Brief COUNSELING *for* MARIJUANA DEPENDENCE

A Manual for Treating Adults

Substance Abuse and Mental Health Services Administration
SAMHSA
www.samhsa.gov • 1-877-SAMHSA-7 (1-877-726-4727)

Please share your thoughts about this publication by completing a brief online survey at:

https://www.surveymonkey.com/r/KAPPFS

The survey takes about 7 minutes to complete and is anonymous.
Your feedback will help SAMHSA develop future products.

Brief COUNSELING *for* MARIJUANA DEPENDENCE

A Manual for Treating Adults

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Treatment

1 Choke Cherry Road
Rockville, MD 20857

Acknowledgments

Numerous people contributed to this publication, which is part of the Marijuana Treatment Project (MTP) Cooperative Agreement. The document was written by Karen L. Steinberg, Ph.D., Roger A. Roffman, D.S.W., Kathleen M. Carroll, Ph.D., Bonnie McRee, M.P.H., Thomas F. Babor, Ph.D., M.P.H., Michael Miller, Ph.D., Ronald Kadden, Ph.D., David Duresky, M.A., and Robert Stephens, Ph.D. The MTP Research Group provided valuable guidance and support on this document. See appendix B for a full list of contributors.

This publication was developed with support from the Center for Substance Abuse Treatment (CSAT) to the University of Connecticut School of Medicine through Grant No. TI1 1323. This study was funded by the Substance Abuse and Mental Health Services Administration (SAMHSA), CSAT, U.S. Department of Health and Human Services (HHS). The research was conducted in Farmington, Connecticut (UR4 TI1 1273 and UR4 TI1 1310), Miami, Florida (UR4 TI1 1274), and Seattle, Washington (UR4 TI1 1270), in cooperation with the following institutions: University of Connecticut Health Center, The Village South, Inc., University of Washington, and Evergreen Treatment Services.

The publication was produced by JBS International, Inc. (JBS), under the Knowledge Application Program (KAP) contract numbers 270-99-7072 and 270-04-7049 with SAMHSA, HHS. Christina Currier served as the CSAT Government Project Officer. Andrea Kopstein, Ph.D., M.P.H., served as the Deputy Government Project Officer. Jean Donaldson, M.A., served as Government Project Officer for the MTP Cooperative Agreement.

Disclaimer

The views, opinions, and content of this publication are those of the authors and do not necessarily reflect the views, opinions, or policies of SAMHSA or HHS.

Electronic Access and Printed Copies

This publication may be ordered from SAMHSA's Publications Ordering Web page at http://store.samhsa.gov. Or, please call SAMHSA at 1-877-SAMHSA-7 (1-877-726-4727) (English and Español). The document can be downloaded from the KAP Web site at http://kap.samhsa.gov.

Recommended Citation

Steinberg, K.L.; Roffman, R.A.; Carroll, K.M.; McRee, B.; Babor, T.F.; Miller, M.; Kadden, R.; Duresky, D.; and Stephens, R. *Brief Counseling for Marijuana Dependence: A Manual for Treating Adults.* HHS Publication No. (SMA) 12-4211. Rockville, MD: Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, 2005.

Originating Office

Quality Improvement and Workforce Development Branch, Division of Services Improvement, Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, 1 Choke Cherry Road, Rockville, MD 20857.

HHS Publication No. (SMA) 12-4211
First printed 2005
Revised 2006, 2009, 2011, and 2012

SECTION IV.
GETTING STARTED: ASSESSMENT SESSION

This section guides counselors through the assessment session. It outlines strategies for assessing individuals who present for Brief Marijuana Dependence Counseling (BMDC) treatment. These people have been determined to be appropriate for treatment based on a brief telephone contact or an initial triage or evaluation appointment.

The BMDC assessment session focuses on building rapport with the client while assessing his or her marijuana use. This section includes diagnosis and assessment instruments. The assessment findings are used to complete the *Personal Feedback Report* (PFR), which the counselor reviews with the client in subsequent sessions. An accurate assessment provides data that can be used as

- A starting point for therapy
- Motivation and feedback for the client
- A measure of therapy outcomes over time.

Building Rapport

One of the most important aspects of treatment, especially during the assessment session, is building rapport; through expressions of warmth, support, and empathy, the counselor gets to know the client. Although the assessment session focuses primarily on gathering information, the rapport established during this session defines the client–counselor relationship for remaining sessions.

Assessing Marijuana Use

BMDC uses the criteria identified in *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV) (American Psychiatric Association 1994), to diagnose marijuana dependence (exhibit IV-1) and marijuana abuse (exhibit IV-2). These criteria help the counselor determine a client's level of substance involvement and the associated consequences, as well as appropriate level of treatment. These criteria also can be used in later sessions to measure treatment effectiveness.

The symptoms of substance dependence typically are assessed first; substance abuse is considered a less severe substance use disorder, and its symptoms are assessed only if the client does not meet the criteria for a diagnosis of substance dependence. For this reason, tolerance, withdrawal, and symptoms describing impaired control over use are not included in the diagnosis of substance abuse. However, it may be useful to complete the assessment of abuse criteria even if dependence has been diagnosed to learn more about the nature and extent of negative consequences that result from the dependent use pattern.

The guidelines presented here will help the counselor make a diagnosis of marijuana dependence or abuse. If the counselor does not have the credentials required for making a diagnosis, he or she must receive verification from a State-qualified individual.

Exhibit IV-1. DSM-IV Substance Dependence Criteria

1. Tolerance, as defined by either of the following:
   - A need for markedly increased amounts of the substance to achieve intoxication or desired effect
   - Markedly diminished effect with continued use of the same amount of the substance.
2. Withdrawal, as manifested by either of the following:
   - The characteristic withdrawal syndrome for the substance
   - The substance is taken to relieve or avoid withdrawal symptoms.
3. The substance is often taken in larger amounts or over a longer period than was intended.
4. There is a persistent desire or unsuccessful efforts to cut down or control substance use.
5. A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects.
6. Important social, occupational, or recreational activities are given up or reduced because of substance use.
7. The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused by or exacerbated by the substance.

Exhibit IV-2. DSM-IV Substance Abuse Criteria

1. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home
2. Recurrent substance use in situations in which it is physically hazardous
3. Recurrent substance-related legal problems
4. Continued substance use despite having persistent or recurrent social or interpersonal problems caused by the effects of the substance

Overview of Assessment Session: Building Rapport and Assessing Marijuana Use

Total Time: 1 hour, 30 minutes (1 hour, 20 minutes for session; 10 minutes to prepare PFR)

Delivery Method: MET-focused individual therapy

Materials (all forms include instructions and are at the end of this section):

- *Sample Timeline Follow-Back Calendar* for past month (form AS1)
- *Timeline Follow-Back Grid* (form AS2)
- *Timeline Follow-Back Marijuana Use Summary Sheet* (form AS3)
- *Structured Clinical Interview for DSM-IV* (form AS4)
- *Marijuana Problem Scale* (form AS5)
- *Reasons for Quitting Questionnaire* (form AS6)
- *Self-Efficacy Questionnaire* (form AS7)
- *Personal Feedback Report* and percentage tables (form AS8)

Goals for This Session:

- To build rapport with the client, creating a nonthreatening therapeutic environment
- To collect and document baseline marijuana use information to monitor therapeutic outcomes

Session Outline:

1. Build rapport and give an overview of the assessment process
2. Conduct an overview assessment using open-ended and summary questions
3. Use the timeline follow-back (TLFB) method to assess marijuana use
   - Complete the *TLFB Calendar* (form AS1)
   - Complete the *TLFB Grid* (form AS2)
   - Complete the *TLFB Marijuana Use Summary Sheet* (form AS3)
4. Administer the *Structured Clinical Interview for DSM-IV* (form AS4)
   - Assess substance dependence
   - Assess substance abuse
5. Explain and ask client to complete the *Marijuana Problem Scale* (form AS5); evaluate consequences of marijuana use
6. Administer *Reasons for Quitting Questionnaire* (form AS6); evaluate reasons for seeking treatment
7. Explain and ask client to complete *Self-Efficacy Questionnaire* (form AS7); assess targets for intervention
8. Conclude the session
9. Prepare the PFR before session 1

Assessment Session Protocol

The counselor welcomes the client and provides an overview of the session. In this session, the counselor assesses the client's marijuana use while laying the foundation for a positive client–counselor relationship.

Build Rapport and Give an Overview of the Assessment Process

To build rapport and engage the client during the assessment session, the counselor informs the client about the sequence of events for this session and what to expect in the overall treatment approach. Introducing session topics, providing information, and responding to client concerns are the primary tasks during this part of the session. The counselor could begin the first session of BMDC with the following introduction:

Counselor (C): *Let's talk about what we'd like to accomplish in the assessment session. We need a clear description of your marijuana use—how much marijuana you use, how often you use it, and what types of problems marijuana might be causing you. I'll ask you detailed questions about your marijuana and other drug and alcohol use, and I'll also ask you questions about how marijuana use has affected your daily life.*

I'll summarize this information in the Personal Feedback Report *that I'll give you during our next session. We'll use the PFR to compare your marijuana consumption with national averages and to get an idea about how to set your treatment goals. The session will take about 1 hour and 20 minutes. Some questions may be difficult to answer and a real test of your memory; just do your best to be honest and patient! Remember that the information is confidential and is used only to help you accomplish your therapy goals.*

Conduct an Overview Assessment Using Open-Ended and Summary Questions

Most assessment tools, including a few presented later in the session, use closed-ended questions *(How many days in the past month did you smoke marijuana?)*, but the counselor starts the session by using open-ended questions to engage the client (*Tell me about your marijuana use pattern over the last month*) before transitioning to more detailed tasks. Open-ended questions allow the counselor to establish a dialog with the client and build rapport by

- Showing genuine interest
- Conveying a nonjudgmental and accepting attitude
- Demonstrating the ability to track accurately what the client is saying
- Expressing empathy with the client.

The dialog might go as follows:

C: *How did you hear about this program?*

Shirley (S): *I've seen the ads in the paper for several weeks. Originally my husband left one on the kitchen table for me.*

C: *You've worked with your husband to get here, and the two of you have given this a great deal of thought. Have you tried to quit on your own?*

S: *I try to quit almost every day, or at least I think about it. I'm going to be an elementary school teacher; in fact, I'm doing my student teaching now. I feel that quitting is the right thing to do—to be a good example to the kids. But nothing ever changes.*

C: *But you keep trying. What brings you here today?*

S: *Well, I know someday I will quit, and I've been looking at the ad for this program. I never thought anyone would offer treatment for pot smokers!*

C: *This was the opportunity you were waiting for. What would you like to see happen as a result of coming to treatment?*

S: *I guess I thought I'd get help on how to quit. But I realize that ultimately it's up to me, and it's way past time to do something.*

C: *You understand that it's your decision on what to do, but you also think that being here might help you. How confident are you at this point that you'll succeed?*

Use the TLFB Method To Assess Marijuana Use

The assessment or evaluation component of this session can be a powerful element of treatment. Marijuana Treatment Program (MTP) participants reported increased motivation after receiving feedback from assessment-related activities.

