# L'attirance qu'éprouvent les hommes atteints de schizophrénie pour le cannabis: une étude phénoménologique

## Nathalie Francoeur, Cynthia Baker

L'utilisation du cannabis est une pratique courante chez les personnes souffrant de schizophrénie, notamment chez les hommes qui en sont chroniquement atteints. Une étude phénoménologique a été menée avec pour objectif de décrire les perceptions des personnes souffrant de schizophrénie quant à l'attirance qu'elles éprouvent pour le cannabis. Des professionnels de la santé ont recruté un échantillonnage de huit hommes schizophrènes qui vivaient au sein de la collectivité et qui avaient déjà consommé du cannabis ou qui en consommaient au moment de la recherche. Des données ont été recueillies au moyen d'entrevues approfondies et d'un questionnaire sociodémographique. Les auteures ont appliqué la méthode phénoménologique de Colaizzi pour analyser les données découlant des entrevues. Les résultats indiquent que le cannabis est consommé pour satisfaire des besoins relatifs à la schizophrénie, notamment un besoin de détente, d'estime de soi et de divertissement, et peuvent informer la pratique du personnel infirmier œuvrant auprès de personnes atteintes de schizophrénie, une population souvent stigmatisée et ignorée.

Mots clés: schizophrénie, cannabis

# Attraction to Cannabis Among Men With Schizophrenia: A Phenomenological Study

## Nathalie Francoeur, Cynthia Baker

Cannabis use is common among persons with schizophrenia, particularly among men with this long-term chronic illness. A phenomenological study was undertaken to describe the perceptions of persons with schizophrenia regarding their attraction to cannabis. A sample of 8 men with schizophrenia who were living in the community and who had a history of current or past cannabis use were recruited by health professionals. Data were collected through in-depth interviewing and a sociodemographic questionnaire. Colaizzi's phenomenological method was used to analyze the interview data. The findings indicate that cannabis is used as a means of satisfying the schizophrenia-related need for relaxation, sense of self-worth, and distraction. The findings may be useful for nurses working with persons who have schizophrenia, a population that is frequently stigmatized and unheard.

Keywords: schizophrenia, cannabis, substance use, phenomenology, self-medication

Schizophrenia is a difficult, long-term mental illness with an average prevalence in North America of approximately 4.5 per 1,000 persons (Tandon, Keshavan, & Nasrallah, 2008). Its symptoms tend to appear during adolescence or early adulthood, although they may develop later in life. Negative symptoms of schizophrenia represent absence of behaviours normally present and include flat affect, lack of motivation, and apathy. In contrast, positive symptoms are behaviours normally absent such as hallucinations and delusions (Varcarolis, Carson, & Shoemaker, 2006). Although medications contribute to symptom improvement, there is currently no cure for this illness.

Substance use is widespread among persons with schizophrenia and has multiple adverse health effects (Green, Noordsy, Brunette, & O'Keefe, 2008). Although cigarette smoking is the most prevalent, an extensive literature links consumption of cannabis with schizophrenia, particularly among men (De Lisi, 2008). Many studies report that cannabis is the second most commonly used substance by males with chronic schizophrenia (Cantwell, 2003). Among persons with schizophrenia, cannabis use has been associated with an increase in the intensity of psychotic symptoms and deterioration in the illness course (Addington & Duchak,

1997). Thus cannabis use represents a problem for the individual's prognosis and for the health-care system.

Although many researchers have investigated the link between cannabis use and schizophrenia, the findings have been contradictory and inconclusive. Furthermore, little attention has been paid to the perceptions of individuals with schizophrenia about what draws them to this substance. A phenomenological study was therefore conducted to explore the attraction to cannabis among persons with schizophrenia who have lived this experience. The study was guided by the following research question: How do men with schizophrenia who use or have used cannabis perceive their attraction to it?

