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The Role of Metacognitive Profiles in Social Functioning and Social Network Evolution in Schizophrenia

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Résumé

La métacognition permet de lire divers aspects d'une situation sociale et d'y répondre de façon appropriée. Chez les personnes atteintes de schizophrénie, la recherche démontre des difficultés au niveau du fonctionnement social, du réseau social et de la métacognition. Ces habiletés métacognitives pourraient influencer différemment divers aspects liés aux interactions sociales, aux multiples domaines de fonctionnement, à l'évolution d'un réseau social satisfaisant et soutenant, et à l'abus de substances.

L'objectif global de ce projet était donc d'explorer l'influence de divers profils métacognitifs sur le fonctionnement social et le réseau social d'individus atteints de schizophrénie, avec un intérêt particulier pour l'influence potentielle de ces variables sur l'utilisation de substances illicites.

La première étude visait à déterminer la présence de profils métacognitifs distincts au sein d'individus ayant vécu un épisode psychotique, ainsi qu'à déterminer si ces profils influencent le fonctionnement social et le soutien social perçu. Des analyses par nuées dynamiques ont révélé trois profils : (1) meilleures habiletés générales; (2) habiletés moins développées d'autoréflexivité et de théorie de l'esprit, mais plus d'habiletés de gestion de la détresse; (3) habiletés générales moins développées . Les analyses démontrent également des différences significatives entre les profils liés aux échelles Intimité et Indépendance, le second profil présentant de meilleures habiletés que le troisième. Quoique le niveau de gestion de la détresse soit associé au niveau de fonctionnement social, des capacités supérieures d'autoréflexivité et de théorie de l'esprit ne semblaient pas améliorer le fonctionnement social d'un individu ayant vécu un premier épisode psychotique.

Les recherches démontrent que le développement de la métacognition serait influencé par les interactions avec les parents dans la petite enfance, et ensuite principalement par les interactions avec les pairs. La deuxième étude avait pour but d'explorer le rôle que pourraient jouer les habiletés métacognitives sur l'évolution du réseau social chez les personnes atteintes d'un trouble psychotique et d'un trouble d'abus de substance concomitant. Le réseau social de chaque participant a été documenté rétrospectivement de l'enfance au présent, en ciblant des étapes de vie communes (école primaire, secondaire, première hospitalisation, etc.) et

personnelles (déménagements, changements d'école, adversité, etc.). Les aspects liés à l'abus de substances ont également été analysés.

Deux profils représentant des évolutions distinctes ont été identifiés. Chaque profil démontre une stabilité dans les réactions aux transitions (étapes de vie) et un fonctionnement métacognitif distinct. Le premier profil est associé à de meilleures capacités métacognitives : il représente une variation dans le début, la conclusion et la diversité des relations. Le deuxième profil est associé à des capacités métacognitives moindres : il représente un réseau qui change entièrement à chaque transition, mais stagne entre celles-ci. La présence de relations à long terme basées sur la réciprocité, et d'intérêts personnels spécifiques contribuant à la formation d'amitiés sont des caractéristiques qui se sont démarquées dans le premier profil, mais pas dans le second, lequel semble évoluer vers un réseau basé sur la consommation de substances illicites à l'adolescence, et l'isolement suite au premier épisode psychotique.

Mots-clés : Schizophrénie, psychose, fonctionnement social, réseau social, abus de substances

Abstract

An individual's capacity to develop adequate metacognitive theories plays an important role in social interactions and social functioning. Through metacognition, a person is able to read several aspects of a social situation and respond appropriately. Accordingly, research on social functioning, social networks, and metacognition consistently show impairments in individuals with schizophrenia. Although research has traditionally focused on the influence of individual skills, metacognitive abilities can be considered individually, or globally. However, different aspects of metacognition may not be predictive of every individual domain of social functioning, evolution of a satisfying and supportive social network, and social aspects of substance use. Therefore, the overall goal of this project was to contribute to the knowledge of the influence of metacognitive profiles on social functioning and the social context of individuals with schizophrenia, with a special interest in the implications of substance misuse.

The first study investigated whether distinct metacognitive profiles exist within a population of individuals with a first psychotic episode, and to determine how such profiles influence individual domains of social functioning and perceived social support. Cluster analysis revealed three distinct metacognitive profiles: (1) overall better abilities; (2) poor abilities on thinking of one's own and other's mind, but better Mastery; and (3) overall poorer abilities. Analyses showed significant differences between profiles only for self-reported intimacy and independent living abilities, with the second profile showing better abilities than the third. Profiles did not simply represent consistently higher or lower functioning across subscales. Although mastery was predictive of social functioning, the ability to think in an increasingly complex manner of one's self and others did not seem to improve functioning in individuals with a first episode of psychosis.

Early interactions in particular are thought to influence the development of this ability. Interactions with others continue to be important to personal reflection and the further development of metacognitive skills. Therefore, given the influence of metacognition on social interactions, the second study explored whether metacognitive abilities played a role in the evolution of social networks in persons who develop schizophrenia and comorbid

substance misuse. Social networks were charted from childhood to the present and were anchored to general (elementary, school, high school, first hospitalization, etc) and personal milestones (moving to a new city, changing school, onset of substance misuse, hardships, etc). Qualitative aspects were also investigated. Two distinct social network evolution profiles were identified. Profiles were stable over time in their reactions to life transition and differed on metacognitive abilities. Profile 1 was associated with better metacognitive abilities. It varied on the onset, conclusion, and the diversity of relationships. Profile 2 was associated with poorer metacognitive abilities. Networks completely changed at transitions but remained static and homogeneous between transitions. The presence of long-term, mutually supportive relationships, and the pursuit of personal interests contributing to friendship formation was present in the first but not the second profile, which evolved towards a network of substance users in adolescence, and isolation following the onset of illness.

Keywords : Schizophrenia, psychosis, social network, social functioning, substance misuse

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To everyone who tries to understand

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General Introduction

Defining Schizophrenia

The diagnostic

Schizophrenia presents differently across individuals, and those diagnosed with the illness may have very different experiences. Diagnosis is based on a «constellation of symptoms» (American Psychiatric Association, 2013), and although no individual symptom is mandatory, the presence of a minimum of two symptoms is required, one of which must be either hallucinations or delusions. Other symptoms include disorganized speech, grossly disorganized or catatonic behaviour, and negative symptoms. Unless successfully treated, symptoms must be present for a minimum of 6 months, and the presence of other causes like organic disorders, mood disorders, and acute intoxication must be ruled out. As is the case with other disorders, a diagnosis requires the presence of significant distress and/or impairment, which can take the form of a diminution in a person's capacity for functioning in either work, interpersonal relations or self-care.

In the early stages of illness especially, establishing the correct diagnostic may be difficult. Many of the symptoms of schizophrenia are also present in related diagnoses such as schizophreniform and schizoaffective disorders, or a brief psychotic episode. The duration criteria will differentiate between schizophrenia and schizophreniform disorder, the absence of negative symptoms from a brief psychotic disorder, and the presence of a major mood episode will discriminate with schizoaffective disorder. Furthermore, symptoms such as hallucinations and delusions may also be present in other disorders, namely in bipolar disorder or unipolar depression, or resemble symptoms seen in diagnoses such as post-traumatic stress, or obsessive-compulsive disorders. A careful assessment of the content of the thought disturbances and the constellation of symptoms is therefore necessary. What is more, the high prevalence of psychological comorbidity frequently complicates the clinical presentation of schizophrenia as comorbid disorders can mask or alter the manifestation of symptoms. Some of the most common comorbid disorders include depression (50%), substance use (47%), social anxiety (38.3% in schizophrenia spectrum disorders) (Braga, Reynolds, and Siris,

2013), post-traumatic stress disorder (29%), obsessive-compulsive disorder (23%), and panic disorder (15%)(Buckley, Miller, Lehrer, and Castle, 2008).

In certain cases, the onset of illness can be difficult to determine, as some (but not all), will experience a prodromal period of functional decline preceding the onset of frank symptoms. Prodromes can be accompanied by subthreshold psychotic symptoms or symptoms such as anxiety, irritability/anger, mood-related symptoms, changes in volition, increases or decreases in energy, cognitive changes, physical or somatic symptoms (e.g., weight loss or sleep disturbances), speech and perceptual anomalies, suspiciousness, and behavioural changes (e.g., self neglect, impulsivity and odd behaviours). The average duration of the prodromal period is estimated at 2 years and can range from less than a week to over 5 years (McGorry et al., 1995). The prodrome will frequently occur during adolescence, a period when such symptoms are also highly prevalent in the population in general, and therefore not necessarily predictive of psychosis (McGorry et al., 1995). This poses a challenge to early detection and intervention efforts and may lead to a longer duration of untreated psychosis, which is associated with a poorer outcome (White et al., 2009).

The cost of illness

The lifetime prevalence of schizophrenia in the population is estimated to be between 0.3 and 0.7%, with variations depending on ethnicity, countries, and the geographic region of origin of immigrants (American Psychiatric Association, 2013). Although it is usually earlier for men (mode 18-25) than women (35+), the onset of the illness typically occurs between late adolescence and the mid-thirties. Consequently, because of the age at onset and the severity of the illness, a significant proportion of individuals with schizophrenia are unable to work during the peak of their productive years. Hence, despite its low prevalence, the illness carries an incalculable personal cost, as well as an important societal cost. The cost of the illness has been estimated at the societal level: in Canada, loss of productivity and morbidity was estimated to account for 70% of the cost related to illness, which was estimated at 6.85 billion dollars (Goeree et al., 2005). A similar analysis in the United Kingdom offered a detailed breakdown of the various subcategories contributing to the total cost to society of 6.7 billion pounds. An estimated 3.4 billion pounds was associated to the loss of productivity; 1 million pounds to costs relating to the criminal justice system; 2 billion estimated cost for treatment,

and with 615 million pounds attributed to expenditures paid by families (Mangalore and Knapp, 2007).

The prognostic

The treatment and prognosis of schizophrenia can be negatively affected by the presence of comorbid disorders. Substance misuse diagnoses are particularly prevalent and are regarded as one of the biggest obstacles to treatment in schizophrenia (Dixon, 1999). Individuals with a comorbid substance misuse (abuse/dependence) disorder, are not only more likely to be non-compliant with treatment (Dixon, 1999; Swartz et al., 1998), but show more aggression and violent behavior (Angermeyer, 2000; Swartz et al., 1998), are at higher risk for medical (Drake et al., 2001) as well as other psychological disorders (Margolese, Malchy, Negrete, Tempier, and Gill, 2004), present with a younger age at onset of schizophrenia (Large, Sharma, Compton, Slade, and Nielssen, 2011) and show an increased rate of relapse (Lynskey et al., 2003). Although some individuals present with chronic, severe impairments requiring constant care, others alternate between periods of remission and relative autonomy, and others yet go on to make little or no use of mental health services (Abdel-Baki et al., 2011). Some factors, however, are typically associated with a better prognostic: for example, being a women (Torgalsboen, 1999), having a shorter duration of untreated illness (Petersen et al., 2008; White et al., 2009), a shorter duration of untreated psychosis (White et al., 2009) and having better premorbid adjustment (Petersen et al., 2008).

Defining Metacognition

Metacognition is part of a large body of research that includes concepts related to a person's ability to consider other's perspective (theory of mind, social cognition), or to reflect upon one's own mental life (insight, mentalization). In the published literature, individuals with schizophrenia have consistently shown deficits in metacognition and related concepts (Brüne, Schaub, Juckel, and Langdon, 2011; Lysaker et al., 2005; Lysaker et al., 2010; Sprong, Schothorst, Vos, Hox, and Van Engeland, 2007). Metacognition is important to mental health and social interaction as it enables us to make sense of our experience and respond appropriately in a social context (Dimaggio and Lysaker, 2010). The ability to monitor, regulate and integrate the experience of our own mental life, our mental

representation or others', putting it in a broader interpersonal context and using this understanding to manage psychological distress, are all semi-independent aspects or metacognition. Therefore, although they are interconnected, it is possible to see impairments in some aspects and not others (Lysaker, Dimaggio et al., 2011).

Traditionally, concepts related to metacognition have been studied using images or short stories as primed tasks in a laboratory setting (Baron-Cohen, Jolliffe, Mortimore, and Robertson, 1997; Brüne, 2003; Mitchley, Barber, Gray, Brooks, and Livingston, 1998). Although they lead to the identification of specific deficits, these tasks have limited ecological validity. As mentioned by Lysaker and Hamm (2011), these approaches fail to consider the influence of emotional and personal involvement. When faced with an emotionally charged situation, or in a situation that implicates a loved one, our use of metacognitive abilities may not be optimal. Furthermore, in daily life, there are normally no clear prompt or cues signaling the need to use specific metacognitive processes (Lysaker and Hamm, 2011). As most real-life situations may not be as clear or targeted as study vignettes, it may be more taxing to disentangle situations that are in themselves complex, to make sense of our reaction and that of others (Lysaker and Hamm, 2011). What's more, as schizophrenia is thought to involve a deficit in self-directed behaviour (Frith, 1992), and traditional measures may be masking that difficulty.

Some authors (Dimaggio and Lysaker, 2010) have provided a more detailed description of metacognitive abilities and created an instrument to measure the spontaneous use of metacognitive abilities by breaking down the concept in four distinct but related subgroups: self-reflectivity, understanding others' mind, decentration and mastery. Self-reflectivity refers to a person's awareness of their own thinking processes. It can range from recognizing one's thoughts as one's own, identifying discrete cognitive processes and emotions, to putting emotions and cognitions in perspective, to having an integrated sense of one's mental functioning over time. Understanding other's mind refers to the degree to which the individual is able to infer similar processes in others. Decentration is the ability to consider a larger social context that is not exclusively in reference to oneself. And finally, mastery refers to a person's competency in coping with their own distress psychologically. This can go from a basic recognition of psychological distress, to cognitively reframing the problem, to attaining a more holistic comprehension of life and its difficulties (Dimaggio and Lysaker, 2010). Therefore,

because metacognition implies using different but related processes in concert to create meaning, it is important to measure the interactive aspect of these abilities, as deficits may exist in one category and not another.

Metacognition in schizophrenia

Research on metacognition and related concepts consistently shows impairments in individuals with schizophrenia (Brüne et al., 2011; Lysaker et al., 2005; Lysaker et al., 2010; Sprong et al., 2007). Using Theory of Mind (ToM) tasks like those used in the study of autism, researchers have shown impairments in second-order ToM tasks in individuals with schizophrenia, specifically irony detection (e.g. Mitchley et al., 1998). Individuals with better ToM were shown to have a more cynical and pragmatic view of the world and were better able to use strategic reasoning (Mazza, De Risio, Tozzini, Roncone, and Casacchia, 2003; Sullivan and Allen, 1999). In fact, Sullivan and Allen (1999) have shown a statistical sex difference in thinking of social situations with men showing a tendency to endorse a view of the world where honesty and morality prevailed, and women showing a more suspicious and a wary view of social interactions (Sullivan and Allen, 1999). Interestingly, these results would be consistent with the literature showing better social functioning in women than in men with early psychosis (Cotton et al., 2009).

The Importance of Social Interactions in the Development of Metacognitive Theories

Early childhood

Considering that individuals are shaped by their environment, it is important to take into account the effect cumulative experiences may have on their development and current functioning. Early interactions, in particular, are thought to influence the development of metacognitive ability (Cook et al., 2005; Dimaggio and Lysaker, 2010). Interactions with a responsive caregiver are important to help the child identify and differentiate between inner and outer realities, pretend situations and real situations, intra and interpersonal emotional and mental processes. These interactions are likewise considered important in helping the child integrate concepts such as desires, emotions, beliefs, intentions, etc. (Dimaggio and Lysaker, 2010) and develop a framework, or theory, about the responses certain behaviours elicit in others. As interactions become more complex and language develops, a sufficiently responsive

caregiver will also help teach the child the foundations for understanding his or her own thought processes (Schraw and Moshman, 1995); when the caregiver is unresponsive or inconsistent, the opportunities to develop an understanding of the dynamics of personal and interpersonal interactions are lacking (Cook et al., 2005). All this is necessary to help the child develop an awareness of their mental life, an ability to differentiate between experiences, as well as an ability to organize and make sense of their thought processes. As conveyed by Cook and colleagues (2005), « When the primary caregiver is too preoccupied, distant, unpredictable, punitive or distressed to be reliably responsive, children become distressed easily and do not learn to collaborate with others when their own internal resources are inadequate. ».

Childhood trauma and schizophrenia

The association between childhood traumatic experiences and schizophrenia is among the most robust and consistent findings in the literature on schizophrenia. A meta-analysis estimated the prevalence of childhood abuse in individuals who develop the illness at 26% for sexual abuse, 39% for physical abuse and 34% for emotional abuse (Bonoldi et al., 2013). A literature review found high rates of reported sexual (47.7%) and physical abuse (47.8%) in women and in men (47.7% and 50.1% respectively), with 19.4% of men and 35.5% of women reporting experiencing both sexual and physical abuse (Read, van Os, Morrison, and Ross, 2005). In another meta-analysis, Varese et al., 2012 calculated the average attributable risk of childhood abuse in developing the illness at 33% (Varese et al., 2012). The severity of abuse has also been shown to predict the severity of symptoms in a dose-response relationship (Krabbendam, 2008; Miller et al., 2001).

As mentioned previously, physical, emotional and sexual abuse, physical and emotional neglect, as well as witnessing conjugal violence or other repeated violent situations, is detrimental to the development of metacognition and can have a significant negative impact on the child's ability to relate to the world (Dimaggio and Lysaker, 2010). Indeed, dissociation and compartmentalization are common metacognitive failures observed in individuals who experienced trauma, and stems from an inability to integrate personal experiences into a common framework. Deficits at this level will significantly affect an individual's capacity to learn from and make sense of social interactions in an adaptive way.

Later childhood and adolescence

Interactions with others continue to be important for personal reflection and the further development of metacognitive skills as individuals mature and become less dependent on the family for support (Schraw and Moshman, 1995). In later childhood and adolescence, peer interactions become the basis for further metacognitive growth. However, unlike kinship, which in a way guarantees a social connection, peer relationships are usually contingent on interpersonal skills. In this context, deficits present early in development may undermine the further development of metacognitive skills in late childhood, adolescence and young adulthood. Deficits from childhood could then result in increased isolation and reduced opportunity for further metacognitive growth.

Adolescence is a sensitive period associated with important changes not only biologically, but socially as well. As teenagers mature into young adulthood, they are tasked with the search for a personal identity and increased independence from kin (Erikson, 1968). For those who struggle with metacognitive difficulties, coping with these changing social demands may become increasingly overwhelming. Consequently, they may find themselves unable to meet the expectations of increased autonomy and self-directed behaviours, which could lead to shame and isolation. Alternatively, interactions may become unsatisfying to those who continue to develop personally and socially, and friendships may dissolve.

Prodromal symptoms may surface during adolescence (McGorry et al., 1995), and although they could complicate social interactions, studies on premorbid functioning suggest that difficulties in interacting with others preceded even the onset of prodromal symptoms. For example, poor theory of mind in individuals with schizophrenia was associated with being intimidated, getting into fights or having difficulty keeping friends, or having fewer than two friends before the age of 16 (Schenkel, Spaulding, and Silverstein, 2005). Mackrell and Lavender (2004) also found inequity in peer relationships already present from ages 5 to 11, and instability in peer relationships ages 11 to 15 (Mackrell and Lavender, 2004).

In this context, considering that substance misuse is highly prevalent early in the course of illness, a difficulty with conventional social interactions and the need to belong to a peer group may drive those with metacognitive deficits towards more accepting circles, such

as drug users. This would be congruent with the hypothesis that, at the time of illness, individuals with impaired metacognition and impaired social skill may already have a reduced social network (Horan, Subotnik, Snyder, and Nuechterlein, 2006).

Social functioning in schizophrenia

Social functioning refers to an individual's level of functional autonomy in several spheres such as work or school, leisure, self-care, and interactions with others, including strangers, peers, and family. The domains or skills included in the definition of social functioning may vary slightly according to authors or the measures used, but the core concept remains centered on the capacity for adequate levels of independent functioning in daily life. The literature has generally addressed social functioning as a global variable, although some studies have shown that while related, these domains may also function independently, and may be associated with different predictors (Bourdeau, Massé, and Lecomte, 2012).

Nevertheless, deficits in social functioning have consistently been observed in individuals with schizophrenia (Bengtsson-Tops and Handsson, 2001). As mentioned previously, deficits may already be present before any observable signs of illness are detected and because they are thought to be stable, some authors have mentioned their potential as markers for schizophrenia (Cornblatt et al., 2007). Indeed, in a prospective study of prodromal individuals, impairments in social functioning (quantity and quality of peer relationships, level of peer conflict, age-appropriate intimate relationships, and family involvement) remained stable while, role functioning (age appropriate level of independence and performance in school, work, or as a homemaker) declined before an official diagnosis was obtained, then improved with treatment (Cornblatt et al., 2007; Larsen et al., 2004).

Although social functioning is frequently studied in relation to various cognitive and neurocognitive abilities, the capacity to reflect on and manage one's thoughts may be better suited to understanding difficulties in social functioning in schizophrenia. The ability to understand our thoughts, infer the thinking of others, and integrate this knowledge is important in guiding our choices, and adapting to changes in our environment. It is central to social functioning as integrated understanding and mental flexibility allows individuals to make choices that are more adapted to their situations. For example, after the onset of illness, an individual might take into account, when looking for employment, changes in their ability to

concentrate over long periods of time or increased sensitivity to stress. Indeed, metacognitive mastery was shown to predict awareness of the consequence of illness and, along with self-reflexivity, better awareness of treatment needs (Lysaker, Dimaggio, et al., 2011).

Social networks in schizophrenia

As mentioned previously, metacognition plays an important role in social interactions and social functioning (Lysaker et al., 2010; Schraw and Moshman, 1995). In the literature, individuals with schizophrenia have consistently been found to have a smaller network than individuals in the community without a mental illness (Bengtsson-Tops and Hansson, 2001; Horan, et al., 2006; Macdonald, Hayes, and Baglioni, 2000), with severity of illness being a predictor (Randolf and Escobar as cited in Horan et al., 2006). Within the population of individuals with schizophrenia, variations in social network size and quality of network have also been attributed to age, social skills (Macdonald, Jackson, Hayes, Baglioni, et Madden, 1998), symptoms (Bengtsson-Tops et Hansson, 2001), metacognitive awareness (Lysaker et al., 2013) etc, but although the deficit itself is well documented, a detailed description of the phenomenon over time is lacking.

Because individuals with severe mental health problems and the people close to them are often avoided by others (Perlick et al., 2007), stigmatization is frequently invoked in relation to the social context of individuals with schizophrenia. Indeed, the desire to avoid judgment may exacerbate isolation further (MacDonald, Sauer, Howie, and Albiston, 2005) and may discourage friends from maintaining friendships (Brand, Harrop, and Ellett, 2010). However, some studies have shown that following the first episode of psychosis, individuals who maintain satisfactory familial and social support do not experience significant levels of prejudice due to illness (Mueller, Nordt, Lauber, Rueesch, Meyer and Roessler, 2006). Therefore, although the potential contribution of stigmatization should be considered, it does not adequately explain the reduction in social network size in individuals with schizophrenia.

The idea that the onset of illness puts a strain on existing relationships has led some to hypothesize that individuals in the early stages of illness may experience a network crisis (Beels, 1979 as cited in Horan et al., 2006). In a study designed to evaluate this hypothesis, Horan et al. (2006), investigated, over one year, the change in social network in a population of individuals experiencing their first psychotic episode. Rather than confirming a change in

social network characteristics following a first hospitalization, their results brought support to the idea that the social networks of individuals with schizophrenia are already limited in size before the onset of illness. Compared to controls, the participants interacted with fewer individuals on a regular basis (i.e. smaller network), had a higher proportion of family members in their networks, and therefore, fewer interactions with peers and other social contacts. Furthermore, members of the participant's network were more likely to know each other and were, therefore, less diversified (i.e. higher density). Consistent with these results, others have observed smaller networks with fewer friends, fewer people to turn to in a crisis, as well as a higher likelihood of citing service providers as network members (Macdonald et al., 2000). It is possible, however, that the decline in social network may not have taken place following the first episode, but before, as a well-documented decline in functioning occurs prior to illness (McGorry et al., 1995).