During the session the counselor and client complete several forms to assess the client's marijuana use. Quantity of marijuana use is difficult to measure because of varying potency levels and smoking methods (e.g., pipe, joint); therefore, frequency of use is the most reliable criterion for consumption measures. The TLFB method helps the counselor and client identify patterns and possible consequences of use (Sobell and Sobell 2000; Sobell et al. forthcoming). For instance, a person who uses heavily on weekends may be at risk of driving an automobile while high. A chronic, daily use pattern might indicate that an individual has developed cannabis dependence. In addition to providing a precise measure of marijuana consumption, the TLFB method can assess changes in a client's marijuana use and helps the counselor determine treatment effectiveness. The counselor begins by asking the client to estimate generally how many days and how many times a day he or she smoked marijuana in the past month:

C: *In the past month, about how many days did you smoke marijuana?* [Waits for client's response before asking the next question.] *In the past month, on a typical day when you smoked marijuana, about how many times per day did you smoke?*

Once the counselor has a general sense of the client's use, the formal TLFB assessment process begins. The counselor uses the following instruments to assess the pattern, severity, and nature of the client's marijuana use:

- *TLFB Calendar* for the past month (form AS1)
- *TLFB Grid* (form AS2)
- *TLFB Marijuana Use Summary Sheet* (form AS3).

The counselor uses the *TLFB Calendar* to help the client recall his or her marijuana use and the *TLFB Grid* to record summary information from the completed calendar. When completed, the

TLFB Marijuana Use Summary Sheet provides an overview of basic information about the client's marijuana use, alcohol consumption, and tobacco smoking. (The *TLFB Calendar* and *TLFB Marijuana Use Summary Sheet* procedures are modified from procedures developed by Sobell and Sobell [1992, 2000, 2003] and Sobell and colleagues [forthcoming]. Some administration guidelines are adapted from the Form 90 procedure developed by Miller [1996].)

Complete the TLFB Calendar

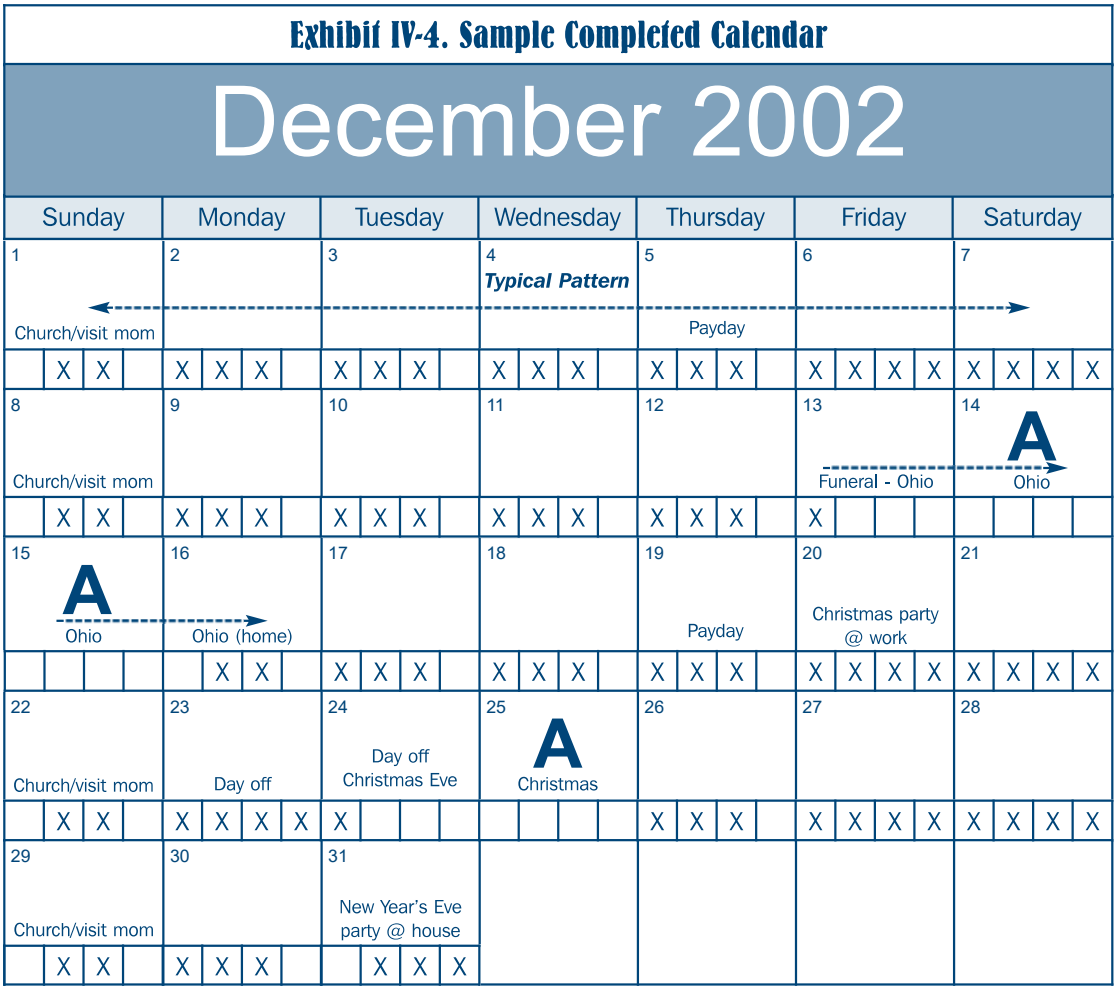
The counselor begins by developing a detailed history of daily marijuana use for a specified period, called the *assessment window*. This manual suggests an assessment window of 1 month. To arrive at a diagnosis of dependence or abuse, the DSM-IV advises that symptoms be present for 12 months. However, assessing symptoms for the last 12 months may tell little about the client's current use, especially if the client's use pattern has changed significantly over the year prior to entering treatment. (If the client had attempted to quit using or cut back usage in preparation for treatment, the counselor should ask the client to recall a period of usual marijuana use.) Understanding marijuana use at treatment entry is helpful for treatment planning and for motivating the client to change. The TLFB method uses memory aids (exhibit IV-3) to help the client recall his or her marijuana use. The counselor and client select a month to investigate. The counselor fills in the days on the *TLFB Calendar* (form AS1) and indicates which days in that particular month are holidays or other special days for the client (see exhibit IV-4 for a sample).

Exhibit IV-3. Key Events To Record on the Calendar

Atypical Events	Recurring Events	Discrete Events
• Holidays • Birthdays • Anniversaries • Parties • Medical appointments • Accidents • Court appearances • Beginning or termination of employment • Marital arguments • Vacations • Separations or reconciliations • Sporting events • Major news events • Concerts	• Paydays • Religious services • School or classes • Standing appointments • Child visitations • Meetings • Work schedule • Weekends	• Jail time • Hospitalizations • Illness • Treatment

The calendar is used as a memory aid. The counselor asks the client to recall daily consumption of marijuana by linking memories to salient life events. The counselor mentions recurring and atypical events to help the client recall his or her marijuana use. Recurring events (e.g., work schedule,

Exhibit IV-4. Sample Completed Calendar



payday) provide a context for describing typical marijuana use patterns (e.g., client always buys marijuana on payday and smokes all day on days off). Atypical events (e.g., medical appointment, marital argument) provide anchor points for describing exceptions to a regular use pattern (e.g., client did not smoke on the day of a medical appointment; smoked more on the day of a marital argument). Discrete events (e.g., jail time, hospitalizations) help identify use and nonuse periods:

C: *I'd like to start by asking you questions about your marijuana use, other drug use, and drinking during the period from about a month ago until yesterday.* [Places the calendar in front of the client.] *We'll reconstruct this period by using notes on the calendar to help you remember things that have happened to you. Then we'll use these events to help you remember when you used marijuana on each day.*

After the counselor and client determine on which days the client smoked, they record the number of smoking episodes per day by breaking each calendar day into four quadrants. (As the client breaks down daily use into quadrants, it may be helpful for the counselor to have a card that lists the quadrants for the client to refer to.) The four boxes on each calendar day in exhibits IV-4 and IV-5 correspond to these following quadrants:

- Quadrant 1 = 6 a.m. to 12 noon (morning)
- Quadrant 2 = 12 noon to 6 p.m. (daytime)
- Quadrant 3 = 6 p.m. to midnight (evening)
- Quadrant 4 = 12 midnight to 6 a.m. (nighttime).

For instance, in the example in exhibit IV-5, the client smoked in the second and third quadrants on December 22, in all quadrants on December 23, and in the first quadrant on December 24. The counselor explains that this information reveals the context in which marijuana use occurs.

Exhibit IV-5. Using Quadrants To Determine Use Frequency

December 22				December 23				December 24			
Church/visit mom				Day off				Day off Christmas Eve			
	X	X		X	X	X	X	X			

The counselor records any other drug or alcohol use that occurred during the assessment window. By asking questions about alcohol and drug use, the counselor determines whether the client is substituting other drugs or alcohol on days when marijuana is not used.

Once the memorable events have been recorded, the counselor focuses on the client's longest span of invariant or unchanging behavior, such as abstinence, and determines whether a steady marijuana use pattern exists:

C: *Looking at the calendar and thinking about these events, what is the longest period you can remember when you went without smoking at all?*

If the client has had a reasonably consistent pattern of use from week to week, the counselor asks him or her to describe a typical week and to identify the weeks during the period that fit the steady pattern and record those weeks on the calendar:

C: *During this period when you were using marijuana, was your pattern of use similar from one week to the next? Although a person's marijuana use will vary from day to day, I'm wondering whether there was any consistency from week to week.*

The counselor starts with weekdays, beginning in one quadrant and moving through the week for that quadrant, the second quadrant, and so on:

C: *Could you describe a usual or typical week of marijuana use? Thinking about a typical week, starting with weekdays, Monday through Friday, did you normally use marijuana in the morning, between 6 a.m. and noon?*

This phrasing encourages the client to report use in the morning. The client points out variations in day-to-day use (e.g., *I smoke before I go to work on 2 mornings a week*). The counselor records variations on particular days. After constructing the morning quadrants, the counselor proceeds until all the appropriate quadrants have been checked to establish the weekday pattern. The

counselor then asks about weekend use. This exercise reveals the client's steady use pattern during the assessment window.

The counselor and client now turn to reconstructing the client's use on days when no pattern exists. If the client reports no consistent pattern, the entire assessment window must be constructed one day at a time.

For days not covered by pattern or abstinent days, the counselor focuses on days immediately before and after invariant periods (such as periods of abstinence and steady pattern use):

C: *What happened at this point? How did your marijuana use change?*

To help the client recall use, the counselor focuses on events that affect the availability of marijuana and the client's marijuana use (e.g., hospitalizations, family outings, work changes). The counselor pays close attention to inconsistencies in the client's descriptions of marijuana use and asks questions to ensure that the information is accurate.

Complete the TLFB Grid

The *TLFB Grid* (form AS2) is used to summarize and record calendar data and to monitor changes over time. The grid provides spaces for the counselor to total the days of use under various categories. When the information is presented on the grid, the counselor and client see use patterns emerge (e.g., the client usually smokes late at night or before work). Additional grids can be filled out in later sessions and compared with this baseline grid to monitor changes over time and help determine causes for slips or relapses.

Complete the TLFB Marijuana Use Summary Sheet

The counselor uses the *TLFB Marijuana Use Summary Sheet* (form AS3) to gather additional information about the client's marijuana consumption prior to entering treatment. The counselor asks questions that help the client think about and summarize his or her marijuana use, including use in hazardous situations (e.g., taking care of children, driving). The *TLFB Marijuana Use Summary Sheet* increases awareness of the frequency of using marijuana, other drugs, alcohol, and tobacco and often elicits concerns from the client. These stated concerns can increase motivation to change.

Administer the Structured Clinical Interview for DSM-IV

Several self-report scales assess substance dependence and substance abuse symptoms, but none assesses specifically for marijuana. Identification of cannabis use disorders is accomplished most reliably using a structured interview to assess diagnostic criteria. The *Structured Clinical Interview for DSM-IV* (SCID-IV) (form AS4) used in this manual has been adapted for clients who use marijuana (First et al. 1996). A typical structured interview starts with objective questions to obtain a brief history of the client's substance use and proceeds through a series of questions that assess for the presence of DSM-IV diagnostic criteria for dependence (questions 1 through 7) and abuse (questions 8 through 11). Each objective question can be followed by open-ended prompts to elicit information relevant to the symptom being assessed.