#### Literature Review

Research findings indicate that there is a high prevalence of substance use among persons with schizophrenia (Harrison et al., 2008; Kavanagh, McGrath, Saunders, Dore, & Clark, 2002). A large epidemiological study conducted in the United States estimated the risk of a diagnosis of substance abuse to be 4.6 times greater among persons with schizophrenia than among the general population, and the risk of illicit drug use to be 6 times greater (Regier et al., 1990). While nicotine is the substance used by the largest number among this population (DeLeon & Diaz, 2005), cannabis comes in second (de Beaurepaire et al., 2007; DeQuardo, Carpenter, & Tandon, 1994; Harrison et al., 2008). Cross-sectional, national surveys conducted in Australia, the Netherlands, and the United States indicate that cannabis consumption is approximately twice as high among persons with schizophrenia as in the general population (Arseneault, Cannon, Witton, & Murray, 2004). Gender differences, however, have been reported, with males significantly more likely to use cannabis than females (DeLisi, 2008). Males also appear to be at greater risk for developing a schizophrenia spectrum disorder following a cannabis-induced psychosis (Arendt, Rosenberg, Foldager, Perto, & Munk-Jorgensen, 2005).

There is considerable debate about whether the link between cannabis use and schizophrenia exists because cannabis consumption precipitates the onset of the disease, whether actual or incipient schizophrenia precipitates the consumption of cannabis, or whether both cannabis consumption and onset of schizophrenia are precipitated by other factors (Kalant, 2004). Khantzian (1985) proposes that persons with schizophrenia consume substances to auto-regulate negative symptoms, which suggests that schizophrenia leads to substance use. No difference, however, was found in anhedonia, anxiety, and depression, as

measured by the Positive and Negative Syndrome Scale (PANSS) (Kay, Opler, & Lindenmayer, 1989), between a group of individuals with schizophrenia who had abused substances for a long period and a group who had not (Dervaux et al., 2001). Moreover, a review of five population-based prospective studies found that, among persons with schizophrenia who consumed cannabis, use of this drug had preceded the manifestation of symptoms (Smit, Bolier, & Cuijpers, 2004). Similarly, Arseneault et al. (2004) analyzed existing studies and concluded that cannabis doubles the relative risk for later schizophrenia. However, research has found significant increases in the incidence of cannabis consumption in the general population over the last four decades without a corresponding increase in the incidence of schizophrenia (Hickman, Vickerman, Macleod, Kirkbride, & Jones 2007). Degenhardt, Hall, and Lynskey (2003) tested the hypothesis that increased cannabis use in Australia would increase the incidence of schizophrenia. They compared eight cohorts born between 1940 and 1979. They concluded that cannabis use is not causally related to the manifestation of the disease.

The dysphoria model provides an explanation that is similar to but more general than Khantzian's (1985) theory. It postulates that individuals with a severe mental illness are predisposed to dysphoria and that their efforts to reduce this symptom lead them to the initial substance use (Mueser, Drake, & Wallach, 1998). Zimmet, Strous, Burgess, Kohnstamm, and Green (2000) report a strong correlation between a reduction in substance abuse and a reduction in clinical symptoms when study participants shifted to treatment with clozapine, which, unlike typical antipsychotics, acts on both negative and positive symptoms. The reasons identified for both cannabis use and alcohol use include relaxation, reduced depression, and sociability (Addington & Duchak, 1997).

Many negative effects of cannabis on this population have been reported, including an increase in positive symptoms (Addington & Duchak, 1997), poor compliance with pharmacotherapy, and a greater number of relapses (Gupta, Hendricks, Kenkel, Bahtia, & Haffke, 1996). Cannabis use has also been linked to homelessness among persons with schizophrenia (Caton et al., 1994) and with violent behaviour (Swartz et al., 1998). Economically, research has found that the cost of psychiatric care is higher for those persons with schizophrenia who consume street drugs (Bartels et al., 1993).

In summary, although explanatory models have been developed, the underlying reasons for a tendency among persons with schizophrenia to use cannabis are unclear. A better understanding of the lived experience of their attraction to this drug would be helpful in guiding nurses when caring for persons who live with this chronic illness.

## Methodology

Colaizzi's (1978) phenomenological method of analysis was selected for the study. This approach was chosen because it allows for the description of a given phenomenon through a thematic analysis of the perceptions of those who have experienced it. Unlike other phenomenological approaches, Colaizzi's method includes participant validation of the description of the lived experience following the analysis, which enhances the rigour of the research and the credibility of the findings.