The contribution of premorbid social functioning and metacognitive deficits on social network variables should also be considered. Mackrel and Lavender (2004) have investigated peer relationships during the transition period of adolescence in individuals who experienced a first episode of psychosis. They observed, in three stages of development, that poor relationships in childhood developed into an unstable pattern of relationship in adolescence and adulthood. What began as an inequity in peer relationships (perceived negative bias) from ages of 5 through 11, became an instability in peer relationships (testing boundaries at school, experimenting with substances, exploring intimacy/difficulty with intimacy, substance use and study difficulty) from 11 to 15 years old, and turned to isolation and increased isolation (difficulty with intimacy, continuing substance use, study/work difficulties) in ages 16 through 30 (Mackrell and Lavender, 2004).

Substance misuse in schizophrenia

The prevalence and impact of comorbid substance misuse in schizophrenia

According to a large study, 51% of 13,624 individuals diagnosed with schizophrenia also met criteria for a substance misuse disorder (Sara, Burgess, Malhi, Whiteford, and Hall, 2014), compared to a lifetime prevalence of drug use disorders of 9.9% in the general population (Grant et al., 2016). Although several hypotheses have been suggested to explain

this phenomenon, the evidence does not seem to support one model entirely (Blanchard, Brown, Horan, and Sherwood, 2000; Mueser, Drake, and Wallach, 1998). Furthermore, consuming substances (cannabis in this case) as a social activity, or to increase mood, was reported as a reason for use in the same proportion in individuals with, or without psychosis (Green, Kavanagh, and Young, 2004).

Social networks in adolescence and the development of substance misuse

Substance misuse frequently begins in adolescence, before overt signs of illness are observed, therefore, it may be pertinent to discuss relevant findings from the literature on substance misuse in adolescents in general. A substantial body of research has confirmed, repeatedly, the correlation between substance misuse and the presence of substance using peers in their social network. Although peer pressure is often assumed to be "the" influence in the initiation and continuation of use (e.g.: Ennett et al., 2006; Mason, Cheung, and Walker, 2004), other explanations should be considered (Bauman and Ennett, 1996). Bauman and Ennett (1994, 1996) suggest that studying the dynamic nature of friendship may provide a better understanding as it may be the case that :

1. Drug users will seek out like-minded individuals,
2. Non-users will choose to enter relationships with other non-users,
3. Friendships may dissolve when drug use behavior among peers become too,
4. Peer groups may restrain membership to those with similar behaviour.

Adolescents in dense networks, those who nominated a best friend who used, and those who were part of a neighbourhood of users were deemed more likely to use themselves (Ennett et al., 2006). Although this is consistent with the concept of peer pressure, it is also possible that substance misuse becomes normalized in certain types of networks. It is reasonable to assume that closer, more reciprocal friendships would be more influential (Bauman and Ennett, 1994), that the lack of alternative view in a denser network may foster compliance (Mitchell and Trickett, 1980), and that the adolescent with a smaller network may not be in a position to consider alternative groups. Therefore, a smaller, denser network could lead to a higher vulnerability to substance use. This vulnerability to substance misuse in

smaller, denser group is interesting as the description also parallels that of social networks of individuals with schizophrenia.

In their social network analysis, (Ennett et al., 2006) found that roughly 1/3 of adolescents were not part of any specific network, and that those who nominated more friends outside of school networks were more likely to consume alcohol and marijuana at age 11 to 13. Although overall social embeddedness was associated with a reduced risk for substance use, both adolescents who were highly visible in their networks and those who were isolated were identified as being at higher risk (Ennett et al., 2006). This could perhaps suggest that not belonging to a group within the structured and supervised school environment reflects difficulties in social functioning within a normative setting, thus increasing the likelihood of associating with less positive influences outside school.

Reasons for substance use reported by individuals with schizophrenia

In a qualitative study, Asher and Gask (2010) have found that social reasons explained the continuation of substance misuse, and that all participants had persistent socializing difficulties before they joined a substance using peer group. Drug use to facilitate socialization was reported by 11 out of 17 participants. Some individuals reported being encouraged to use by members of their networks, but others reported actively seeking substance-using peers. Furthermore, a number of participants also reported an awareness that their inclusion in the group was conditional to substance use, or that some types of drug use could make it harder for them to socialize with individuals who do not use. Therefore it seems that, within a population with the same comorbid diagnostics, there is also a great variety in the awareness of self and the effects of use on social relationships.

This study also brought up another interesting nuance not generally addressed in the quantitative literature on reasons for use: individuals reported taking pride in developing an expertise on drug use, which provided them with a certain standing in their community, enhanced their self-esteem, and provided a sense of identity (Asher and Gask, 2010). Other articles have also highlighted the topic of identity: in relation to drug use in schizophrenia, participants reported preferring to be considered drug users rather than mentally ill in order to avoid stigma from self or others (Chorlton and Smith, 2016).

Several individuals mentioned using drugs to cope with setbacks, depressed mood, anxiety, hopelessness, insomnia or appetite, and some reported using to either tune out or enhance voices or in the hopes of confronting them. Others used substances as a way to manage side effects of the medication or in order to be able to carry out daily living tasks or work. Their expertise allowed some to determine the right amount of use, for example, to get the relaxing effect of cannabis, without triggering paranoia. While some reported plausible beliefs about the effect of drug use on symptoms, others held a less grounded view, such as the belief that a "bad batch" made them ill and thus, continued using in the hopes a "good batch" would make them well again. A great variety of insight and coping strategies was displayed in the results of this study, which illustrates the complexity of the issue. What is more, Stålheim, Berggren, Lange and Fahlke (2013) have shown that compared to controls, individuals with a psychotic disorder who have a substance abuse problem do not show evidence of longing, guilt and the experience of failure which is generally a central feature of addiction. At this point, it would be interesting to note that not only is there an important social aspect to substance misuse in schizophrenia, but that metacognitive difficulties, which affects an individual's ability to navigate social contexts, could also have an important impact on the presentation or type of comorbid substance misuse.

Hypotheses and research goals

The overall goal of this project was to contribute the knowledge of the influence of metacognitive abilities on social functioning and the social context of individuals with schizophrenia, with a special interest in the implications of substance misuse.

Objective 1: In a sample of individuals with a first psychotic episode, determine the contribution of metacognitive abilities on perceived social support and social functioning.

Hypotheses:

1. Distinct profiles of metacognitive abilities will be present in the sample.
2. Better metacognitive abilities will be associated with better social functioning overall,
3. The correlation with metacognitive profiles is expected to vary across individual domains of social functioning.

Objective 2: Using a retrospective design, describe the evolution of social networks in persons who develop schizophrenia and comorbid substance misuse by anchoring it to general (elementary, school, high school, first hospitalization, etc) and personal milestones (moving to a new city, changing school, onset of substance misuse, hardships, etc).

Hypotheses:

1. Distinct profiles of social network evolution are expected to be present in the sample.
2. Metacognitive abilities are expected to correlate with the development of social networks, with individuals with lower metacognitive abilities showing a reduced network prior to the onset of illness.
3. Poorer social networks and lower metacognitive abilities are expected to be associated with an increased risk of developing substance misuse.
4. Following the onset of illness, stronger networks are expected to maintain most of their social network following.

Article 1 : Metacognitive Profiles in Individuals with a First Episode of Psychosis and their Relation to Social Functioning and Perceived Social Support

Massé, M. & Lecomte, T. (2015) Schizophrenia Research 166, 60–64.

Contribution to the first article : Variables used in the first article came from a data set collected for a larger study headed by Dr Lecomte. Although the study was already underway, and a large part of the data was collected by other research assistants, I have participated in data collection. The conceptual framework and methodology for the study were elaborated under the guidance and the supervision of Dr Lecomte. The statistical analyses and redaction of the article were primarily my responsibility, and were completed under the supervision of Dr Lecomte, who is second author on this publication.

Abstract

Poorer metacognitive abilities are recognized as strong predictors of social functioning deficits in individuals with schizophrenia, but have not been studied in relation to perceived social support. Furthermore, traditional measures of metacognition fail to consider ecological aspects such as the interaction between thinking of one's own or other's mind, and mastery. As a constellation, these abilities may influence domains of social functioning and perceived social support differently. Therefore, this study aimed to establish whether distinct metacognitive profiles exist within a population of individuals with a first psychotic episode, and to determine how such profiles influence individual domains of social functioning and perceived social support.

Participants (n=50) were recruited from two early psychosis outpatient clinics in Montreal, Canada. Demographic information, social functioning and perceived social support were measured using self-reported questionnaires, and metacognition was scored from the transcripts of a semi-structured interview designed to avoid leading responses.

Cluster analysis revealed three distinct metacognitive profiles: (1) overall better abilities; (2) poor abilities on thinking of one's own and other's mind, but better mastery; and (3) overall poorer abilities. Analyses showed significant differences between profile only for self-reported intimacy and independent living abilities, with the second profile showing better abilities than the third. Profiles did not simply represent consistently higher or lower functioning across subscales. Although mastery was predictive of social functioning, the ability to think in an increasingly complex manner of one's self and others did not seem to improve functioning in individuals with a first episode of psychosis.

Introduction

In individuals with schizophrenia, poorer social cognition and metacognitive abilities are recognised as strong predictors of social functioning deficits (Brüne et al., 2011), with evidence of these impairments also present in individuals with a first episode of psychosis (FEP) (Achim et al., 2012). Social cognition is part of a large body of research which includes concepts relating to a person's ability to consider other's perspective, such as theory of mind (ToM), and other concepts such as insight and mentalization, representing the ability to reflect upon one's own mental life. In the context of this study, metacognition is defined as an individual's awareness of their own and other's mental processes, including their subjectivity, and the extent to which they can use such knowledge to make sense of situations or manage psychological distress (Lysaker et al., 2011). As such, metacognition is expected to affect a person's ability to appropriately navigate daily living tasks, social life, leisure, and work and/or school activities.

In studies of individuals with a FEP, metacognitive abilities, such as poor understanding of other's minds, are not always associated with social functioning (Sullivan et al., 2014). This discrepancy in results may be due in part to the fact that social functioning outcomes can be defined in terms of academic functioning, social functioning, or a combination of both. Although academic and social functioning both measure a person's performance within a social context, they are predicted by different variables (Allen et al., 2005; Monte et al., 2008), and show distinct patterns of functioning decline (Larsen et al., 2004). Such results suggest that although the academic and social aspects belong to the same global category, social functioning may best be studied through a more detailed approach, by considering more than one domain of both metacognition and social functioning.

Traditionally, metacognitive skills have been measured using cued tasks in the form of images or short stories (Baron-Cohen et al., 1997; Brüne, 2003; Mitchley et al., 1998). These tasks focus either on a person's ability to consider other's perspective, or to reflect upon their own mental life. However, this approach fails to consider the emotional valence, the personal involvement, and the absence of cues in using such abilities in everyday life (MAS-A manual as cited in (Lysaker et al., 2005; Semerari et al., 2003). To address this problem, Lysaker and colleagues have carried out a number of studies using the Metacognition Assessment Scale-Abbreviated (MAS-A)(Lysaker et al., 2005) to score transcripts of a semi-structured interview

designed to generate narratives while avoiding leading responses (Indiana Psychiatric Illness Interview (IPII); (Lysaker et al., 2002). The scale includes subscales, which quantify the complexity with which a person can reflect upon, and make sense of their own mental life (self-reflectivity), and that of other's (understanding others). It also quantifies the extent to which they can employ knowledge of themselves, others, or the situation, to cope with psychological distress (mastery). Using this scale, Lysaker and colleagues have shown that overall metacognitive abilities predict performance in social functioning domains such as employment (Lysaker et al., 2010a). They also found that better abilities on specific subscales, such as mastery, predicted better interpersonal relationships (Lysaker et al., 2011) and a more complex understanding of the psychological factors involved in social interactions (Lysaker et al., 2010b).

The results point to the importance of considering the influence of specific aspects of metacognition on individual domains of social functioning. Furthermore, because metacognition includes distinct yet related subcategories, the potential patterns of association between different levels of ability on each subscale may be of interest, as profiles describing distinct metacognitive functioning dynamics may emerge. It is important to consider this interaction to gain a better understanding of the factors involved in a person's social functioning because these inter-related metacognitive abilities will influence each other in an ecological context.

To our knowledge, no studies have investigated the influence of metacognition on perceived social support. Although a number of studies on the role of insight in social support have been published, they generally refer to illness awareness as opposed to a concept of self-awareness focussing on reflexive abilities. Still, studies show that moderate insight (illness awareness) is correlated to less satisfaction with social support in individuals with psychosis (Kaiser et al., 2006). In this light, it becomes pertinent to consider perceived social support as it was shown to influence the ability to cope with illness and to maintain living autonomy (Liberman and Mueser, 1989).

Because interest in the spontaneous use of metacognitive abilities is relatively recent in the literature, to our knowledge, no study has yet endeavored to create metacognitive profiles as an independent variable to explore potential differences on specific domains of social functioning, or in relation to satisfaction with social support. Therefore, the first goal of the

study was to determine whether distinct metacognitive profiles exist within a population of individuals with a FEP. Furthermore, as different levels of ability may interact in a complex way to influence social functioning and perceived support, the second goal aimed to determine if these metacognitive profiles influenced differently individual domains of social functioning and perceived social support.

Methods

Participants

Participants were recruited as part of a larger study investigating the processes involved in group-Cognitive Behavioural Therapy for individuals with early psychosis (Lecomte et al., 2003). Outpatients were recruited from FEP clinics affiliated with two large hospitals in Montreal, Canada ("Jeunes Adultes Psychotiques" of the Centre Hospitalier de l'Université de Montréal and the "Premier Épisode Psychotique" clinics of Hopital Louis-Lyppolyte Lafontaine). Access to these clinics was based on FEP status rather than age. Participants were considered for inclusion if they were sufficiently stable, had their first episode within 5 years of the start of the study, and were able to give informed consent. For a detailed description of the recruitment procedures, see (Lecomte et al., 2014b). The current sample includes 37 male and 13 female between the ages of 19 and 46 years old (M: 25.38 SD: 5.73), all of whom received a diagnosis of a psychotic disorder: 32 participants were diagnosed with schizophrenia, eight with a brief psychotic episode, three with schizoaffective disorder, four with bipolar disorder and three with an affective disorder with psychosis.

Measures

Demographic Information and outcome variables

Demographic information was collected using the Canadian version of the psychosocial rehabilitation (PSR) tool kit (Arns, 1998) available in French and in English. Social functioning domains including "living skills", "interacting with people", "social activities", "intimacy", "friends", "family", "work" and "school" were assessed using the First Episode Social Functioning Scale (Lecomte et al., 2014a). Perceived social support was measured with the multidimensional perceived social support scale, **which measures the presence of sufficient support from** "friends", "family" and "someone special" (Zimet et al.,

1988). The presence and severity of psychotic symptoms, including positive and negative symptoms and disorganisation were evaluated using the Brief Psychiatric Rating Scale – Extended version (BPRS-E) (Ventura et al., 1993b). All interviews were conducted by trained graduate level research assistants having met UCLA standards (Ventura et al., 1993a) for interrater reliability. Psychiatric diagnoses were collected from the patient files.

Metacognitive Abilities

The IPII (Lysaker et al., 2002) was used to prompt a life story narrative and a narrative about illness related difficulties. Recorded interviews were transcribed and coded using the MAS-A to give an indication of the level of ability on three distinct but related subscales: (1) self-reflectivity, (2) understanding others' mind, and (3) mastery. Self-reflectivity abilities typically range from identifying discrete emotions and cognitions to having an integrated sense of one's own mental functioning. Understanding other's mind refers to the degree to which individuals are able to infer similar processes in others. Finally, mastery refers to people's ability to use knowledge of themselves, others or the situation to cope with psychological distress. Mastery typically ranges from avoidance, to cognitively reframing the problem, to attaining a more holistic comprehension of life and its difficulties. The instrument also includes a Decentration subscale, which we opted to exclude from the analyses due to its limited discriminative potential and given the number of variable already included. The Decentration subscale contains only 3 levels, whereas the other subscales include 7 to 9 levels. Furthermore, it has been suggested that this subscale may not be as useful in a population of individuals with schizophrenia (Lysaker et al., 2007). Two trained research assistant enrolled in a graduate level program in clinical psychology coded the transcripts and discussed any discrepancies in the scores. A description of the scale can be found in (Lysaker et al., 2005; Semerari et al., 2003).

Statistical Analysis

First, clusters based on the three subscales of the MAS-A were created. A hierarchical cluster analysis using Ward's algorithm based on squared Euclidian distances was used to create a dendrogram in order to determine the optimal number of clusters (Borgen and Barnett, 1987). A three-cluster model was chosen as it best suited the sample, offering distinct profiles

of substantial subgroups of individuals. A k-mean cluster analysis was then performed to classify individuals into three profiles. The variables of interest were then compared on the ensuing clusters using ANOVA and post hoc t-test for the continuous data, and chi squares for categorical data.

Results

Metacognitive profiles and socio-demographic information

Figure 1. illustrates metacognitive abilities for the three profiles that emerged from the sample. Briefly, Profile 1 differed clinically from Profiles 2 and 3 on self-reflexivity scores. The former demonstrated the ability to question perception and differentiate between desires and the constraint of the world, whereas later were at most able to identify distinct cognitive operations and perhaps some emotions. On thinking of others, profile 1 demonstrated the ability to identify distinct thoughts and emotions in others, whereas profile 2 and 3 at best recognized others as having autonomous thoughts. Finally, on mastery, the clinically significant differences exist between Profile 1, and 2 and Profiles 3, where the former showed an ability to manage psychological distress by actively avoiding specific problematic situations or subjects, and seeking the reassurance of others, and the later recognized psychological distress but tended to attribute it to implausible sources. Mean and standard deviations for metacognitive abilities, the dependent variables for each cluster, as well as detailed socio-demographic information are presented in Table 1. All tests on socio-demographic variables were non-significant with the exception of living situation: the majority of individuals in Clusters 1 and 3 had stable living conditions (100 and 91.3% respectively) while only 63.63% of individuals in Cluster 2 did so. The percentage of individuals living independently (alone or with a roommate) in Cluster 1, 2, and 3 was 43%, 20% and 28.57% respectively; whereas 43.75%, 60% and 66.55% respectively lived in an environment where support was available (parents or institution). The remaining participant classified their living situation as “other”. No differences were found between participants with a diagnostic of schizophrenia and those with other diagnoses on self-reflectivity ($t=.330$, $p=.743$), thinking of others ($t= -.407$, $p=.686$) or mastery ($t= .604$, $p=.548$).

Figure 1: Cluster composition according to the MAS-A subscales

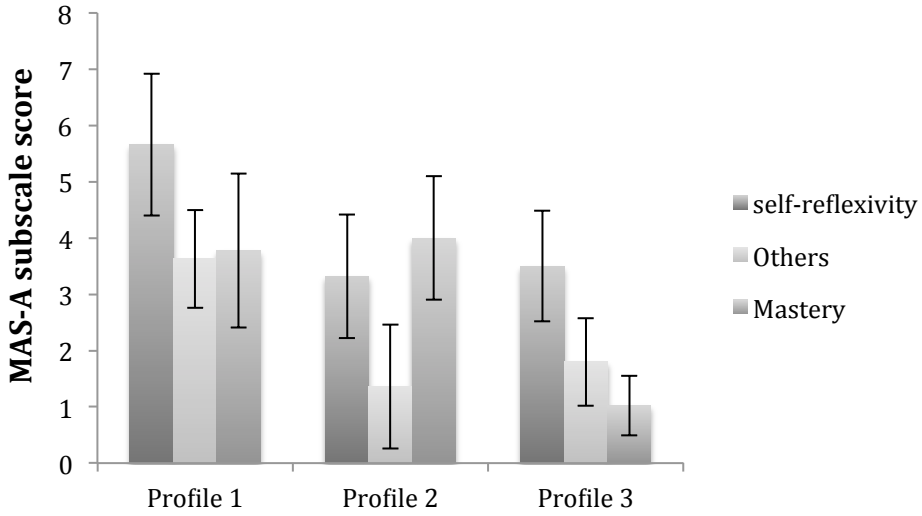

Table 1. Comparison of socio-demographic variables.

	Total sample (n=50)	1 (n= 16)	2 (n=11)	3 (n=23)	F	p	x	Post-Hoc
MAS-A: Self-reflectivity	4.15 (1.50)	5.66 (1.26)	3.32 (1.10)	3.50 (.98)				
Others	2.29 (1.27)	3.63 (.87)	1.36 (1.10)	1.80 (.78)				
Mastery	2.56 (1.73)	3.78 (1.37)	4.00 (1.10)	1.02 (.53)				
Age	25.38 (5.73)	24.13 (.93)	26.82 (2.18)	25.57 (1.29)	.735	.485		
Sex	M:37 F:13	M:10 F:6	M:9 F:2	M:18 F:5		.435		
Ethnicity Caucasian:	35	12	8	15			.499	
Asian:	1	0	0	1				
Latin-American:	1	0	1	0				
African/Caribbean:	11	4	2	5				
Other:	2	0	0	2				
Marital status							.549	
Single/never married	49	16	11	22				
Divorced	1	0	0	1				
Education	11.83 (2.88)	12.44 (.65)	11.59 (.99)	11.52 (.61)	.515	.601		
Stable living situation	Y:44 N:6	Y: 16 N:0	Y:7 N:4	Y:21 N:2			.014*	
#Hospitalisation	3.09 (4.41)	2.96 (.46)	5.83 (3.08)	2.09 (1.82)	2.446	.097		2 > 3 .080
BPRS positive	2.06 (1.01)	2.04 (.27)	1.90 (.27)	2.167 (.24)	.227	.798		
BPRS negative	1.67 (.73)	1.54 (.12)	1.93 (.345)	1.64 (.14)	.962	.390		
Ability in functioning								
Living skills	13.86 (2.25)	14.87 (1.60)	13.45 (2.97)	13.39 (2.10)	2.286	.113		1 > 3 .118
Interacting with others	12.33 (2.30)	12.87 (2.66)	12.55 (2.94)	11.87 (2.12)	.911	.409		
Friends	17.66 (3.60)	17.67 (3.72)	18.89 (3.44)	17.17 (3.61)	.727	.489		
Intimacy	14.42 (3.44)	15 (2.75)	16.30 (3.05)	13.22 (3.66)	3.424	.041*		2 > 3 .044*
Family	9.21 (16.23)	9.14 (1.51)	9.10 (2.18)	9.30 (1.49)	.070	.932		
Work - ability	9.54 (1.07)	9.56 (1.01)	10.67 (1.53)	9.29 (0.91)	2.284	.125		2 > 3 .105
Work - socializing	8.73 (1.71)	8.63 (0.92)	8.50 (2.89)	8.86 (1.79)	.083	.920		
School - ability	9.42 (1.88)	9.80 (1.30)	10.50 (2.12)	8.60 (2.30)	.888	.444		
School - socializing	8.92 (2.01)	10.60 (1.52)	8.50 (2.12)	7.40 (1.52)	5.112	.033*		1 > 3 .028*
Frequency of occurrences								
Living skills	13.57 (1.73)	13.53 (2.20)	14.82 (0.98)	13.00 (1.38)	4.746	.013*		2 > 3 .010*; 1 < 2 .121
Interacting with others	11.17 (2.23)	11.57 (1.95)	12.09 (2.21)	10.48 (2.27)	2.397	.103		2 > 3 .118
Friends	15.72 (3.44)	16.00 (4.24)	17.44 (2.96)	14.87 (2.85)	1.958	.153		
Intimacy	10.32 (4.27)	10.60 (4.17)	12.50 (3.41)	9.14 (4.43)	2.300	.112		2 > 3 .097
Family	8.45 (1.93)	8.60 (1.76)	7.91 (3.05)	8.61 (1.31)	.547	.583		
Work - ability	11.17 (4.34)	11.89 (3.98)	10.00 (6.24)	10.92 (4.46)	.236	.792		
Work - socializing	8.92 (4.65)	10.22 (4.44)	6.75 (3.30)	8.67 (5.16)	.794	.465		
School - ability	11.15 (2.44)	11.60 (1.95)	10.50 (2.12)	11.00 (3.16)	.143	.869		
School - socializing	8.77 (3.61)	10.20 (2.77)	8.00 (0.00)	7.84 (4.67)	.597	.569		
Perceived social support								
Friends	19.63(6.07)	20.13 (6.23)	19.18 (8.27)	19.52 (4.93)	.082	.921		
Someone special	21.69 (5.26)	22.26 (4.96)	23.73 (4.05)	20.35 (5.74)	1.716	.191		
Family	22.35 (5.27)	24.07 (3.30)	22.4 (7.95)	21.22 (4.80)	1.350	.270		
Total	66.22(12.45)	66.47 (8.89)	63.27(16.33)	61.09(12.44)	.842	.437		

Social functioning and perceived social support

Results pertaining to the social functioning subscales are presented in Table 1. At the .05 level, significant differences were found in self-reported intimacy ability with Cluster 2 reporting better abilities than Cluster 3. At the trend level ($p < .10$), Cluster 2 also reported more frequent intimacy and used living skills more frequently than Cluster 3. Clusters 1 showed better ability to socialize in a school setting than Cluster 3. No significant differences were found in the comparison between clusters with regards to perceived social support (see Table 1).

