Clinical service desires of medical cannabis patients
Jennifer L Janichek and Amanda Reiman

Abstract

Background: Medical cannabis dispensaries following the social or hybrid model offer supplementary holistic services in addition to dispensing medical cannabis. Historically, alternative physical health services have been the norm for these dispensaries, including services such as yoga, acupuncture, or chiropractor visits. A clinical service dearth remains for medical cannabis patients seeking substance use, misuse, dependence, and mental health services. This study examined patient desires for various clinical services and level of willingness to participate in specific clinical services.

Methods: Anonymous survey data (N = 303) were collected at Harborside Health Center (HHC), a medical cannabis dispensary in Oakland, CA. The sample was 70% male, 48% Caucasian and 21% African American. The mean male age was 38 years old and female mean age was 30. Sixty two percent of the male participants and 44% of the female participants are single. Sixteen percent of the population reported having a domestic partner. Forty six percent of the participants are employed full time, 41% have completed at least some college, and 49% make less than $40,000 a year.

Results: A significant portion of the sample, 62%, indicated a desire to participate in free clinical services at HHC, 34% would like more information about substances and use, and 41% want to learn more about reducing harms from substance use. About one quarter of the participants marked “would” or “likely would” participate in individual services such as consultation. Approximately 20% indicated “would” or “likely would” participate in psycho-educational forums, harm reduction information sharing sessions, online support groups, and coping, life, and social skills group. There was little interest in traditional NA/AA 12-step groups or adapted 12-step groups.

Conclusions: Desired clinical services can be qualified as a combination of harm reduction, educational, skills-based, peer support and therapeutic individual and group services. Results suggest that medical cannabis patients seek more information about various substances, including cannabis. Dispensaries can help to decrease gaps in substance education and clinical services and fulfill unmet clinical desires. More research is necessary in additional medical cannabis dispensaries in different geographic settings with different service delivery models.

Keywords: Medical cannabis patients, Harm reduction, Cannabis dispensaries, Substance use, Substance misuse

Background

Individuals who use medical cannabis for therapeutic purposes are a diverse, evolving, and a generally under-studied medical cohort. An increasing shift from the use of “mainstream” medications, namely pharmaceuticals, to the use of “natural” or alternative medications has been observed [1,2]. The most noted reasons for the transition from synthetic medication to medical cannabis include: perception that conventional medication was problematic and/or ineffective, cannabis produced fewer side effects (or drawbacks), and cannabis resulted in better symptom control and increased relief when compared to previous treatments and medications [2-4]. Cannabis is viewed as more “natural,” when compared to manufactured synthetic medication, which is appealing for some medication consumers [2].

In select states, such as California, Colorado and Maine, there is an emergence of secure and reliable access to cannabis through medical cannabis...
dispensaries, although these organizations remain unli-
censed and illegal at the federal level and are still sub-
ject to federal enforcement efforts. Also known as
patient collectives, buyers’ clubs, or wellness centers,
these community based health facilities provide cannabis
to individuals who have obtained a doctor recommenda-
tion for its medical use. These facilities enable medical
cannabis patients to safely purchase medication and
many facilities offer a range of products from dried can-
nabis flowers and cannabis concentrates to various
forms of topical and edible cannabis products [5].

Medical cannabis health centers may provide an
opportune therapeutic setting to offer other clinical
services, such as substance misuse and related mental
health clinical services [6]. In a study by Reiman (2008),
sixty six percent of the patients surveyed reported utili-
ization of the holistic services in San Francisco Bay Area
medical cannabis facilities [5]. Currently, various social
and physical services are offered at dispensaries such as
massage therapy, nutritional and herbal consultations,
peer groups, and acupuncture are offered at some dis-
ispensaries [5]. However, few dispensaries offer clinical
services related to substance use, misuse, dependence,
and mental health services.

The National Survey on Drug Use and Health demon-
strates the longstanding unmet clinical service need of
individuals seeking substance misuse, addiction, and
mental health services in the United States. The most
recent survey in 2009 shows that almost 9 percent of
the U.S. population, or 22.5 million people, were cate-
gorized to fit the substance abuse or dependence diag-
nosis, but 1.7 percent, or 4.3 million people, received
treatment for substance misuse [7]. The poor availability
of treatment services is referred to as a service gap for
the general population, meaning more individuals desire
services than there are services available.