#### Sample

Typically, the sample size for a phenomenological study is a maximum of 10 persons who have lived the experience being investigated (Loiselle, Profetto-McGrath, Polit, & Beck, 2004). Because the aim was to provide a meaningful description of the experiences of a population who have engaged in an illegal behaviour and who tend to have difficulty with social interaction, a small purposive sample of eight persons was recruited. Inclusion criteria were: (1) diagnosed with schizophrenia according to the DSM-IV-TR (American Psychiatric Association, 2003); (2) history of current or past cannabis use according to the medical record; (3) ability to speak either English or French (the investigator was bilingual and able to analyze data in both languages); (4) being followed by a mental health clinic in the Canadian province of New Brunswick or by Addiction Services in Campbellton, New Brunswick; (5) stable condition and not hospitalized at the time of the study. According to Chabannes et al. (1998), a person with schizophrenia is stable when the therapeutic regimen is being followed and positive symptoms have subsided. To ensure that participants met the criteria of stability, before beginning data collection the investigator evaluated negative and positive symptoms using the PANSS (Kay et al., 1989). Individuals with a diagnosis of alcoholism or concomitant use of other substances (other than nicotine) were excluded.

#### Recruitment

Health professionals at New Brunswick's Mental Health Services and at Addiction Services in Campbellton recruited participants using a recruitment guide and provided them with a "letter of interest." The letter described the study and the nature of the participation being sought. It specified that a person's decision whether or not to participate would have no influence on his or her treatment, follow-up, or care. Those willing to be contacted by the investigator signed a form to this effect and returned it to the health professional, who then gave it to the researcher. Eleven persons indicated a willingness to be contacted by the investigator. However, when they were called by the investigator and

invited to participate, three refused; the reasons for their refusal are unknown. None of the participants was compensated for taking part in the study.

#### Data Collection

Prior to data collection, a meeting was held with each participant to test his stability using the PANSS. This instrument measures positive and negative symptoms and also generates a global assessment score. Although each health professional who referred a potential participant confirmed that the person was stable, an evaluation using the PANSS provided an objective measure. This psychometrical tool was developed to assess the syndrome of schizophrenia and to ensure that clinicians are consistent in their clinical evaluation. Results determined that all eight participants were stable. A sociodemographic questionnaire was administered at this meeting, following the assessment, and arrangements were made for a second meeting.

An in-depth interview was conducted at the second meeting. The interview was conducted in the participant's first language and lasted between 45 and 120 minutes. The interview guide consisted of eight open-ended questions about one's attraction to cannabis. For example, the participant was asked: Why are you attracted to cannabis? What effects are you seeking when you use cannabis? The wording and the order of the questions were flexible in order to allow the participant to respond spontaneously. The participant was encouraged to speak freely about his experiences. Six of the interviews were conducted in the investigator's office in a psychiatric hospital, one was conducted in a supervised residence (in the participant's room), and one was conducted in an outpatient clinic. Seven interviews were audiorecorded with the participants' consent; one participant consented to note-taking only. The interviews were transcribed verbatim.

# Data Analysis

The steps in the Colaizzi (1978) method were followed. First, the transcription was read and then reread while the audiorecording of the interview was played. At this stage, the investigator avoided reflection on the information in order to grasp the participants' perspectives. A total of 378 statements related to the phenomenon were extracted and the meaning of each was identified. The meanings were aggregated into a cluster of first 23 and then 18 thematic categories, and finally into three themes with seven subthemes. Three participants were asked to validate the themes and subthemes. They were easily able to relate their experiences to each theme and subtheme but were perplexed by the placement of one subtheme, *increasing concentration*, under *self-esteem*. They saw *increas-*

ing concentration as linked to the theme of seeking relaxation. The essential structure of the phenomenon was modified based on this feedback (see Table 1).