At the .05 level, similar results were obtained on multiple comparisons when bootstraping at 1000. Clusters 1 and 3 were found to differ on living skills abilities [.236 - 2.378], and clusters 2 and 3 on intimacy abilities [.304 - 5.347]. The frequency of use of living skills differed on clusters 1 and 2 [.171 - 2.687], and clusters 2 and 3 [1.338 - 3.045]. The

frequency of interaction with others differed between clusters 2 and 3 [.478 - 3.288], and the frequency of contact with friends differed between clusters 2 and 3 [.528 - 4.824].

Conclusion

To our knowledge, this is the first study to generate profiles of metacognitive functioning in individuals with a FEP. As predicted, profiles representing distinct functioning were found in this sample. The profiles created did not simply represent consistently higher or lower functioning across subscales, and thus, support the hypothesis of independent but related metacognitive abilities (Lysaker et al., 2002). Our results also concord with those of Vohs et al (2014): we obtained similar scores on self-reflectivity, other's perspective, and mastery, thus showing consistency across samples of individuals with FEP.

The first and third profiles were markedly different, respectively representing the better and the poorer metacognitive functioning in this sample. The first profile showed the highest scores on self-reflectivity and understanding others. Although these scores reflect an awareness of the subjective nature of thoughts and, to some extent, of the limits of fantasies on reality, as a group, the individuals corresponding to the first profile did not yet demonstrate an integrated sense of their own functioning. With regards to the mental life of others, this profile showed an ability to infer specific thoughts and emotions, but not to understand their influence on the intentions of others.

The second and third profiles showed comparable abilities in terms of the complexity with which they thought of themselves and others. On average, both recognized specific cognitions and, to some extent, specific emotional states within themselves. Both groups also showed a basic awareness that others have their own mental life, but did not demonstrate an ability to distinguish specific cognitive operations in others.

With an ability to manage psychological distress through selective avoidance or seeking interpersonal support, the first and second profile constituted the highest average level of metacognitive mastery in this sample. This level of mastery is relatively low, not yet demonstrating the use of behavioural strategies and cognitive reframing as a means of dealing with psychological distress but might be typical of individuals with a FEP (Vohs et al., 2014).

Interestingly, the socio-demographic information collected suggests that the first profile includes more women, and more individuals living independently. However, the current

sample was too small to conclude whether, as seen in the literature, gender influenced metacognitive (Sullivan and Allen, 1999) and social functioning skills (Cotton et al., 2009). For the same reason, we could not statistically test the differences observed in living situations.

Although metacognitive profiles did not differentiate between as many social functioning domains as expected, the evidence suggests that, generally, abilities to perform social functioning tasks and the frequency with which they were performed in the last three months were similar for the first and the second profiles of individuals. As was the case for metacognitive abilities, the third profile showed the poorest scores. Consequently, the social functioning and metacognitive patterns seen in the third profile support Frith's hypothesis of a deficit in spontaneous willed action, which could be due to a difficulty in monitoring one's own and others mental states Frith (1992). In this sense, the third profile represents a subgroup of individuals with a FEP different from others, and for whom poorer mental life may be associated with poorer abilities to perform tasks essential to independent living.

Although it was not considered as an outcome, demographic differences in this study hint at the importance of individual living environments. It is possible that the second profile of individuals (living in supervised situations) had access to the support needed to achieve levels of social functioning they may not have achieved otherwise: levels of functioning which seem comparable to that of individuals in the first profile. However, this apparently higher functioning may not persist over time, as the second profile seem to include individuals who experience more instability in their living situation.

Consideration should also be given to the possible impact of self-stigmatisation, which has been associated with higher levels of insight in the literature (Mintz et al., 2003). Because individuals within the first profile were more aware of their own and other's mental life, they may have been more prone to self-stigmatisation, and may have avoided some daily living activities, such as using public transportation or contacting others. It should also be considered that although financial hardship was not included in these analyses, for some individuals living independently, such difficulties could potentially influence access to public transportation or frequent meals.

Another finding conflicting with our hypothesis was that thinking in an increasingly complex manner of one's self and others did not seem to predict interpersonal functioning.

Despite better metacognitive abilities, the first profile did not differ statistically from others on "interacting with others", "friends", "intimacy", and "family". Considering that lower mastery in individuals with better insight has been associated with self-stigmatisation (Lysaker et al., 2013), and notwithstanding the similarity in metacognitive mastery between the first and second profile, the wider variation in scores (1-6.5) observed in the former could reflect sub-profiles interactions. Therefore, for some, a decrease in socialization could be due to self-stigmatisation rather than an inherent deficit in the capacity to relate to others.

Surprisingly, significantly more ability towards intimacy was reported by individuals corresponding to the second, than the third profile. Although they obtained similar scores on thinking of one's self and thinking of others, the second profile showed greater mastery. These results support studies by Lysaker and colleagues (2011) which showed that mastery accounted for 9% of the variance in frequency of personal contact and 20% of the variance in qualitative aspects of interpersonal relationships, such as empathy. Better mastery was also shown to be associated with a more complex social scheme (Lysaker et al., 2010b).

In the present study the low frequency of reported romantic relationships may have affected the results. Also, when interpreting the results pertaining to the interpersonal aspects of social functioning, it is important to consider that deficits in self-reflectivity and understanding others are likely to affect the perceived level of intimacy reported. On the other hand, due perhaps to less inhibition in social situations, deficits in these domains may also lead to a true increase in interpersonal contacts. Indeed, the definition of constructs such as relationships and friendships are vast and heterogeneous. Therefore, future research should operationalize these terms, as, for example, a friendship could entail a relationship with few meaningful individuals seen frequently or sporadically, or daily encounters based on proximity. Different metacognitive profiles may be associated with one type of friendship or another, or a flexibility or rigidity in the types of social contacts. The stability of intimacy and friendships across different metacognitive profiles would also be an important aspect to consider to better understand the influence of metacognition on interpersonal functioning.

Being engaged in work or school is an important aspect of social functioning, and is often one of the main objectives for many individuals with early psychosis (Rinaldi et al., 2010). Unfortunately, too few participants were involved in work and school activities to render the results interpretable. Despite the fact that it comes as a limitation in our sample, the

range of mastery found in individuals with better metacognitive skills is an argument towards a more detailed, yet integrative research when it comes to understanding the psychosocial aspects of illness. The lack of difference on social skills between profiles one and two is consistent with the literature, but qualitative differences that did not immerge in this context may still exist. Regardless, the following question remains: how can adequate mastery be achieved with poor self-reflectivity and a poor understanding of others? These results suggest that even with a poor understanding of one's cognitions and emotions, the level of mastery necessary to attain a certain level of social functioning can be achieved.

The measure of social support may have been a limit to the study as it focused on the availability of emotional support rather than the satisfaction with the support obtained, and it may have been less suited to our purpose. Furthermore, what constitutes satisfactory social support likely varies according to one's needs and metacognitive understanding of the situation. In this respect, qualitative studies might be better suited to exploring the satisfaction with social support based on metacognitive functioning.

Overall, the results obtained seem to suggest that comparatively higher levels of metacognition may not necessarily increase levels of social functioning. However, this sample included mostly young adults coping with the beginning of illness: a number of whom will go on to make little use of services (Abdel-Baki et al., 2011), and are therefore not involved in studies with older, more chronic service users. Furthermore, some benefits of stronger metacognitive profiles may not be apparent after the often life altering changes following the illness onset. Indeed, Kukla et al., (2014) have found that social connection and network size increases later on in the recovery process. In fact, future studies might consider the stage of illness as an influence on the impact of metacognitive profiles on social functioning. The various metacognitive profiles found here also suggest that clinicians should consider assessing and addressing metacognition in clinical treatment and offer psychotherapies that are adjusted to the person's habilities on self-reflectivity, understanding others and mastery.

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Article 2 : Evolution of Social Networks in Individuals with Psychotic Disorders

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Submitted to the *Journal of Mental Health*

Contribution : Although it was incorporated into a larger study with common objectives, this second study was designed specifically for my doctoral thesis. The conceptual framework, methodology etc were devised by myself, under the guidance and supervision of Dr Tania Lecomte, who is second author on this article. The qualitative interview to evaluate social network was also developed by me, with the collaboration of Dr Lecomte. It was piloted and reviewed accordingly. The transcription of the interview was done with the help of research assistant. A large amount was done by Élise Lachapelle, who also assisted in the revision of the paper before submission and is third author on this paper. I took responsibility for the qualitative analysis, with regular consultation with Dr Lecomte on the direction and content of the analysis. The redaction of the article was my responsibility; Dr Lecomte provided feedback and guidance.

Abstract

Background: Individuals with schizophrenia are consistently found to have smaller social networks, as well as deficits in metacognition. However, the role of metacognition in the development of social relationships in individuals who will develop a first episode of psychosis is poorly understood.

Aim: 1. Chart the evolution of networks and describe emerging profiles based on the network data, metacognitive abilities, and substance misuse. 2. Using the participant's own narrative, identify factors influencing the evolution of the networks.

Method: A descriptive phenomenological approach was used to analyze 10 verbatim from a semi-structured, retrospective longitudinal interview. Spontaneous use of metacognition was measured from a separate interview using the MAS-A.

Results: Distinct profiles were identified and appeared stable over time in their reactions to life transition. Profile 1 presented with overall better metacognitive abilities, and varied on the onset, conclusion and diversity of relationships. Profile 2 showed lesser levels of ability, and completely changed social networks at transitions, but remained static and homogeneous between transitions. The presence of mutually supportive relationships and of personal interest contributing to friendship formation differentiated between profiles.

Conclusion: Profiles differed in their characteristics but, overall, the results are congruent with the literature showing an effect of metacognition on social functioning.

Introduction

Schizophrenia, social functioning and social networks

Individuals with schizophrenia have consistently been found to have smaller and less satisfactory social networks than individuals in the community (Randolph & Escobar, 1985 as cited in Horan et al., 2006; Horan, Subotnik, Snyder, and Nuechterlein, 2006; Macdonald, Hayes, and Baglioni, 2000). Because symptoms, stigma, and other factors associated with severe mental illness can affect social interactions, some authors have suggested that a social network crisis may occur following a first episode of psychosis (FEP) (Horan et al., 2006). Others, however, found that before the onset of illness, individuals with a FEP already had smaller, denser networks, interacted regularly with fewer individuals, had networks with a higher proportion of family members, and experienced less interactions with peers and other social contacts (Horan et al., 2006). Although this study did not account for the documented decline in functioning occurring prior to illness onset (McGorry et al., 1995), the hypothesis that the onset of illness noticeably influences social network was not supported. What is more, several authors have suggested that social functioning deficits predate the onset of illness (Cannon et al., 1997; Mackrell and Lavender, 2004).

However, there is qualitative evidence of a change in social network following the onset of psychosis (MacDonald, Sauer, Howie, and Albiston, 2005). Participants reported spending less time with old friends for a variety of reasons, not all of which were illness related. Examples cited included not having a car, having graduated (i.e. not seeing friends daily at school), and having an introverted personality (i.e. not likely to organize or initiate contact). Although some participants felt their old friends understood them less than their peers in the early psychosis program and feared the judgment of others (MacDonald et al., 2005), the difficulties encountered in the maintenance of friendships were not vastly different than those encountered in the general population (Moore and Walkup, 2007). It should be noted, however, that participants were few (N=6), and selected for being able to describe and make sense of their experiences: these results may not represent the experience of all individuals with the illness.

When asked what contributed to the maintenance of relationships, friends of individuals with schizophrenia reported, among other things, the positive influence of the

strength of the bond (Brand, Harrop, and Ellett, 2010), and the possibility to share the demand for support in times of need. It is possible that those burdened with more severe social functioning deficits would have more difficulty forming strong, long-lasting friendships, even prior to illness. Social functioning and the development of social network may therefore differ within a FEP population.

Schizophrenia and metacognition

Metacognition has been defined in several ways. In the context of this study, it refers to a person's awareness of their own thinking processes, their mental states and the fallibility of their thoughts, their ability to infer other people's ideas, beliefs and intentions, and their ability to use knowledge about themselves to cope with psychological distress. As in social functioning, impairments on metacognition and related concepts have consistently been found in individuals with schizophrenia (Brüne, Schaub, Juckel, and Langdon, 2011; Lysaker et al., 2005; Lysaker et al., 2010; Sprong, Schothorst, Vos, Hox, and Van Engeland, 2007).

The ability to develop adequate metacognitive theories has an important influence on an individual's social interactions as it facilitates reading and responding appropriately to social situations (Lysaker et al., 2010). The development of metacognitive abilities is influenced early on by social interactions with the caregiver (Aydin et al., 2016; Cook et al., 2017), but as the child grows, further metacognitive development becomes dependent on peer interactions (Schraw and Moshman, 1995). Consequently, pre-existing metacognitive deficits may compound social functioning difficulties, further reducing the opportunities for developing social networks.

Substance use and the social network

Some authors have shown that substance misuse might be linked to social exclusion, a lack of coping skills and a lack of social support (Miles et al., 2003). For example, in a study of the social network of adolescent substance users in the general population, Ennett et al (2006) found that individuals who were not part of a specific network had an increased rate of substance use compared to their peers (Ennett et al., 2006). However, teens in dense networks of users were also more likely to be users themselves (Ennett et al., 2006), possibly because higher density networks foster compliance (Mitchell and Trickett, 1980). Although social

reasons for substance use have been cited by individuals with schizophrenia (Addington and Duchak, 1997; Archie, Boydell, Stasiulis, Volpe, and Gladstone, 2013; Dekker, Linszen, and De Haan, 2009), and although a higher rate of comorbid substance misuse disorders in schizophrenia is well documented (Green, Young, and Kavanagh, 2005), the influence of metacognitive abilities on social network and substance use in individuals with schizophrenia remains unclear.

Aim

At present, very few social network studies have measured social network variables at more than one point in time (Horan et al., 2006) or investigated it throughout elementary school, high school and early adulthood (Mackrell and Lavender, 2004). Furthermore, to our knowledge, no study has investigated the potential impact of related variables such as the influence of metacognitive skills on social network composition, and the relationship of these variables to substance misuse. Therefore, the goal of this study will be twofold: 1. chart the evolution of social networks in individuals with a first episode of psychosis by describing emerging profiles based on data on the network, metacognitive abilities and substance misuse; 2. identify factors influencing the evolution of the networks using the participant's narrative.

Method

Participants

A total of 10 participants between the ages of 18 and 35 were included in the analyses. Participants were recruited from the FEP Clinic at a large psychiatric hospital in Montreal, Canada, as part of a larger, on-going study pertaining to social cognition and comorbidity in schizophrenia. All participants were diagnosed with a schizophrenia spectrum disorder (schizophrenia, schizoaffective disorder) according to the DSM-IV-R. Comorbid disorders were not an exclusionary criteria; however, individuals who could not provide informed consent or were not able to communicate in either French or English were excluded. Although 20 participants were met in their affiliated unit to answer questionnaires and complete two semi-structured interviews, due to missing or contradictory information, or incoherent language or narratives, 10 participants had to be excluded.

Materials

Socio-demographic information was collected using the Canadian version of the PSR toolkit (Arns, 1998). Current diagnostics were obtained using the SCID I (First, Spitzer, Gibbon and Williams, 1997). Detailed information on participant's substance use from the first use to the present was collected using prompts from the SCID.

Social network information was gathered using a semi-structured interview designed by the first author in collaboration with the co-author by prompting the recall of subjectively significant friendships to collect both quantitative (number of friends, number and density of network, duration, beginning and end of friendship, substance using status of friends, etc) and qualitative information (experience of interpersonal dynamics (how they perceived their place in the group, conflicts, who initiated activites, etc), activities shared, influences on friendship (moving, substance use, illness) proximity and reciprocity). To facilitate recall and organise the collection of information, the interview was divided into elementary school, high school and post-high school, with special attention paid to the onset of substance use and the onset of illness: for example, participants were asked with whom they used and whether substance use was the only activity shared with that person. If their network included non-users as well, participants were asked to elaborate on the impact of use on their friendship. Following the onset of illness, participants were also prompted to describe potential changes in the relationships, types of activities shared, or support received, for example, whether friends came to visit them in the hospital. The questionnaire was piloted on volunteers and revised accordingly.

The Indiana Psychiatric Illness Interview (IPII; Lysaker et al., 2002), a non-directive semi-structured interview, was used to elicit a narrative about the participant's life and experience of illness. The transcribed interview was then scored for the spontaneous use of metacognition with the Metacognition Assessment Scale-Abbreviated (MAS-A) (Semerari et al., 2003). The four subscales represent abilities in four domains: self-reflexivity (0-8), understanding other's mind (0-7), decentration (0-3) and mastery (0-9). Self-reflectivity abilities in this population typically range from identifying discrete cognitions (3) and emotions (4) to having an integrated sense of one's own mental functioning (7-9).

Understanding other's mind refers to the degree to which individuals are able to infer similar processes in others, and typically ranges from recognizing others as having autonomous thoughts (2) to using observation to infer their mental states (5). Decentration refers to the ability to understand that others have a life beyond their interactions with the participant, going from understanding that they are not the center of other's thoughts (1) to recognizing the interactive influence of other's functioning (3). Finally, mastery refers to people's ability to use knowledge of themselves, others or the situation to cope with psychological distress. Mastery typically ranges from passive avoidance (3), to seeking the support of others (4), to cognitively reframing the problem (6), to attaining a more holistic comprehension of life and its difficulties (7-9). The total test-retest reliability is .85 and the subscales show good intra-class correlations from .61 to .93 (Lysaker et al., 2008).

Data analysis

The first step in the analysis was to create a timeline for each participants to represent the evolution of their individual social network. The transcriptions of the social network interview, as well as the transcription of the IPII, were read thoroughly to extract information pertinent to the creation of a visual representation of the beginning and end of each reported friendship for each participant's timeline. Transcripts were read again to create a synopsis of the significant aspects of each participant's life's story. Several variables were considered for inclusion on the timelines, but after consideration for relevance and parsimony, the following variables were retained and included in the timeline: markers for transition periods (including hardships, moves, onset of illness and substance use, as well as other significant events), and substance use status. Data from the SCID based prompts was also considered in relation to the participant's social networks. IPII interviews were transcribed and scored using the MAS-A; 70% of the verbatims were reviewed for interrater agreement. MAS-A scores were considered in relation to the individuals and identified networks. Preliminary groupings were created based only on the organisation of the timelines.

Qualitative aspects of friendships were also considered. After the narratives were read, themes were identified that may have had an influences on the development of social networks. Variables were then discussed and selected based on their pertinence in describing

relationships, the frequency of their recurrence across participants and on the available information in the literature. We opted to retain the types of friendship described, the presence of personal interests/hobbies, and the presence of emotionally close relationships. The groupings were then confirmed.

Results

Socio-demographic information, including information on excluded participants, is shown in Table 1. All participants were diagnosed with schizophrenia with the exception of one participant diagnosed with a psychotic disorder not otherwise specified. All had a history of past or current substance use, and all but one met diagnostic criteria for one or more substance dependence/abuse.

Table1.

Socio-demographic Information

	Profile 1[a]	Profile 2[b]	Excluded[c]
Sex			
M	3	5	7
F	2		2
Age	26.6 (5.13)	24.4 (3.36)	26.25 (4.74)
Marital status			
Single	4	5	8
In a relationship	1	0	0
Divorced			1
Ethnicity			
Caucasian	4	2	4
Metis	1	1	1
Latino-American		1	1
Other		1	3
Education			
Partial high school		4	4
Completed high school	3	1	2
College ongoing/completed	2		3
Living situation			
Independently	3	2	2
Assisted housing	1	1	2
With family	1	1	1
At treatment facility		1	2
Homeless			2
	m (sd)	m (sd)	m (sd)
Age at first hospitalization	23.4 (4.98)	19 (1.22)	22.11 (4.88)
Number of hospitalization in the last year	1(1.22)	2.2 (1.10)	2.5 (3.28)
Age at first use	13 (2.12)	14.4 (2.07)	13.5 (3.99)
Age at first regular use	16 (.81)	15.6 (1.34)	15 (4.17)

[ab] n=5 for each profile

[c] n=9; 1 missing data

Describing the evolution of social networks

Two distinct profiles emerged based on the evolution in social network over time. An example of each profile is illustrated in Figure 1 and 2, with dashed lines representing friendships based on substance use only. Profile 1 (P1) networks showed an overall stability, with variations in the beginning, end and length of friendships (n=5); Profile 2 (P2) networks were unstable and subject to complete transformation at each life transition (n=5). These patterns remained consistent throughout the timeline. No patterns based on network size, life events, or on diagnostic were observed. Age at onset of illness or age at onset of substance use was not clearly associated with changes in the network of either group. Some individuals in both groups reported bullying at school or familial issues. Fewer participants in profile 2 completed high school.

Figure 1.

Representation of typical Profile 1 networks

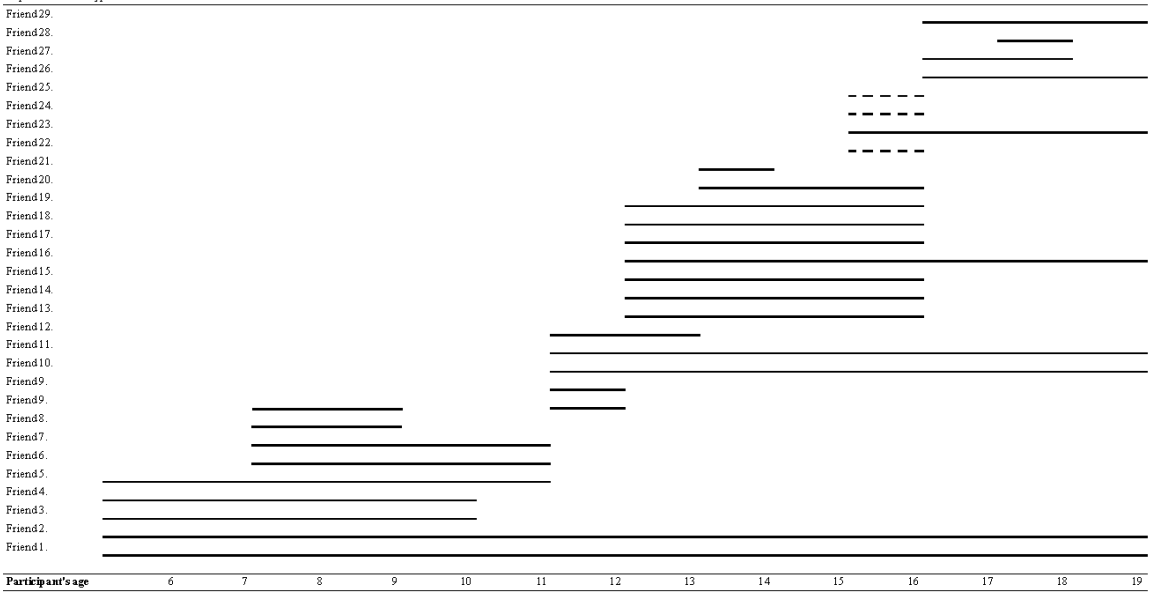
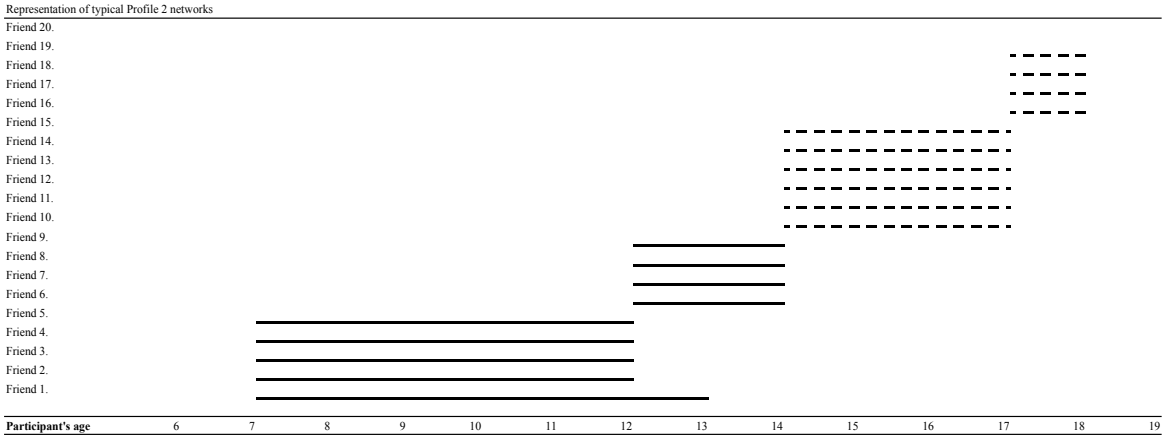


Figure 2.

