Abstract

Purpose- Factors influencing cannabis use have been previously identified mainly using multivariate approaches. However, there is a dearth of information collected from the perspective of the adolescent cannabis user, in particular for voluntary abstinences. This was the present study’s aim.

Methodology- 38 cannabis users were identified from a sample of 261 adolescents recruited from schools. They completed open ended questions identifying reasons for voluntary abstinences. Thematic analysis was used to assess their responses.

Findings- Voluntary abstinences by cannabis users were influenced by both internal and external factors. These were; the user’s state of mind, an attempt to quit, negative effects of cannabis, prior to important events, prior to family interactions and peers.

Research limitations/implications –The results show that adolescent cannabis users are flexible in their approach to using cannabis, being able to briefly stop when the situation warrants it. However, the study is limited by a lack of in-depth and rich data, limiting the scope of the analysis.

Originality value-This is the first study to identify reasons for voluntary abstinences from the user’s perspective in adolescent cannabis users.

Keywords: substance use, marijuana, risk factors, adolescents, abstention, cannabis

Article Type: Research paper
Self-reported reasons for voluntary abstinences by adolescent cannabis users

Cannabis is the most widely used illicit drug and it comes third in popularity to alcohol and tobacco (EMCDDA, 2012). It has been identified as one of the first illicit drugs to be used by young people, with onset of use typically from 11 to 13 years (Fuller, 2006; Perkonigg et al., 2008). Owing to the maladaptive mental health and psychosocial outcomes associated with early onset cannabis use (e.g. Arsenault et al., 2002; Macleod et al., 2004), there is a need to fully understand the reasons for cannabis use and changes in use patterns in adolescents.

According to triadic influence theory (Flay & Petrakis, 1994) cannabis use is influenced by factors falling within the intrapersonal, cultural/attitudinal and social/interpersonal dimensions (Petraitis, Flay & Miller, 1995). Each dimension also consists of factors falling broadly within three levels of influence; proximal, distal, and ultimate. These streams of influence have broadly been identified in the literature identifying various factors influencing cannabis use in young people.

Use of other substances, in particular tobacco and alcohol, has been shown to increase the risk of cannabis initiation. This includes both an adolescent’s own use (Von Sydow et al., 2002), and that by peers (e.g. Coffey, Lynskey, Wolfe & Patton, 2000; D’Amico & McCarthy, 2006). Males appear to be at higher risk of developing cannabis abuse and dependence than females (Swift et al., 2008), and they also experience a more protracted period of developing these problematic use patterns (Farmer et al., 2015).

Adolescent cannabis use trajectories reveal that approximately, only 4% of those initiating early progress to increased levels of use (Coffey et al., 2000). Additionally, it’s been found that half of adolescents reporting past year cannabis use also feel they should either reduce or stop use (Terry-McElrath, O’Malley &
Johnston, 2008). It has also been shown that factors influencing decreases and cessation differ from those influencing initiation (Pollard et al., 2014), thus it is imperative to assess reasons for decreases and cessation of cannabis use. However the majority of this literature has focused on adult samples.

Age is a commonly identified predictor of change in cannabis use, with older samples more likely to decrease and stop using cannabis than younger samples (VonSydow et al., 2001; Chen & Kandel, 1998). However, these effects have not been attributed to age per se, rather to transitioning into adult roles (Hammer, & Vaglum, 1990). Evidence for this comes from findings of continued cannabis use in adulthood being related to factors such as unemployment (e.g. Lee et al., 2015). Additionally, cessation has been linked to transitions such as establishing a family, stable employment, stable relationship etc. (Hammer & Vaglum, 1990; Chen & Kandel, 1998; Veysey et al., 2013). These findings can be explained by role incompatibility theory, which states that the use of cannabis is incompatible with acquisition of typical and normative adult roles (Thorton et al., 1975).

In comparison to adult data, the scant adolescent literature on cessation has alluded to a varied range of influences. For example, cessation has been linked to motives for cannabis use, with high enhancement motives linked to past attempts to quit (Dash & Anderson, 2015). Other factors linked to cessation in adolescents include having few pro-drug use myths, ethnicity, negative psychological and physical effects (Little et al., 2013; Pollard et al., 2014; Terry-McElrath, O’Malley & Johnston, 2008). Nevertheless, both adult and adolescent literature indicates that cessation is not always permanent, with some identifying factors influencing both successful and unsuccessful cessation attempts (e.g. Lieberegts et al., 2015; Chauchard et al., 2013; Pollard et al., 2014).
Whilst the literature differentiates between successful and unsuccessful cessation attempts, sometimes users briefly or periodically abstain from cannabis for reasons other than quitting. Only one study has previously looked at reasons for these brief voluntary abstinences, and it was found that a short term change in circumstances, and physical/mental health concerns were mainly influential (Terry et al., 2007). However, the respondents in this qualitative study had been cannabis users for an average of 14 years (Terry et al., 2007), limiting comparability with adolescents. The factors influencing cannabis use in adolescence may differ from those of adulthood, as these are developmentally distinct stages (Casey et al., 2008).