#### Rigour

Lincoln and Guba (1985) propose that credibility, transferability, dependability, and confirmability be used as criteria for trustworthiness in qualitative research. Credibility concerns the value of the findings. To ensure credibility, the investigator asked the participants to validate the analysis and then integrated their comments into the final analysis. The investigator kept a reflexive journal in which preconceived ideas were identified before data collection was begun, and self-reflections were recorded in an effort to keep preconceived ideas from influencing the analysis. Transferability concerns the applicability of the findings to other contexts, while dependability concerns the degree to which another investigator would see the fit between the data and the thematic analysis. With respect to both criteria, characteristics of the participants, sampling, and analysis are described in detail and participants' statements are used to illustrate themes and subthemes. An audit trail was maintained to foster confirmability. All activities related to the project were recorded in the journal, as were impressions, concerns, and uncertainties.

#### Ethical Considerations

Persons with mental illness are a vulnerable population and ethical principles must be rigorously respected (Duval, 2004). The study was approved by the Ethics Committee of the Université de Moncton and the Ethics Committee of the Restigouche Health Authority in Campbellton. All recruits had signed a form indicating their willingness to be contacted. Health professionals were identified who could provide support to participants if necessary. All participants signed a clear and detailed consent form and were informed about their rights, the risks of participation, the nature of the study, and the nature of their participation in the study. Anonymity and confidentiality were strictly maintained at all times.

# **Findings**

The analysis allowed for the uncovering of the essential structure of the phenomenon through three desired outcomes of cannabis use: relaxation, sense of self-worth, and distraction (see Table 1). Before each theme is described, characteristics of participants will be presented and their insight about their cannabis consumption discussed.

Table 1 Themes and Subthemes Related to Cannabis Use Among Men With Schizophrenia	
Themes	Subthemes
In search of relaxation	Offers a break from the illness Offers a moment of relaxation Increases concentration
In search of a sense of self-worth	Improves sense of belonging Improves contact with others
In search of distraction	Passes the time Offers sensory experiences

## Description of Sample

All participants were single men. Their average age was 31 and their ages ranged from 22 to 42. None of the men had children. One man had a girlfriend. Two spoke French only, two spoke English only, and four spoke both French and English. One had a baccalaureate degree in psychology, three others had completed high school, and four had not completed high school. Three were working part-time (in a bakery, in a sawmill, and cutting grass). The other five were not employed at the time of the interview but had previously worked part time. Two of the men lived in a supervised residence, four lived with their parents, and two lived alone in an apartment. All were receiving social assistance. Five resided in small towns (population: 1,500 to 10,000) and three in villages (population: under 1,500).

Six participants had been diagnosed with schizophrenia between the ages of 17 and 22, one at 34, and one at 37. One participant had never been hospitalized for schizophrenia and another had been hospitalized only once. Five had been hospitalized between five and ten times and one had been hospitalized more than ten times. All were being treated with atypical antipsychotic medications and two were also taking a typical antipsychotic. Three were also being treated with antidepressants and three with an anxiolitic.

The participants had smoked cannabis for at least 10 years. Seven began using cannabis between the ages of 11 and 15, while one did not begin until he was 18. For most, the last instance of cannabis use ranged from the day of the interview to 2 months earlier. However, two participants had stopped using cannabis several years earlier, one as part of a strategy to give up smoking cigarettes and the other to avoid becoming like his father, whom he described as a drug addict. Five participants also smoked cigarettes (see Table 2).

Table 2 Characteristics of Participants		
Characteristics	Number	
Age		
22–24	3	
25–29	2	
35–42	3	
First language		
English	2	
French	6	
Residence		
Supervised	2	
Parental home	4	
Apartment alone	2	
Employment		
Not employed	5	
Employed part time	3	
Age at diagnosis		
17–22	6	
34	1	
37	1	
Number of hospitalizations		
0	1	
1	1	
5–10	5	
10+	1	
Age at which cannabis use began		
11–12	3	
14–15	4	
18	1	

# Awareness of Cannabis Consumption

Cannabis consumption clearly was an activity that the participants were aware of and that reflected intentionality. For example, one participant noted: "I didn't want my parents to know I smoked, because I was sick and I was afraid they'd think I would be doing harm to myself, so I was

hiding it from them." All participants mentioned also trying other substances, such as LSD, alcohol, or cocaine, but indicated that their preference was cannabis: "I was more into pot"; "I'd choose marijuana over alcohol if I had the choice"; "I'd rather smoke pot than drink."