Representation of typical Profile 2 networks



Observed differences on social network profiles

Metacognitive abilities

Scores for each metacognitive subscale are shown in Table 2. Briefly, the scores suggest little or no overlap on metacognitive scores between profiles, with P1 scoring consistently higher than P2. Self-reflexivity scores suggest that, on average, participants in P1 could think of themselves in a complex manner, by understanding the limited impact their desires may have on reality. They also demonstrated abilities to infer other's mental state based on observations. On Decentration, participants were mostly able to recognize that others may perceive and interpret events differently. And, finally, with regards to mastery, participants in P1 managed psychological distress in a more actively through behavioural strategies, or by reframing their way of thinking.

In P2, Self-reflexivity levels scores suggest that, on average, participants were able to identify distinct cognitive operations within themselves, and were able to recognize others as having autonomous thoughts. On Decentration, participants recognized, at best, that other's behaviours may be motivated by reasons unrelated to them. Generally, Mastery levels within this profile showed that, on average, participants were able to frame the problem in a plausible way, but did not necessarily attempt to address it. It is worth noting that, in excluded participants (n=9; missing=1), the scores suggest lower metacognitive functioning across subscales: self-reflexivity (M=2.5, SD=.58), thinking of others (M=1.93, SD=.79), decentration (M=.93, SD=.84) and mastery (M=2.64, SD=1.74).

Table 2.
Scores MAS-A

	Profile 1		Profile 2	
	%	m(SD)	%	m(SD)
Self-reflexivity		6.40(.89)		3.25(.96)
Basic requirements (≤2)			10%	
Identification (2.5-4)			40%	
Differentiation (4.5-6)	30%			
Relation amid variables (6.5-7)	20%			
Integration (7.5-9)				
Other's thoughts		4.50(.94)		2.30(1.30)
Basic requirements (≤2)			30%	
Identification (2.5-4)	20%		20%	
Relation amid variables (4.5-5)	20%			
Integration (5.5-7)	10%			
Decentration				
≤1	10%		50%	
2	40%			
3				
Mastery		5.70(.97)		2.40(.89)
Basic requirement (≤2)			20%	
First level strategies (2.5-4)			30%	
Second level strategies (4.5-6)	40%			
Third level strategies (6.5-9)	10%			

Personal interests and extracurricular activities

One of the distinguishing factors between profiles was the presence of specific, enduring personal interests. Nearly all participants in P1, independently of their network size, engaged in a specific activity pursued intrinsically. In their narratives participants also recognized that engaging in these activities played a role in friendship formation.

«I started a team, a dance group at my high school because it didn't exist before. […]We did high school competition. […] We loved it, it was our passion. We were a big family, we had lunch all together once a week […]».

«We played music together, […] he's the one who started to teach me to play guitar. […] I joined a group by chance without knowing that people like that […] so suddenly I was appreciated.»

Some individuals in P2 also shared activities with others; however, these were activities they engaged in when spending time together, such as playing video games or hanging out at the park, and did not serve as a means to connect with others.

«We played video games […] we played basketball in the school team together.»

Connection with others

The presence of emotionally close friendships was another clear distinction between profiles. Individuals in P1 consistently reported the presence of one or more friends they could confide in, who provided support, and to whom they provided support as well. These friendships tended to be of longer duration.

«*And he was always there for me, […] Not by judging me, by giving me good advice and by listening to me, and advising me… he's still my best friend now.»*

«[…] I was the confidante, sometimes even the psychologist but that was when I was a little older […] Well, in high school, I went through a big depression. I thank heavens and my friend […] [she] became very important to me, and still today.»

Although some participants in P2 reported having close friends, they did not describe friendships that included sharing personal issues or provided support.

«I: […] sometimes, we have problems, you know, we confide in our friends… Could you do that with your friends?

P: No. No no. »

«I: If you had something personal to talk about, could you talk about it with your friends?

P: It never happened.»

Network composition and stability

Another differentiating characteristic was the way each group built their networks. In addition to maintaining friendships across transitions, typically, individuals in P1 continued developing and concluding friendships throughout their timeline, independently of important transitions. They also developed different types of friendships that included close personal relationships and casual involvement.

« I changed friends like group each year but I've always been with my high school group I was close with. […] the rest of the people who I wasn't really close with, it's these guys I did activities with. Just activities where we didn't talk about our problems […]»

Conversely, in P2, the networks were more static and homogeneous in nature, and tended to change completely at each life transition. Some participants also reported not having any friends in their network for a considerable amount of time following a change in setting.

«I had to rebuild friendships from A to Z, like… […] Because I wasn't in the same group as them […] So I had to start making friends again, and all. »

Substance misuse

Interestingly, differences in network composition became particularly relevant in relation to substance misuse. Although some of the networks in P1 included relationships based on substance use alone, it also included friendships that predated use, and friends with whom they connected otherwise. Conversely, following the onset and progression of substance use, it was observed that the networks in P2 became exclusively based on substance use. This was the case from high school to the present for most participants.

«Now, I have the guys in the neighbourhood [current drug using friends] and I have, uh… some, uh, some alcoholic friends.»

« […] he was my work friend, and he was the friend I used with also.[…] hum, it, it was more for using. »

End of high school

An important transition common to all participants was the end of high school. Following graduation (or leaving school), participants in P1 maintained some friendships, but also developed new relationships, through college, work, personal interests or by other means.

«I met her in 3rd grade because she lived next door to me […] in high school, since she was a neighbor, we saw each other after class […] [Now] since she lives in [town] and she doesn't have a license, me I don't have a car, she doesn't have a car, I see her maybe, uh, every Friday. »

« You know, friends I made this summer, that I didn't know, who came to join the summer team… and then, you know, they became friends, and we go see other [activity] or we go to the movies… »

In P2, however, leaving school had a clearer impact on social network. Individuals in P2 often left at a younger age or attained lower levels of achievement. Furthermore, extremely few new friendships were reported past this point, and networks became more clearly dominated by substance using friends.

«*Well, I'd say I made a friend, but… it didn't last long. And after that, no, I wasn't thinking about making friends. I, like, let, hum, let that go.»*

Onset of illness

Another event marking a transition for all participants was the onset of illness. Following hospitalization, individuals in P1 mostly maintained close friendships, and reported benefitting from their support of close friends. Furthermore, friends who later joined the network were individuals from the general population with whom the participant shared goals, interests or activities (see example above).

«Well, some people I've lost touch with since I told them about the illness, but [long time best friend], he came to see me at the hospital, he visited me. [..] And you're not allowed a lot of visits, and the hours are limited, but him, he came to see me.»

Individuals in P2 reported no visit during their hospitalization. Some participants reported no network other than distant, infrequent contact with some old friends, or networks including only unsupportive, substance abusing friends. However, consistent with the idea of an environment-based network, following illness, some P2 participants developed friendships with other service users in their supervised housing or resources.

«I: Did they come see you, here [hospital]?
P: No. No. None of them. They know, yeah, they know I'm here.»
« There are other tenants that I can mix with but it's… [With the 2 friends] we watch tv, we watch movies, I watch them play, I uh… sometimes, we drink and all.»

Discussion

Evolution of networks

Two distinct patterns coinciding closely to the spontaneous use of metacognitive abilities were observed in the evolution of social networks of participants with a FEP. Throughout their timeline, P1 showed flexibility, meaning that relationships would begin and end at several points within one life stage, and would also span one or more life transition. Metacognitively, participants showed more complex self-reflexivity, and could address psychological distress in a self-directed way. In contrast, P2 displayed a rigid approach to friendship development, meaning that each life transition would imply the end of friendships from a previous life stage, and the beginning of new friendships at the start of another. Within life stages, individuals in P2 seldom began new relationships. Although they demonstrated the ability to identify distinct mental processes, they were not able to think of their mental life in a nuanced way, and coped with psychological distress using general avoidance strategies. Individuals within each profile reacted consistently over time.

The distinction between timelines representing each profile seemed to become clearer as they progressed over time. During adolescence and early adulthood, individuals in P2 reported fewer relationships than individuals in P1; they also reported fewer relationships compared to previous life stages. The growing complexity of social interactions and the

absence of an environment providing socializing opportunities could potentially account for this difference. For the individuals in P2 who stayed in high school, being held back corresponded to a change towards a network composed exclusively of substance misusing peers. Furthermore, any new friendship reported after leaving school or after the onset of illness was described as either based on substance misuse or sharing the same supervised housing resource.

The deterioration of the networks in P2 as evidenced by the rigidity in network composition, network instability, the absence of meaningful personal connections, and the increased isolation over time echoes the findings of others who described a decline from poor relationships in childhood, to unstable relationships in early adolescence, to increased isolation in adulthood (Mackrell and Lavender, 2004). This would be congruent with theories citing the importance of social interactions in the continued development of metacognition after childhood (Schraw and Moshman, 1995). While individuals in P1 have also seen changes in their network, a number of friendships were maintained and new relationships were built throughout, including following illness onset; this would be congruent with findings of premorbid functioning as a predictor of social functioning following illness onset (Horan et al., 2006; Petersen et al., 2008). Although the potential impact of stigmatization should be considered, research also suggests that changes in social networks at the time of illness onset can be attributed to other factors such as graduating school, being introverted, and not having a car (MacDonald et al., 2005). Therefore, considered as a whole, these results seem compatible with the idea that deficits in social network in schizophrenia spectrum disorders are likely the result of complex, long-term processes rather than crises brought on by illness.

Observed differences in social network profiles

Among the themes surfacing in participants' narratives were: the presence or absence of confidants, the presence or absence of personal interests, and a difference in the role of substance misuse in social relationships. Interestingly, these differences corresponded to the profiles based on social network evolution and metacognitive abilities.

Interpersonal interactions require adequate levels of metacognitive abilities, not only to appreciate different aspects of one's personal experiences and needs, but also to draw

appropriate inferences about the level of knowledge, beliefs and intentions of the listener, and interpret verbal and non-verbal cues that are important for successful communication (Frith, 1992). The metacognitive abilities demonstrated by participants in P1 were sufficiently complex to suggest the capacity to understand and share their personal experience, and understand the mental life of others in a way that would be necessary for the development close relationships, which could have provided care and encouragement in times of need. What is more, the presence of close friendships could also have fostered more network stability, as these relationships frequently spanned several transitions periods. Contrary to P1, no P2 participant reported confidants in their networks. Interestingly, the levels of metacognition demonstrated in P2 suggest an inability to think of one's inner life in a complex manner, and a difficulty in inferring distinct cognitive and emotional processes in others, making deeper personal connections unlikely.

The presence of engagement in personal interests in P1 and not P2 would support the idea of the development of a network based on personal needs in P1, and the acquisition of an environment-based network in P2. Individuals in P1 reported more engagement in their own lives through activities such as hobbies, work or education, and a diversity of friendships. This would be congruent with findings showing higher intrinsic motivation over time in individuals with higher metacognitive mastery (Vohs and Lysaker, 2014). Although some individuals in P2 reported being engaged in school-based sports at different points in their timeline, their participation in these activities may not have been intrinsically motivated. The inclusion of teammates resulted in a larger social network, however, their narratives indicated that these relationships existed in a context of group membership rather than as a personal connection between individuals. The sharp decline in network size following the end of school-based sports involvement seemed to suggest that these friendships were context dependent.

Across transitions, P1 individuals seem to have benefited from a more stable network through the maintenance of some friendships, and the gradual development of new friendships, as others were lost. Whereas P1 networks were comprised of both intrinsically sought relationships (based on emotional bonds and shared personal interests) and relationships based on environmental proximity, P2 networks were almost exclusively dependent on a shared environment to provide a context for repeated interactions.

The role of substance use in network composition was identified as another distinguishing factor, and seemed to coincide with the increasingly clearer differences in the variety of friendships between profiles. All individuals in the current sample misused substances: this is not unusual as the literature shows a high prevalence of substance use in individuals who develop schizophrenia (Green, Kavanagh, and Young, 2004; Lambert et al., 2005; Sevy et al., 2001).

Whereas both groups used illicit substances in a social context, the specific context reported surrounding use differed. Although networks in P1 sometimes included friendships based only on substance use, they invariably included other friendships based on a number of other reasons, and while recreational use was sometimes a shared activity, it was not reported as the basis of the relationship. In contrast, in adolescence and early adulthood, P2 networks became nearly exclusively built around shared substance use and were both homogeneous and precarious, with individuals who reported «talking to no one specifically», or who were part of a «closed» group. Interestingly, in the general population, individuals without strong ties to network and adolescents who did not belong to a specific school based network were shown to be more likely to use, so were adolescents who were part of a denser network (Ennett et al., 2006). Furthermore, adolescent substance misuse has been linked to social isolation, lack of coping skills and lack of social support (Miles et al., 2003). Arguably, a poor understanding of one's mental life an that of others, and a tendency towards a passive response to distress would make navigating this stage of psychosocial development particularly challenging.

Limitations

Some limitations should be considered when interpreting the results. Firstly, because of the amount and complexity of the data collected, it was not possible to assess a sufficiently large sample, nor was it possible to account for some pertinent variables such as the onset of prodromal symptoms or the effect of childhood trauma or attachment styles. Attachment is important in fostering an impression of safety, but also in the regulation of affect, and self-regulation; when a caregiver is not reliably responsive, the child will become distressed more easily (Cook et al., 2005). In the absence of an optimal attachment situation, behaviours such as withdrawal are an attempt to maintain a sense of security. The negotiation of attention with

the caregiver is very important in the development of a framework of relational functioning, but is also important in providing the child with coherent feedback to help in the development metacognition (Cook et al., 2005; Dimaggio & Lysaker, 2010). When the coping requirements associated with risk factors such as complex childhood trauma exceed an individuals' personal resources or that of the support available to them, unsuccessful attempts at adaptation may accumulate and become increasingly problematic; these difficulties will be compounded as the individual is expected to become progressively responsible for their own adaptation during development (Gumley, 2010).

Furthermore, the interpretation of results is limited by the fact that only individuals who were able to communicate their experiences could be included; this has been an issue in other studies based on the narratives of participants (e.g. Macdonald et al, 2000). In our sample, participants who were excluded have shown more severe metacognitive difficulties. This may raise the question of the effect of illness on metacognition, however, some studies suggest that contrary to role functioning, this aspect of social functioning may not be related to symptoms (Cornblatt et al., 2007). Regardless, this would affect the generalizability of results, and it is possible that if it had been possible to include these participants, different pattern of social network development would have emerged. Biases related to the retrospective or self-reported nature of the study should also be considered. Although studies suggest metacognitive difficulties predate the onset of illness, and others have shown stability in metacognitive abilities following onset (Lysaker et al., 2011), only current metacognitive abilities could be measured. Also, participants were instructed to report on friendships they considered important to them, which may have potentially introduced some variability in the definition. Finally, as this was part of a larger study protocol, it was not possible to revisit qualitative interpretations with participants; efforts were made, however, to avoid over-interpretation.

Conclusion

Two distinct profiles of social network evolution were identified. Individuals in P1 demonstrated more complexity in thinking of themselves and others, and addressed difficulties in a more intentional manner. Individuals in P2 could, at best, identify some thoughts and

emotions in themselves and others, but did not demonstrate the ability to synthesize and make sense of the information, and at best used avoidance when faced with difficulties. Consequently, P1 represented networks that were stable overall, with variety in the onset, conclusion, and diversity of relationships, while P2 represented static, homogeneous and fragile networks, which changed completely at transitions. The presence of long term, mutually supportive relationships, and the pursuit of personal interest may have contributed to friendship formation, and differentiated between profiles. The progression of networks seemed to suggest that the observable onset of illness was not the sole contributor to the evolution of social networks.

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General Discussion

Globally, this project aimed to increase knowledge pertaining to the contribution of metacognitive abilities on social functioning and the development of social network in individuals with a psychotic disorder, with a special interest towards the implications on substance misuse. The objective of the first article was to determine whether distinct metacognitive profiles existed in a first episode of psychosis population, and whether they influenced specific domains of social functioning, and perceived social support. The results confirmed three distinct metacognitive profiles: a first profile displayed better cognitive functioning overall, with self-reflexivity at the level of *differentiation* (recognizing the subjectivity and limited impact of thoughts), thinking of other's minds at the *identification* level (recognizing distinct cognitive and emotional processes in others) and the *first level strategies* on mastery (passive or directed avoidance). A second profile exhibited similar levels of mastery, but poorer awareness of one's own and other's minds at the *identification*, and *basic requirement* levels (recognizing others as having mental functioning or autonomous thoughts and feeling). Finally, a third profile displayed poorer abilities overall. Self-reflexivity and thinking of other's mind scores were similar to the second profile, but mastery skills were at the basic requirement levels (factual thinking).

The hypothesis that better metacognitive abilities would lead to greater levels of social functioning was somewhat supported. Most differences occurred between the second and third profile, with no differences in social functioning between the first and second profile in post hoc tests. Unfortunately, it was not possible to determine whether metacognitive functioning influenced implication in school or work, as the lack of power and low number of participants involved in school and work activities likely prevented further distinctions between groups.

Although not included as an outcome variable in the study, two observations derived from socio-demographic information are worth noting. First, while profiles similar on mastery did not significantly differ in social functioning, a larger proportion of individuals with poorer ability to understand one's self and others mind (second profile) had statistically more unstable living situations than individuals with better or poorer metacognition overall. Furthermore, participants who reported attending school or work, were predominantly in the

profile with better overall metacognitive abilities. These observations, while not included in the statistical analyses, are interesting as they echo the direction of results from the second study, which also shows more instability in the profile with poorer abilities in thinking of themselves and others, and more involvement with school and work in the profile showing better metacognitive skills.

Finally, no association was found with regards to perceived social support and metacognitive profile. It is possible, however, that self-reported questionnaires may not be ideal to measure the experience of individuals with poorer awareness of themselves and of other's intentions.

The objective of the second article was to establish a broader understanding of the evolution of social relationships in individuals who develop a first episode of psychosis. A retrospective design was chosen to chart the evolution of social networks in persons who had developed a first episode of psychosis, and comorbid substance misuse. The development of social networks was anchored to general and personal milestones (elementary school, high school, first hospitalization, etc).

Two patterns of network evolution were identified and associated with levels of metacognitive abilities. A first pattern showed flexibility in the beginning, maintenance and ending of friendships, and was associated with higher levels of metacognition. Self-reflexivity levels were at *differentiation* or above, thinking of others was at the *identification* to *relation amid variables* (recognize the relation between the thoughts and feelings in others, can infer mental state based on observation), and mastery skills showed use of the *second level strategies* (using behavioural techniques or cognitive reappraisal).

A second pattern showed a more rigid approach to friendship, with membership within a closed group, which changed completely at each life transition. Self-reflexivity levels were at the *identification*, and thinking of other's mental life had a mean at a *basic requirement* level. Generally, individuals within this profile showed mastery at the *basic requirement* levels, and by definition, did not attempt any adapted strategies to manage their distress.

Results of the second article also suggested that individuals within each distinct profile were stable over time in their reactions to life transitions. In participant's narratives, some themes were identified that contributed to the elaboration of an understanding of differences in the evolution of each network profile, namely: the presence of long-term, mutually supportive

relationships, and the pursuit of personal interest contributing to friendship formation. Furthermore, narratives have led us to hypothesize that metacognition, through its influence on social network, may have differently influenced the focus of substance misuse.

Together, the results of both studies suggest that social functioning, including social network development, may be influenced differently by distinct constellations of metacognitive abilities. These metacognitive profiles seem to be associated with differences in functioning, and could influence the development social network circumstances well before, and following, the onset of illness, by possibly either influencing the development of protective factors/vulnerabilities, such as the social support available.

The mutual influence of metacognition and interpersonal interactions

The goal in following an individual's network throughout their evolution was, in part, based on the idea that peer interactions become the basis for further metacognitive growth in later childhood and adolescence. In other words, that early impairments in metacognition could result in increased isolation and reduced opportunity for further metacognitive growth (Schraw and Moshman, 1995). In that sense, the accumulation of stressful events (i.e. moving school, neighborhood, being held back, the onset of illness, etc) could account for the increasingly evident difference between networks of individuals with higher and lower levels of metacognitive abilities. Indeed, the results of the second study seem consistent with the litterature showing that social network patterns are established early on in childhood, before the onset of illness (Schenkel et al., 2005; Mackrell and Lavender, 2004). Results also seem consistent with the literature showing that, in individuals with schizophrenia, higher levels of metacognition are associated with increased frequency of social contacts, capacity for relatedness, flexibility in abstract thought (Lysaker et al., 2013), as well as less emotional withdrawal (Lysaker et al., 2005).

Personal interests and friendship formation

Developing personal interests, such as hobbies, or personal goals for the future (school, or work) requires going beyond performing socially prescribed, normative behaviours (Frith, 1992). Therefore, the ability to reflect in a more complex manner is essential to identifying one's values and interests. In the second study, participants with better metacognitive abilities

reported having personal goals and interests that were instrumental in friendship formation. This was the case before the onset of illness, and remained so after the first episode. Because they are distinct yet connected, different metacognitive abilities may have been involved in the pursuit of a specific personal interest, as would other psychological processes, such as motivation. Indeed, higher levels of metacognitive mastery were shown to predict intrinsic motivation (Vohs and Lysaker, 2014), which is thought to be a mediator between metacognitive abilities and social functioning (Luther et al., 2016).

In the second study, individuals with better metacognitive abilities reintegrated their personal or academic pursuits after experiencing their first episode. Although it was not possible to test statistically, individuals who reported returning to school or being involved in work activities in the first study were also majoritarily in the group with better metacognitive skills overall. Interestingly, the narratives suggested that return to personally meaningful activities may have facilitated the development of new friendships in the general population. Individuals with more pronounced deficits did not return to a regular school or work activity after the onset of illness, and according to their narratives, became more isolated by losing friendships and failing to build new ones. The few new friendships that were reported were based on proximity to other service users. Therefore, it is possible that a more complex understanding of one's self, others, and the ability to regulate distress psychologically may have facilitated the continuation of social support and social interactions through engagement in personally meaningful activities that facilitated connection with other like-minded individuals. To extrapolate, those who experienced a quick return to previous levels of functioning, perhaps also experienced a greater continuity in their sense of self and in their social network. Alternatively, for those with more severe and longer lasting symptoms and deficits, the illness may have created a more fragile sense of identity and belonging, which could also be seen in more severe metacognitive deficits.