The counselor asks the client each SCID-IV question and circles the appropriate clinical rating for the response. If the counselor is convinced that a particular symptom is present, he or she should not allow a client's denial of the symptom to go unchallenged. In rare cases, an item may be rated as present even when the client steadfastly denies it. It is not necessary for the client to agree that the symptom is present. The counselor uses all sources of information, including the forms completed in the TLFB process, to determine the appropriate rating for the client in response to SCID-IV questions. In some cases, the counselor may need to explore discrepancies between the client's account and other sources of information. Form AS4 provides additional instructions for completing the SCID-IV.

Information for Assessing Cannabis Dependence Criteria

To administer the SCID-IV and assess for the presence of each symptom, it is important to understand the intent of substance use disorder criteria and the ways in which symptoms can be manifested in people who use marijuana.

Tolerance. Tolerance refers to needing more or higher quality marijuana to get high than when the client first began using it (DSM-IV symptom 1 in exhibit IV-1; SCID-IV question 6, *Have you found that you need to use a lot more or higher quality marijuana to get high than you did when you first started using it regularly?*). This symptom reflects the body's adaptation to or compensation for the chronic presence of marijuana, and it may predict the development of withdrawal symptoms if use continues. To determine tolerance level, the counselor asks the client to compare the current effects of marijuana with past effects.

According to DSM-IV, the client must use at least 50 percent more marijuana than when he or she first started using to meet the tolerance criterion, so it is important to ask the client to quantify how much more is used now to achieve the same effect compared with when he or she began to smoke regularly. The tolerance criterion can be met if the client reports markedly diminished effects from the same amount of marijuana that used to get him or her high.

Withdrawal. Withdrawal symptoms associated with cessation of cannabis use are another indication that the body has made physiological adaptations to the presence of cannabinoids and may motivate the person to continue using (DSM-IV symptom 2 in exhibit IV-1; SCID-IV question 7, *In the past month, have you had withdrawal symptoms? Have you felt sick when you cut down or stopped using? Or after not using for a few hours or more, have you smoked to keep from getting sick?*). Although a cannabis withdrawal syndrome is not described in DSM-IV, symptoms associated with marijuana cessation have been documented in several studies. Withdrawal symptoms can include

- Appetite disturbance
- Night sweats
- Nausea
- Restlessness
- Sleep disturbance (e.g., vivid dreams)
- Headaches
- Irritability

In general, when withdrawal symptoms occur, they are present for a short period (i.e., a few days to 2 weeks). It is not known to what extent these symptoms motivate continued use of marijuana or whether they play a clinically meaningful role in the process of modifying marijuana use. However, more than half the clients presenting for treatment report experiencing some withdrawal

symptoms or continuing to use marijuana to avoid withdrawal symptoms. The counselor asks the client about the occurrence of withdrawal symptoms when he or she has cut down or stopped using *and* whether he or she used marijuana to avoid withdrawal symptoms. If the client acknowledges either experience, then the criterion for this symptom is met.

Impaired control. To assess impaired control over use, the counselor asks whether the client often ended up smoking more than was intended and whether he or she sometimes smoked for a longer period than was intended (DSM-IV symptom 3 in exhibit IV-1; SCID-IV question 1, *In the past month, have you found that, when you started using marijuana, you ended up smoking much more of it than you were planning to?* or *Have you used it over a much longer period than you were planning to?*; an affirmative answer to either question should lead the counselor to inquire about specific instances and the circumstances leading to overuse). The repeated failure to terminate marijuana use as planned is evidence of impaired control.

Impaired control over marijuana use also is assessed by asking whether the client has made repeated unsuccessful attempts to quit or reduce use or has had a persistent desire to do so (DSM-IV symptom 4 in exhibit IV-1; SCID-IV question 2, *In the past month, have you tried to cut down or stop using marijuana?* or *Did you ever stop using altogether?*). Typically, these attempts include self-imposed rules or other strategies to avoid marijuana entirely or to limit the frequency of use. It is useful to ask specifically about the number of times the client has attempted to cut down during the period being assessed and whether these attempts were because of concern about the extent of use. Resumption of marijuana use after seeking professional help or joining a mutual-help group (e.g., Narcotics Anonymous) is evidence of lack of success. These experiences suggest impairment in control. If the client denies any attempts at reducing marijuana use, the counselor asks specifically whether he or she would like to stop or reduce use but has not done so for some reason. Evidence of impaired control includes the client's wanting to stop or reduce use but not making an attempt because he or she knew that the attempt would be unsuccessful.

Salience. An important aspect of dependence relates to the primacy of the substance in a person's life. The salience of marijuana is investigated by asking the client about how much time he or she spends obtaining it, using it, and recovering from its effects (DSM-IV symptom 5 in exhibit IV-1; SCID-IV question 3, *In the past month, did you spend a lot of time using marijuana or doing whatever you had to do to get it?*). The phrase "a lot of time" is not defined precisely, but it often becomes clear that marijuana-related activities occupy an excessive amount of time. For instance, if the client is intoxicated on marijuana most of the day, most days of the week, for a month or more, then salience is apparent. At other times, the counselor determines the appropriateness of the amount of time given to marijuana-related activities. If marijuana use is confined to recreational times of the day or week, this symptom may not be present.

Another determinant of the salience of marijuana can be when the client reports that he or she has given up or reduced involvement in important social, occupational, or recreational activities because of marijuana use (DSM-IV symptom 6 in exhibit IV-1; SCID-IV question 4, *In the past month, did you use marijuana so often that you used it instead of working or spending time on hobbies or with your family or friends?*; a yes response to this question indicates that marijuana use has a higher priority than activities such as work or spending time with friends or family, hobbies, or exercising.) This breakdown in the normal processes of social control is an indication of dependence on the drug.

The persistence of marijuana use despite knowledge that it causes or exacerbates psychological or physical problems is an indication of either the salience of the drug or impaired control over its use (DSM-IV symptom 7, exhibit IV-1; SCID-IV question 5, *Do you forget things or have trouble concentrating? Are you anxious or sad a lot? Has marijuana caused you physical problems such as difficulty breathing, many colds, or a chronic cough? Has it made a physical problem worse?*).

The counselor assesses whether marijuana use leads to problems with motivation, depression, anxiety, concentration, memory, or other psychological problems. Similarly, the client's awareness about the effect of marijuana use on breathing, chronic cough, or other physical conditions is ascertained. If the client acknowledges a relationship between marijuana use and any of these physical or psychological problems but continues to use anyway, marijuana use may have a higher priority than his or her health or the client may be unable to limit use effectively.

Diagnosing cannabis dependence. To complete the diagnosis, the counselor counts the number of dependence symptoms that are present, that is, questions 1 through 7 on the SCID-IV that receive a rating of 3. If three or more questions have a rating of 3, the client meets DSM-IV criteria for cannabis dependence. In general, the dependence syndrome occurs on a continuum, so more symptoms indicate greater severity of dependence. Even when the client does not meet the criteria fully, the counselor should discuss symptoms that signal the beginning of a potential disorder and the level of impairment associated with the symptoms.

Information for Assessing Cannabis Abuse Criteria

In the absence of cannabis dependence, the counselor assesses recurrent negative consequences associated with marijuana to diagnose cannabis abuse. The counselor inquires about missed days at school or work related to marijuana use and asks whether marijuana has affected the client's abilities at school or on the job (DSM-IV symptom 1 in exhibit IV-2; SCID-IV question 8, *In the past month, have you missed work or school because you were high or hung over? How often did this occur?*). It may be appropriate to ask whether marijuana has interfered with keeping the house clean or taking care of children.

Other examples of abuse are driving when feeling high or engaging in other dangerous activities when under the influence of marijuana (DSM-IV symptom 2 in exhibit IV-2; SCID-IV question 9, *In the past month, did you use marijuana in situations in which it might have been dangerous?*), experiencing legal problems (DMS-IV symptom 3 in exhibit IV-2; SCID-IV question 10, *Has your use of marijuana gotten you into trouble with the law in the past month*), and continuing use despite awareness that use causes problems with friends, family, or co-workers (DSM-IV symptom 4 in exhibit IV-2; SCID-IV question 11, *Has your use of marijuana caused you problems with other people, such as with family members, friends, or people at work? Have you gotten into physical fights or had bad arguments about your marijuana use?*).

Diagnosing cannabis abuse. For a cannabis abuse diagnosis, at least one of the symptoms described above must have occurred two or more times during the period being assessed. More information is available in First and colleagues (1996, 2000).

Explain and Ask Client To Complete Marijuana Problem Scale*; Evaluate Consequences of Marijuana Use*

The *Marijuana Problem Scale* (MPS) (form AS5), developed by Stephens and colleagues (1994*a*), is a self-report assessment that helps the client identify areas in his or her life affected by marijuana use. It contains 19 items that represent potential negative effects of marijuana on social relationships, self-esteem, motivation and productivity, work and finances, physical health, memory impairment, and legal problems. The items were chosen based on existing self-report drug abuse severity measures and on data from people who sought treatment for marijuana use.

Some questions on the MPS are similar to those in the SCID-IV. However, the MPS is a self-report instrument and the counselor should not base diagnostic decisions on the MPS alone. Clinical judgment is needed to make a diagnosis of cannabis abuse.

The counselor gives the form to the client and instructs the client to take a few moments to respond to each item by indicating whether he or she experienced a particular problem related to marijuana use in the past month. After reading each question, the client circles the corresponding number on the questionnaire:

Not a problem (0) A minor problem (1) A serious problem (2).

After answering all the questions, the client gives the form back to the counselor who counts the number of items identified as either minor or serious problems. Higher scores generally indicate more serious problems with marijuana. However, it is important to review the specific problem items with clients because the nature of the problems reported may be more important than the total score. For instance, although nearly all people who use marijuana and seek treatment report feeling bad about their use, a smaller number will indicate serious problems with friends, family, work, or finances. Exhibit VII-1 in section VII presents the frequency of problems reported by MTP participants.

The counselor keeps the form and uses the information to complete the client's PFR, which is discussed in the next session.

Administer Reasons for Quitting Questionnaire*; Evaluate Reasons for Seeking Treatment*

The *Reasons for Quitting Questionnaire* (form AS6) is based on earlier work with tobacco cessation and has been modified based on initial results with people who use marijuana and seek treatment (McBride et al. 1994). The 26 items assess reasons for quitting marijuana in the following broad categories: health concerns, desire for self-control, and social and legal influences. The counselor gives the client the form and asks him or her to take a few moments to indicate the degree to which each reason applies to him or her using a 5-point scale:

Not at all (0) A little bit (1) Moderately (2) Quite a bit (3) Very much (4).

The counselor reviews the items that have been circled 2, 3, or 4. These responses represent the client's motivation for change. The items identified are used in the PFR. Reviewing the items that the client endorses stimulates discussion and elicits self-motivational statements during therapy. Exhibit VII-1 presents the most common marijuana-related problems reported by MTP participants.

The counselor keeps the form and uses the information to complete the client's PFR, which is discussed in the next session.

Explain and Ask Client To Complete Self-Efficacy Questionnaire*; Assess Targets for Intervention*

The *Self-Efficacy Questionnaire* (form AS7), based on the Situational Confidence Questionnaire (Annis 1988), is a measure on which clients rate their ability to resist the temptation to smoke marijuana in a variety of different situations. The rating scale has a range of 1 (not at all confident) to 7 (extremely confident). The counselor asks the client to take a few moments to rate 20 statements about situations that might create a temptation to smoke marijuana.

