

Strategy	Involves	Advantages
Current Strategies		
Study blinding	Participant is unaware of marijuana strain potency during study	May be less likely to divert material if he or she is not certain of its potency
Use of 0% and 2% THC marijuana	Assignment to two of five conditions will only provide people with material that contains little or no THC	The possibility of receiving 0% or 2% THC will discourage diversion through making this material unappealing
Screening for history of substance abuse	diagnoses of substance abuse in the past sixty days or any substance use deemed contraindicating to study participation, and cannot have used marijuana in month prior to starting study	Participants will be less likely to abuse study marijuana because they do not have current substance use and they have PTSD and a wish to treat it
Possibility of using unused study marijuana	Participant returns any unused study marijuana to the investigators during each weekly meeting. If he or she wishes, the participant can remain in the study to use any unused material	Abuse or diversion reduces chance of continued use of study marijuana. Participant aware at the outset that they can receive unused material
Proposed (new) strategies		
Videorecording via internet	Use of Skype or similar internet "telephone" programs to permit real-time observation of each instance of study marijuana consumption.	Permits evidence of consumption at actual instance, permits verification that participant is using the material,

Drawbacks

Does not physically prevent abuse or diversion of study material

Participant may still misrepresent or provide low-THC material to others. Does not physically prevent abuse or diversion.

Does not physically prevent abuse or diversion, people without substance abuse disorder can still sell or give away or abuse material

Continued monitoring required during use of unused material. Verification needed that the returned material is equivalent to expected unused material. Does not physically prevent diversion or abuse.

Requires providing participant with laptop computer if he or she does not have one, requires providing participant with recording device if he or she does not have

Strategy	Involves	Advantages
Daily mailing of study marijuana	Each participant receives a shipment of 2 g of marijuana (as two cigarettes) each day by certified mail or other trackable delivery service	Provides participants only with daily amount of study marijuana so cannot use more than amount provided per day, requires signature of participant
Lockable containers	Placing study marijuana within a locked container that restricts use to no more than 2 g of study material	Restricts use, cannot use more than day's supply
Issuing and use of digital video cameras	Each participant is issued a single, unique camera and instructed to record consuming study material each day. Recordings collected at each face to face meeting	Permits viewing participant smoking or vaporizing study material, provides time and date stamp for each instance of use, verifies participant is using material
Glow Caps; medication caps manufactured by Vitality, Inc., Cambridge MA	Technology that will provide participant with alert for specific time of use for medication, can text investigators if medication not used	Can provide participants with guidance for daily use of specific amount of study marijuana, may provide time stamp for specific use
Philips Medication Dispensing Service	Philips pill or drug dispensing service can be set with specific times for when doses are available and dispenses each use accordingly, contains sixty available cups per device	Permits the investigators to indicate when daily allotment of study material is available, restricts use to preset times, could fit 2 g of marijuana for participants in vaporization condition

Drawbacks

Cumbersome, requires that participant be present to receive material, requires participant to be at one location, still does not prevent diversion or abuse of daily allotment

may not be available, expensive, does not prevent diversion or abuse after opening container, does not address not using all material after unlocking container

Requires instructions for using the video equipment, potential for loss or theft of equipment, cumbersome, may restrict use to home or venues permitting recording, requires observer to verify time and date same and use

Glow caps fail to provide locking mechanism, thus participants not restricted to use of daily allotment and can still divert study material after opening container

Dispensing containers are not large enough to contain 2 cigarettes of study marijuana

Strategy

Involves

Advantages

Med Start Holder	Med Start holders allow for lockable containers for pills and restrict opening to preset times.	Permits investigators to reduce access to study material and potentially to restrict use to daily 2 g of material. Seven containers needed per day of week
Significant other witnesses use	Selected significant other, as spouse, partner or roommate, can observe and verify participant use of study marijuana	Provides second observation and verification of participant action, can provide daily observation

Drawbacks

Containers are not large enough to contain
two marijuana cigarettes

Requires the presence of an available and
reliable observer, significant other can lie
about observed use