Friendship, connection and metacognition

Individuals in profiles with higher levels of metacognition in both the first and second study showed evidence of the ability to engage in the management of psychological distress through active, selective avoidance, seeking interpersonal support, or by altering their own thinking. They also showed evidence of being able to infer the thoughts, emotions and

intentions of others. As previously mentioned, the ability to know oneself and to infer the thoughts, emotions and intentions of others is necessary to develop a relationship with a deeper connection and difficulty in connecting with others may lead to fewer and more fragile interpersonal ties. In fact, research has shown that in individuals with schizophrenia, higher self-reflexivity, thinking of others and mastery are associated with less emotional withdrawal (Lysaker et al., 2005), and better metacognitive abilities overall is associated with more capacity for relatedness and more frequency of contact (Lysaker et al., 2013). Therefore, it could be argued that individuals with higher levels of metacognitive would have been in a better position to communicate and share their experience with others, and thus to build close personal friendships. Theoretically, as metacognitive development is interdependent on social interactions, close relationships would have created opportunities to further the development of their metacognitive skills, increasing the likelihood of achieving developmental milestones, which is a predictor of better outcome (Petersen et al., 2008). These mutually supportive relationships are especially important as they were identified as a predictor of recovery after a first episode of psychosis (Horan et al., 2006). For those with better metacognitive skills who were able to develop a network that included a number of close relationships, the possibility for friends to share the function of support may have been a factor in preserving relationships following the onset of illness. Along with the possibility to share the function of support, the strength of friendship prior to illness, and gaining a better understanding of psychosis by talking about it, were cited as factors in favour of the maintenance of friendship by friends of individuals with psychosis (Brand, Harrop, and Ellett, 2011). Therefore, it is likely not arbitrary that, in addition to having a more diverse and stable network before the onset of illness, individuals with better metacognitive skills were also more likely to maintain friendships following the onset of illness.

In the absence of specific personal interests or deeper personal connections, individuals with poorer metacognitive skills may become more reliant on their physical environment to maintain stability in their social interactions. For those who had poorer premorbid functioning, leaving or graduating high school along with experiencing a first episode could have created a greater destabilizing effect by taxing already overwhelmed coping abilities.

The role of metacognition in social isolation

Although it was not specifically included as a variable, the theme of isolation has been present throughout this thesis. In the first article, the frequency of social contact was not used as a discrete variable, but was included in the "Friends" and "Intimacy" measures; in the second article, it was inferred as a function of the social network. Given the heterogeneity in the experience of schizophrenia, a more detailed approach to studying the role of social isolation in the course of illness should also be considered. Social isolation can occur for a variety of reasons, and understanding the mechanisms behind this phenomenon is important to better appreciate the nuances behind this behaviour. Like friendship, social isolation is a construct that is difficult to define because of its subjectivity in reference to the need of the individual. Isolation could be understood as the absence of meaningful relationships, or the absence of regular interactions with others. For example, in the second article, whereas individuals with poorer metacognitive abilities were not anchored in their network, they may have had frequent casual social contacts with others. Conversely, it is not unlikely that, although they maintained close, significant relationships, some individuals with higher levels of metacognitive abilities also experienced isolation: perhaps through reduced frequency of contact, or by feeling alone in certain aspects of their experience.

Furthermore, isolation may be the result of symptomatology such as negative symptoms or social anxiety, of relational experiences like stigmatization (by others, or oneself), or may reflect a passive attempt at dealing with the overwhelming demands of social life (a confusion, an inability to cope). In certain circumstances, however, isolation could stem from a more or less conscious attempt at adaption and reorientation after a change in circumstances, or it could stem from the need to create a space to heal after the upheaval of experiencing a first episode. In that context, the ability to monitor thinking and make sense of one's experience may have an important role to play.

Stigmatization, self-stigmatization and social isolation

Social isolation in schizophrenia can be both a symptom and a consequence of symptoms. By definition, negative symptoms such as affective flattening, alogia, avolition, anhedonia, and attentional impairments, will greatly impact a person's capacity to seek and maintain social contacts, and will lead to social isolation. When these symptoms are

prominent, the individual's social environment is called upon to play a larger role of support, which may prove difficult in the absence of a sufficiently available social network. Furthermore, individuals with schizophrenia may become stigmatized as a result of behaviour associated with positive symptoms such as hallucination, delusion, disorganization, a lack of self-care, or simply the knowledge of a diagnostic. However, the experience of stigmatization and social isolation may be influenced by the relationships the individual was able to build before the onset of illness and not just the illness itself, as those who maintain satisfactory familial and social support after a first episode of psychosis, did not experience significant levels of prejudice due to illness (Mueller et al., 2006).

Unfortunately, some individuals who develop the illness will internalize the negative stereotypes associated with schizophrenia. In the literature, internalized stigmatization (self-stigmatization) is associated with higher levels of insight and higher levels of depression, however, insight and higher levels of metacognitive mastery are associated with mild levels of depression (Lysaker et al., 2013). According to the authors (Lysaker et al., 2013), higher levels of mastery may enable individuals to consider their illness within a more global sense of self, which allowed them to not view illness as threatening to their core identity. A person's awareness of the implication of the illness and their ability to cope with that knowledge may have an impact on isolation behaviours associated with self-stigmatization. Understanding the interaction between different abilities within metacognition could potentially offer the possibility to provide tailored interventions, for example preventing isolation related to self-stigmatization by helping individuals with lower levels of mastery but higher awareness of self and others to integrate the illness in a broader sense of self, and to cope more effectively so their beliefs no longer prevent them from engaging in their own lives.

Taking time to adapt and to heal

While isolation may sometimes indicate a deterioration in social functioning, it can also signal that an individual is working towards a positive outcome. A period of adaptation is necessary for anyone experiencing a considerable change in circumstances: in individuals with schizophrenia, it may be especially true in the early phase of illness. For some, isolation could reflect a difficulty - temporary or not - in adapting to their new circumstances, and may not necessarily be related to stigma or symptoms. As an example, adjusting to the illness could

involve dealing with the loss of previous employment, or a career reorientation, bringing about destabilizing changes in personal or financial circumstances. Thus, participating in activities previously shared with friends, such as: going for coffee, attending concerts, going on outings, trips, etc, may no longer be possible. Furthermore, medication side effects, or symptom management could also limit the types or schedule of activities possible for a time, which may require an adaptation or a hiatus in activities previously shared, or may become an obstacle in the continuation of the friendship. In fact, having to put more energy into the friendship, being unsatisfied with the changes in the time spent together, or in the quality of the relationship in general were cited by friends as detrimental factors to the maintenance of friendships (Brand et al., 2011). Although not directly related to symptomatology, these changes may come about due to the illness onset.

The onset of illness may also impact a persons' perspective on life, or their needs. In some cases, the person with the illness may be the one choosing to make a change in their social circle. Although it would look the same, in this case, far from being the result of a failure in adaptation, a reduction in network would be suggestive of a flexibility and active engagement in their adaptation. The need to distance themselves from old relationships to seek the company of individuals going through similar experiences has also been reported by individuals going through a first episode of psychosis (MacDonald et al., 2005).

Studies of participant's experiences following a first episode have described the steps involved in developing an understanding and making sense of the illness: becoming demoralized (exhausting non-threatening explanation for the illness, experiencing significant distress before actively considering illness), finding a fit (reframing experience with info about illness), experiencing an impact (connecting medication with changes), and envisioning illness in the background of life (expectations that managing illness will make it less prominent in the long run) (Macnaughton, Sheps, Frankish, and Irwin, 2015). Others, like Shepherd et al (2012), asked older adults with schizophrenia about changes in their social functioning over time. Participants reported withdrawal and loss of social network early in the course of illness, and adaptation to symptoms, and adaptation (or loss) in social network in middle course (Shepherd et al., 2012). Therefore the onset of illness may require an important period of adaptation, which could influence social functioning, but may not necessarily be a sign of long-term decline. «Positive withdrawal», which refers to creating distance while maintaining

a weak link with their social roles and relationships, was associated with the absence of re-hospitalization. (Jaspers 1963 as cited in Corin and Lauzon, 1992). Although it may present as isolation, positive withdrawal is seen as an attitude of detachment while working on oneself, rather than a dynamic of exclusion or passivity seen in frequently re-hospitalized patients (Corin 1990 as cited in Corin and Lauzon, 1992). Therefore, although isolation can be a sign of distress, several factors, such as the profile of an individual's metacognitive abilities, should be considered before making an assumption, as distinguishing between the underlying influences may be central to properly targeting interventions.

The role of metacognition and social network in explaining substance misuse

As mentioned earlier, substance misuse is a major issue for individuals with schizophrenia as it affects both treatment and personal outcomes. It is well established, for example, that substance misuse (particularly cannabis) reduces the age of illness onset (Large et al., 2011), and increases the rate of psychosis relapse (Lynskey et al., 2003).

Although the original plan was to study substance misuse as a variable in both articles, practical consideration prevented its inclusion as a variable in the first article. Nevertheless, nearly everyone in both samples used illegal substances, and results from the second article suggest that substance use may have been influenced by an individual's metacognitive abilities and social network profile. In the analysis of participant's narratives, differences in the composition of social networks were observed and became more pronounced in late adolescence and early adulthood. Profiles with better metacognitive abilities maintained a varied network, and although relationships based on substance use were reported in some networks, most friendships involving substance use were described as based on other common ground, and no networks were composed exclusively of substance using friends. For those with poorer metacognitive abilities, however, substance misuse became central to social interactions over time.

Identity, community and common grounds

The development of close relationships and the construction of a personal identity are important developmental tasks associated with adolescence. During adolescence and early adulthood, a person's understanding of themselves and others develops in nuance and

complexity in order to navigate increasingly subtle social interactions. For individuals with metacognitive deficits, meeting these milestones may be daunting, and finding a community that would provide security and a sense of belonging could feel like a hopeless endeavour. As suggested by their sustained engagement in personal projects before and after the onset of illness, we speculate that participants with better metacognitive skills succeeded, at least in part, in finding a certain level of self-definition. For those who established a varied, stable network, substance use seemed to exist in the context of "a phase" in their adolescent years, or as sporadic recreational use. In other words, substance use came across as one of the activities friends did together, rather than the basis for friendship.

Individuals in profiles representing poorer metacognitive skills, however, came across as relying more passively on the environment to fulfill their needs. In this context, it is possible that substance misuse may have provided a ready-made identity. As mentioned by Bauman and Ennett (1996), in the initiation and continuation of substance misuse, the influence of factors beyond peer pressure must be considered (Bauman and Ennett, 1996). A study asking participants with schizophrenia to explain their continued street drug use showed that, among other things, participants saw drug use as providing them with an "identity defining vocation" (Asher and Gask, 2010). For those who developed an "expertise", drug use was seen as part of their identity: it conferred a certain status and influenced their self-esteem. In that study, using as a means to belong to a peer group was cited by most participants (11/17). Although individuals varied greatly in self-awareness, belonging to a peer group was seen as highly important: to the point where some participants reported continuing use deliberately to fulfill the conditional nature of their inclusion (Asher and Gask, 2010). In fact, others have found that in young people with a first episode of psychosis, shared use was such an important activity, that using to maintaining ties was a priority, even when the individual was aware that use went against social norms (Archie, Boydell, Stasiulis, Volpe, and Gladstone, 2013).

Metacognition may make a difference

Although several quantitative studies have shown that individuals with schizophrenia and individuals in the general population report the same reasons for use (Addington and Duchak, 1997; Archie et al., 2013; Dekker, Linszen, and De Haan, 2009), others have shown

that, compared to individuals in the general population, individuals with schizophrenia may have a more passive approach to substance use. Compared to controls with other dual disorders, individuals with schizophrenia failed to show the longing, guilt and impression of failure usually associated with substance use (Stålheim et al., 2013). Rather than differences based on symptoms or diagnostic, the authors suggest that differences in functioning influenced the results: explaining that the lack of anticipatory behaviour may reflect an inability to associate inner states with drug use behaviour (Stålheim et al., 2013). These results would be congruent with the idea of a deficit in self-knowledge and goal-directed behaviours in schizophrenia proposed by (Frith, 1992), and would be coherent with our results showing variations in the context of substance use according to metacognitive profiles. Interestingly, the mechanism behind this hypothesis of substance use would mirror the mechanism explaining the metacognitive basis of social functioning difficulties mentioned earlier. Therefore, substance misuse may not necessarily be the result of one common pathway, and may be another iteration of underlying deficits whose influence could be identified in other aspects of their personal lives. Regardless, social interaction deficits may leave individuals in need of social support in a network that is ill equipped to provide such support.

Clinical Implications

Social network and metacognitive development are interconnected, therefore, interpersonal relationships are important in the elaboration of an understanding of our own inner life, that of others, and our ability to manage psychological distress. An important implication of a developmental model of illness, is that although early childhood is a sensitive period for the acquisition of these abilities, and although poor metallization may hinder attempts at adaptation, these skills may be learned later on (Gumley, 2010). In fact, through a variety of approaches, psychotherapy encourages the elaboration of an increasingly nuanced understanding of these personal and interpersonal processes. Client-centered interventions based on the development of metacognition would be ideal to address these intra and interpersonal difficulties observed in individuals with schizophrenia. It would provide an opportunity to practice, experience, and model a relationship where there are healthy, respectful limits, and where the inner experience of the individual is valued and addressed.

Evaluating metacognitive profiles could help better allocate resources to clients and reduce the potential for negative therapeutic experiences. For example, peer groups based on levels of metacognitive abilities or functioning may be more efficacious. Those who have more awareness of illness and more ease in communicating their experience may find interventions such as peer led support groups less stigmatizing. By providing resources for family and friends, individuals with better metacognitive abilities and more stable relationships could be progressively encouraged to make use of their already established network. In the presence of sufficient ability to manage psychological distress and the presence of close, supportive relationships, shorter-term interventions, and punctual check-ups may foster independence, reduce self-stigmatization and reduce the emphasis on illness in their lives. For those whose networks may be wanting, but who show sufficient metacognitive abilities and capacity for relatedness, creating opportunities for social contact, and coaching may be sufficient to break isolation. This could go a long way in encouraging the individual's capacity for autonomy.

For individuals with poorer skills, and little or no support in their social network, adding a longer-term psychotherapy working on metacognition may be more beneficial in stabilizing and improving the course of illness than relying on punctual treatment. Client-centered interventions aimed at developing metacognitive skills would promote security and autonomy by taking the client at their level. What is more, as an adjunct, interventions, targeting the development of metacognition could be invaluable in helping clients get more out of other services. Peer support programs, supported employment programs, mentorship, and other programs aimed at breaking social isolation and supporting independent living may be particularly essential to individuals who rely heavily on the environmental context to provide social interactions. In fact, the lack of stability would be particularly important to address on a number of levels: in housing, social interactions, and in the services they receive.

It may be beyond the scope of this thesis to address a review of the literature on metacognition-focused interventions: partly because there is no unique operational definition of metacognition and several closely related concepts are studied independently, and partly because the definition used in this thesis refers to a collection of abilities. There are trainings, therapies and tasks related to metacognition that are dedicated to improving specific aspects of functioning in schizophrenia, such as theory of mind, emotional regulation, or attribution

biases, but do not encompass all the abilities mentioned here. As stated earlier, the construction of a mental framework to understand oneself and others is thought to evolve in the context of interpersonal interactions. In this sense, individual psychotherapy would be an ideal setting for the further development of metacognitive skills. Lysaker and colleagues have elaborated a metacognition-based therapy with these goals in mind. The therapeutic aim, then, would be to meet the individual at their metacognitive level and assist them in developing further awareness, and a more complex and flexible understanding of their own mental lives and that of others. This can be done from any level of metacognitive skills, and improvements are possible regardless of an individual's potential to attain a maximal level of metacognitive ability.

The protocol for the MERIT-EP (Metacognitive Reflection and Insight Therapy for Early Psychosis) (Lysaker and Klion, 2017), describes how an alliance is built through attunement, by listening to the client without interruption and using interventions that reflect the client's experience solely at their current level of metacognitive functioning. Once built, the alliance becomes the foundation to encourage the client to start building the ability one level above his current metacognitive functioning. This non-directive and atheoretical approach is meant to help the client use this safe relationship to support their own thinking or filter their concerns or memories, rather than finding solutions to the problems they bring. As such, the protocol can be applied by therapists from different ideological or theoretical backgrounds.

One study (Vohs et al, 2017) and several case studies (Hills et al., 2015; Leonhardt et al, 2016; Jong et al, 2016; Van Donkersgoed et al, 2016) have been published, all showing improvements in metacognitive functioning. MERIT-EP seems to have been well accepted by clients, a high proportion of which have completed the trials. What is more, whereas higher insight levels are sometimes associated with negative effects, such as stigma and suicidality, there was no indication of this «insight paradox» in participants who completed the trial (Vohs et al, 2017).

To develop an adequate understanding of the needs of individuals with schizophrenia, both detailed and broad perspectives are necessary. Illness does not exist in isolation from other aspects of the client's experience, and a holistic understanding of a person's environment and development would surely benefit therapeutic endeavours, and hopefully, increase the likelihood of recovery, however the client chooses to define it.

Limitations

Some limitations should be considered with regards to the results presented in this thesis. Firstly, as is the case with many studies with participants who have a severe mental illness, recruitment was difficult; therefore, fewer participants than would be ideal could be interviewed. Furthermore, each article used data that was collected in the context of a larger project; this meant that a large number of questionnaires, tasks, and interviews were conducted. Respecting participants' limits meant breaking down evaluations in several meetings, which sometimes, resulted in missing data. For this reason and others, the power to detect an effect of the dependent variables may not have been optimal. Furthermore, in the second study, the amount of data to be considered did not allow for the inclusion of a large number of participants. Because the study was part of a larger project that already included three evaluations, it was not feasible to include additional meetings to conduct verifications of the inferences drawn from the qualitative analysis of the social network interview. What is more, some participants were, unfortunately, too symptomatic and the narratives were not sufficiently coherent to include in the analysis, which further reduced the number of participants available, and made statistical analysis of socio-demographic and other quantitative variable useless. It would have been interesting to test, from a social network perspective, the three profile-model elaborated in the first article, as the exclusion of these participants were ostensibly not random from a metacognitive standpoint. Nevertheless, the overall and group analyses of socio-demographic variables were congruent with the literature in terms of sex, marital status, education, ethnicity and living situation. Furthermore, each seemed to generally correspond to expectations with regards to metacognitive abilities, for example, a higher proportion of women, and higher educational achievement, in higher metacognitive ability profiles.

It is possible that the choice of the social support measure could have introduced a confound in the design of the first study. Although the intention was to measure perceived support, the wording in the questionnaires seems to have been insufficiently specific to detect differences between profiles. The qualitative analysis of other participants in the second study suggested that metacognitive ability may have influenced participant's understanding of social support, as some individuals reported support when asked, but when the meaning was explained (ex: someone you can tell your secrets to, or talk about important things in your life with), it became clear that this was not the case. It may be that persons with less insight may not feel the need to have this type of support. In addition, we chose to address friendships rather than familial or romantic relationships. Studies focussing on other types of relationships may find different results.

Conclusion and future directions

The general objective of this thesis was to contribute the knowledge on the influence of metacognition and social functioning in schizophrenia. Rather than individual abilities, metacognitive profiles were used to evaluate the influence of metacognition on social functioning and the social context of individuals with first episode of psychosis. The implication of social network and metacognition on substance misuse was also addressed.

In a first objective, the possibility of distinct metacognitive profiles within a population of individuals with a first psychotic episode was explored. The three profiles identified did not simply represent consistently higher or lower functioning across subscales. Profiles with similar levels of mastery seemed to show equivalent levels of social functioning, although differences were significant only between the second and third profile. Statistical power may have influenced the results.

The second objective of this thesis involved taking a broader approach, and aimed to explore, through a qualitative approach, the role of metacognition in the evolution of social networks in persons who develop schizophrenia and comorbid substance misuse.

Two distinct social network evolution profiles were identified. Each profile was stable over time in their reactions to life transition and represented different metacognitive abilities and relation to substance misuse. The results of both studies underline the importance of considering the heterogeneity in the experience of individuals with a first episode of

psychosis, and the influence of the context in which it occurs, in order to better inform our understanding and treatment.

The literature on schizophrenia is a corpus filled with apparent contradictions referencing the mean experiences of an illness with a heterogeneous presentation. Unfortunately, this approach centered on the common experience may contribute to suboptimal care, and suboptimal outcomes. To inform evidence-based treatments and policies, it is necessary to synthesize information. Still, studying differences as well as similarities in this population may yield interesting results. An individual, even with a clear diagnosis, does not exist in isolation, and studies considering interactions may enrich our understanding and possibly help us gain new perspectives on old issues. The results of the second study show that substance misuse, in individual with first episode of psychosis specifically, does not adequately describe the phenomenon. Understandably, research shies away from complexity, but looking at the bigger picture with more details, including individual differences, complex comorbidities, and interactions between the individuals and their environment could improve the ecological validity of research, and better inform treatment. Some results are statistically significant, others, clinically significant. Both are necessary.

An interesting avenue for research may focus on processes rather than outcomes. Metacognitive abilities seem to play a role in the evolution of a social network and influence the development of relationships. In order to form bonds of trust, an ability to think of oneself and others in a nuanced way is necessary, but so is a capacity for attachment. Insecure attachment styles are particularly prevalent in schizophrenia, yet there has been little recent empirical investigation of the effects of capacity for attachment and metacognition on the individual and social development of individuals with schizophrenia. What is more, it may be relevant to investigate the effect of the current mental health system, which is frequently organized in a way that may compound vulnerabilities to instability. It would be interesting to investigate possible obstacles to treatment by taking into account the level of severity in metacognitive deficits and attachment difficulties. A clearer understanding of issues would surely improve outcomes.

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Annexe A

Questionnaires Article 1 (et questionnaires communs)

FORMULAIRE DE CONSENTEMENT - Participants

Titre de la recherche : Intervention pour jeunes adultes présentant un premier épisode de psychose – Effets de la thérapie cognitive comportementale de groupe.

Chercheur : Tania Lecomte, Ph.D., professeur adjoint
Département de Psychologie, Université de Montréal

Co-chercheur : Claude Leclerc, Ph.D., professeur
Sciences de la santé, Université du Québec à Trois-Rivières

Vous êtes invité(e) à participer à un projet de recherche conduit par les chercheurs Tania Lecomte, et Claude Leclerc, respectivement de l'Université de Montréal et l'Université du Québec à Trois-Rivières. Ce projet s'effectue en collaboration avec la Clinique des Jeunes Adultes de Louis H. Lafontaine de Montréal.

A) RENSEIGNEMENTS AUX PARTICIPANTS

1. Objectifs de la recherche.

Ce projet de recherche vise à mieux comprendre les effets de la thérapie cognitive comportementale effectuée en groupe auprès des personnes présentant un premier épisode psychotique. Des études antérieures ont déjà démontrées l'efficacité de la thérapie cognitive comportementale. Par ailleurs, nous désirons poursuivre l'étude des effets particuliers de cette thérapie sur les croyances, les pensées, l'estime de soi, le fonctionnement social et les processus de changement vécus par les participants lorsqu'ils entreprennent cette démarche d'intervention. Un second objectif consiste aussi à étudier l'impact de la participation de proche(s) à des rencontres d'information portant sur la thérapie cognitive comportementale.

2. Participation à la recherche

Votre participation à cette recherche comporte deux volets. Le premier volet consiste à participer au programme de la thérapie cognitive comportementale qui cible des sujets tels le stress, les croyances, les humeurs, les stratégies d'adaptation, les compétences et l'estime de soi. La thérapie consiste à participer à 24 rencontres :

- La durée de chacune des rencontre est d'une heure, et la fréquence est de deux rencontres par semaine;
- Les rencontres s'effectuent à la Clinique des Jeunes Adultes;
- Chaque participant aura son propre manuel, expliquant le contenu de chaque session;
- Chaque rencontre consiste à des échanges en groupe, composé d'environ 6 participants et de deux thérapeutes;

Chaque rencontre est enregistrée sous format audio, et cela, exclusivement afin de s'assurer de la fidélité de la thérapie présentée par les thérapeutes.