When the form is completed, the client returns it to the counselor who records in the PFR all items coded 1 to 3 (low confidence to resist marijuana).

Conclude the Session

To conclude the session, the counselor explains that he or she will use the information from all the forms to complete the client's PFR, which they will review during the next session. The counselor asks the client for feedback, responds empathically to his or her comments, and troubleshoots any difficulties.

Prepare the PFR Before Session 1

The PFR is a therapeutic tool used by the counselor to summarize the results obtained during assessment session. The goal of assessment feedback is to point out discrepancies between the client's current behavior and important personal goals identified by the client.

For the next session with the client, the counselor prepares the PFR by compiling the pertinent information from the TLFB process and the SCID-IV. Information also is gathered from the questionnaires completed by the client: *Marijuana Problem Scale, Reasons for Quitting Questionnaire,* and *Self-Efficacy Questionnaire.* All the information from these forms is consolidated on the PFR by the counselor. Instructions for preparing the PFR are included in form AS8.

Forms for Assessment Session

During the assessment session the counselor and client review or complete eight forms. These forms and instructions for completing them are provided on the remaining pages in this section.

Sample Timeline Follow-Back Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Timeline Follow-Back Grid

Start date: ___/___/___ *End date:* ___/___/___

	# of days used from 6 a.m.-12 noon	# of days used from 12 noon-6 p.m.	# of days used from 6 p.m.-12 mid	# of days used from 12 mid-6 a.m.	# of days used marijuana	# of days used alcohol	# of days used other drugs	# of days used any substance in the week
Week 1								
Week 2								
Week 3								
Week 4								
Total (for PFR)								

Timeline Follow-Back Marijuana Use Summary Sheet

(***To be completed after the calendar data have been collected.***)
I would like to ask you a few more questions about your marijuana and alcohol use.

1. During the past month, from _____ to _____, on average, how much marijuana **per week** do you think you used in ounces?
   Probe by asking the participant how many ounces of marijuana he or she buys (or receives) per week. If the client seems uncertain about level of use, the counselor helps him or her approximate by using the following types of probes: "Would you say it was more like 1/8 ounce or closer to 1 ounce per week?" The counselor continues until the client seems comfortable with the estimate and says, "So, you think it was closer to an ounce. Was it just an ounce, a little more than that, or a little less?"
   _____<1/16 _____1/16 _____1/8 _____1/4 ____3/8
   _____1/2 _____5/8 _____3/4 _____7/8 _____1 oz.

2. During the past month, when you smoked, how many average-sized joints/pipes/blunts, do you think you smoked per day?
   ____ joints, pipes, or blunts per day

3. During the past month, when you smoked, how many hours did you feel high on those days?
   ____ hours

4. During the past month, on average, how many times a day did you get high?
   ____ times

5. During the past month, did you use marijuana 1 hour **before** the following activities? If yes, would you say (*read coding options to client*)?
   (1) less than weekly (2) weekly (3) less than daily (4) daily or almost daily
   ____5a. Driving a vehicle
   ____5b. Taking care of children
   ____5c. Operating dangerous equipment or heavy machinery
   ____5d. Working on a paid job

6. During the past month, how many standard drinks did you have on a typical day?
   One standard drink is a 12-ounce can or bottle of beer, a 5-ounce glass of wine, or a 1.5-ounce shot of hard liquor straight or in a mixed drink.
   ____ drinks per drinking day

7. During the past month, did you have six or more drinks in a single day?
   If yes, would you say (*read coding options to participant*)?
   (1) less than weekly (2) weekly (3) less than daily (4) daily or almost daily

8. During the past month, how many tobacco cigarettes did you smoke on a typical day?
   (0) none (1) less than 10 (2) About 1/2 pack (3) About 1 pack (4) More than a pack

Structured Clinical Interview for DSM-IV[1]

(Non-Alcohol Substance Use Disorders Module Modified for Marijuana Use, Past Month)

How old were you when you first started smoking marijuana regularly (i.e., 3 or more times a week)? ____

age of onset of regular use

How old were you when your marijuana use began to cause you problems? ____

age of problem use

Current Marijuana Dependence

Now I am going to ask you several questions about your marijuana use for the past month, that is since _____ .

(*give anchor date*)

Current marijuana dependence is characterized by a maladaptive pattern of marijuana use leading to clinically significant impairment or distress, as manifested by three or more of the following occurring during the assessment period. The counselor circles the appropriate clinical rating based on the chart below.

Interview Questions	Clinical Rating	DSM-IV Dependence Criteria
1. In the past month, have you often found that, when you started using marijuana, you ended up using much more than you were planning to? *If no:* Have you used it over a much longer period than you were planning to?	**? 1 2 3**	*3. Marijuana often is taken in larger amounts or over a longer period than was intended.*

Clinical Rating

? = Could not determine based on information provided.

1 = Absent or false; the symptom described in the criterion clearly is absent or the criterion statement clearly is false.

2 = Subthreshold; the threshold for the criterion is almost, but not quite, met.

3 = Threshold or true; the threshold for the criterion is met or the criterion statement is true.

[1]Source: First et al. 1996.

Structured Clinical Interview for DSM-IV (continued)

(Non-Alcohol Substance Use Disorders Module Modified for Marijuana Use, Past Month)

Interview Questions	Clinical Rating	DSM-IV Dependence Criteria
2. In the past month, have you tried to cut down or stop using marijuana? *If yes:* In the past month, did you ever stop using marijuana? (How many times did you try to cut down or stop?) *If no:* Did you have a desire to stop or cut down? *If yes:* Is this something you worry about?	? 1 2 3	*4. There is a persistent desire or one or more unsuccessful efforts to cut down or control marijuana use.*
3. In the past month, did you spend a lot of time using marijuana or doing whatever you had to do to get it? Did it take you a long time to get back to normal? (How much time? As long as several hours?)	? 1 2 3	*5. A great deal of time is spent in activities necessary to obtain marijuana, use marijuana, or recover from its effects.*
4. In the past month, did you use marijuana so often that you used it instead of working or spending time on hobbies or with your family or friends?	? 1 2 3	*6. Important social, occupational, or recreational activities are given up or reduced because of marijuana use.*
5. Do you forget things? Do you have trouble concentrating? Are you anxious or sad a lot? Do you think this has anything to do with marijuana? Has marijuana caused you physical problems such as difficulty breathing, many colds, or a chronic cough or made a physical problem worse? *If yes to either:* In the past month, did you keep on using marijuana anyway?	? 1 2 3	*7. Continued marijuana use despite knowledge of having a persistent or recurrent psychological or physical problem that is likely to have been caused or exacerbated by the use of the marijuana.*

Clinical Rating

? = Could not determine based on information provided.

1 = Absent or false; the symptom described in the criterion clearly is absent or the criterion statement clearly is false.

2 = Subthreshold; the threshold for the criterion is almost, but not quite, met.

3 = Threshold or true; the threshold for the criterion is met or the criterion statement is true.

Structured Clinical Interview for DSM-IV (continued)

(Non-Alcohol Substance Use Disorders Module Modified for Marijuana Use, Past Month)

Interview Questions	Clinical Rating	DSM-IV Dependence Criteria
6. Have you found that you need to use a lot more or higher quality marijuana to get high than you did when you first started using it regularly (e.g., three or more times a week)? *If yes:* How much more? *If no:* Do you find that, when you use the same amount, it affects you much less than it did before?	**? 1 2 3**	*1. Tolerance, as defined by either of the following:* *(a) A need for markedly increased amounts of marijuana (at least 50% increase) to achieve intoxication or desired effect* *or* *(b) Markedly diminished effect with continued use of the same amount of marijuana.*
7. In the past month, have you had withdrawal symptoms, that is, felt sick when you cut down or stopped using? *If yes:* What symptoms did you have? *If no:* After not using marijuana for a few hours or more, have you often used it to keep yourself from getting sick (withdrawal)?	**? 1 2 3**	*2. Withdrawal, as manifested by either of the following:* *(a) The characteristic withdrawal syndrome for marijuana, e.g., appetite disturbance, sleep disturbance (vivid dreams), night sweats, headaches, irritability, restlessness* *or* *(b) Marijuana or a closely related substance is taken to relieve or avoid withdrawal symptoms.*
Record the total number of items (1–7) coded 3.	*Number of dependence criteria met:* _____	*If three or more items are coded as 3, the client meets the DSM-IV diagnosis of current marijuana dependence.*

Clinical Rating

? = Could not determine based on information provided.

1 = Absent or false; the symptom described in the criterion clearly is absent or the criterion statement clearly is false.

2 = Subthreshold; the threshold for the criterion is almost, but not quite, met.

3 = Threshold or true; the threshold for the criterion is met or the criterion statement is true.

Structured Clinical Interview for DSM-IV (continued)

(Non-Alcohol Substance Use Disorders Module Modified for Marijuana Use, Past Month)

Current Marijuana Abuse

Now I am going to ask you a few more questions about your marijuana use for the past month, that is, since _____ .
(*give anchor date*)

Current marijuana abuse is characterized by a maladaptive pattern of marijuana use leading to clinically significant impairment or distress, as manifested by one or more of the following occurring during the assessment period.

Interview Questions	Clinical Rating	DSM-IV Abuse Criteria
8. In the past month, have you missed work or school because you were high or hung over? Have you done a bad job at work or failed courses because of your marijuana use? *If no:* Have you not kept your house clean or not taken proper care of your children because of your use of marijuana? *If yes:* How often did this occur?	**?** **1** **2** **3**	*1. Recurrent (two or more times) marijuana use resulting in a failure to fulfill major obligations at work, school, or home (e.g., repeated absences or poor work performance related to marijuana use; marijuana-related absences, suspensions, or expulsions from school; neglect of household or children).*
9. In the past month, did you use marijuana in a situation in which it might have been dangerous? (Did you drive while you were high?) *If yes:* How often did this occur?	**?** **1** **2** **3**	*2. Recurrent (two or more times) marijuana use in situations in which it is physically hazardous (e.g., driving a car; operating dangerous equipment like a lawnmower, chain saw, stove, gun, or tractor; or skiing, swimming, biking or taking care of children when impaired by marijuana).*

Clinical Rating

? = Could not determine based on information provided.

1 = Absent or false; the symptom described in the criterion clearly is absent or the criterion statement clearly is false.

2 = Subthreshold; the threshold for the criterion is almost, but not quite, met.

3 = Threshold or true; the threshold for the criterion is met or the criterion statement is true.

Structured Clinical Interview for DSM-IV (continued)

(Non-Alcohol Substance Use Disorders Module Modified for Marijuana Use, Past Month)

Interview Questions	Clinical Rating	DSM-IV Abuse Criteria
10. Has your use of marijuana gotten you into trouble with the law in the past month? *If yes:* How often did this occur?	**?** **1** **2** **3**	*3. Recurrent (two or more times) marijuana-related legal problems (e.g., arrests for marijuana-related disorderly conduct).*
11. Has your use of marijuana caused you problems with other people, such as with family members, friends, or people at work? Have you gotten into physical fights or had bad arguments about your marijuana use? *If yes:* In the past month, did you keep on using marijuana anyway?	**?** **1** **2** **3**	*4. Continued use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of marijuana (e.g., arguments with spouse, physical fights).*
Record the total number of items (8–11) coded 3.	*Number of abuse criteria met* _____	*If one or more items (8–11) are coded as 3, the client meets the DSM-IV diagnosis of current marijuana abuse.*

Clinical Rating

? = Could not determine based on information provided.

1 = Absent or false; the symptom described in the criterion clearly is absent or the criterion statement clearly is false.

2 = Subthreshold; the threshold for the criterion is almost, but not quite, met.

3 = Threshold or true; the threshold for the criterion is met or the criterion statement is true.