Restrictive entrance parameters and program rules
such as a “clean” drug tests (meaning free from all sub-
stances), are often a condition for receiving services [8].
Other noted barriers include: the high cost of private
treatment services, lack of insurance, and not wanting to
be(or failing to be) abstinent, which is required in many
clinical settings [9]. Given the abstinence demands of
many treatment programs, having a medical cannabis
patient status may in itself be a barrier to receiving
desired services for mental health and substance misuse
and addiction. The need for integrated clinical services
at cannabis health centers can also driven by a lack of
formal substance health education, resulting in ill
informed substance consumers. In addition, because
cannabis is different than other traditional medications,
patients might have less traditional medical guidance,
and little empirical, applied data to refer to about safe
and effective medical cannabis use. Substance use stigma
also continues to be a barrier for individuals seeking
treatment for substance misuse. Clinical services inte-
grated within medical cannabis health centers may help
close service gaps and reduce service barriers for those
seeking services.

One promising area in the nexus of medical cannabis
and substance abuse treatment is the potential of can-
nabis to serve as a tool to assist a person to “exit” or
relinquish and abstain from another more harmful
substance [10]. Individuals who use cannabis to assist
in reducing or abstaining from the use of other sub-
stances, either viewed their substitution as very effect-
ive or effective in curbing the harms associated with
addiction [11]. Substance substitution studies show a
large percentage of individuals use medical cannabis as
a substitute for alcohol (40%), for illicit substances
(26%), and prescription drugs (65.8%) [5,12]. Substance
substitution with cannabis has been related to fewer
side effects and increased symptom management as
compared to other substances [5]. In a recent study of
medical cannabis patient profiles revealed that 51 per-
cent report using cannabis as a substitute for prescrip-
tion medication, supporting previous research on
substitution [13].

Cannabis may also serve as a useful therapeutic alter-
native for individuals seeking addiction and mental
health symptom management [14-16]. A meta-analysis
on the subjective effects of cannabis found that the
most frequently reported effects were: improved mood
(i.e., feeling good, happy, content), enhanced relaxation,
increased insight into self and others, and improved per-
ceptions. Of the reviewed close-ended studies, improved
thinking, increased concentration, and increased relaxa-
tion were frequently endorsed. Authors note individual
variations due to substance tolerance, setting, and cogni-
tive set [17]. Surveys from Australia and Germany and
exploratory studies in Canada and the United states find
that 12 to 56 percent of medical cannabis users report
use for relief of symptoms of depression, 6 percent for
the relief of anxiety symptoms, and 6 percent for relief
from other psychological disorders [3,18-20].

Recent findings show that current medical cannabis
consumers might fare as well or better than other
cohorts who enter addiction treatment. Preliminary find-
ings indicate that medical cannabis use does not inter-
fer negatively with traditional substance addiction
treatment; in fact medical cannabis patients had a higher
treatment completion rate when compared to other
individuals in treatment [21]. Additionally, two studies
demonstrate that intermittent cannabis users show
superior retention in naltrexone opiate treatment
[22,23].

This exploratory study asks the question: What is the
level of desire for and willingness to participate in
clinical mental health and substance misuse services among medical cannabis patients? This study attempted to capture the “patient voice” to inform the creation of a harm reduction clinical services program at a hybrid model dispensary in Oakland, CA.

Methods
Sample
Survey participants were patient members of Harborside Health Center (HHC), a medical cannabis collective located in Oakland, CA. To date the HHC patient membership is approximately 45,000 individuals. The survey sample included 303 medical cannabis patients between the ages of 18 and 75. The mean age was 38 years old. The sample was 70.3% male, 48.2% Caucasian, and 20.8% African American. Fifty six percent were single and 7.6% report to have a domestic partner. Sixty two percent are employed, 15% are on disability income, and 37% have attained a bachelor or graduate degree. Fifty one percent of the sample earned over $40,000 annually.

Materials
Researchers created the survey and included direct sections from a Reiman 2009 survey of patients accessing cannabis through Berkeley Patients Group (N = 350). The survey contained a total of 48 questions including 14 yes or no questions, 18 likert scale questions, 11 multiple choice questions, and 5 open-ended questions. The domains of interest included: basic patient demographic information; present use of cannabis, alcohol, tobacco, and other substances and use in past 30 days; prior experiences with clinical services and possible barriers encountered with services; patient desire to change substance use related behaviors; desire for more information about substances and substance use; and level of willingness to participate in particular clinical services at HHC.