## Lived Experience of Attraction to Cannabis

The participants had experienced unmet needs with respect to relaxation, self-esteem, and distraction. They sought a means to help them satisfy these needs, and cannabis use was the result. Each theme and subtheme related to this will be described.

## In Search of Relaxation

Having schizophrenia and living with its symptoms appears to have created an illness-related need for relaxation: "I was going through all kinds of thoughts and feelings all alone . . . it was hell!" The men made it clear that cannabis use provided this relaxation by offering them a break from their illness, offering them a moment of relaxation, and enhancing their concentration.

Offers a break from the illness. Participants described the effects of schizophrenia on themselves and on their lives as chronic and as offering them rare moments of respite. They noted that it affected their thinking ("It seems I can't get any smarter than I am; it seems that there's a limit to how smart I can be"); their social life ("it affected my social life, big time . . . my social life was bad — bad for everybody, even my parents"); and their personhood ("I lost myself, to the point where I wasn't me; I was, like, dead"). One participant summed up the impact bluntly: "I thought, if I go to hell . . . it [will] be a better place than this."

They sought a tool that would give them some respite from their illness, and cannabis seemed to offer such respite. One participant explained that cannabis helped him to detach himself from social pressures by allowing him to escape and go elsewhere. Another described how the drug provided him with an escape from the symptoms of schizophrenia and its effects on his life: "It's really, like, vast — the life that you can have smoking dope, and that's why people are so much on dope." One participant described his experience of respite from the illness, noting that he continued to hear voices when smoking marijuana but that the voices sang.

Offers a moment of relaxation. Participants experienced the momentary feelings of relaxation derived from cannabis in different ways. For several, cannabis had a relaxing effect at the level of their thinking: "It relaxes the mind in some way." For others, the outcome was more general: "It kind of just mellows out the body"; "I can relax more when I do it — like, after I eat or something . . . I have a smoke and I go lie

down and it helps me relax." For some, the relaxation was derived from laughter. One participant described the laughter associated with cannabis use: "I took it not too long ago . . . It was like I was watching Bart Simpson, and me and my friends, we laughed and we laughed and we laughed and we laughed."

Increases concentration. Participants noted that their schizophrenia made concentration difficult. They linked this to difficulty relaxing. One man stated that his thoughts had a tendency to wander, which he found tiresome. Participants explained that cannabis helped them to maintain their interest in something and that this let them relax because their ideas were not all over the place: "When you're not concentrated, you're changing the channel every 3 to 4 minutes to see what else is on [and cannabis helps you to get concentrated]"; "[Cannabis] keeps me more alert"; "Without the marijuana, with my schizophrenia I can't get involved in a movie because I lose track of things in the middle of it; if I smoke marijuana and I watch a movie, I'll be interested for the whole movie"; "If I want to, say, watch a movie and I don't want to be interrupted, I smoke it, and it keeps my mind on the movie — I'm not thinking about this, I'm not thinking about that, I'm thinking about the movie or what's coming up."

# In Search of Self-Worth

Participants had not escaped the slings and arrows of prejudice, stigma, social barriers, and hurtful comments. For instance, one man recounted his extreme disappointment at being rejected by the armed forces after revealing that he had schizophrenia: "'We can't provide the pills on the battlefield; you can't come' — so I was pretty, like, crushed." They sought ways of increasing their sense of self-worth and described cannabis use as affirming because it improved their sense of belonging and their contact with others.

Improves sense of belonging. Participants explained that cannabis use made them feel appreciated and accepted: "You're considered a cool person." One man said that cannabis made him talk and those around him liked what he was saying and didn't want him to stop, which made him feel part of a group. Another said, "I hung around and stuck with the potheads because I liked them and they liked me." Similarly, another participant noted that he was "comfortable with that group [users of cannabis]... we were all on the same wavelength." Another man stated, "The advantage that I was looking for was, like, just to blend in, really."