Marijuana Problem Scale

Following are different types of problems you may have experienced as a result of smoking marijuana. Please circle the number that indicates whether each item has been a problem for you in the past month.

Has marijuana use caused you...	No Problem	Minor Problem	Serious Problem
1. Problems between you and your partner	0	1	2
2. Problems in your family	0	1	2
3. To neglect your family	0	1	2
4. Problems between you and your friends	0	1	2
5. To miss days at work or miss classes	0	1	2
6. To lose a job	0	1	2
7. To have lower productivity	0	1	2
8. Medical problems	0	1	2
9. Withdrawal symptoms	0	1	2
10. Blackouts or flashbacks	0	1	2
11. Memory loss	0	1	2
12. Difficulty sleeping	0	1	2
13. Financial difficulties	0	1	2
14. Legal problems	0	1	2
15. To have lower energy level	0	1	2
16. To feel bad about your use	0	1	2
17. Lowered self-esteem	0	1	2
18. To procrastinate	0	1	2
19. To lack self-confidence	0	1	2

Marijuana Problem Scale (continued)

Marijuana Problem Scale Scoring Instructions

To obtain the Marijuana Problem Scale *(MPS) Score, add the number of items reported as either a minor problem or serious problem. This score is used in the* Personal Feedback Report *(form AS8) and compared with the scores in table C at the end of the instructions for creating the PFR.*

Items circled as 1 or 2 by the client should be checked on part II of the Personal Feedback Report *(form AS8).*

For Office Use

MPS Score: _____

Reasons for Quitting Questionnaire

People who want to stop smoking marijuana may have several reasons for quitting. I am interested in finding out your reasons for wanting to quit.

There are no right or wrong reasons. Any reason is a good one. Below is a list of reasons that a person may have. Please read each statement and circle the number that best describes how much this reason applies to you at this time.

I want to quit smoking marijuana at this time...	Not at All	A Little Bit	Moder-ately	Quite a Bit	Very Much
1. To show myself that I can quit if I want to	0	1	2	3	4
2. Because I will like myself better if I quit	0	1	2	3	4
3. Because I won't have to leave social functions or other people's houses to smoke	0	1	2	3	4
4. So that I can feel in control of my life	0	1	2	3	4
5. Because my family and friends will stop nagging me if I quit	0	1	2	3	4
6. To get praise from people I'm close to	0	1	2	3	4
7. Because smoking marijuana does not fit in with my self-image	0	1	2	3	4
8. Because smoking marijuana is becoming less socially acceptable	0	1	2	3	4
9. Because someone has told me to quit or else	0	1	2	3	4
10. Because I will receive a special gift if I quit	0	1	2	3	4
11. Because of potential health problems	0	1	2	3	4
12. Because people I am close to will be upset if I don't quit	0	1	2	3	4
13. So that I can get more things done	0	1	2	3	4
14. Because I have noticed that smoking marijuana is hurting my health	0	1	2	3	4
15. Because I want to save the money I spend on marijuana	0	1	2	3	4

Reasons for Quitting Questionnaire (continued)

I want to quit smoking marijuana at this time...	Not at All	A Little Bit	Moder-ately	Quite a Bit	Very Much
16. To prove that I'm not addicted to marijuana	0	1	2	3	4
17. Because there is a drug-testing policy at work	0	1	2	3	4
18. Because I know others with health problems caused by smoking marijuana	0	1	2	3	4
19. Because I am concerned that smoking marijuana will shorten my life	0	1	2	3	4
20. Because of legal problems related to marijuana	0	1	2	3	4
21. Because I don't want to be a bad example for children	0	1	2	3	4
22. Because I want to have more energy	0	1	2	3	4
23. So that my hair and clothes won't smell like marijuana	0	1	2	3	4
24. So that I won't burn holes in clothes or furniture	0	1	2	3	4
25. Because my memory will improve	0	1	2	3	4
26. So that I will be able to think more clearly	0	1	2	3	4

Use the spaces below to list the three most important reasons for wanting to stop smoking marijuana. If any of the statements above are among your most important reasons, list them in the spaces below. Otherwise, write your own reasons.

27. My three most important reasons, in order of importance, for wanting to quit smoking marijuana are:

1. _____

2. _____

3. _____

Reasons for Quitting Questionnaire (continued)

Please check the box that applies to you.

- ❒ I have not yet quit smoking marijuana (answer only 28).
- ❒ I have stopped smoking marijuana already (answer only 29).

28. If you have not yet quit smoking marijuana, circle the number that indicates how ready you are RIGHT NOW to stop smoking marijuana.

0%--------20%----------40%----------60%----------80%----------100%
ready to quit — ready to quit

29. If you have stopped smoking marijuana already, circle the number that indicates how ready you are RIGHT NOW to remain abstinent.

0%--------20%----------40%----------60%----------80%----------100%
ready to remain abstinent — ready to remain abstinent

Reasons for Quitting Questionnaire Scoring Instructions

For a total Reasons for Quitting *(RFQ) Score, add the number of items the client reported as a reason to quit smoking marijuana. Count only those responses coded as 2, 3, or 4 (moderately, quite a bit, or very much). Include any open-ended items in question 27 that are not in the list.*

Items circled as 2, 3, or 4 by the client are his or her most relevant reasons for quitting marijuana. These items should be checked on part III of the Personal Feedback Report *(form AS8).*

For Office Use

RFQ Score: _____

Self-Efficacy Questionnaire[2]

Please circle how confident you are that you could **resist** the temptation to smoke marijuana in the following situations.

How confident are you that you could resist the temptation to smoke marijuana if you were...	Not at all Confident						Extremely Confident
1. Doing monotonous work	1	2	3	4	5	6	7
2. Wanting to feel more confident	1	2	3	4	5	6	7
3. Vacationing	1	2	3	4	5	6	7
4. Seeing someone else smoking marijuana and enjoying it	1	2	3	4	5	6	7
5. Feeling depressed or worried	1	2	3	4	5	6	7
6. Drinking alcohol	1	2	3	4	5	6	7
7. Feeling like celebrating good news or an accomplishment	1	2	3	4	5	6	7
8. Feeling frustrated	1	2	3	4	5	6	7
9. Wanting to feel better about yourself	1	2	3	4	5	6	7
10. Feeling angry about something or someone	1	2	3	4	5	6	7
11. Enjoying a pleasant social situation	1	2	3	4	5	6	7
12. Having time to yourself, free of responsibilities	1	2	3	4	5	6	7
13. Using other drugs recreationally	1	2	3	4	5	6	7
14. Being at a party with people who are smoking marijuana	1	2	3	4	5	6	7
15. Feeling embarrassed	1	2	3	4	5	6	7
16. Being with a spouse or close friend who is smoking marijuana	1	2	3	4	5	6	7
17. Being in an uncomfortable social situation	1	2	3	4	5	6	7
18. Being offered marijuana by someone	1	2	3	4	5	6	7
19. Being bored, with nothing to do	1	2	3	4	5	6	7
20. Feeling stressed out and needing to calm down	1	2	3	4	5	6	7

[2]Sources: Stephens et al. 1993*a*, 1995.

Self-Efficacy Questionnaire (continued)

Self-Efficacy Questionnaire Scoring Instructions

To obtain the Self-Efficacy *(SE) Score, add the numbers circled for each item and divide by the total number answered (the denominator should be 20 unless an item was skipped).*

Items circled as 1, 2, or 3 indicate that the particular situations would be more difficult to resist and would affect the client's ability to remain abstinent. These items should be checked on part IV of the Personal Feedback Report *(form AS8).*

For Office Use

SE Score: _____

Instructions for Creating the Personal Feedback Report

The items in **bold font** are the statements to be filled in on the PFR. The means of obtaining the information is in *italics*.

The assessments to be completed (by interview or self-report) by the client include

- *TLFB Grid* (summarized from the calendar) (form AS2)
- *TLFB Marijuana Use Summary Sheet* (form AS3)
- SCID-IV (form AS4)
- *Marijuana Problem Scale* (form AS5)
- *Reasons for Quitting Questionnaire (*form AS6)
- *Self-Efficacy Questionnaire (*form AS7).

Reference tables can be found at the end of these instructions and include

- Table A. Marijuana Use for Americans Ages 12 and Older
- Table B. Marijuana Use for Treatment-Seeking Adults
- Table C. Marijuana Consequences
- Table D. Confidence in Avoiding Use.

Part I. Your Marijuana Consumption

You reported that you have been smoking regularly for ____ years.

Calculate using age of onset of regular use from SCID-IV (form AS4).

In the past month, you smoked marijuana on ____ days.

Insert total number of days used marijuana from TLFB Grid *(form AS2).*

You said you smoked ____ joints/pipes/blunts per day during that same period.

Insert number from question 2 on TLFB Marijuana Use Summary Sheet *(form AS3).*

Relative to other Americans, this places you in the ____th percentile. This means that ____ percent of other Americans smoke less than you do.

Use table A to determine the percentile based on the number of days smoked in the past 30 days. Look up the number of days used, and record the percentile. Use the same number in the Personal Feedback Report *to illustrate the percentage of other Americans who smoke less than the client does.*

Relative to other adults who have sought counseling for their marijuana use, you fall in the ____th percentile. This means that you smoke more marijuana than ____ percent of individuals seeking marijuana treatment.

Use table B to determine the percentile based on the number of days smoked in the past 30 days. See above.

Instructions for Creating the Personal Feedback Report (continued)

Part II. Your Problems Related to Marijuana

***For these items, use* Marijuana Problem Scale (*form AS5*).**

You indicated that your marijuana use causes a number of problems for you, including:
On the Personal Feedback Report, *check off the items indicated as a minor or serious problem.*

You identified ____ problems caused by your marijuana use.
Insert the MPS Score.

This places you in the ____th percentile relative to other adults seeking marijuana treatment. This means that you experience more problems than ____ percent of people seeking treatment for their marijuana use.
Look up the MPS Score in table C and record the percentile. Place the same number in both blanks.

For these items, use SCID-IV (form AS4)

You also indicated that
On the Personal Feedback Report, *check off any criteria coded as a 3 on the SCID-IV.*

As you reflect on the consequences of smoking marijuana and how they affect your life, what else might you add?
Record any other comments or reflections the client states.

Part III. Your Reasons for Quitting Marijuana

***For these items, use* Reasons for Quitting Questionnaire (*form AS6*).**

You listed the following personal reasons for quitting marijuana and said that they applied to you moderately, quite a bit, or very much at this time.
On the Personal Feedback Report, *check off items indicated moderately, quite a bit, or very much.*

You listed these reasons because they have personal significance for you. Do you have any other important reasons for quitting that you would like to add?
List the three most important reasons the client indicates for wanting to quit (question 27). Record any other reasons the client mentions.

Your number of personal reasons for quitting marijuana is _____.
Insert the RFQ Score.

Part IV. Difficult Situations for Maintaining Abstinence

***For these items, use* Self-Efficacy Questionnaire (*form AS7*).**

You predicted your most difficult situations for maintaining abstinence from marijuana. These high-risk situations include
Check off items reported as 1, 2, or 3.
As you think about highly tempting situations, are there situations that you'd like to add?

Instructions for Creating the Personal Feedback Report (continued)

Record other comments or tempting situations the client adds.

Your responses indicate how confident you are that you could avoid smoking marijuana in these situations and resulted in an SE Score of ____.
Insert SE Score.

This places you in the ____th percentile compared with other adults who have sought counseling to help them stop smoking marijuana.
Match the SE Score with the scores on table D, and record the percentile.

This means that you are more confident that you could resist the temptation to smoke marijuana than ____ percent of treatment-seeking individuals.
Place the same number in this blank.