Procedures
The lead researcher collected data at the dispensary during the hours of 11 am to 8 pm over a 4-week time period, including weekdays and weekends. After the mandatory patient check-in, front desk staff asked every patient to participate in an anonymous survey. If the individual was willing to participate, the researcher briefly explained the purpose of the survey, confidentiality and risks of participation, and the right to refuse or stop the survey. Informed consent information was also provided in written form. Harborside Health Center funded this survey as part of a program development proposal. Data were analyzed and frequencies were calculated.

Results
Medical cannabis, alcohol, tobacco, and other substance use
Eighty eight percent of the sample reported daily use of medical cannabis and 28% of the sample consume 3 to 5 grams of cannabis per week. Fifty five percent currently drink alcohol and the average number of drinking days per month was 8.95. Twenty five percent report tobacco use and 15% of the sample have used another substance within the past 30 days. Of the individuals who used another substance other than cannabis, alcohol, or tobacco (N = 46), pharmaceuticals account for 58.70% of the substances used. Furthermore, opiate-derived pharmaceuticals account for 39.13% of the substances used (Table 1, 2).

Substance misuse and addiction treatment
Four percent of the sample had previously attended treatment services for alcohol dependence, 2% currently attend 12-step support groups, and 10% have received treatment for substance-related problems in the past. Five percent had previously been diagnosed with a substance dependence disorder. Eight percent had wanted to attend treatment for substance misuse or dependence but did not participate. Of those participants who wanted to attend treatment but did not attend, the following reasons were most noted: not ready for change (3%), couldn’t afford it (2%), program philosophy (2%), required abstinence (2%), drug testing policies (2%), and none available (2%).

Desire to change substance use behaviors
Seventy five percent of the current tobacco smokers “probably” to “definitely” want to abate or stop the use of tobacco. Seventy three percent of the alcohol consumers “probably do not” and “definitely do not” want to reduce or stop use of alcohol. Fifty eight percent of the individuals who used another substance in the last 30 days “probably do not” and “definitely do not” want to reduce or stop use of the specified substance (Table 3).

Desire for clinical services at a medical cannabis health center
Thirty four percent reported wanting want access to more factual information about substances and

| Substance                  | Reported Usage | Percent of Survey Participants |
|----------------------------|----------------|-------------------------------|
| Medical Cannabis           | 303            | 100.00%                       |
| Alcohol                    | 166            | 54.70%                        |
| Tobacco                    | 76             | 25.08%                        |
substance use and 41% want to learn more about how to reduce harms from substance use. Sixty two percent said they would participate in free clinical services at Harborside Health Center, if the services were offered. Twenty seven percent of the survey participants indicated, “I will or I likely would” participate in brief individual counseling and twenty five percent for individual consultation, assessment, and referral. Twenty percent marked “I will or I likely would” participate in mental health forums, 19% in substance education sessions, 19% in skills groups, and 17% in an online therapeutic support group. Less than 10% of the participants would or likely would participate in recovery maintenance groups, NA/AA 12-steps groups, and modified NA/AA 12-step groups (Table 4).

Discussion
To date there are no studies asking medical cannabis patients, who purchase medicine from a medical cannabis dispensary, about desires for dispensary based clinical services. Prior to the introduction of potential clinical services, at HHC a supplementary holistic care center arose from patient demand. The clinical services were described as an additional component to the holistic care program. When patients were asked about harm reduction services a marked desire for integrated clinical services was reported. A large portion of the patients sought more information about cannabis as well as more information about other substances. This may speak to the poor success rate of formal drug education programs provided in schools and oversaturation of information on the internet.

There was variance in type of clinical service desired. Two hundred and twenty five of the survey participants “would” or “most likely would” seek individual services including individual counseling, individual assessment and referral, and individual consultation with a psychiatrist for medication supports. One hundred and seventy three of the participants indicated desire for life skills groups such as problem solving and decision making, anger management skills, stress management, coping skills, and relational and communication skills. The high saturation of group services available in the community may be one explanation as to why group services, particularly AA/NA or 12-step groups, were not desired by the survey participants. A negative reputation, zero-tolerance for cannabis, and a lack of need may be reasoning for the participants’ low level of desire to participate in this type of clinical service.