Le second volet consiste à l'évaluation des aspects ciblés par l'intervention, dont les symptômes, les croyances, l'estime de soi, le fonctionnement et soutien social, ainsi que

des processus de décisions, les perceptions face à sa condition et face à l'intervention elle-même. La perception face à l'intervention implique de remplir un petit questionnaire de 8 questions avant et après chaque rencontre de thérapie, et la mesure de satisfaction s'effectue une seule fois, soit à la fin des 24 rencontres. Les autres aspects nécessitent d'effectuer **trois rencontres**, une avant le début de la thérapie, une immédiatement après (3 mois après la première) et finalement une dernière 6 mois plus tard. Chacune de ces rencontres dure entre 2 heures et 2 heures trente et implique :

- De rencontrer un assistant de recherche afin répondre à des questions (par écrit ou avec l'aide de l'assistant) portant sur des informations personnelles (âge, éducation…), la prise de médication, les croyances, l'estime de soi, et le soutien social (durée d'environ 1 heure);
- De répondre à des tâches informatisées portant sur la mémoire, la capacité d'attention et la prise de décision. L'assistant demeure disponible s'il y a des questions (durée d'environ 30 minutes).
- De rencontrer un intervieweur pour une entrevue enregistrée sous format audio et portant sur le fonctionnement social et la perception de sa condition (durée variable, 30 min. à 1h.);

L'évaluation nécessite également d'autoriser l'équipe de recherche à accéder à votre dossier médical auprès de la Clinique afin d'obtenir des informations portant sur le diagnostic, l'historique d'hospitalisation et les prescriptions.

3. Confidentialité

Les renseignements que vous nous donnerez demeureront confidentiels. En aucun temps votre participation ou votre retrait du projet n'affecteront le suivi auprès de la Clinique et aucune information confidentielle ne leur sera transmise dans la mesure où votre bien être ou celui d'autrui ne soit pas sérieusement compromis.

Chaque participant à la recherche se verra attribuer un numéro et seul le chercheur principal et/ou la personne mandatée à cet effet auront la liste des participants et des numéros qui leur auront été attribués. De plus, les renseignements seront conservés dans un classeur sous clé situé dans un bureau fermé. Aucune information permettant de vous identifier d'une façon ou d'une autre ne sera publiée. Ces renseignements personnels seront détruits 7 ans après la fin du projet. Seules les données ne permettant pas de vous identifier seront conservées après cette date.

4. Avantages et inconvénients

Nous croyons que votre participation à la recherche ne devrait pas comporter d'inconvénient significatif pour vous. Il se pourrait par contre que certains sujets abordés au cours de la thérapie soient émotionnellement difficiles pour vous. Si cela se produit, vous pouvez en discuter avec le thérapeute ou, selon votre choix, votre intervenant principal. Il est aussi possible que vous trouviez les entrevues trop longues ou certaines questions trop personnelles. Si tel est le cas, il est toujours possible de demander des pauses, de poursuivre l'entrevue une autre journée, ou simplement de ne pas répondre à ces questions.

En participant à cette recherche, vous pourrez contribuer à l'avancement des connaissances sur les effets de la thérapie cognitive comportementale et en conséquence, permettre à d'autres d'en bénéficier. Vous pourriez aussi bénéficier directement des effets ciblés par la thérapie, soit l'apprentissage des techniques pour gérer les symptômes, la diminution des symptômes, une perception plus positive de soi et possiblement, le début de nouvelles amitiés.

5. Droit de retrait

Votre participation est entièrement volontaire. Vous êtes libre de vous retirer en tout temps par avis verbal, sans préjudice et sans devoir justifier votre décision. Si vous décidez de vous retirer de la recherche, vous pouvez communiquer avec le chercheur, au numéro de téléphone indiqué à la dernière page de ce document. Si vous vous retirez de la recherche, les renseignements qui auront été recueillis au moment de votre retrait seront détruits.

6. Indemnité

Il n'y a aucune indemnité associée à la participation à la thérapie. Par contre, les frais associés aux déplacements seront remboursés et le temps alloué pour chacune des trois rencontres d'évaluation sera dédommagé à raison d'un montant total de 30$ (ou un maximum de 10$ par heure pour les entrevues non-complétées).

B) CONSENTEMENT

Je déclare avoir pris connaissance des informations ci-dessus, avoir obtenu les réponses à mes questions sur ma participation à la recherche et comprendre le but, la nature, les avantages, les risques et les inconvénients de cette recherche.

Après réflexion et un délai raisonnable, je consens librement à prendre part à cette recherche. Je sais que je peux me retirer en tout temps sans préjudice et sans devoir justifier ma décision.

Signature : _____ Date : _____

Nom : _____ Prénom : _____

Je déclare avoir expliqué le but, la nature, les avantages, les risques et les inconvénients de l'étude et avoir répondu au meilleur de ma connaissance aux questions posées.

Signature du chercheur_____ Date : _____

(ou de son représentant)

Nom : _____ Prénom : _____

Pour toute question relative à la recherche, ou pour vous retirer de la recherche, vous pouvez communiquer avec :

Tania Lecomte, chercheur principal OU
Chantal Mongeau, coordonnatrice de recherche

Téléphone : 514-343-6274
Courriel : chantal.mongeau@umontreal.ca
Poste : Université de Montréal,
Bur C-363, 90 rue Vincent d'Indy,
C.P. 6128, Succ. Centre-Ville,
Montréal, QC, H3C 3J7

Toute plainte relative à votre participation à cette recherche peut être adressée à l'ombudsman de l'Université de Montréal, au numéro de téléphone (514) 343-2100 ou à l'adresse courriel ombudsman@umontreal.ca. **(L'ombudsman accepte les appels à frais virés).**

Un exemplaire du formulaire de consentement signé doit être remis au participant

CONSENTEMENT – ACCÈS AU DOSSIER MÉDICAL

Titre de la recherche : Intervention pour jeunes présentant un premier épisode de psychose – Effets de la thérapie cognitive comportementale de groupe.

Chercheur : Tania Lecomte, Ph.D., professeur adjoint
Département de Psychologie, Université de Montréal

Co-chercheur : Claude Leclerc, Ph.D., professeur
Sciences de la santé, Université du Québec à Trois-Rivières

Clinique collaboratrice : Clinique des Jeunes Adultes de Louis H. Lafontaine à Montréal.

Je déclare avoir pris connaissance des informations relatives à ma participation au projet, avoir obtenu les réponses à mes questions sur ma participation à la recherche et comprendre le but, la nature, les avantages, les risques et les inconvénients de cette recherche. À cet effet, je consens à ce qu'un membre autorisé de l'équipe de recherche obtienne accès à mon dossier médical auprès de la clinique ci-haut mentionnée et ce afin d'obtenir les informations pertinentes à mon diagnostic, l'historique d'hospitalisation et les prescriptions.

Signature : _____ Date : _____

Nom : _____ Prénom : _____

Je déclare avoir été témoins que ce consentement a été obtenu suite à une explication détaillées du projet de recherche et des implications amenées par sa participation, et ce sans pression indue.

Signature du chercheur_____ Date : _____

(ou de son représentant)

Nom : _____ Prénom : _____

Id: _____

QUESTIONNAIRE SOCIO-DÉMOGRAPHIQUE

Date (Jr/Ms/An) ☐☐ / ☐☐ / ☐☐☐☐

Date de naissance (Jr/Ms/An) ☐☐ / ☐☐ / ☐☐☐☐ **Âge** ☐☐

Genre

◯ 1 – Masculin ◯ 2 – Féminin

Code Postal : ☐☐☐ ☐☐☐

Comment vous décririeriez-vous? (Ne noircissez qu'une bulle)

◯ 1 – Autochtone
◯ 2 – Africain
◯ 3 – Caucasien
◯ 4 – Est-asiatique
◯ 5 – Latino-américain
◯ 6 – Moyen-Orient
◯ 7 – Sud-asiatique
◯ 8 – Ouest-Asiatique
◯ 9 – Métis
◯ 10 – Autre
◯ 11 – Ne sait pas
◯ 12 – Préfère ne pas répondre

Comment décrivez-vous votre culture? (Ne noircissez qu'une bulle)

◯ 1 – Premières nations
◯ 2 – Africaine
◯ 3 – Américaine
◯ 4 – Australienne/Nouv. Zél.
◯ 5 – Canadienne
◯ 6 – Caribéen
◯ 7 – Amérique centrale
◯ 8 – Est-asiatique
◯ 9 – Européenne
◯ 10 – Canadienne française
◯ 11 – Moyen-Orient
◯ 12 – Sud-américaine
◯ 13 – Sud-asiatique
◯ 14 – ouest-asiatique ou arabe
◯ 15 – Autres
◯ 16 – Ne sait pas
◯ 17 – Préfère ne pas répondre

Citoyenneté

◯ 1 – Citoyen canadien
◯ 2 – Immigrant reçu
◯ 3 – Réfugié
◯ 4 – Résident sans papier

Année de Résidence permanente (si n'est pas né au Canada)

◯ 5 – Autre ☐☐☐☐

INFORMATIONS ADDITIONNELLES

État civil

◯ 1 – Inconnu
◯ 2 – Célibataire
◯ 3 – Marié
◯ 4 – Séparé
◯ 5 – Divorcé
◯ 6 – Veuf
◯ 7 – Conjoint de fait
◯ 8 – Séparé d'un conjoint de fait
◯ 9 – Veuf d'un conjoint de fait

Langue maternelle : _____

Langue parlée (la plus utilisée) : _____

Id: _____

Plus haut niveau de scolarité complété

○ 1 – Pas d'éducation formelle	○ 5 – Collégial partiel	○ 9 – Maîtrise ou Doctorat
○ 2 – Primarire seulement	○ 6 – Collégial complété	○ 10 – Post Doctorat
○ 3 – Secondaire partiel	○ 7 – Université partielle	○ 11 – Études commerciales
○ 4 – Secondaire complété	○ 8 – Université complétée	○ 12 – Inconnue

DIAGNOSTIC & AUTRES INFORMATIONS

Avez-vous une incapacité physique? ○ 1 – Oui ○ 2 – Non

Si oui, pouvez-vous spécifier? _____

_____

Diagnostic concomitant (Santé mentale **et** Abus de substances) ○ 1 – Oui ○ 2 – Non

Catégorie du diagnostique principal *(sélectionner toutes les cases appropriées)*

○ 1 – Troubles de l'humeur (bipolaire, dépression, etc.)
○ 2 – Trouble d'anxiété (TOC, panique, TSPD, etc.)
○ 3 – Troubles organiques (manie, démence)
○ 4 – Troubles envahissants du développement (TDA, TDAH, autisme)
○ 5 – Schizophrénies et troubles psychotiques
○ 6 – Troubles liés à une substance
○ 7 – Troubles de personnalité (évitant, borderline, etc.)
○ 8 – Troubles diagnostiqués à l'enfance/adolescence
○ 9 – Autre :_____
○ 10 –Inconnu

Quel âge aviez-vous lors de <u>votre première hospitalisation</u> psychiatrique? (en années) ☐☐

Quel âge aviez-vous lors de <u>votre premier épisode</u> de la maladie mentale? (en années) ☐☐

Combien de fois avez-vous été hospitalisé en psychiatrie au cours de la dernière année? ☐☐

<u>Au cours de la dernière année</u>, avez-vous utilisé ces services de santé mentale? (Sélectionner toutes les cases appropriées)

○ 1 – Traitement psychiatrique	○ 6 – Prévention de suicide
○ 2 – Psychothérapie	○ 7 – Psychothérapie familiale ou pour enfant
○ 3 – Suivi intensif dans le milieu	○ 8 – Traitement pour abus de substances
○ 4 – Aide au logement	○ 9 – Groupe de soutien (AA, OA, Al-ANON, etc.)
○ 5 – Gestion du stress	○ 10 – Autre_____

Combien de fois avez-vous utilisé les services mentionnés ci-dessus au cours de la dernière année? ☐☐

Id: _____

Prenez-vous des médicaments pour un problème de santé mentale? ◯ **1 – Oui** ◯ **2 – Non**

Si oui, pouvez-vous indiquer quel est le nom des médicaments que vous prenez? *(Lettres moulées)*

1 - 2 -	5 - 6 -
3 -	7 -
4 -	8 -

Avez-vous une aide financière? ◯ 1 – Oui ◯ 2 – Non
Si oui, de quel type?

◯ 1- Aide sociale pour personne avec incapacité au travail
◯ 2- Assurance emploi
◯ 3- Aide familiale
◯ 4- Prêts et bourses pour études
◯ 5 - Autre : _____

Quel énoncé ci-dessous décrit le mieux votre situation résidentielle?
◯ 1 – Vit de façon indépendante
◯ 2 – Reçoit des services de soutien au logement ou de l'aide à domicile
◯ 3 – Logement familial
◯ 4 – Milieu de vie encadré (ex. foyer de groupe)
◯ 5 – Lieu de traitement
◯ 6 – Sans domicile fixe
◯ 7 – Milieu correctionnel
◯ 8 – Inconnu

Avec qui habitez-vous?

◯ 1 – Conjoint/partenaire ◯ 4 – Autre membre de votre famille ◯ 7 – Colocataire
◯ 2 – Vos Parents ◯ 5 – Autre proche (excepté membre de la famille ◯ 8 – Autre
◯ 3 – Vos Enfants ◯ 6 - Seul

Id: _____

Entrevue Psychiatrique Indiana sur la maladie

Cette entrevue devrait encourager les participants à raconter leur histoire à leur façon, en posant seulement les questions présentées ci bas. Les commentaires de la part de l'interviewer servent à rappeler au participant qu'il est écouté. Ces commentaires devraient être des reflets ; il est important de ne pas introduire des concepts que le participant n'a pas dits. Ne demandez pas au participant de compléter des lacunes chronologiques ou de donner plus d'informations pour compléter ce qu'il a mentionné durant son récit initial. Les questions présentées plus bas ne doivent pas nécessairement être présentées en ordre et l'interviewer devrait par conséquent s'adapter au récit du participant. L'entretien devrait commencer simplement par: le sujet de cette entrevue est pour m'aider (l'interviewer) à comprendre le mieux possible ***votre*** *histoire et vous-même, incluant les hauts et les bas.*

Section I: Récit libre général:

J'aimerais que vous me fassiez le récit de votre vie, comprenant le plus de détails possible, depuis le plus loin que vous vous souveniez jusqu'à maintenant. Si vous avez besoin d'aide pour organiser votre histoire, vous pouvez la diviser en chapitres ou en sections. Avez-vous des questions?

Section II: Récit de la Maladie

Pensez-vous avoir un problème de santé mentale et si oui, que pensez-vous avoir ?

Avez-vous eu un problème de santé mentale dans le passé?

Qu'est-ce-qui a causé ces problèmes?

Comment vous sentez-vous par rapport au fait d'avoir un problème de santé mentale?

Comment voyez- vous votre problème de santé mentale dans le futur?

Section III: Ce qui change ou demeure pareil

Depuis votre problème de santé mentale qu'est-ce-qui a changé et qu'est-ce-qui est resté pareil?

Au niveau du travail ou études:
- Qu'est-ce qui est resté identique depuis ?
- Qu'est-ce qui est différent depuis ?

Au niveau du fonctionnement social (famille/romantisme, amis/connaissances)
- Qu'est-ce qui est resté identique depuis ?
- Qu'est-ce qui est différent depuis ?

Au niveau cognitif (vos pensées) ou émotif ?
- Qu'est-ce qui est resté identique depuis ?
- Qu'est-ce qui est différent depuis ?

Id: _____

Au niveau de la personnalité (qui tu es)
- Qu'est-ce qui est resté identique depuis ?
- Qu'est-ce qui est différent depuis ?

Section IV: Degré d'influence de la construction de la maladie

Dans quelle mesure et de quelles manières votre problème de santé mentale contrôle-t-il votre vie?

Dans quelle mesure et à quel point pouvez vous contrôler votre problème de santé mentale ?

Comment d'autres personnes ont-elles été affectées par votre problème de santé mentale?

Comment d'autres personnes ont t'elles affecté votre problème de santé mentale?

Section V: Le future, le bonheur et la satisfaction?

Comment vous voyez-vous dans le futur?

Id: _____

Mode d'administration : ○ Auto-administré ○ Interviewer

Date : _____

ÉCHELLE de FONCTIONNEMENT SOCIAL d'un PREMIER ÉPISODE

Veuillez SVP répondre à chacune des questions le plus honnêtement possible en encerclant les choix suggérés. Si vous répondez « *Jamais* » ou si vous croyez qu'une question ne s'applique pas à votre situation et que vous répondez « *aucune de ces réponses* », veuillez s'il-vous-plaît en expliquer la raison.

1. Habileté de vie autonome

1.1 Transports

1.1.a Je peux me rendre en ville facilement, soit en prenant l'autobus ou par d'autre moyens de transports.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

1.1.b Au cours des 3 derniers mois, j'ai utilisé le transport en commun ou autres moyens (automobile, bicyclette, etc.) pour me déplacer.

Jamais (moins fois/mois)	Parfois (une fois/semaine)	Souvent (plusieus fois/semaine)	Toujours (presqe tous les jours)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex: manque de ressources, pas besoin)

_____

1.2 Communication

1.2.a Je suis à l'aise d'utiliser le téléphone, l'internet ou les courriels pour communiquer.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

Id: _____

1.2.b Au cours des 3 derniers mois, j'ai utilisé le téléphone, l'internet ou les courriels pour communiquer avec les gens.

Jamais (moins d'une fois/mois)	Parfois (une fois/semaine)	Souvent (plusieurs fois/semaine)	Toujours (presque tous les jours)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex: pas besoin).

1.3 HYGIÈNE DE BASE

1.3.a Je prends bien soin de mon apparence physique et mon hygiène.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

1.3.b Au cours des 3 derniers mois, j'ai pris soin de mon apparence et de mon hygiène.

Jamais (douche une fois/semaine ou moins)	Parfois (douche au 2-3 jours, vêtement peuvent être sales)	Souvent (douche presque chaque jour)	Toujours (toujours propre, douche chaque jour)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : manque d'énergie, pas de motivation)

_____

1.4 AVOIR DE LA NOURRITURE

1.4.a Je n'ai pas de difficulté à obtenir de la nourriture pour manger (en cuisinant, en famille, restauration rapide, etc.).

Totalement en désaccord	En désaccord	En accord	Totalement en accord

Id: _____

1.4.b Au cours des 3 derniers mois, j'ai obtenu suffisamment de nourriture pour manger.

Jamais (toujours faim)	Parfois (saute des repas, ne mange pas assez)	Souvent (habituellement bien nourri)	Toujours (mange 2-3 bons repas/jour)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : manque de ressources, pas faim).

Sur une échelle de 1 à 10, de façon générale, à quel point est-ce important pour vous d'avoir des bonne habiletés dans les tâches quotidiennes mentionnées plus tôt (moyens de transport, de communication, l'hygiène de base et se procurer de la nourriture)?

1 2 3 4 5 6 7 8 9 10
Pas du tout important Extrêmement important

Commentaires:

_____ _____

_____

_____

2. Interagir avec les gens

2.1 Commis, bistro-restaurant, etc.

2.1.a Je trouve facile d'interagir avec des serveurs, des caissiers et des vendeurs (ex : petites conversations, demander de l'information, faire un achat).

Totalement en désaccord	En désaccord	En accord	Totalement en accord

Id: _____

2.1.b Au cours des 3 derniers mois, j'ai interagi avec des serveurs, des caissiers ou des vendeurs.

Jamais (n'approche pas des magasins)	Parfois (une ou deux fois/mois)	Souvent (plus d'une fois/semaine)	Toujours (presque chaque jour)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : pas intéressé, pas besoin).

2.2 AUTORITÉ/ADULTES

2.2.a Je trouve cela facile d'interagir avec des figures d'autorités (ex : professeur, patron, docteur, les parents des autres...).

Totalement en désaccord	En désaccord	En accord	Totalement en accord

2.2.b Au cours des 3 derniers mois, j'ai interagi avec des figures d'autorités.

Jamais	Parfois (moins de 1 fois/semaine)	Souvent (presque chaque jour)	Toujours (chaque jour)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : pas de contact avec des figures d'autorité).

2.3 CONNAISSANCES

2.3.a Je trouve cela facile de parler avec des personnes de mon âge que je connais juste un peu.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

Id: _____

2.3.b Au cours des 3 derniers mois, j'ai parlé avec des personnes de mon âge que je connais juste un peu.

Jamais	Parfois (moins de 1 fois/semaine)	Souvent (presque chaque jour)	Toujours (chaque jour)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : pas intéressé).

_____

_____

2.4 AFFIRMATION DE SOI

2.4.a Je sais comment m'affirmer lorsque cela est nécessaire.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

2.4.b Dans les 3 derniers mois, j'ai été capable de m'affirmer

Jamais	Parfois (moins de 1 fois/semaine)	Souvent (presque chaque jour)	Toujours (chaque jour)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer:

_____

_____

Sur une échelle de 1 à 10, de façon générale, à quel point est-ce important pour vous d'être bon dans les domaines impliquant l'interaction avec les gens mentionnés ci-haut (interagir avec des serveurs, des figures d'autorité et des connaissances et être capable de s'affirmer) ?

1 2 3 4 5 6 7 8 9 10

Pas du tout important Extrêmement important

Commentaires:

_____

_____

_____

Id: _____

3. Amis et Activités sociales

3.1 ACTIVITÉS SOLITAIRES

3.1.a Je suis très bon dans les activités solitaires telles qu'aller m'entraîner, aller au cinéma, clavarder (chatter) sur internet, prendre des cours (musique, peinture, etc.). Veuillez s'il-vous-plaît ne pas prendre en considération : regarder la télévision, écouter de la musique ou jouer à des jeux vidéo.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

3.1.b Au cours des 3 derniers mois, j'ai fait des activités solitaires comme aller m'entrainer, aller au cinema, clavarder (chatter) sur internet, prendre des cours (musique, peinture, etc.)

Jamais	Parfois (moins d'une fois/mois)	Souvent (plusieurs fois/mois)	Toujours (quelques fois/semaine)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : trop occupé, pas d'intérêt).

_____

_____

3.2 ACTIVITES SIGNIFICATIVES

3.2.a J'essaie de faire des choses qui sont vraiment importante pour moi (passe-temps spécifique, passions…).

Totalement en désaccord	En désaccord	En accord	Totalement en accord

3.2.b Au cours des 3 derniers mois, j'ai faite des choses qui étaient vraiment importantes pour moi.

Jamais	Parfois (moins d'une fois/mois)	Souvent (plusieurs fois/mois)	Toujours (quelques fois/semaine)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : trop occupé, pas de passe-temps).

_____

_____

Id: _____

3.3 ÉQUILIBRER LE TEMPS SEUL ET AVEC LES AUTRES

3.3.a Je suis capable d'équilibrer le temps que je passe avec les autres et le temps que je passe seul.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

3.3.b Au cours des 3 derniers mois, j'ai passé la plupart de mes journées en solitaire.

Jamais	Parfois (quelques jours /semaine)	Souvent (presque chaque jour)	Toujours (tous les jours)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : je vis avec du monde, trop occupé).

_____

_____

3.4 AMI(E)S PROCHE

3.4.a Je sens que j'ai au moins un(e) meilleur(e) ami(e) avec qui je peux partager les choses importantes qui m'arrivent.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

3.4.b Au cours des 3 derniers mois, j'ai passé du temps avec mon(ma) meilleur(e) ami(e) (en personne ou au téléphone).

Jamais	Parfois (parle au moins 1 fois)	Souvent (se parle ou se voit chaque 2-3 semaine)	Toujours (se parle ou se voit chaque semaine)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : pas de meilleur(e) ami(e), trop occupé).

_____

_____

3.5 CAMARADERIE

3.5.a J'ai des ami(e)s avec qui je peux me tenir, faire des choses avec eux (magasinage, cinéma, sortir, etc.).