There remains a need to qualitatively identify reasons for voluntary abstinences in adolescent cannabis users in order to aid understanding of change processes. Additionally, a qualitative approach may help to elucidate causal mechanisms, currently missing from the predominantly multivariate approach utilised in the literature (Terry et al., 2007). Therefore, the aim of the present study was to assess reasons for voluntary abstinences in a sample of adolescent cannabis users. This information was gathered utilising open-ended responses to questions relating to voluntary abstinences. These were analysed using thematic analyses, and themes identified were mapped onto triadic influence theory (Flay & Petraitis, 1994).

**Method**

**Participants**

A convenience sample of 261 participants was recruited from four schools across the West Midlands, UK between July-December 2012. They were aged between 11 and 18 years (mean=16.21 years, SD= 1.45), and 59.8% were female. The sample was predominantly UK White (82.4%).
Measures

The study utilized the Cannabis and Young People Questionnaire (CYPQ). This is a 46-item measure that assesses patterns of cannabis use and factors that influence use. The scale contains three separate sections for those who have never used cannabis, previous users, and current users. Cannabis users are identified by their response to the question of whether they have ever used cannabis. The present study utilized the two questions within the measure for assessing voluntary abstinences. The first question is, “Have you had times when you chose not to smoke cannabis? If Yes, please provide details.” There is a blank space for their response. The second question is, “What made you decide not to smoke cannabis at that time?” Participants are also provided with a blank paragraph to write their response.

Procedure

Ethical approval for the study was obtained from the National Research Ethics Service, South Birmingham Research Ethics Committee (Ref 11/WM/0284). Participants from one of the four secondary schools (n=30) attended the University of Birmingham for a research experience day. These participants volunteered to take part in different research studies. They were administered information and consent forms and took part only if they consented. For the three remaining secondary schools (n=231), a teacher in each school identified classes of students that would be available to take part in the study, according to the school timetable. Information and opt out consent forms were sent to parents at least two weeks prior to the commencement of the study. Those whose parents opted out of the study were excluded. The remaining participants were administered information and consent forms in their schools. These were presented to and collected from participants before the questionnaire was completed.
Those consenting completed the questionnaires in groups under exam-style conditions. No teachers were present in the classroom during the study. For confidentiality purposes, no identifying information was included on the questionnaires, and these were sealed into envelopes upon completion. The questionnaires were collected and retained by the investigator immediately following completion. Participants were then handed a debrief sheet.

**Data analysis strategy.** Thematic analysis was used to analyze the responses. An inductive approach was utilized so that there were no pre-existing notions or theories to guide in identification of themes. As a result, the themes identified were data driven. Stages of thematic analysis were followed as has been previously outlined (Braun & Clarke, 2006). The first stage of the analysis involved familiarization with the data by reading and re-reading the participant responses. In the second stage, codes were generated from the participant responses. The responses were then classified according to these codes, and each response could be classified under multiple codes. The third stage involved generating themes from the identified codes. In order to achieve this, responses corresponding to each code were re-read, and the codes were collapsed into themes. For the purposes of producing an inclusive dataset, all themes generated were included in the final list regardless of the number of responses falling into each theme. In the fourth stage of the analysis, the themes were reviewed, named and defined. This involved re-reading the participant responses in order to ensure that the themes were representative of the data. Some themes were collapsed into one, if they were conceptually similar, whilst others were separated.

**Results**

**Description of sample**
14.5% (n=38) of the sample were cannabis users. Of these, only five reported being current cannabis users, with the rest identifying as previous users. They reported initiating cannabis between the ages of 13-17 years (mean= 15.33, SD = 1.38). Only 26.32% (n=10) of the cannabis users provided data of their previous and current cannabis use frequency. Of these, two reported daily use, three once a week, two once a fortnight, and three once a month. All cannabis users reported current alcohol use, with the majority consuming >4 units at each sitting (90.91%). Only one participant reported other drug use (i.e. cocaine, LSD, amphetamines and ecstasy).

89.47% (n=34) of the cannabis users reported experiencing voluntary abstinences from cannabis. However, only 64.71% (n=22) of these participants responded to the questions asking them to provide details of and reasons for these abstinences. The majority of responses referred to specific incidents of abstaining (54.55%), whereas only 27.27% referred to abstaining over longer periods. It was not clear in the remaining 18.18% of responses whether participants were referring to incidents or periods of abstinences.