Table A. Marijuana Use for Americans Ages 12 and Older (Past 30 Days)

# Days Used in the Past 30 Days	Percentile Ranking
1 day	94
2-3 days	95
4-7 days	96
8-14 days	97
15-24 days	98
>25 days	99

Source: Substance Abuse and Mental Health Services Administration 2001.

Table B. Marijuana Use for Treatment-Seeking Adults (Past 30 Days)

# Days Used in the Past 30 Days	Rounded Percentile Ranking	# Days Used in the Past 30 Days	Rounded Percentile Ranking
0	0	16	11
1	0	17	12
2	1	18	13
3	1	19	14
4	2	20	19
5	2	21	20
6	2	22	21
7	3	23	26
8	4	24	27
9	4	25	32
10	5	26	34
11	6	27	44
12	7	28	53
13	8	29	64
14	8	30	100
15	11		

Sources: Stephens et al. 1994*b*, 2000; Vendetti et al. 2002.

Instructions for Creating the Personal Feedback Report (continued)

Table C. Marijuana Consequences			
Marijuana Problem Score	Rounded Percentile Ranking	Marijuana Problem Score	Rounded Percentile Ranking
0	0	10	57
1	1	11	68
2	3	12	77
3	5	13	85
4	8	14	91
5	11	15	95
6	16	16	98
7	23	17	99
8	32	18	100
9	44	19	100

Sources: Stephens et al. 2000; Vendetti et al. 2002.

Table D. Confidence in Avoiding Use			
Self-Efficacy Score	Rounded Percentile Ranking	Self-Efficacy Score	Rounded Percentile Ranking
1.00-1.25	2	2.74-2.79	21
1.28-1.35	3	2.80-2.80	22
1.37-1.50	4	2.83-2.84	23
1.53-1.58	5	2.85-2.89	24
1.60-1.70	6	2.89-2.94	25
1.75-1.85	7	2.95-2.95	26
1.90-2.00	8	3.00-3.00	27
2.05-2.05	9	3.05-3.05	28
2.10-2.15	10	3.06-3.11	29
2.20-2.22	11	3.15-3.16	30
2.25-2.32	12	3.17-3.20	31
2.33-2.37	13	3.21-3.21	32
2.39-2.40	14	3.22-3.25	33
2.41-2.44	15	3.26-3.28	34
2.45-2.47	16	3.30-3.33	35
2.50-2.58	17	3.35-3.35	36
2.60-2.60	18	3.37-3.39	37
2.61-2.65	19	3.40-3.40	38
2.67-2.72	20	3.42-3.45	39

Instructions for Creating the Personal Feedback Report (continued)

Table D. Confidence in Avoiding Use (continued)

Self-Efficacy Score	Rounded Percentile Ranking	Self-Efficacy Score	Rounded Percentile Ranking
3.47-3.47	40	4.47-4.55	72
3.50-3.50	41	4.56-4.58	73
3.53-3.53	42	4.60-4.65	74
3.55-3.56	43	4.67-4.74	75
3.58-3.58	44	4.75-4.78	76
3.60-3.60	45	4.79-4.80	77
3.61-3.63	46	4.83-4.85	78
3.65-3.68	47	4.89-4.90	79
3.70-3.70	48	4.94-4.95	80
3.72-3.76	49	5.00-5.00	81
3.78-3.79	50	5.05-5.06	82
3.80-3.80	51	5.11-5.16	83
3.83-3.84	52	5.17-5.21	84
3.85-3.89	54	5.22-5.28	85
3.90-3.90	55	5.30-5.33	86
3.94-3.95	56	5.37-5.42	87
4.00-4.05	58	5.44-5.47	88
4.05-4.05	59	5.50-5.56	89
4.06-4.06	60	5.58-5.63	90
4.10-4.11	61	5.65-5.70	91
4.12-4.16	62	5.72-5.78	92
4.17-4.20	63	5.79-5.84	93
4.21-4.22	64	5.89-6.05	94
4.25-4.26	65	6.06-6.16	95
4.28-4.28	66	6.17-6.30	96
4.30-4.32	67	6.33-6.55	97
4.33-4.35	68	6.56-6.75	98
4.39-4.40	69	6.83-6.95	99
4.42-4.42	70	7.00-7.00	100
4.44-4.45	71		

Sources: Stephens et al. 1994*b*, 2000; Vendetti et al. 2002.

Personal Feedback Report

This report summarizes information about your marijuana use. The information may be useful in developing strategies to resist marijuana.

Part I. Your Marijuana Consumption

You reported that you have been smoking regularly for ____ years.

In the past month, you smoked marijuana on ____ days.

You said you smoked ____ joints/pipes/blunts per day during that same period.

Relative to other Americans, this places you in the ____th percentile. This means that ____ percent of other Americans smoke less than you do.

Relative to adults who have sought counseling for their marijuana use, you fall in the ____th percentile. This means that you smoke more marijuana than ____ percent of individuals seeking marijuana treatment.

Part II. Your Problems Related to Marijuana

You indicated that your marijuana use causes a number of problems for you, including:

_____ Problems between you and your partner

_____ Problems in your family

_____ To neglect your family

_____ Problems between you and your friends

_____ To miss days at work or miss classes

_____ To lose a job

_____ To have lower productivity

_____ Medical problems

_____ Withdrawal symptoms

_____ Blackouts or flashbacks

_____ Memory loss

_____ Difficulty sleeping

_____ Financial difficulties

_____ Legal problems

_____ To have lower energy level

_____ To feel bad about your use

_____ Lowered self-esteem

_____ To procrastinate

_____ To lack self-confidence

Personal Feedback Report (continued)

You identified ____ problems caused by your marijuana use.

This places you in the ____th percentile relative to other adults seeking marijuana treatment. This means that you experience more problems than ____ percent of people seeking treatment for their marijuana use.

You also indicated that

_____ You often have found that when you start using marijuana, you end up smoking much more of it than you were planning to. (SCID-IV, question 1)

_____ You frequently thought about or tried unsuccessfully to cut down or control your use of marijuana. (SCID-IV, question 2)

_____ You spent a great deal of time trying to get marijuana, smoking it, or recovering from its effects. (SCID-IV, question 3)

_____ You sometimes gave up or did not participate in important occupational, social, or recreational activities because you were using marijuana. (SCID-IV, question 4)

_____ You continued using marijuana despite knowing that it was contributing to social, psychological, or physical problems in your life. (SCID-IV, question 5)

_____ You needed to smoke more marijuana than you had smoked in the past to get the same effect. (SCID-IV, question 6)

_____ You noticed that you were not getting as high as you used to when you smoked the same amount of marijuana. (SCID-IV, question 6)

_____ You experienced withdrawal symptoms when you tried to stop using marijuana (e.g., difficulty sleeping, irritability, excessive perspiration). (SCID-IV, question 7)

_____ You often used marijuana to relieve or avoid experiencing marijuana-related withdrawal symptoms. (SCID-IV, question 7)

_____ You were frequently high or recovering from being high when you were supposed to be attending to your obligations at work, school, or home. (SCID-IV, question 8)

_____ You were frequently high or recovering from being high when you were doing something dangerous like driving a car. (SCID-IV, question 9)

_____ You have gotten into trouble with the law because of your marijuana use. (SCID-IV, question 10)

Personal Feedback Report (continued)

_____ You have experienced problems with family members, friends, or people at work because of your marijuana use. (SCID-IV, question 11)

As you reflect on the consequences of smoking marijuana and how they affect your life, what else might you add?

_____

_____

_____

Part III. Your Reasons for Quitting Marijuana

You listed the following personal reasons for quitting marijuana and said that they applied to you moderately, quite a bit, or very much at this time.

_____ To show myself that I can quit if I want to

_____ Because I will like myself better if I quit

_____ Because I won't have to leave social functions or other people's houses to smoke

_____ So I can feel in control of my life

_____ Because my family and friends will stop nagging me if I quit

_____ To get praise from people I'm close to

_____ Because smoking marijuana does not fit in with my self-image

_____ Because smoking marijuana is becoming less socially acceptable

_____ Because someone has told me to quit or else

_____ Because I will receive a special gift if I quit

_____ Because of potential health problems

_____ Because people I am close to will be upset if I don't quit

_____ So that I can get more things done

_____ Because I have noticed that smoking marijuana is hurting my health

_____ Because I want to save the money I spend on marijuana

_____ To prove that I'm not addicted to marijuana

Personal Feedback Report (continued)

_____ Because there is a drug-testing policy at work

_____ Because I know others with health problems caused by smoking marijuana

_____ Because I am concerned that smoking marijuana will shorten my life

_____ Because of legal problems related to marijuana

_____ Because I don't want to be a bad example for children

_____ Because I want to have more energy

_____ So my hair and clothes won't smell like marijuana

_____ So I won't burn holes in clothes or furniture

_____ Because my memory will improve

_____ So that I will be able to think more clearly

You listed these reasons because they have personal significance for you. Do you have any other important reasons for quitting that you would like to add?

_____

_____

_____

_____

Your number of personal reasons for quitting marijuana is ____.

Part IV. Difficult Situations for Maintaining Abstinence

You predicted your most difficult situations for maintaining abstinence from marijuana. These high-risk situations include

_____ Doing monotonous work

_____ Wanting to feel more confident

_____ Vacationing

_____ Seeing someone else smoking marijuana and enjoying it

_____ Feeling depressed or worried

Personal Feedback Report (continued)

_____ Drinking alcohol

_____ Feeling like celebrating good news or an accomplishment

_____ Feeling frustrated

_____ Wanting to feel better about myself

_____ Feeling angry about something or someone

_____ Enjoying a pleasant social situation

_____ Having some time to myself, free of responsibilities

_____ Using other drugs recreationally

_____ Being at a party with people who are smoking marijuana

_____ Feeling embarrassed

_____ Being with a spouse or close friend who is smoking marijuana

_____ Being in an uncomfortable social situation

_____ Being offered marijuana by someone

_____ Being bored, with nothing to do

_____ Feeling stressed out and needing to calm down

As you think about highly tempting situations, are there situations that you'd like to add?

_____

_____

_____

Your responses indicate how confident you are that you could avoid smoking marijuana in these situations and resulted in an SE Score of ____.

This places you in the ____th percentile compared with other adults who have sought counseling to help them stop smoking marijuana.

This means that you are more confident that you could resist the temptation to smoke marijuana than ____ percent of treatment-seeking individuals.

REFERENCES

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV). Washington, DC: American Psychiatric Press, 1994.

Andreasson, S.; Allebeck, P.; Engstrom, A.; and Rydberg, U. Cannabis and schizophrenia: A longitudinal study of Swedish conscripts. *Lancet* 2(8574):1483–1486, 1987.

Annis, H.M. *Situational Confidence Questionnaire (SCQ) User's Guide.* Toronto, Ontario, Canada: Marketing Services, Addiction Research Foundation, 1988.

Anthony, J.C., and Helzer, J.E. Syndromes of drug abuse and dependence. In: Robins, L.N., and Regier, D.A., eds. *Psychiatric Disorders in America*. New York: Free Press, 1991, pp. 116–154.

Anthony, J.C.; Warner, L.A.; and Kessler, R.C. Comparative epidemiology of dependence on tobacco, alcohol, controlled substances, and inhalants: Basic findings from the national comorbidity survey. *Experimental and Clinical Psychopharmacology* 2:244–268, 1994.

Bedell, J.R.; Archer, R.P.; and Marlowe, H. A description and evaluation of a problem solving skills training program. In: Upper, D., and Ross, S.M., eds. *Behavioral Group Therapy: An Annual Review.* Champaign, IL: Research Press, 1980.

Block, R.I., and Ghoneim, M.M. Effects of chronic marijuana use on human cognition. *Psychopharmacology* 110(1–2):219–228, 1993.