Totalement en désaccord	En désaccord	En accord	Totalement en accord

Id: _____

3.5.b Au cours des 3 derniers mois, j'ai passé du temps à faire des activités avec mes ami(e)s.

Jamais	Parfois (au moins 1 fois/mois)	Souvent (plusieurs fois/mois)	Toujours (chaque semaine)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : pas d'argent, trop occupé).

_____

_____

3.6 HABILETES A DEVELOPPER DES AMITIES

3.6.a Je suis capable de me faire de nouveaux amis en suggérant de passer du temps ensemble, en faisant des invitations ou en téléphonant aux gens.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

3.6.b Au cours des 3 derniers mois, j'ai essayé de développer une amitié potentielle avec quelqu'un.

Jamais	Parfois (j'ai fait une invitation ou j'en ai acceptée une)	Souvent (j'ai suggéré une activité ou fait quelque chose avec 1 nouvelle personne +d'une fois)	Toujours (très sociable, pale avec de nouvelles personnes et ouvert à rencontrer 3 personnes ou plus)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : je n'ai pas rencontré personne, pas intéressé).

_____

_____

Sur une échelle de 1 à 10, de façon générale, à quel point est-ce important pour vous d'être bon dans les domaines de l'amitié et des activités sociales mentionnées ci-haut (activités solitaires, activités significatives et équilibrées du temps passé seul et avec les autres, développer de nouvelles amitiés, passer du temps avec ses meilleurs amis ou ses copains) ?

1 (pas du tout important)	2	3	4	5	6	7	8	9	10 (extrêmement important)

Commentaires: _____

_____

_____

Id: _____

4. Intimité

4.1 Faire des rencontres amoureuses

4.1.a Je suis tout à fait confortable lors de rencontres amoureuses.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

4.1.b Au cours des 3 derniers mois, j'ai fait des rencontres amoureuses.

Jamais	Parfois (2 rencontre ou moins)	Souvent (plus de 3 rencontres)	Toujours (j'ai vu quelqu'un toutes les semaines)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : pas intéressé, j'essaie de faire des rencontres).

4.2 Avoir un copain/copine ou conjoint(e)

4.2.a J'apprécie avoir un copain/copine ou conjoint(e) stable.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

4.2.b Au cours des 3 derniers mois, j'ai passé du temps avec mon copain/copine ou conjoint(e) stable.

Jamais	Parfois (quelques semaines)	Souvent (1 fois/semaine pour moins d'un mois)	Toujours (chaque semaine pour plus d'un mois)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : je n'ai pas de copain/copine, je ne suis pas intéressé).

4.3 Relation sexuelle

4.3.a Je suis intéressé au sexe.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

Id: _____

4.3.b Au cours des 3 derniers mois, j'ai eu des relations sexuelles avec quelqu'un.

Jamais	Parfois (au moins 1 fois)	Souvent (2 fois/mois ou plus)	Toujours (chaque semaine)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : croyances religieuses, je ne suis pas intéressé).

_____

4.4 INTIMITÉ ÉMOTIONNELLE

4.4.a Je sens que je suis capable de partager mes sentiments, mes pensées intérieures et être proche de mon copain/copine ou conjoint(e) stable (quand j'en ai un(e)).

Totalement en désaccord	En désaccord	En accord	Totalement en accord

4.4.b Au cours des 3 derniers mois, j'ai partagé mes sentiments, mes pensées intérieures et j'ai été proche de mon copain/copine ou conjoint(e) stable.

Jamais	Parfois (au moins 1 fois)	Souvent (2 fois/mois ou plus)	Toujours (chaque semaine ou plus)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : je n'ai personne avec qui partager, je ne suis pas intéressé).

_____

4.5 COMPREHENSION DES SITUATIONS

4.5.a Je peux comprendre rapidement ce qui se passé dans la pluspart de situations impliquant d'autres personnes.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

Id: _____

4.5.b Au cours des 3 derniers mois, j'ai été capable de comprendre rapidement la pluspart des situations impliquant d'autres personnes.

Jamais	Parfois (moins d'un fois/semaine)	Souvent (presque tous les jours)	Toujours (à tous les jours)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : je n'ai pas eu l'occasion, etc).

_____

_____

Sur une échelle de 1 à 10, de façon général, à quel point est-ce important pour vous d'être bon dans les secteurs d'intimité mentionnés ci-haut (faire des rencontres, avoir un copain/copine ou conjoint(e), avoir des relations sexuelles, être proche de ses émotions et comprendre les situations)?

1	2	3	4	5	6	7	8	9	10
(pas du tout important)								(extrêmement important)	

Commentaires:

5. Famille

5.1 Parents

5.1.a Je peux parler à mes parents de choses qui sont importantes pour moi.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

5.1.b Au cours des 3 derniers mois, j'ai parlé de choses qui sont importantes pour moi à mes parents.

Jamais	Parfois (1 fois/mois)	Souvent (chaque 2 semaines)	Toujours (chaque semaine)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : je n'ai pas de contact avec mes parents).

_____

Id: _____

5.2 RELATION AVEC LES PARENTS

5.2.a Mes parents et moi nous entendons généralement bien entre nous.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

5.2.b Au cours des 3 derniers mois, j'ai passé du temps sans avoir de gros conflits avec un de mes parents ou les deux.

Jamais	Parfois (moins de 1 fois/mois)	Souvent (au moins 1 fois/mois)	Toujours (chaque semaine)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : je n'ai pas de contact avec mes parents).

_____

5.3 RELATION AVEC LA FAMILLE

5.3.a Je m'entends bien avec ma famille (frère, sœur, grands-parents, oncles, tantes, cousins).

Totalement en désaccord	En désaccord	En accord	Totalement en accord

5.3.b Au cours des 3 derniers mois, j'ai passé du temps (en personne, au téléphone ou par d'autres moyens) avec au moins un membre de ma famille.

Jamais	Parfois (une seule fois)	Souvent (au moins 1 fois/mois)	Toujours (chaque semaine)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : pas de famille, pas intéressé).

_____

Id: _____

Sur une échelle de 1 à 10, de façon générale, à quel point est-ce important pour vous d'être bon dans les domaines de la famille mentionnés ci-haut (être capable de parler sans avoir de conflits avec mes parents, bien m'entendre avec ma famille) ?

1	2	3	4	5	6	7	8	9	10
(pas du tout important)								(extrêmement important)	

Commentaires:

---

6. RELATION ET ACTIVITES SOCIALES AU TRAVAIL **(incluant l'emploi actuel et les emplois tenus durant l'année précédente)**

○ Je n'ai pas travaillé dans les années passées (aller au bas de la page 19).
Depuis combien d'années ?_____

6.1 RELATION AVEC VOTRE EMPLOYEUR/SUPERVISEUR

6.1.a Je me sens généralement à l'aise pour discuter de choses reliées au travail avec mon employeur/superviseur (ex : tâches, rétroaction, horaires, etc.).

Totalement en désaccord	En désaccord	En accord	Totalement en accord

6.1.b Au cours des 3 derniers mois, j'ai discuté de choses reliées à mon travail avec mon employeur/superviseur.

Jamais	Parfois (seulement 1 fois lorsque je n'ai pas eu le choix)	Souvent (1 ou 2 fois de ma propre initiative)	Toujours (plus de 2 fois par ma propre initiative)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : je n'ai jamais eu de problème).

6.2 RELATION AVEC LES COLLEGUES

6.2.a Je m'entends généralement bien avec mes collègues.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

Id: _____

6.2.b Au cours des 3 derniers mois, j'ai passé du temps avec mes collègues (pour parler de travail ou non).

Jamais	Parfois (1 fois /mois)	Souvent (1 fois/semaine)	Toujours (presque tous les jours)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : pas d'intéraction avec mes collègues, pas intéressé).

6.3 PARTICIPATION DANS LES ACTIVITES SOCIALES AU TRAVAIL

6.3.a Je participe aux activités sociales de mon travail (party de Noël, sortie après le travail, etc.).

Totalement en désaccord	En désaccord	En accord	Totalement en accord

6.3.b Au cours des 3 derniers mois, j'ai été capable de participer aux activités sociales de mon travail (party de Noël, sortie après le travail, etc.).

Jamais	Parfois (1 ou 2 fois/année)	Souvent (1 ou 2 fois en 6 moisi)	Toujours (1 ou 2 fois en 3 mois)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : pas d'activités de planifiées, pas intéressé).

Sur une échelle de 1 à 10, de façon général, à quel point est-ce important pour vous d'être bon dans les domaines du travail mentionnés ci-haut (relation avec le patron et les collègues, activités sociales au travail) ?

1 (pas du tout important)	2	3	4	5	6	7	8	9	10 (extrêmement important)

Commentaires: _____

_____

Id: _____

7. Habiletés au travail (incluant l'emploi actuel et les emplois tenus durant l'année précédente)

7.1 Ponctualité

7.1.a Je respecte toujours mon horaire (j'arrive et je pars à l'heure)

Totalement en désaccord	En désaccord	En accord	Totalement en accord

7.1.b Au cours des 3 derniers mois, j'ai respecté mon horaire de travail.

Jamais	Parfois (1 fois/semaine)	Souvent (1 ou quelques fois/semaine)	Toujours (chaque jour)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : je fais ma propre horaire).

7.2 Productivite et planification

7.2.a Je fais mes tâches de travail selon l'échéance convenu.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

7.2.b Au cours des 3 derniers mois, j'ai été capable de faire mes tâches de travail selon l'échéance convenu.

Jamais	Parfois (1 fois/mois)	Souvent (1 fois/semaine)	Toujours (plusieurs fois/semaine)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : pas de tâches qui comportent un délai).

7.3 Qualite du travail

7.3.a Je fournis un travail de qualité de façon constante.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

Id: _____

7.3.b Au cours des 3 derniers mois, j'ai été capable de fournir un travail de qualité.

Jamais	Parfois (1 ou 2 fois/mois)	Souvent (1 ou 2 fois/semaine)	Toujours (tous les jours)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : le travail que je fais est difficile).

_____

Sur une échelle de 1 à 10, de façon générale, à quel point est-ce important pour vous d'être bon dans les domaines du travail mentionnés ci-haut (ponctualité, productivité et qualité du travail) ?

1 (pas du tout important)	2	3	4	5	6	7	8	9	10 (extrêmement important)

Commentaires: _____

Si sans travail ou jamais travaillé:

1. Êtes-vous actuellement à la recherche d'un emploi? Oui Non
2. Êtes-vous inscrit dans un programme d'intégration au travail ou de formation professionnelle? Oui Non
   Si oui, lequel? Nom du programme:
3. Êtes-vous en contact avec un spécialiste de l'emploi? Oui Non

8. **Relations et activités sociales à l'école**

○ Je n'ai pas été à l'école (CEGEP, université ou un programme éducatif) au cours de la dernière année (allez à la fin du document).

Id: _____

Expérience académique (incluant les cours suivis présentement et ceux suivis au cours de l'année précédente).

8.1 RELATION AVEC LE PROFESSEUR

8.1.a Je suis capable de parler à mon professeur des choses importantes reliées à l'école secondaire/collège/université (cours, devoirs, horaire, etc.) et qui sont importantes pour moi.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

8.1.b Au cours des 3 derniers mois, j'ai parlé à mes professeurs de choses qui concernent l'école secondaire/collège/université à mon professeur (cours, devoirs, horaire, etc.) et qui sont importantes pour moi.

Jamais	Parfois (seulement 1 fois lorsque je n'ai pas eu le choix)	Souvent (1 ou 2 fois de ma propre initiative)	Toujours (plus que 2 fois par ma propre initiative)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : pas de problème avec mes cours).

8.2 RELATION AVEC LES ÉLÈVES

8.2.a Les autres élèves et moi nous entendons généralement bien entre nous.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

8.2.b Au cours des 3 derniers mois, j'ai passé du temps avec les autres élèves (parler de cours ou non).

Jamais	Parfois (1 fois/mois)	Souvent (1 fois/semaine)	Toujours (presque chaque jour)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : pas d'interaction avec les autres élèves).

Id: _____

8.3 PARTICIPATION EN CLASSE

8.3.a Je suis à l'aise de participer en classe.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

8.3.b Au cours des 3 derniers mois, j'ai participé en classe.

Jamais	Parfois (1 ou 2 fois /mois)	Souvent (1 ou 2 fois/semaine)	Toujours (plusieurs fois/semaine)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : pas intéressé).

Sur une échelle de 1 à 10, de façon général, à quel point est-ce important pour vous d'être bon dans les domaines de l'école mentionnés ci-haut (relation avec les professeurs et les élèves, et participation en classe) ?

1 (pas du tout important)	2	3	4	5	6	7	8	9	10 (extrêmement important)

Commentaires: _____

_____

_____

9. École

9.1 RESPECTER LES ÉCHÉANCES

9.1.a Je suis toujours capable de finir mes travaux à temps.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

Id: _____

9.1.b Au cours des 3 derniers mois, j'ai été capable de remettre mes travaux à temps.

Jamais	Parfois (1 ou 2 fois)	Souvent (presque chaque jour	Toujours (tout le temps)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : j'ai des arrangements à propos des délais pour les travaux).

_____

9.2 PONCTUALITE

9.2.a J'arrive à l'école secondaire/collège/université à l'heure et je manque rarement mes cours.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

9.2.b Au cours des 3 derniers mois, j'ai été à l'heure pour mes cours et je n'ai jamais manqué de cours.

Jamais	Parfois (1 fois/semaine)	Souvent (quelques fois/semaine)	Toujours (tous les jours)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : pas d'heure de cours).

9.3 PERFORMANCE ACADEMIQUE

9.3.a Je suis capable d'avoir constamment de bonnes notes.

Totalement en désaccord	En désaccord	En accord	Totalement en accord

9.3.b Au cours des 3 derniers mois, j'ai eu de bonnes notes pour mes travaux et mes examens.

Jamais	Parfois (1 ou 2 fois)	Souvent (presque chaque fois)	Toujours (tout le temps)	Aucune de ces réponses

Si vous avez répondu « Aucune de ces réponses » ou « Jamais », veuillez s'il-vous-plaît expliquer: (ex : pas de notes).

Id: _____

Sur une échelle de 1 à 10, de façon générale, à quel point est-ce important pour vous d'être bon dans les domaines de l'école mentionnés ci-haut (respecter les échéances, ponctualité et qualité des notes) ?

1	2	3	4	5	6	7	8	9	10
(pas du tout important)								(extrêmement important)	

Commentaires:

Si vous n'êtes pas aux etudes ou n'avez pas de cours:

1. Pensez-vous retourner aux études? Oui No
2. Êtes vous inscrit dans un programme éducatif? Oui No

   Si oui, lequel? Nom du programme:

3. Êtes vous en contact avec un conseiller scolaire? Oui No

Projet TCC proches

ID :_____
Date : _____

ECHELLE MULTIDIMENSIONNELLE DU SUPPORT SOCIAL PERCU

Ce questionnaire s'intéresse à ce que vous ressentez vis-à-vis les énonces ci-dessous. Lisez attentivement chaque énoncé, et indiquez comment vous vous sentez en marquant d'un « X » la case appropriée selon l'échelle suivante.

Très fortement en désaccord	**Fortement en désaccord**	**Moyennement en désaccord**	**Neutre**	**Moyennement en accord**	**Fortement en accord**	**Très fortement en accord**
1	**2**	**3**	**4**	**5**	**6**	**7**

		1	2	3	4	5	6	7
1.	Il y a une personne spéciale qui est près de moi lorsque j'en ai besoin.							
2.	Il y a une personne spéciale avec laquelle je peux partager mes joies et mes peines.							
3.	Ma famille essaie vraiment de m'aider.							
4.	J'ai de l'aide et du support émotionnel de la part de ma famille.							
5.	J'ai une personne spéciale qui m'apporte du réconfort.							
6.	Mes ami(e)s tentent vraiment de m'aider.							
7.	Je peux compter sur mes ami(e)s quand les choses vont mal.							
8.	Je peux parler de mes problèmes avec ma famille.							
9.	J'ai des ami(e)s avec qui je peux partager mes joies et mes peines.							
10.	Il y a une personne spéciale dans ma vie qui se préoccupe de ce que je ressens.							
11.	Ma famille consent a m'aider a prendre des décisions.							
12.	Je peux parler de mes problèmes avec mes ami(e)s.							

Appendix C: Original Basic Anchors for the MAS

SELF REFLECTIVITY

Basic Requirements

S1. The subject acknowledges having mental functions and a representational nature of thoughts.
S2. The subject represents himself as a person with autonomous thoughts and feelings.

Identification

S3. The subject is able to distinguish and differentiate his own cognitive operations (e.g. remembering, imagining, having fantasies, dreaming, desiring, deciding, foreseeing and thinking).
S4. The subject is able to define and distinguish his own emotional states.

Differentiation

S5. The subject recognizes that the representation of the self and/or of the world is subjective and/or fallible and/or that his own opinions have changed or are changeable.
S6. The subject recognizes the limited impact that expectations, thoughts and desires have on reality

Relation amid variables

S7. The subject recognizes that his behavior may be determined by one specific mode of cognitive and/or emotional functioning and admits being influenced by social and/or interpersonal variables related to the context of his cognitive and/or emotional functioning, or related to his behavior.

Integration

S8. The subject is able to give a complete description of his own mental state and/or of the interpersonal processes in which he is involved, distinguishing cognitive and/or emotional elements.
S9. The subject is able to integrate into a coherent and complex narrative his different modes of cognitive and/or emotional functioning.

UNDERSTANDING THE OTHER'S MIND

Basic Requirements

O1. The subject recognizes the existence of mental functions relative to the other.
O2. The subject represents the other as a person with autonomous thoughts and feelings.

Identification

O3. The subject is able to distinguish the other's cognitive operations (such as remembering, imagining, having fantasies, dreaming, awaiting, foreseeing, meditating).
O4. The subject is able to distinguish the other's emotional states.

Relation amid variables

O5. The subject makes plausible inferences about the other's mental state recognizing the communicative value or signs of attitude or behaviour

Integration

O6. The subject is able to give a complete description of the others' mental states and/or interpersonal processes in which the other is involved by distinguishing cognitive and/or emotional elements.
O7. The subject is able to integrate the other's different modes of cognitive and/or emotional and/or relational functioning into a coherent narration.

DECENTRATION

D1. The subject recognizes that he is not necessarily the centre of the other' s thoughts, feelings and emotions and /or that the other's actions stem from goals and reasons mostly independent of the relationship he has with the subject.

D2. The subject recognizes that the other might perceive events in a different way from his own and/or interprets them differently.

D3. The subject recognizes that variables, such as time, individual development, experiences in determining the modes of the mental functioning of the other and/or recognizes that personal and relational events influence the other's processes and mental states.

MASTERY

Basic Requirements

M1. The subject discusses his own behavior and psychological processes and states not as simple matter-of-fact dates but as tasks to be done and problems to be solved.

M2. The subject is able to define the terms of the problem in a plausible way.

First level Strategies

M3. The subject tries to act directly on the problematic state by modifying the general state of the organism.

M4. The subject avoids the cropping up of problematic states and/or uses the relational context as a support.

Second level strategies

M5. The subject faces the problem voluntarily imposing or inhibiting a behaviour on himself.

M6. The subject faces the problem voluntarily adjusting his mental order.

Third level strategies

M7. The subject faces the problem acting upon the evaluations and beliefs which are at the basis of the problem itself and/or using his general knowledge of his own mental functioning.

M8. The subject faces the interpersonal dimension of the problem using his own general knowledge of other people's mental functioning.

M9. The subject faces the problem accepting his own limits in the management of his own self and influencing events.

Annexe B

Questionnaires Article 2

Formulaire d'information et de consentement

Titre du projet: **Schizophrénie et toxicomanie:**
La double importance du style cognitif et du réseau social

Vous êtes invité à participer à un projet de recherche conduit par les Drs Tania Lecomte (Université de Montréal) et Stéphane Potvin (Université de Montréal), en collaboration avec les Drs Stéphane With (Université de Genève), Amal Abdel-Baki (psychiatre au CHUM) et Luc Nicole (psychiatre, Institut universitaire en santé mentale de Montréal) ainsi que la clinique PEPP de l'Institut universitaire en santé mentale de Montréal.

Objectifs de la recherche

L'objectif de cette recherche est de démontrer que la toxicomanie est associée à une relative préservation de la vitesse psychomotrice et de la cognition sociale, et à davantage de problème de contrôle des impulsions. Sur le plan qualitatif, nous avons comme objectif secondaire d'explorer les liens entre les changements au niveau du réseau social de l'individu dans le temps, la toxicomanie et la méta-cognition.

Participation à la recherche

Si vous acceptez de participer à ce projet, vous entrerez en contact avec un professionnel de la recherche à trois reprises en vue de compléter des questionnaires, entrevues et tests. Il vous sera demandé de remplir différents questionnaires à propos d'informations sociodémographiques et de votre santé mentale, de répondre à des questions sous forme d'entrevue (deux seront enregistrées sur magnétophone) et de réaliser certaines tâches à l'ordinateur. Chacune de ces rencontres aura une durée approximative de 2h15 et se dérouleront à la clinique PEPP de l'Institut universitaire en santé mentale de Montréal ou à l'Université de Montréal. Si vous considérez que la durée des rencontres est trop longue, vous pourrez à chaque fois prendre des pauses au moment où vous le désirez ou encore continuer la rencontre lors d'une autre journée.

Critères d'inclusion et d'exclusion

-Homme ou femme;
-Être âgé entre 18 et 35 ans;
-Présenter un trouble psychotique dans le spectre de la schizophrénie, avec et sans consommation de drogue et/ou alcool, au cours des 12 derniers mois;
-À titre de consommation, nous recherchons de manière plus précise la consommation de cannabis, accompagnée ou non de consommations autres;

Formulaire de consentement approuvé par le CÉR de l'Institut universitaire en santé mentale de Montréal, le 30 juillet 2013. Version du 11 juin 2013 – Projet no 2013-016

-Être suivi en clinique externe à la clinique PEPP de l'Institut universitaire en santé mentale de Montréal.

-Les personnes répondant aux critères de trouble psychotique induit par les substances et les personnes souffrant d'un trouble neurologique seront exclus de l'étude.

Confidentialité

À moins que la loi ne l'exige, toutes les informations que vous fournirez dans les entrevues resteront confidentielles et ne seront utilisées que dans le cadre de cette recherche. Le chercheur ne divulguera à qui que ce soit aucune information vous concernant et aucune information révélant votre identité ne sera divulguée ou publiée sans votre consentement. Lorsque les résultats de cette recherche seront prêts à être publiés, votre identité restera confidentielle et seules les données de l'ensemble des participants seront présentées.

Afin d'assurer la confidentialité, un numéro sera utilisé à la place de votre nom pour la saisie des données des questionnaires et des tests. La liste maîtresse des noms sera conservée dans un endroit sécuritaire, soit au laboratoire LESPOIR, à l'Université de Montréal. Elle sera utilisée seulement par les membres de l'équipe de recherche (les chercheurs Tania Lecomte et Stéphane Potvin, deux étudiantes et la coordonatrice du laboratoire) dans le seul but de relier les informations des divers questionnaires de temps de mesure différents à chaque participant à la recherche. Seuls les chercheurs sauront quel nom est associé à quel numéro. Tous les documents en notre possession ainsi que les documents sur lesquels figure votre nom seront détruits sept ans après la fin de la recherche.

Avantages et inconvénients

Même si cette recherche ne pourra vous offrir d'avantage direct, il sera possible d'aider d'autres personnes qui seront dans la même situation que vous dans le futur. En fait, en montrant que la toxicomanie est associée à davantage d'impulsivité dans la schizophrénie, le projet pourrait paver la voie à des interventions visant à améliorer le contrôle des impulsions chez les patients ayant un double diagnostic. La mise en lumière d'une préservation relative de la cognition sociale chez les patients avec un double diagnostic pourrait également avoir une incidence sur le traitement, puisque les interventions développées pour ces patients mettent typiquement l'accent sur la réduction des méfaits associés à la consommation. La démonstration d'une relative préservation de la cognition sociale chez les patients avec un double diagnostic pourrait permettre de développer des interventions mettant surtout l'accent sur les forces de ces patients.