Reasons for voluntary abstinences by cannabis users

The overall themes identified were ‘external’ and ‘internal’ influences on the decision to abstain. Within the ‘external influences’ theme, the sub-themes identified were ‘peers’, ‘before important events’, and ‘prior to family interactions’. In the ‘internal’ influences theme, ‘state of mind’, ‘negative effects’, and ‘attempt to quit’ were identified as sub-themes. These will be discussed in turn and mapped onto triadic influence theory (Flay & Petratis, 1994).

External Influences:
Peers

Most of the participants (n=11) indicated that abstentions occurred in the context of their peers. This involved either being offered by their peers, or simply being in an environment where cannabis was being smoked by peers. Some reported actively avoiding their peers if they knew they would be using cannabis.

T0104P: My friends were smoking a spliff, they offered me some and I decided.

This response indicates that some decisions to abstain from cannabis were spontaneous, and were not necessarily a pre-planned response. By being able to resist the well-documented peer influence on cannabis use, the participants show that succumbing is not inevitable.

From the perspective of triadic influence theory (Flay & Petraitis, 1994), this finding of abstaining in spite of peers suggests that social/normative influences may be negated by other streams of influence (i.e. cultural & intra-personal). However, social influence from the family is still possible.

Prior to important events

Four participants reported abstaining from cannabis prior to important events, although the specific events reported varied (e.g. exams, sports etc.). This shows awareness of cannabis’ effects on performance. In some cases, abstention was temporarily maintained following the important event.

P0012S: I was given a date for a drug test, I did not smoke for a month before and did not start again for a month after...to see the effect it had on me.
In this case the cannabis user initially intended to give the impression of abstinence with no real intentions to quit.

Abstaining prior to important events represents cultural/attitudinal stream of triadic influence theory (Flay & Petraitis, 1994). Judgements are made based on previous experience with cannabis use, and expected impact of using cannabis in that environment. These kinds of expectancies are influential at the more proximal level and are directly influence behaviour.

*Prior to family interactions*

Five participants abstained prior to family interactions. Some of these mentioned parents specifically.

*N0304N: ... Also didn’t want to be caught high by family.*

This response indicates an issue of worry over intoxication being discovered by the cannabis user’s family, and other participants stated this as well. This indicates that cannabis is used in spite of the family’s disapproval, and abstaining is a strategy used to avoid being caught.

Adjusting use prior to family interactions represents both cultural/attitudinal and social/normative streams in triadic influence theory (Flay & Petraitis, 1994). From the cultural stream, the family determines the cultural values and expectations that relate to cannabis use, in terms of acceptability or not. Consequently, the young person is aware of the normative beliefs held by the family in regards to cannabis use. If these are not in line with their own beliefs of cannabis then they are inclined to desist when interactions with family are predicted.
Internal Influences:

State of Mind

For 10 participants, decisions to abstain appeared to be influenced by what the participants felt and thought at the time.

NoID: Mind-set, but now I want to be more open to new things

In this response, cannabis may be seen as getting in the way of new experiences, representing a new way of thinking. Other participants also alluded to other changes in their perceptions of cannabis (e.g. getting bored with it).

This reported influence of one’s own state of mind represents the intra-personal stream of influence in triadic theory (Flay & Petraitis, 1994). The participant extract clearly shows a change in the sense of self that has influenced the decision to abstain. This young person clearly did not see himself or herself as simply a ‘cannabis user’ for that time when they chose to abstain. Perhaps maintenance of this behaviour would result from other changes such as goal setting as previously identified (Liebregts et al., 2015).

Negative effects of cannabis

Negative effects of cannabis were included in seven of the responses. This included both experienced and anticipated effects.

L0008R: ...plus had a bad feeling one time and it put me off it.

This participant did not reveal the nature of the negative effects experienced as a result of smoking cannabis. The so-called ‘bad feeling’ could be either physical or psychological in nature. Other responses alluded to longer-term psychosocial effects.
The finding of negative effects as a reason for abstaining can be mapped onto the intra-personal influence stream of triadic influence theory (Flay & Petraitis, 1994). Within this stream is behavioral control, which, according to the theory of planned behavior from where it originates, is influenced by past experience (Ajzen, 1985).

**Attempt to quit cannabis**

The final theme emerging from the responses was an ‘attempt to quit’ cannabis, with 4 responses containing some reference to it. In these instances, voluntary abstinences represent failed quit attempts.

*T0104J: When I say I’m going to stop*

In this case the participant expresses a resolution to quit using cannabis, but also implies a struggle to maintain abstinence.

An attempt to quit cannabis represents the interaction of all streams at multiple levels. According to triadic influence theory (Flay & Petraitis, 1994), behavior (or behavior change) is ultimately influenced by an interaction of cultural/attitudinal, social/normative and intra-personal factors.