Budney, A.J.; Higgins, S.T.; Radonovich, K.J.; and Novy, P.L. Adding voucher-based incentives to coping-skills and motivational enhancement improves outcomes during treatment for marijuana dependence. *Journal of Consulting and Clinical Psychology* 68(6):1051–1061, 2000.

Budney, A.J.; Hughes, J.R.; Moore, B.A.; and Novy, P.L. Marijuana abstinence effects in marijuana smokers maintained in their home environment. *Archives of General Psychiatry* 58(10):917–924, 2001.

Budney, A.J.; Novy, P.L.; and Hughes, J.R. Marijuana withdrawal among adults seeking treatment for marijuana dependence. *Addiction* 94(9):1311–1321, 1999.

Budney, A.J.; Radonovich, K.J.; Higgins, S.T.; and Wong, C.J. Adults seeking treatment for marijuana dependence: A comparison to cocaine-dependent treatment seekers. *Experimental and Clinical Psychopharmacology* 6(4):1–8, 1998.

Carroll, K.M. *A Cognitive-Behavioral Approach: Treating Cocaine Addiction.* NIH Publication 98–4308. Rockville, MD: National Institute on Drug Abuse, 1998, reprinted 2000 and 2002.

Chesher, G. Cannabis and road safety: An outline of research studies to examine the effects of cannabis on driving skills and actual driving performance. In: *The Effects of Drugs (Other Than Alcohol) on Road Safety.* Melbourne, Australia: Road Safety Committee, Parliament of Victoria, 1995, pp. 67–96.

Clark, H.W.; Horton, A.M., Jr.; Dennis, M.; and Babor, T.F. Moving from research to practice just in time: The treatment of cannabis use disorders come of age. *Addiction* 97(Suppl. 1):1–3, 2002.

Coffey, C.; Carlin, J.B.; Degenhardt, L.; Lynskey, M.; Sanci, L.; and Patton, G.C. Cannabis dependence in young adults: An Australian population study. *Addiction* 97(2):187–194, 2002.

Compton, D.R.; Dewey, W.L.; and Martin B.R. Cannabis dependence and tolerance production. *Advances in Alcohol and Substance Abuse* 9(1–2):128–147, 1990.

Compton, W.M.; Grant, B.F.; Colliver, J.D.; Glantz, M.D.; and Stinson, F.S. Prevalence of marijuana use disorders in the United States: 1991–1992 and 2001–2002. *JAMA* 291(17):2114–2121, 2004.

Copeland, J. A qualitative study of barriers to formal treatment among women who self-managed change in addictive behaviors. *Journal of Substance Abuse Treatment* 14(2):186, 1997.

Crowley, T.J.; Macdonald, M.J.; Whitmore, E.A.; and Mikulich, S.K. Cannabis dependence, withdrawal, and reinforcing effects among adolescents with conduct symptoms and substance use disorders. *Drug and Alcohol Dependence* 50(1):27–37, 1998.

CSAT (Center for Substance Abuse Treatment). *Comprehensive Case Management for Substance Abuse Treatment.* Treatment Improvement Protocol (TIP) Series 27. DHHS Publication No. (SMA) 98-3222. Rockville, MD: Substance Abuse and Mental Health Services Administration, 1998.

CSAT (Center for Substance Abuse Treatment). *Brief Interventions and Brief Therapies for Substance Abuse.* Treatment Improvement Protocol (TIP) Series 34. DHHS Publication No. (SMA) 99-3353. Rockville, MD: Substance Abuse and Mental Health Services Administration, 1999*a*.

CSAT (Center for Substance Abuse Treatment). *Enhancing Motivation for Change in Substance Abuse Treatment.* Treatment Improvement Protocol (TIP) Series 35. DHHS Publication No. (SMA) 00-3460. Rockville, MD: Substance Abuse and Mental Health Services Administration, 1999*b*, reprinted 2000.

CSAT (Center for Substance Abuse Treatment). *KAP Keys for Clinicians Based on TIP 34*. DHHS Publication No. (SMA) 01-3601. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2001*a*.

CSAT (Center for Substance Abuse Treatment). *Quick Guide for Clinicians Based on TIP 34*. DHHS Publication No. (SMA) 01-3600. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2001*b*.

CSAT (Center for Substance Abuse Treatment). *KAP Keys for Clinicians Based on TIP 35.* DHHS Publication No. (SMA) 01-3603. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2001*c*.

CSAT (Center for Substance Abuse Treatment). *Quick Guide for Clinicians Based on TIP 35.* DHHS Publication No. (SMA) 01-3602. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2001*d*.

Day, N.L.; Richardson, G.A.; Goldschmidt, L.; Robles, N.; Taylor, P.M.; Stoffer, D.S.; Cornelius, M.D.; and Geva, D. Effect of prenatal marijuana exposure on the cognitive development of offspring at age three. *Neurotoxicology and Teratology* 16(2):169–175, 1994.

Devane, W.A.; Hanus, L.; Breuer, A.; Pertwee, R.G.; Stevenson, L.A.; Griffin, G.; Gibson, D.; Mandelbaum, A.; Etinger, A.; and Mechoulam, R. Isolation and structure of a brain constituent that binds to the cannabinoid receptor. *Science* 258(5090):1946–1949, 1992.

Donald, P.J. Advanced malignancy in the young marijuana smoker. In: Freidman, H.; Specter, S.; and Klein, T.W., eds. *Drugs of Abuse, Immunity, and Immunodeficiency.* London: Plenum Press, 1991, pp. 33–46.

D'Zurilla, T.J., and Goldfried, M.R. Problem solving and behavior modification. *Journal of Abnormal Psychology* 78:107–126, 1971.

Emery, G. *A New Beginning: How To Change Your Life Through Cognitive Therapy.* New York: Simon and Schuster, 1981.

First, M.B.; Spitzer, R.; Gibbon, M.; and Williams, J. *Structured Clinical Interview for DSM-IV*. New York: Biometrics Research Department, New York State Psychiatric Institute, 1996.

First, M.B.; Spitzer, R.L.; Williams, J.B.W.; and Gibbon, M. Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I). In: American Psychiatric Association (APA), *Handbook of Psychiatric Measures.* Washington, DC: APA, 2000, pp. 49–53.

Godley, S.H.; Meyers, R.J.; Smith, J.E.; Karvinen, T.; Titus, J.C.; Godley, M.D.; Dent, G.; Passetti, L.; and Kelberg, P. *The Adolescent Community Reinforcement Approach for Adolescent Cannabis Users.* Cannabis Youth Treatment Series, Volume 4. DHHS Publication No. (SMA) 01-3489. Rockville, MD: Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, 2001.

Grenyer, B.; Solowij, N.; and Peters, R. *A Guide to Quitting Marijuana.* Sydney, Australia: University of New South Wales, 1995.

Haas, A.P., and Hendin, H. The meaning of chronic marijuana use among adults: A psychosocial perspective. *Journal of Drug Issues* 17:333–348, 1987.

Hall, W. The public health implications of cannabis use. *Australian Journal of Public Health* 19:235–242, 1995.

Hall, W., and Babor, T.F. Cannabis use and public health: Assessing the burden. *Addiction* 95:485–490, 2000.

Hall, W.; Johnston, L.; and Donnelly, N. Epidemiology of cannabis use and its consequences. In: Kalant, H.; Corrigall, W.A.; Hall, W.; and Smart, R. eds. *The Health Effects of Cannabis.* Toronto, Ontario, Canada: Addiction Research Foundation, 1999, pp. 71–125.

Hall, W., and Solowij, N. The adverse effects of cannabis use. *Lancet* 352(9140):1611–1616, 1998.

Hamilton, N.L.; Brantley, L.B.; Tims, F.M.; Angelovich, N.; and McDougall, B. *Family Support Network for Adolescent Cannabis Users.* Cannabis Youth Treatment Series, Volume 3. DHHS Publication No. (SMA) 01-3488. Rockville, MD: Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, 2001.

Haney, M.; Ward, A.S.; Comer, S.D.; Foltin, R.W.; and Fischman, M.W. Abstinence symptoms following oral THC administration in humans. *Psychopharmacology* 141(4):385–394, 1999*a*.

Haney, M.; Ward, A.S.; Comer, S.D.; Foltin, R.W.; and Fischman, M.W. Abstinence symptoms following smoked marijuana in humans. *Psychopharmacology* 141(4):395–404, 1999*b*.

Hatch, E.E., and Bracken, M.B. Effect of marijuana use in pregnancy on fetal growth. *American Journal of Epidemiology* 124(6):986–993, 1986.

Hollister, L.E. Health aspects of cannabis. *Pharmacological Reviews* 38(1):1–20, 1986.

Hser, Y.; Maglione, M.; Polinsky, M.; and Anglin, M. Predicting drug treatment entry among treatment-seeking individuals. *Journal of Substance Abuse Treatment* 15(3):213–220, 1998.

Intagliata, J.C. Increasing the responsiveness of alcoholics to group therapy: An interpersonal problem-solving approach. *Group* 3:106–120, 1979.

Jones, R.T., and Benowitz, N. The 30-day trip: Clinical studies of cannabis tolerance and dependence. In: Braude, M.C., and Szara, S. eds. *Pharmacology of Marijuana.* Volume 2. Orlando, FL: Academic Press, 1976, pp. 627–642.

Kadden, R.; Carroll, K.; Donovan, D.; Cooney, N.; Monti, P.; Abrams, D.; Litt, M.; and Hester, R., eds. *Cognitive-Behavioral Coping Skills Therapy Manual: A Clinical Research Guide for Therapists Treating Individuals With Alcohol Abuse and Dependence.* Project MATCH Monograph Series, Volume 3. NIH Publication No. (ADM) 94-3724. Rockville, MD: National Institute on Alcohol Abuse and Alcoholism, 1994.

Kandel, D.C., and Davies, M. Progression to regular marijuana involvement: Phenomenology and risk factors for near daily use. In: Glantz, M., and Pickens. R. eds. *Vulnerability to Drug Abuse.* Washington, DC: American Psychological Association, 1992, pp. 211–253.

Kouri, E.M., and Pope, H.G., Jr. Abstinence symptoms during withdrawal from chronic marijuana use. *Experimental and Clinical Psychopharmacology* 8(4):483–492, 2000.

Liddle, H.A. *Multidimensional Family Therapy for Adolescent Cannabis Users.* Cannabis Youth Treatment Series, Volume 5. DHHS Publication No. (SMA) 02-3660. Rockville, MD: Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, 2002.

Lundqvist, T. Specific thought patterns in chronic cannabis smokers observed during treatment. *Life Sciences* 56(23–24):2141–2144, 1995.

MacPhillamy, D.J., and Lewinsohn, P.M. The pleasant events schedule: Studies on reliability, validity, and scale intercorrelation. *Journal of Consulting and Clinical Psychology* 50:363–380, 1982.

Marlatt, G.A., and Gordon, J.R. *Relapse Prevention: Maintenance Strategies in the Treatment of Addictive Behaviors.* New York: Guilford Press, 1985.

McBride, C.M.; Curry, S.J.; Stephens, R.S.; Wells, E.A.; Roffman, R.A.; and Hawkins, J.D. Intrinsic and extrinsic motivation for change in cigarette smokers, marijuana smokers, and cocaine users. *Psychology of Addictive Behaviors* 8:243–250, 1994.

McCrady, B.S., and Miller, W.R. eds. *Research on Alcoholics Anonymous: Opportunities and Alternatives.* New Brunswick, NJ: Rutgers Center on Alcohol Studies, 1993.

Miller, W.R. *Form 90. A Structured Assessment Interview for Drinking and Related Behaviors. Test Manual.* Project MATCH Monograph Series, Volume 5. NIH Publication Number 96–4004. Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism, 1996.