*Improves contact with others.* For participants, quality relationships were limited, not by choice but because the disorder intruded on this aspect of their lives. It affected their social abilities and made communi-

cation problematic, further diminishing their self-esteem. According to participants, cannabis use helped them to bridge the gap between them and others. One man described cannabis as eliminating his shyness and giving him the ability to express his thoughts without fear. Another remarked that it made him much more tolerant of others, as he was able to tell himself, "It wasn't as bad as all that." One participant described this aspect of cannabis use in an interesting way: "I was comfortable talking to each one of them . . . I have an analytic mind, so I used to analyze a lot and go into depth and philosophize or whatever . . . I really enjoyed the conversations when I was stoned."

# In Search of Distraction

Participants believed that once adulthood begins, schizophrenia affects various aspects of a person's life. Their days often seemed interminable, filled with monotony and illness. One man said he did little with his days except walk to the post office, watch television, and "stare at the ceiling." Cannabis brought some diversion to their long, tedious days. It passed the time and provided some sensory experiences.

**Passes the time.** Cannabis use helped to make the time go by. It required no particular skill and was something the men found easy to learn. One participant explained that "the time, since I got sick with schizophrenia, it seems to last forever, stretches on forever, and . . . smoking marijuana . . . the time passes so much faster." Another agreed: "It passed the time. It made the time more interesting. That's what really attracted me to pot." One participant noted that, in the absence of activities or regular work, a person has a need for distraction: "Well, in a way I'd like to stop, but it's the only thing I do. Do you know what I mean? I don't get out . . . If I [did] or if I [was] working steadily or something like that, it would be different."

Offers sensory experiences. The other distraction offered by cannabis was that it provided certain sensory experiences that the men seemed to both enjoy and desire. The participants mentioned, for instance, that it made music better, more interesting, and a diversion. Cannabis use enhanced their day and their sense of hearing: "I love music and I can get interested in music more." Cannabis use also opened the doors to their "imagination" and "creativity." It provided one man with an opportunity to express himself through drawing because of its effect on his sense of touch and its visual effects. Others noted that their surroundings were pleasantly altered when they smoked marijuana: "I'd have different feelings [about] my surroundings — like, looking at the snow on the ground, it was, like, I don't know, it made me appreciate everything, in a different way that I like."

In summary, individuals with schizophrenia who are attracted to cannabis appear to be seeking three outcomes when using this substance: relaxation, improved sense of self-worth, and distraction from the monotony that the illness imposes on one's life. The participants found that cannabis had a relaxing effect on them. It also offered a break from schizophrenia and helped them to concentrate on enjoyable activities. They believed that it enhanced their sense of self-worth, their sense of belonging, and their ability to connect with others. They perceived cannabis to be a means of breaking the tedium they experienced, because it helped to pass the time and provided sensory experiences that they found diversionary and enjoyable.

#### Discussion

There are some similarities and differences with respect to the findings of this study and those reported in the literature. Findings that support those of previous studies include participants' use of cannabis to enjoy a moment of relaxation (Addington & Duchak, 1997), improve their relationships (Alverson, Alverson, & Drake, 2000; Spencer, Castle, & Michie, 2002), and pass the time (Addington & Duchak, 1997; Salyers & Mueser, 2001).

Differences include some components of the nature of the relaxation and the distraction participants derived from using cannabis, and also the effects of cannabis use on the course of their illness. For participants, cannabis provided relaxation in part because it offered a break from the effects of a difficult illness. This benefit has not previously been identified as a reason for using cannabis. Participants also reported that cannabis helped them to stay interested in and attentive to the present moment because it improved their concentration, which they described as poor as a result of the illness. Improved concentration from cannabis use has not been identified in other studies among persons with schizophrenia. Furthermore, cannabis is not a central nervous system stimulant and its effects are primarily associated with feelings of well-being and euphoria and with altered sensory perception (Laqueille, Benyamina, Kanit, & Dervaux, 2003; Ministère des Travaux publics et Services gouvernementaux, 2000).

A component of the distraction actively sought by participants through cannabis use was the sensorial experiences induced by the substance, which temporarily alleviated the monotony of their lives. This has not been identified in previous research as a reason for cannabis use among persons with schizophrenia, although it has been found to be a reason for cannabis use in the general population (Laqueille et al., 2003; Ministère des Travaux publics et Services gouvernementaux, 2000).