Ce projet ne comporte aucun risque connu. De la fatigue et/ou de l'ennui pourraient par contre résulter de la longueur des séances d'évaluation (environ 2h15 chacune). Si vous considérez que la durée des rencontres est trop longue, vous pourrez à chaque fois prendre des pauses au moment où vous le désirez ou encore continuer la rencontre lors d'une autre journée. De plus, il est possible que le fait de raconter votre expérience suscite des réflexions ou des souvenirs émouvants ou désagréables. Si cela se produit, n'hésitez pas à en parler avec l'agent de recherche. S'il y a lieu, l'agent de recherche pourra vous référer à une personne-ressource.

Droit de retrait

Votre participation est entièrement volontaire. Vous êtes libre de vous retirer en tout temps par avis verbal, sans préjudice et sans devoir justifier votre décision. Si vous décidez de vous

Formulaire de consentement approuvé par le CÉR de l'Institut universitaire en santé mentale de Montréal, le13 juin 2013. Version du 11 juin 2013 – Projet no 2013-016

retirer de la recherche, vous pouvez communiquer avec le chercheur principal, au numéro de téléphone indiqué à la page suivante.

Indemnité

Une compensation financière de 60$ vous sera remise pour votre participation à cette étude. Vous recevrez 15$ pour les deux premières rencontres et 30$ pour la troisième. S'il y a lieu, les billets de transport en commun vous seront remboursés.

Conflits d'intérêts

Les objectifs des chercheurs concernant cette recherche ne sont d'aucune nature commerciale et ne présentent pas de conflit d'intérêt.

Personnes ressources

Surveillance des aspects éthiques du projet:

Pour toute question sur vos droits à titre de sujet de recherche ou pour tout problème éthique concernant les conditions dans lesquelles se déroule votre participation à ce projet, vous pouvez contacter le commissaire local aux plaintes et à la qualité des services.

Coordonnées du commissaire local aux plaintes et à la qualité des services :
Commissaire local aux plaintes et à la qualité des services
Institut universitaire en santé mentale de montréal
7401, rue Hochelaga
Montréal (Québec) H1N 3M5
Téléphone : 514-251-4000, poste 2920

Coordonnées du comité d'éthique de la recherche :
Secrétariat du comité d'éthique de la recherche
Institut universitaire en santé mentale de Montréal
7401, rue Hochelaga
Unité 228 - 2e Riel - bureau RI-228-93
Montréal (Québec) H1N 3M5
Téléphone : 514-251-4015, poste 2442

Le comité d'éthique de la recherche du centre de recherche de l'Institut universitaire en santé mentale de Montréal a approuvé ce projet de recherche et en assure le suivi. De plus, il approuvera au préalable toute révision et toute modification apportée au formulaire d'information et de consentement et au protocole de recherche.

Consentement

En signant ci-dessous, vous acceptez de participer à cette recherche. Assurez-vous que toutes vos questions ont reçu une réponse satisfaisante et que vous comprenez bien votre rôle dans cette recherche. Si vous désirez vous retirer de la recherche, avez d'autres questions ou jugez que les informations que vous avez reçues ne sont pas assez claires, vous pouvez contacter Dre Tania Lecomte aux coordonnées ci-dessous:

Id: _____

SECTION 1 : ENTREVUE QUALITATIVE SUR LE RÉSEAU SOCIAL

Instructions :

Pour cette première section, je vais te poser des questions générales sur ton réseau social. L'entrevue sera enregistrée pour m'aider à prendre en note l'information. Je vais aussi te poser quelques questions plus précises par rapport à certains aspects de ton réseau social au cours du primaire, du secondaire et de ton réseau actuel. Nous allons commencer par le primaire...

PRIMAIRE

*(Interviewer : **faire attention à ce que le timeline et l'ami dont on parle soient clairs pour la suite de l'entrevue.** Prendre en notre l'info pertinente dans le cahier réservé à la deuxième section. Pour l'entrevue qualitative, demander d'abord la question générale en essayant de ne pas trop interrompre le participant. Il est ensuite possible d'utiliser les questions spécifiques pour aller chercher de l'information supplémentaire. Il est important d'avoir **l'information sur la composition du réseau social (nombre de personnes, s'ils sont interconnectés)**, la proximité et la réciprocité entre le participant et son réseau, la position du participant dans le réseau... porter attention à l'âge à laquelle les évènements de vie sont survenus). --- **Il est suggéré de faire une ligne de temps sur une feuille séparés avec certains évènements et l'âge où ils se sont produits pour aider la collecte de données.***

Id: _____

QUESTIONS GÉNÉRALES : RÉSEAU SOCIAL AU PRIMAIRE

J'aimerais que tu me parles de ton réseau social (tes amis) au primaire?

(vous pouvez utiliser les questions suivantes pour diriger ou encourager le participant à donner plus de détails sur son réseau social, au besoin).

[Étendue du réseau]

Lorsque tu faisais une fête d'anniversaire, qui invitais-tu (ou aurais-tu invité)?
Faisais-tu partie d'un groupe d'amis? Dans le cartier? À l'école?
Dans tes activités de loisir?

[Densité du réseau]

Avais-tu quelques amis que tu voyais de façon plus individuelle?
Avais-tu les mêmes amis à l'école et à la maison?
Est-ce que tes amis/groupes d'amis étaient amis ensemble?

[Dynamique interpersonnelle/stabilité du réseau]

Quelle était ta place dans ton groupe d'amis (plutôt meneur, le bouffon, la personne raisonnable, la personne qui se faisait souvent taquiner, la personne qui suivait, la personne qu'on allait voir pour résoudre les problèmes, ...)?
Comment t'entendais-tu avec tes amis? Aviez-vous parfois des conflits (à l'intérieur ou entre groupes)?
Y a-t-il eu des changements dans ton réseau d'amis au cours du primaire?

[Proximité/réciprocité]

À quelle fréquence voyais-tu tes amis? Quel genre d'activités faisiez-vous?
Qui initiait les activités?
Avais-tu des amis à qui tu pouvais te confier? Tes amis se confiaient-ils à toi?
Partagiez-vous des secrets?

[Autre]

Est-ce qu'il y avait de membres de ta famille que tu voyais plus comme tes amis? (ex. cousins)
Est-ce qu'il y a eu des circonstances qui t'on empêché de socialiser (déménagement, maladie, habitais loin à la campagne, une différence)?

Id: _____

Ligne de temps – réseau social primaire.

_____

Notes : _____
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_____

Id: _____

QUESTIONS GÉNÉRALES : RÉSEAU SOCIAL AU SECONDAIRE

*Interviewer : cette section est **particulièrement importante pour identifier l'initiation et la continuation de drogues chez le participant ainsi que le début de la maladie.** Il est très important d'identifier le moment de survenu et comment le réseau se situe en rapport avec ces évènements. La question de relation amoureuse est aussi ajoutée dans cette section.*

1. J'aimerais que tu me parles de ton réseau social au Secondaire?
2. Si tu en as eu, j'aimerais que tu me parles de tes relations amoureuses au secondaire.

[Étendue du réseau]

Lorsque tu fêtais ton anniversaire, qui invitais-tu (ou aurais-tu invité)?
Faisais-tu partie d'un groupe d'amis? Dans le cartier? À l'école?
Dans tes activités de loisir? Au travail?

[Densité du réseau]

Avais-tu quelques amis que tu voyais de façon plus individuelle?
Avais-tu les mêmes amis à l'école et à la maison?
Est-ce que tes amis/groupes d'amis étaient amis ensemble?

[Dynamique interpersonnelle/stabilité du réseau]

Comment ton réseau social a-t-il changé lors de la transition au secondaire?
Comment est-ce que ton réseau social a changé au cours du secondaire (secondaire 1, 2, 3, 4, 5)?
Quel était ta place dans ton groupe d'amis (plutôt meneur, le bouffon, la personne raisonnable, la personne qui se faisait souvent taquiner, la personne qui suivait, la personne qu'on allait voir pour résoudre les problèmes, …)?
Comment t'entendais-tu avec tes amis? Aviez-vous parfois des conflits (à l'intérieur ou entre groupes)?

[Proximité/réciprocité]

À quelle fréquence voyais/parlais-tu à tes amis?
Quel genre d'activités faisiez-vous? Qui initiait les activités?
Avais-tu des amis à qui tu pouvais te confier? Tes amis se confiaient-ils à toi?
Partagiez-vous des secrets?

[Autre]

Est-ce qu'il y avait de membres de ta famille que tu voyais plus comme tes amis? (ex. cousins)
Est-ce qu'il y a eu des circonstances qui t'on empêché de socialiser (déménagement, maladie, habitais loin à la campagne, des différences…)?

Id: _____

Ligne de temps – Réseau social secondaire.

Notes : _____
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_____
_____
_____
_____
_____

Id: _____

QUESTIONS GÉNÉRALES : RÉSEAU SOCIAL EN CE MOMENT

Pour ceux qui ont terminé leur secondaire :

1. J'aimerais que tu me parles de ton réseau social depuis que tu as quitté le secondaire jusqu'à maintenant?
2. J'aimerais entendre parler de ta (tes) relation(s) amoureuse(s) depuis depuis que tu as quitté le secondaire jusqu'à maintenant.

[Étendue du réseau]

Est-ce que tu travailles? Es-tu aux études?
Qui compterais-tu comme amis parmis les gens que tu côtoies au travail (ou a cotoyé dans divers empois)? Dans tes études? Tes activités de loisir? Autre groupes d'intérêt (groupe de soutien, etc)?
Si tu organises une soirée entre amis, qui invites-tu (ou qui inviterais-tu)?

[Densité du réseau]

As-tu quelques amis que tu vois de façon plus individuelle?
Est-ce que tes amis/groupes d'amis sont amis entre eux?
As-tu des amis issus de plusieurs milieux (école, travail, autres acitivités, amis rencontré ailleurs)?

[Dynamique interpersonnelle/stabilité du réseau]

Comment est-ce que ton réseau social a changé depuis le secondaire?
Quel est ta place dans ton groupe d'amis (plutôt meneur, le bouffon, la personne raisonnable, la personne qui se faisait souvent taquiner, la personne qui suivait, la personne qu'on allait voir pour résoudre les problèmes, …)?
Comment t'entends-tu avec tes amis? Avez-vous parfois des conflits?

[Proximité/réciprocité]

À quelle fréquence vois/parles-tu à tes amis?
Quel genre d'activités faites-vous? Qui initie les activités?
Avais-tu des amis à qui tu peux te confier? Tes amis se confient-ils à toi?

[Autre]

Est-ce qu'il y a des circonstances qui t'on empêché de socialiser (déménagement, maladie, habitais loin à la campagne, stigma…)?

Id: _____

Ligne de temps – réseau social courant (dernière année du sec complétée jusqu'à maintenant.)

Notes : _____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Id: _____

ÉTAPE 2 : EFFET DE LA CONSOMMATION SUR LE RÉSEAU

(revenir noter sur la ligne de temps du secondaire si pertinent)

Participant qui consomme :

[Circonstance entourant l'initation]

À quel âge (en quelle année) as-tu consommé (alcool, drogue) pour la première fois? Avec qui?

Dans quelles circonstances as-tu commencé à consommer?

[Circonstances entourant la progression de la consomation]

À quel âge (en quelle année) as-tu commencé à consomer (alcool, drogue) plus régulièrement? Avec qui? Dans quelles circonstances?

[Dynamique interpersonnelle/stabilité du réseau]

Qui de tes amis consommait (ou présentement, qui consomme)? Qui ne consommait pas (ou ne consomme pas)?

Ton groupe d'amis a-t-il changé après que tu aies commencé à consommer? Si oui, comment?

Comment ta famille a-t-elle réagit?

Participant qui ne consomme pas :

[Dynamique interpersonnelle/stabilité du réseau]

Avais-tu des amis qui consommaient? Qui de tes amis consommait? Qui ne consommait pas?

Id: _____

ÉTAPE 3 : EFFET DU PREMIER ÉPISODE DE PSYCHOSE SUR LE RÉSEAU

[Étendue du réseau]

1. J'aimerais que tu me parles de ton réseau social dans la période juste avant, pendant, et suivant ton premier épisode de psychose
2. J'aimerais entendre parler de ta (tes) relation(s) amoureuse(s) dans la période juste avant, pendant, et suivant ton premier épisode de psychose

(*Porter une attention particulière au timeline par rapport au secondaire et au début de la consommation*).

[Dynamique interpersonnelle/stabilité du réseau]

Comment est-ce que ton réseau social a changé depuis ton premier épisode de psychose?

Ta place dans ton groupe d'amis était-elle toujours la même (plutôt meneur, le bouffon, la personne raisonnable, la personne qui se faisait souvent taquiner, la personne qui suivait, la personne qu'on allait voir pour résoudre les problèmes, …)?

Comment t'entendais-tu avec tes amis?

[Proximité/réciprocité]

À quelle fréquence voyais/parlais-tu à tes amis (avant/pendant/après)?

Est-ce qu'il y a eu un changement dans le genre d'activités que vous faisiez ensemble (avant/pendant/après)? Qui initiait les activités?

Avais-tu des amis à qui tu pouvais te confier (avant/pendant/après)? Tes amis se confient-ils à toi (avant/pendant/après)?

Id: _____

SECTION 2 : QUESTIONNAIRE BASÉ SUR L'ENTREVUE QUALITATIVE

Instructions :
Suggérer une pause au participant et prendre le temps d'inventorier l'information et d'identifier les questions supplémentaires qu'il sera nécessaire de poser.
Interviewer, cette section est principalement pour prendre en note les noms des personnes mentionnées comme faisant partie du réseau et le contexte du réseau social du participant lors des sections de vie pertinentes. Si certaines questions n'ont pas été adressées spontanément lors de la partie qualitative elles peuvent être posées plus directement dans cette section. Le but de l'entrevue est de mesurer les changements dans le réseau; par exemple si un prénom revient souvent, demander des précisions à savoir s'il s'agit d'une ou de plusieurs personnes.
Prendre une pause pour remplir le questionnaire à l'aide des lignes de temps effectuées pour ensuite aller chercher les précisions manquantes. Poser les questions seulement si elles n'ont pas été adressées au cours de l'entrevue qualitative.

La différence d'âge entre le participant et son ami(e) peut être pris en note simplement en ajoutant le signe « + » ou « - » et le nombre d'années (voir exemple plus bas).
La relation entre le/la participant(e) peut être pris en note grâce aux acronymes suivants :
Meilleur ami(e) : MA
Ami(e) proche : AP
Ami(e) : A
Compagnon de classe : CC
Fait partie du groupe : Gr
Cousin/e : C
Frère/sœur : F/S

Les personnes d'un même groupe d'amis auront le même chiffre pour la variable gr. Ex : Jenny et Maria se connaissent, elles sont toutes deux dans le groupe 1.

	Nom	Genre	Rel.	Âge	Gr.
1.	Jenny	F	MA	+1	1
2.	Maria	F	A	=	1
3.	Robert	M	AP	=	2
4.	Laura	F	F	-2	2

Id: _____

LISTE DÉTAILLÉE : Le réseau social au PRIMAIRE.

Quel âge avais-tu au début du primaire (1ière année)? _____
Quel âge avais-tu à la fin de ton primaire (fin de la 6ième année)? _____

As-tu sauté ou répété une année? Oui / Non
Si oui, quelle année? _____

Au cours de ton primaire, as-tu changé d'école? Oui / Non
Si oui, à quel âge? _____
Est-ce que tu as dû changer d'école en cours d'année scolaire? _____
Si oui, à quel âge? _____
As-tu gardé la même adresse à la maison? Oui / Non

As-tu déménagé au cours de ton primaire? Oui / Non
À quel âge? _____
As tu changé de : 1. Rue (même quartier) 2. Quartier 3. Ville 4. Province (ou l'équivalent) 5. Pays

Génération de la liste du PRIMAIRE.

	Nom	Genre Relation Âge	Groupe
1		M F	
2		M F	
3		M F	
4		M F	
5		M F	
6		M F	
7		M F	
8		M F	
9		M F	
10		M F	
11		M F	
12		M F	

S'il y en a plus, s.v.p. continuer la liste sur une feuille supplémentaire

Id: _____

LISTE DÉTAILLÉE : Le réseau social au SECONDAIRE.

Quel âge avais-tu au début du secondaire ? _____
Quel âge avais-tu à la fin de ton secondaire ? _____
Si tu n'as pas terminé le cheminement habituel du secondaire,
à quel âge as-tu quitté? _____

As-tu sauté ou répété une année? Oui / Non
Si oui, quelle année? _____

Au cours de ton secondaire, as-tu changé d'école? Oui / Non
Si oui, à quel âge/quel année? _____
Est-ce que tu as dû changer d'école en cours d'année scolaire? _____
Si oui, à quel âge/quel année? _____
As-tu gardé la même adresse à la maison? Oui / Non

As-tu déménagé au cours de ton secondaire? Oui / Non
À quel âge? _____
As tu changé de : 1. Rue (même quartier) 2. Quartier 3. Ville 4. Province (ou l'équivalent) 5. Pays

Génération libre de la liste du SECONDAIRE – (pré- consommation pour ceux qui ont un trouble concomitant).

	Nom	Genre	Relation	Âge (et ami en sec X)	Groupe
1		M F		1 2 3 4 5	
2		M F		1 2 3 4 5	
3		M F		1 2 3 4 5	
4		M F		1 2 3 4 5	
5		M F		1 2 3 4 5	
6		M F		1 2 3 4 5	
7		M F		1 2 3 4 5	
8		M F		1 2 3 4 5	
9		M F		1 2 3 4 5	
10		M F		1 2 3 4 5	
11		M F		1 2 3 4 5	
12		M F		1 2 3 4 5	
13		M F		1 2 3 4 5	
14		M F		1 2 3 4 5	
15		M F		1 2 3 4 5	

S'il y en a plus, s.v.p. continuer la liste sur une feuille supplémentaire

Id: _____

LISTE DÉTAILLÉE : Le réseau social suite à la consommation.

Quel âge avais-tu lorsque tu as consommé pour la première fois? _____
Quel âge avais-tu lorsque tu as commencé à consommer de façon régulière?
_____

Étape 2. Génération libre de la liste de la première année de CONSOMMATION.

	Nom	Genre	Relation	Âge (et ami en sec X)	Groupe
1				1 2 3 4 5	
2				1 2 3 4 5	
3				1 2 3 4 5	
4				1 2 3 4 5	
5				1 2 3 4 5	
6				1 2 3 4 5	
7				1 2 3 4 5	
8				1 2 3 4 5	
9				1 2 3 4 5	
10				1 2 3 4 5	
11				1 2 3 4 5	
12				1 2 3 4 5	
13				1 2 3 4 5	
14				1 2 3 4 5	
15				1 2 3 4 5	

S'il y en a plus, s.v.p. continuer la liste sur une feuille supplémentaire

Id: _____

LISTE DÉTAILLÉE : Le réseau social autour du premier épisode (si autre qu'au secondaire).

Questions préliminaires. (Poser les questions seulement si elles n'ont pas été adressées au cours de l'entrevue qualitative)

Quel âge avais-tu lorsque tu as vécu ton premier épisode de psychose?

_____

Avais-tu un emploi au cours de l'année précédant ton premier épisode de psychose? Oui / Non

As-tu quitté l'école (le Cégep ou l'Université) ou gradué au cours de l'année précédant ton premier épisode de psychose? Oui / Non

Étape 2. Génération libre de la liste de la première année de PREMIER ÉPISODE DE PSYCHOSE.

	Nom Genre	Relation	Âge	Groupe
1				
2 3 4				
5				
6				
7				
8 9 10				
11				
12				
13				
14				
15				

S'il y en a plus, s.v.p. continuer la liste sur une feuille supplémentaire

Id: _____

Questionnaires sur l'utilisation de substances (Basé sur le SCID)

Lors de l'entrevue sur le réseau social, il a été question de votre consommation d'alcool ou de drogue au cours du secondaire. Nous allons maintenant prendre quelques minutes pour regarder plus en details les substances consommées dans le passé mais aussi celles consommées dernièrement.

Avez vous déjà utilisé une ou plusieurs des substances suivantes de façon illicite?

1. **Alcool** (bière, vin, spiritueux) ?

Oui Non

Si oui, quel âge aviez vous lors de votre ***première consommation*** ? _____
Si différent,
quel âge aviez vous lors de votre première ***consommation habituelle*** ? _____

2. **Cannabis** (marijuana, hashish, THC, ou autres)

Oui Non

Si oui, quel âge aviez vous lors de votre première consommation ? _____
Si différent,
quel âge aviez vous lors de votre première consommation habituelle ? _____

3. **Amphétamine** (« speed », crystal meth, dexadrine, Ritalin (autre que selon prescrit), « ice » ou autres)

Oui Non

Si oui, quel âge aviez-vous lors de votre première consommation ? _____
Si différent,
quel âge aviez vous lors de votre première consommation habituelle ? _____

4. **Cocaine** (intranasal, IV, freebase, crack, « speedball », non-spécifié, ou autres)

Oui Non

Si oui, quel âge aviez-vous lors de votre première consommation ? _____
Si différent,
quel âge aviez vous lors de votre première consommation habituelle ? _____

5. **Hallucinogènes** (LSD, mescaline, peyote, psylocybin, STP, champignons, PCP (angel dust), special K (ketamine), extasy, MDMA, ou autres)

Oui Non

Si oui, quel âge aviez-vous lors de votre première consommation ? _____
Si différent,
quel âge aviez-vous lors de votre première consommation habituelle ? _____

Id: _____

6. **Inalants** (colle, painture, autres inhalants, nitrous oxide (gaz hilarant))
Oui Non

Si oui, quel âge aviez-vous lors de votre première consommation ? _____
Si différent,
quel âge aviez-vous lors de votre première consommation habituelle ? _____

7. **Sédatifs** (Quaalude, Seconal, Valium, Xanax, Librium, barbitrate, Miltown, Ativan, Dalmane, Halcion, Restoril ou autres)
Oui Non

Si oui, quel âge aviez-vous lors de votre première consommation ? _____
Si différent,
quel âge aviez-vous lors de votre première consommation habituelle ? _____

Id: _____

Instructions pour l'interviewer:
Sur une ligne de temps, indiquez l'âge de la première consummation/consommation habituelle. Si le lapse de temps entre la première consummation et la consummation habituelle est important (par exemple, deux fois entre 14 et 16 ans avant une consommation plus soutenue à 16ans), svp utiliser l'âge de la première consommation habituelle pour commencer le tableau en notant les instances de consommation non-incluses. Remplissez une ligne de temps par catégorie de substance consommée.

Pour faciliter le rappel, utilisez les mesures et les périodes de vies mentionnées par le participant autant que possible, en indiquant l'échelle dans l'interval. Il est important d'être le plus constant possible dans les mesures de consommation et de bien indiquer s'il s'agit de consommation par jour/semaine/mois/années, seul ou entre ami(e)s. Tentez d'éviter les mesures vagues comme « quelques fois par mois » en essayant plutôt d'optenir un estimé, par exemple 2 ou 3 fois par mois. SVP porter attention aux conditions de la consommation - par exemple : un 40oz/semaine seul, vs entre 3colocs - autant que possible. Si c'est possible, informez vous pour avoir la mesure la plus précise possible (ex : un joint = 5 gr).

Par exemple : un participant consomme du cannabis. Il en a consommé 1 joint la première fois vers 14 ans. Ensuite, il n'a pas consommé pendant des années. À 17 il commence à consommer un joint une fois de temps en temps. À peu près une fois par deux mois lorsqu'il assistait à des spectacles. Ensuite, vers l'âge de 18 ans, il se met à consommer tous les weekend. Il fume un joint par jours les fins de semaine avec 2 amis. Vers la fin de ses 18 ans, il consomme 2-3 fois semaine entre la période des fêtes jusqu'à ses 19ans ans 3 mois plus tard. Il ne consomme plus jusqu'à l'été de ses 19 ans, puis il se met à consommer tous les jours car il s'est fait une copine qui consomme beaucoup mais lorsque leur relation prend fin en automne il retourne à sa consommation de 2-3 fois semaine. Il arrête ensuite de consommer du cannabis jusqu'au moment de l'étude.

Cannabis