Miller, W.R., and Rollnick, S. *Motivational Interviewing: Preparing People for Change,* Second Edition. New York: Guilford Press, 2002.

Monti, P.M.; Abrams, D.B.; Kadden, R.M.; and Cooney, N.L. *Treating Alcohol Dependence: A Coping Skills Training Guide.* New York: Guilford Press, 1989.

MTP Research Group. Treating cannabis dependence: Findings from a randomized trial. *Journal of Consulting and Clinical Psychology,* in press.

Pertwee, R.G. Cannabinoid receptors and their ligands in brain and other tissues. In: Nahas, G.G.; Sutin, K.M.; Harvey, D.J.; and Agurell, S., eds. *Marijuana and Medicine.* Totowa, NJ: Humana Press, 1999, pp. 187–195.

Pope, H.G.; Gruber, A.J.; and Yurgelun-Todd, D. The residual neuropsychological effects of cannabis: The current status of research. *Drug and Alcohol Dependence* 38(1):25–34, 1995.

Prochaska, J., and DiClemente, C.C. Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy: Theory, Research, and Practice* 19(3):276–288, 1982.

Prochaska, J.; DiClemente, C.C.; and Norcross, J. In search of how people change. *American Psychologist* 47(9):1102–1114, 1992.

Rainone, G.A.; Deren, S.; Kleinman, P.H.; and Wish, E.D. Heavy marijuana users not in treatment: The continuing search for the "pure" marijuana user. *Journal of Psychoactive Drugs* 19(4):353–359, 1987.

Richardson, G.A.; Day, N.L.; and Goldschmidt, L. Prenatal alcohol, marijuana, and tobacco use: Infant mental and motor development. *Neurotoxicology and Teratology* 17(4):479–487, 1995.

Rinaldi-Carmona, M.; Barth, F.; Heaulme, M.; Shire, D.; Calandra, B.; Congy, C.; Martinez, S.; Maruani, J.; Neliat, G.; Caput, D.; Ferrara, P.; Soubrie, P.; Breliere, J.C.; and LeFur, G. SR 141716A, a potent and selective antagonist of the brain cannabinoid receptor. *FEBS Letters* 350(2–3):240–244, 1994.

Robbe, H.W.J. *Influence of Marijuana on Driving.* Maastricht, The Netherlands: Institute for Human Psychopharmacology, University of Limberg, 1994.

Roffman, R.A., and Barnhart, R. Assessing need for marijuana dependence treatment through an anonymous telephone interview. *International Journal of the Addictions* 22(7):639–651, 1987.

Roffman, R.A.; Stephens, R.S.; Simpson, E.E.; and Whitaker, D.L. Treatment of marijuana dependence: Preliminary results. *Journal of Psychoactive Drugs* 20(1):129–137, 1988.

Rosenberg, M.F., and Anthony, J.C. Early clinical manifestations of cannabis dependence in a community sample. *Drug and Alcohol Dependence* 64(2):123–131, 2001.

Sampl, S.A., and Kadden, R. *Motivational Enhancement Therapy and Cognitive Behavioral Therapy for Adolescent Cannabis Users: 5 Sessions.* Cannabis Youth Treatment Series, Volume 1. Rockville, MD: Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, 2001.

Sanchez-Craig, M. "A Counselor's Manual for Secondary Prevention of Alcohol Problems." Unpublished manual. Toronto, Ontario, Canada: Addiction Research Foundation, 1983.

Scher, M.S.; Richardson, G.A.; Coble, P.A.; Day, N.L.; and Stoffer, D. The effects of prenatal alcohol and marijuana exposure: Disturbances in sleep cycling and arousal. *Pediatric Research* 24(1):101–105, 1988.

Smiley A. Marijuana: On road and driving simulator studies. In: Kalant, H.; Corrigall, W.; Hall, W.; and Smart, R. eds. *The Health Effects of Cannabis.* Toronto, Ontario, Canada: Addiction Research Foundation, 1999.

Sobell, L.C., and Sobell, M.B. Timeline follow-back: A technique for assessing self reported alcohol consumption. In: Litten, R.Z., and Allen, J.P., eds. *Measuring Alcohol Consumption: Psychological and Biochemical Methods.* New Jersey: Humana Press, 1992, pp. 41–72.

Sobell, L.C., and Sobell, M.B. Alcohol Timeline Followback (TLFB). In: American Psychiatric Association (APA). *Handbook of Psychiatric Measures.* Washington, DC: APA, 2000, pp. 477–479.

Sobell, L.C., and Sobell, M.B. Alcohol consumption measures. In: Allen, J.P., and Wilson, V., eds. *Assessing Alcohol Problems: A Guide for Clinicians and Researchers,* Second Edition. Rockville, MD: National Institute on Alcohol Abuse and Alcoholism, 2003.

Sobell, L.C.; Sobell, M.B.; Connors, G.; and Agrawal, S. Is there one self-report drinking measure that is best for all sessions? *Alcoholism: Clinical and Experimental Research,* forthcoming.

Solowij, N. *Cannabis and Cognitive Functioning.* New York: Cambridge University Press, 1998.

Solowij, N.; Michie, P.T.; and Fox, A.M. Effects of long-term cannabis use on selective attention: An event-related potential study. *Pharmacology Biochemistry and Behavior* 40(3):683–688, 1991.

Steinberg, K.L.; Roffman, R.A.; Carroll, K.M.; Kabela, E.; Kadden, R.; Miller, M.; Duresky, D.; and The Marijuana Treatment Project Research Group. Tailoring cannabis dependence treatment for a diverse population. *Addiction* 97(Suppl. 1):135–142, 2002.

Stephens, R.S.; Babor, T.F.; Kadden, R.; Miller, M.; and the Marijuana Treatment Project Group. The Marijuana Treatment Project: Rationale, design, and participant characteristics. *Addiction* 97(Suppl. 1):109–124, 2002.

Stephens, R.S., and Roffman, R.A. Adult marijuana dependence. In: Baer, J.S.; Marlatt, G.A.; and McMahon, J., eds. *Addictive Behaviors Across the Lifespan: Prevention, Treatment, and Policy Issues.* Newbury Park, CA: Sage, 1993, pp. 202–218.

Stephens, R.S.; Roffman, R.A.; Burke, R.; Williams, C.; Balmer, A.; Picciano, J.; and Adams, S. "The Marijuana Check-Up." Paper presented at the annual conference of the Association for Advancement of Behavior Therapy, Washington, DC, November 1998.

Stephens, R.S.; Roffman, R.A.; Cleveland, B.; Curtin, L.; and Wertz, J.S. "Extended Versus Minimal Intervention With Marijuana Dependent Adults." Paper presented at the annual conference of the Association for the Advancement of Behavior Therapy, San Diego, CA, 1994*a*.

Stephens, R.S.; Roffman, R.A.; and Curtin, L. Comparison of extended versus brief treatments for marijuana use. *Journal of Consulting and Clinical Psychology* 68(5):898–908, 2000.

Stephens, R.S.; Roffman, R.A.; and Simpson, E.E. Adult marijuana users seeking treatment. *Journal of Consulting and Clinical Psychology* 61(6):1100–1104, 1993*a*.

Stephens, R.S.; Roffman, R.A.; and Simpson, E.E. Treating adult marijuana dependence: A test of the relapse prevention model. *Journal of Consulting and Clinical Psychology* 62(1):92–99, 1994*b*.

Stephens, R.S.; Wertz, J.S.; and Roffman, R.A. Predictors of marijuana treatment outcomes: The role of self-efficacy. *Journal of Substance Abuse* 5(4):341–354, 1993*b*.

Stephens, R.S.; Wertz, J.S.; and Roffman, R.A. Self-efficacy and marijuana cessation: A construct validity analysis. *Journal of Consulting and Clinical Psychology* 63(6):10221031, 1995.

Substance Abuse and Mental Health Services Administration (SAMHSA). *1999 National Household Survey on Drug Abuse Public Use File*. Rockville, MD: Office of Applied Studies, SAMHSA, 2001.

Substance Abuse and Mental Health Services Administration (SAMHSA). *Overview of Findings From the 2002 National Survey on Drug Use and Health*. NHSDA Series H-21, DHHS Publication No. (SMA) 03–3774. Rockville, MD: Office of Applied Studies, SAMHSA, 2003.

Substance Abuse and Mental Health Services Administration (SAMHSA). *Results From the 2003 National Survey on Drug Use and Health: National Findings.* NSDUH Series H-25, DHHS Publication No. (SMA) 04–3964. Rockville, MD: Office of Applied Studies, SAMHSA, 2004.

Swift, W.; Hall, W.; and Copeland, J. Characteristics of long-term cannabis users in Sydney, Australia. *European Addiction Research* 4(4):190–197, 1998*a*.

Swift, W.; Hall, W.; Didcott, P.; and Reilly, D. Patterns and correlates of cannabis dependence among long-term users in an Australian rural area. *Addiction* 93(8):1149–1160, 1998*b*.

Tashkin, D. Cannabis effects on the respiratory system. In: Kalant, H.; Corrigall, W.; Hall, W.; and Smart, R., eds. *The Health Effects of Cannabis.* Toronto, Ontario, Canada: Addiction Research Foundation, 1999, pp. 311–345.

Taylor, F.M. Marijuana as a potential respiratory tract carcinogen: A retrospective analysis of a community hospital population. *Southern Medical Journal* 81(10):1213–1216, 1988.

Thornicroft, G. Cannabis and psychosis: Is there epidemiological evidence for association? *British Journal of Psychiatry* 157:25–33, 1990.

Vendetti, J.; McRee, B.; Miller, M.; Christiensen, K.; Herrell, J.; and the Marijuana Treatment Project Research Group. Correlates of pretreatment dropout among persons with marijuana dependence. *Addiction* 97(Suppl. 1):125–134, 2002.

Webb, C.; Scudder, M.; Kaminer, Y.; and Kadden, R. *The Motivational Enhancement Therapy and Cognitive Behavioral Therapy Supplement: 7 Sessions of Cognitive Behavioral Therapy for Adolescent Cannabis Users.* DHHS Publication No. (SMA) 02-3659. Rockville, MD: Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, 2002.

Wert, R.C., and Raulin, M.L. The chronic cerebral effects of cannabis use: I. Methodological issues and neurological findings. *International Journal of the Addictions* 21(6):605–628, 1986*a*.

Wert, R.C., and Raulin, M.L. The chronic cerebral effects of cannabis use: II. Psychological findings and conclusions. *International Journal of the Addictions* 21(6):629–642, 1986*b*.

Wiesbeck, G.A.; Schuckit, M.A.; Kalmijn, J.A.; Tipp, J.E.; Bucholz, K.K.; and Smith, T.L. An evaluation of the history of a marijuana withdrawal syndrome in a large population. *Addiction* 91(10):1469–1478, 1996.

Zhang, Z.; Morgenstern, H.; Spitz, M.R.; Tashkin, D.P.; Yu, G.; Marshall, J.R.; Hsu, T.C.; and Schantz, S. Marijuana use and increased risk of squamous cell carcinoma of the head and neck. *Cancer Epidemiology, Biomarkers and Prevention* 8(12):1071–1078, 1999.

Zuckerman, B.; Frank, D.; Hingson, R.; Amaro, H.; Levenson, S.; Kayne, H.; Parker, S.; Vinci, R.; Aboagye, K.; Fried, L.; Cabral, H.; Timperi, R.; and Bauchner, H. Effects of maternal marijuana and cocaine use on fetal growth. *New England Journal of Medicine* 320(12):62–768, 1989.

Zweben, J.E., and O'Connell, K. Strategies for breaking marijuana dependence. *Journal of Psychoactive Drugs* 20(1):121–127, 1988.