Previous research indicates that cannabis use has an adverse effect on the symptoms of schizophrenia (Green et al., 2008). No participant, however, including the two who had stopped using cannabis, mentioned having experienced any negative effects of the substance. This could be because the focus of the study was the nature of their attraction to cannabis.

The findings provide little support for Khantzian's (1997) self-medication model, which postulates that when individuals with schizophrenia use substances it is to relieve the suffering caused by the negative symptoms of the disorder. Although some of the needs identified by the participants in the present study were linked to the negative symptoms of schizophrenia, they were also associated with the impact of the illness on their everyday lives, their social and cognitive functioning, and the distressing evolution of their lives in general. Moreover, all of the men were taking atypical antipsychotics, which act on negative as well as positive symptoms.

The findings illuminate the perceptions of those with schizophrenia about what draws them to cannabis once the illness has set in but not their early illness or pre-illness attraction to this substance. The findings suggest that those with schizophrenia who consume the drug perceive it as a means of helping them to address unmet needs related to the disease. Seven of the eight participants, however, had begun using this substance before they were diagnosed with the illness. Further research investigating the attraction to cannabis at the onset of schizophrenia would help to shed light on this phenomenon.

# Limitations of the Study

Some limitations of the study must be pointed out. The validity of the information gathered depended on the openness and honesty of participants, who were being interviewed about a behaviour that is illegal. The nature of schizophrenia, which often involves mistrust and communication difficulties, as well as the illegality of cannabis consumption, may have made it difficult for participants to discuss their experiences. In addition, two respondents were no longer using cannabis and were describing their experiences retrospectively; they may have had memory lapses about these experiences.

Initially the plan was to recruit both male and female users of cannabis for the study, to provide a more diverse sample. Efforts to recruit women were unsuccessful, however, and all those who consented to participate in the study were male. This may reflect the gender difference in the use of cannabis reported in the literature (Hickman et al., 2007). The restriction of the study to a single gender group and the small number of participants, however, serves to limit the transferability of the findings.

#### Implications for Practice

Because of the study design, the findings are inherently non-generalizable in the usual meaning of the term. Quinn Patton (2002) notes, however, that extrapolations, described as "modest speculations on the likely applicability of findings to other similar situations" (p. 584), are appropriate and useful when based on information-rich samples and targeted data. The findings of this study suggest that nurses should be sensitive to three needs that are experienced by persons with schizophrenia and that those who use cannabis are apparently seeking to address. Nurses could orient the nursing process to explore, with clients, ways of addressing these needs. In order to help mobilize appropriate resources and support, for instance, nurses could explore (with clients) pastimes and recreational activities, the need for relaxation and ways to meet it, ways to help clients increase their self-esteem, clients' support networks, and clients' attitudes concerning the effects of schizophrenia on their lives.

Rehabilitation programs offer therapeutic interventions that address some of these illness-related needs. Recent reviews and meta-analyses have demonstrated the effectiveness of a number of psychosocial rehabilitation programs (Velligan & Gonzalez, 2007). For instance, among those with schizophrenia, cognitive behavioural therapy has the potential to improve attention, memory, and task performance (Krabbendam, 2003); supportive employment programs have been found to increase one's ability to obtain and retain competitive employment (Twamley, Jeste, & Lehman, 2003); and training in social skills has been effective in improving social competence and social functioning (Peer, Kupper, Long, Brekke, & Spaulding, 2007). Given the limitations of this study, however, further research is required, to assess whether interventions addressing the unmet needs identified by the participants would alter the attraction and use of cannabis among persons with schizophrenia.

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Nathalie Francoeur, RN, BN, MN, CPMHN(C), is Clinical Nurse Specialist in Psychiatry/Mental Health, Edmundston Regional Hospital, Edmundston, New Brunswick, Canada. Cynthia Baker, RN, PhD, is Director, School of Nursing, and Associate Dean, Faculty of Health Sciences, Queen's University, Kingston, Ontario, Canada.