**Discussion**

The majority of cannabis users in the present study indicated that they had experienced periods and incidents of voluntary abstinence, which further necessitates the need to understand the reasons behind this phenomenon. As shown in the results, the themes identified broadly mapped onto triadic influence theory (Flay & Petraitis, 1994). Previously, short-term changes in circumstances have been cited as reasons for voluntary abstinences (Terry et al., 2007). This is also comparable to the present findings, notably in relation to the ‘external influences’ theme (i.e. family
interactions, prior to important events). This indicates that as cannabis users adapt to changing situations and circumstances, they change their cannabis use accordingly. This perhaps differentiates them from those presenting with a substance use disorder, who by definition, continue to use in spite of consequences or changing circumstances (Diagnostic and Statistical Manual of Mental Disorders- 5th Edition, American Psychiatric Association, 2013).

Interestingly, it emerged that voluntary abstinences from cannabis occurred in situations involving peers. This was characterized by either resisting peer pressure to use, or avoiding situations where peers would be using cannabis. This finding augments the existing literature identifying a prominent role of peers across various stages of cannabis use (e.g. D’Amico & McCarthy, 2006; Coffey et al., 2000). The present finding also shows that although there are some adolescents who feel confident enough to resist peer influence, others are not as confident and thus employ an avoidance strategy in order to remain abstinent. Additionally, the avoidance of cannabis use triggers and the resultant change in peer groups have both been identified as influential in maintaining change in former cannabis users (Ellingstad et al., 2006). However, this is based on an assessment of cessation of cannabis use and not brief abstinences. Nevertheless, it remains an informative finding in light of the lack of research on brief voluntary abstinences in adolescent cannabis users.

Within the ‘internal’ influences theme, an attempt to quit cannabis emerged as a reason that was given by cannabis users for voluntary abstinences, supporting previous findings (Terry et al., 2007). It may be postulated that this attempt to quit was related to the negative effects of cannabis, also identified as a reason for voluntary abstinences. This is because a relationship between the negative effects of cannabis and cessation has been previously identified (Ellingstad, Sobell, Eickelberry...
& Golden, 2006). Thus these voluntary abstinences may represent failed quit attempts.

Cannabis users also reported being influenced by their ‘state of mind’. This was either composed of transient feelings and thoughts, or represented a shift in the mind-set of the cannabis user. This is particularly informative; as the malleable nature of a mind-set, especially in regards to health behavior means that assimilating new information can alter it. This implies potential utility of information-based approaches for addressing cannabis use in adolescents.

Overall, the reasons identified for voluntary abstinences broadly mapped onto the steams of influence identified in triadic influence theory (Flay & Petraitis, 1994). This is comparable to other studies of adolescent substance use, which have identified utility of the theory for mapping out risk and protective factors (e.g. Grigsby et al., 2016). Furthermore, as the reasons for voluntary abstinences were identified directly from the young people’s perspective, it shows their awareness of the different types of influence on their cannabis use behaviour.

**Strengths and Limitations.** The present study provides a useful insight into previously unidentified reasons for voluntary abstinences in adolescent cannabis users. The self-report approach utilized allowed for the identification of factors that would normally be overlooked by multivariate approaches. However, no information on the type (e.g. synthetic varieties) or the potency of cannabis used was collected from the users. This limits the generalisability of the findings, as the type of cannabis user studied is unclear.

A more in depth qualitative approach (e.g. interview) would have allowed for greater understanding of adolescent cannabis users’ experiences. The present study’s methodology did not allow for the collection of rich, detailed qualitative data.
Additionally, the sample was not followed up, which hindered ability to identify changes and reasons for these changes prospectively. More in depth qualitative research will need to be conducted utilizing larger sample sizes. Nevertheless, the findings contained here are a useful starting point for informing a previously under-researched area. As voluntary abstinences may represent failed quit attempts, it will be useful to incorporate identified factors in interventions for maintaining cessation.

The present study findings have implications for current research practices in the study of cannabis use patterns in adolescents. There is a need to incorporate more self report approaches (both qualitative & quantitative). This will help to further understand the processes behind changing patterns of cannabis use (Terry et al., 2007). Self-reported reasons and motivations for substance use are cognitions that are key in cognitive based interventions for substance misuse (e.g. Cognitive Behavioral Therapy) (McHugh, Hearon, & Otto, 2010).

In summary, previously unstudied reasons for voluntary abstinences by adolescent cannabis users were identified, and these incorporated both internal and external influences. Future research will benefit from further qualitative study of the factors that are salient to adolescent cannabis users. These may have significant implications for health promotion and treatment approaches.

References


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