In the Alabama study, 17% (4 of 23) patients who were current cannabis users reported using in 6 to 10 times weekly with all others reporting less frequent use (Dansak 1997). The other

surveys noted earlier did not provide data regarding the patterns of cannabis use in HIV-infected patients.

The data regarding the sources for obtaining cannabis are of particular interest because of the high prevalence of buyers' club use. Buyers' clubs achieved increased popularity in California after the passage of Proposition 215 in 1996 legalizing the medical use of marijuana, but most have been closed down subsequent to the passage of this measure as a result of federal enforcement efforts.

The major limitation of the study is the low response rate, resulting from the requirement for anonymous mailing and the resultant inability to directly contact non-responders in order to increase the response rate. Because of the anonymity requirements, we were also unable to perform comparisons of the characteristics of responders and non-responders. As noted in the results, it is likely that some individuals who did not identify themselves completed both the initial and follow-up questionnaire, but that the impact of this on the estimate of the prevalence of the current use of marijuana would be minimal.

In summary, a substantial proportion (33%) of the HIV-infected patients who responded to this survey reported the current use of cannabis as a medical treatment for a variety of symptoms. The patterns of use were heterogeneous. The results of this survey, in combination with other surveys that have been reported, suggest that the use of marijuana for medical purposes is relatively common in HIV-positive and AIDS patients.

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