Results indicate that the majority of the medical cannabis patients do not use, misuse, or become addicted to illegal substances. This is evident in the use data, as well as the current and past treatment data. A small cohort of the medical cannabis patients currently (3.63%) or have in the past (14.52%) attended a treatment program for substance misuse or addiction, however the majority of patients have not recently used an illegal substance (85%), have never sought treatment, and did not find treatment necessary for any substance including cannabis. Medical cannabis patients who use tobacco were the only group of individuals dissatisfied with their behavior, indicating a desire to reduce or quit the use of this substance. The gateway theory theorizes that an individual’s use of cannabis will lead the individual into use, misuse, and addiction of other “hard” substances such as cocaine and heroin. Many studies refute this theory including this exploratory study [24-27].

Table 2 Other Substance Usage Within Past 30 Days Reported by Medical Cannabis Patients (N = 303)

| Substance                     | Reported Usage | Percent of Survey Participants |
|-------------------------------|----------------|-------------------------------|
| Opioid Pharmaceuticals        | 18             | 5.95%                         |
| Hallucinogens                 | 11             | 3.63%                         |
| MDMA/Ecstasy                  | 10             | 3.30%                         |
| Cocaine/Crack Cocaine        | 7              | 2.31%                         |
| Benzodiazepine Pharmaceuticals| 6              | 1.98%                         |
| Other Substances              | 5              | 1.65%                         |
| Stimulant Pharmaceuticals      | 3              | 0.99%                         |
| Methamphetamine              | 2              | 0.66%                         |
| Heroin                        | 0              | 0.00%                         |

Opioid pharmaceuticals may include Vicodin, Percocet, Codeine, Hydrocodone, Oxycodone, Buprenorphine, Fentanyl, etc. Hallucinogens may include psilocybin mushrooms, mescaline, LSD, etc. Benzodiazepine pharmaceuticals may include Valium, Ativan, Xanax, Klonopin, Rohypnol, etc. Stimulant pharmaceuticals may include Concerta, Adderall, Dexedrine, Ritalin, etc.

Table 3 Desire to Reduce or Stop the Use of Tobacco, Alcohol and Other Drugs Reported by Medical Cannabis Patients (N = 303)

| Substance   | Definitely Not | Probably Not | Maybe | Probably | Definitely |
|-------------|----------------|--------------|-------|----------|------------|
| Tobacco     | 2              | 6            | 12    | 16       | 41         |
| Alcohol     | 66             | 46           | 24    | 9        | 10         |
| Other Substances | 46       | 20           | 9     | 5        | 7          |
There is no standardized data collection protocol or universal data system at medical cannabis health centers that catalogue patient characteristics, therefore representation of HHC patient membership (N = ~45,000 individuals) is unclear. Recent descriptive studies of medical cannabis patients reveal that survey participant characteristics in this study such as age, gender, and employment status resemble those in the California medical cannabis patient cohort [4,5,13]. In addition, the surveyed patient population by and large mimics the general population characteristics of the surrounding area. Similar to the sample characteristics, the median age is 39 in the San-Francisco-Oakland-Fremont metropolitan statistical area [28]. When compared to census data a slight overrepresentation of males and single individuals in the sample may have occurred. There may be sample characteristic restrictions because the survey was administered at one medical cannabis dispensary over a limited time period. Since little is known about the frequency of patient visits, a 4-week data collection window may have missed a subsection of patients. Extremely ill patients may have been unable to participate because of mobility limitations or inability to frequent the health center. Additionally, this survey does not account for the individuals who use cannabis medicinally without a physician recommendation and therefore are not patronizing medical cannabis dispensaries for medication. Last, self-selection may be present as related to the past illegal status of cannabis and societal stigma of substance use.

While survey data was used for applied purposes, findings show that medical cannabis patients desire clinical services, qualified as a combination of harm reduction, educational, skills-based, peer support and therapeutic individual and group services. Medical cannabis dispensaries can help to decrease commonplace clinical service gaps and fulfill unmet clinical desires. More research is necessary in additional medical cannabis dispensaries in other jurisdictions and with potentially different service delivery models to help uncover the characteristics of this once abjured cohort.

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Author details
1Institute for Metropolitan Affairs, Roosevelt University, Chicago, USA.
2University of California, Berkeley, USA.

Authors’ contributions
JJ conceived the study and JJ and AR contributed to the development of the data collection instrument, sampling strategy and study protocol. JJ carried out the data collection and data analysis. JJ and AR drafted the manuscript, read and approved the final manuscript.

Competing interests
Jennifer Janichek is compensated for her position as a harm reduction counselor at Harborside Health Center. Amanda Reiman is compensated for her position as Director of Research at Berkeley Patients Group.

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