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CLINICAL SOCIAL WORKERS' PERSPECTIVES ON ILLICIT DRUG USE AND THE DEVELOPMENT OF PSYCHOTIC DISORDERS

Asma Naseer
California State University - San Bernardino

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A Project

Presented to the

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by

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Approved by:

Dr. Armando Barragan, Faculty Supervisor, Social Work

Dr. Janet Chang, Research Coordinator

ABSTRACT

This purpose of this study was to explore social workers' perspectives of drug-induced psychosis. More specifically, it sought to determine how knowledgeable clinical social workers are on the impact illicit drug use on the development of psychotic disorders. The study also aimed to discover clinical social workers' perspectives regarding the influence of illicit drug use on the development of psychotic illnesses. This study used mixed methods approach in attempt to solve the research question. The quantitative portion of the research, an anonymous survey, allowed for the assessment of social workers' knowledge of drug-induced psychosis. The qualitative portion of the research, individual interviews and a focus group, allowed for a comparison of different experiences about drug-induced psychosis. The qualitative findings produced insight that highlighted common themes that can be explored further in future research within the context of clinical social work practice.

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Last, but not least, I extend my deepest gratitude to my parents for always supporting me in my pursuit of knowledge. You are my inspiration, now and always.

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CHAPTER ONE

INTRODUCTION

Problem Statement

Illicit drug use is widely recognized as a societal problem that places a sizable burden on individuals and the larger population. Methamphetamine, in particular, has become a rising concern; recent studies from the United Kingdom suggest that methamphetamine is ranked as one of the most harmful drugs, with its overall harm (i.e., harm to users plus harm to others) ranking fourth out of 20 drugs (Nutt et al, 2010). One of the main issues surrounding the substantial damage caused by methamphetamine use centers around findings that its use could provoke psychotic reactions (methamphetamine-induced psychosis), which requires immediate medical treatment (Nutt et al, 2010).

It is becoming a growing consensus that a link exists between methamphetamine use and psychosis. Observations strongly suggest a relationship between the intake of amphetamines and the development of acute psychosis (Bramness et al., 2012). Early studies have also suggested that amphetamines could trigger acute psychosis in healthy individuals. Furthermore, drug-induced psychosis has been reported in up to 46% of regular users of amphetamines (Bramness et al., 2012). Symptoms of psychosis induced by amphetamines are very similar to those of acute schizophrenia spectrum psychosis and include: lack of concentration, delusions of persecution, increased motor activity, disorganization of thoughts, lack of insight, anxiety, suspicion and

auditory hallucinations (Bramness, 2012). More alarmingly, several Japanese researchers argue that psychosis induced by amphetamines could, in fact, be of much longer duration, up to several years (Bramness, 2012).

Several susceptibility genes have been found that are shared between amphetamine-induced psychosis and schizophrenia. Meaning, these genes increase the risk both for becoming psychotic and increase the likelihood for a poorer clinical course for the disease. Additionally, there appear to be many genetic and physiological similarities between amphetamine-induced psychosis and acute schizophrenic psychosis, which suggests that vulnerability may play a significant role in the occurrence of amphetamine-induced psychosis. Additionally, repeated use of amphetamines could increase vulnerability, thus increasing the chances of developing psychotic symptoms even in the absence of amphetamines (Bramness, 2012). This suggests that amphetamine use may give way to primary psychotic disorders.

Patients diagnosed with drug-induced psychosis following methamphetamine use need to be monitored closely, especially for signs of chronic development. Due to the risk associated with methamphetamine use precipitating psychosis and increasing vulnerability to developing more chronic psychotic symptoms, further use should be strongly discouraged (Bramness, 2012). This may require substance use and psycho-educational interventions. Considering the fact that case management and proper referrals within an inpatient psychiatric setting fall on the shoulders of the social workers, recidivism

and overcrowding related to drug-induced psychosis presents obstacles for social work practice.

Purpose of Study

The purpose of the present study is to have a better understanding on drug-induced psychosis from the lens of clinical social workers. The questions being asked are 1) how knowledgeable are clinical social workers about drug-induced psychosis? 2) What are the perspectives of social workers regarding the influence of illicit drug use on the development of psychotic illnesses?

The research method that will be utilized in this research study will be a mixed methods design that uses a non-random, purposive sample. Data will be collected via an anonymous survey and individual interviews, as well as a focus group. This specific research design was chosen in order to get quality data, coming from both quantitative and qualitative methods. The anonymous survey will allow participants to maintain anonymity when testing knowledge. The interviews and focus group will allow for discussion-based feedback, ensuring that rich, content-heavy data is collected.

Significance for Social Work Practice

Methamphetamine use can provoke psychotic reactions requiring immediate attention, namely methamphetamine-induced psychosis (Ikeda et al., 2013). Cases that present with symptoms of psychosis in clinical settings,

particularly inpatient settings, may be hard to distinguish when assessing whether primary or drug-induced. This causes a strain on the mental health treatment system, especially in social work practice. Clinicians being able to discern between methamphetamine-induced psychosis and primary psychosis is vital.

Distinguishing between the drug-induced psychosis and primary disorders would help guide the clinical course of treatment. Unfortunately, clear diagnostic procedures for symptoms for primary and drug-induced psychosis do not exist. However, Fiorentini et al., (2011) have a more hopeful outlook; they postulate that from a phenomenological point of view, it is possible to identify certain elements that may assist clinicians in differential diagnoses between primary and substance-induced psychoses (Fiorentini et al., 2011).

Nevertheless, the similarities between clinical features that present in methamphetamine-induced psychosis and primary psychosis make it very difficult for clinicians to differentiate between the two. Furthermore, epidemiological evidence that schizophrenia and methamphetamine-induced psychosis share genetic risk factors exacerbates the situation (Ikeda et al., 2013). Tang, Martin, and Cotes (2014) agree; they note that differentiating cocaine-induced psychotic disorders from primary psychotic disorder can be puzzling. They add that carefully assessing presenting psychotic symptoms (including onset, aggravating factors, quality) and performing a thorough substance use history are imperative (Tang, Martin, & Cotes, 2014).

Correspondingly, if clinicians are not able to discern the root of the psychosis, they are unable to treat the psychosis accordingly.

Proper referrals for cessation of drug-use would be appropriate for individuals suffering from drug-induced psychosis. In fact, they would be critical in preventing hospital recidivism and providing comprehensive patient care. Cancino Botello et al. (2016) agree with this idea in a study pertaining to the importance of an adequate characterization of psychotic symptoms in patients with substance use disorder. They concluded that adequate characterization of patients with psychotic symptoms and substance abuse is essential in determining whether the psychotic disorder is associated with primary psychosis or induced-psychosis (Cancino Botello et al., 2016). Hence, it is crucial that a thorough clinical evaluation is conducted in order to make an accurate diagnosis and create an individualized treatment plan.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter consists on an examination of the research relevant to the topic of drug-induced psychosis. The subsections will include the link between substance use and psychosis, methamphetamine use and psychosis, and the theory guiding conceptualization. The theory examined in relation to the topic in the last subsection will be Systems Theory.

The Link Between Substance Use and Psychosis

The use or abuse of illicit drugs such as cocaine, hallucinogens, cannabis, and amphetamines have been known to provoke psychotic reactions that mimic primary psychotic disorders. A review of literature by Fiorentini, Volonteri, Dragogna, Rovera, Maffini, Mauri, & Altamura (2011) sought to gain knowledge about this very issue. Findings indicated that psychosis related to substance abuse is commonplace in clinical practice. Furthermore, the susceptibility to develop psychosis is related to the frequency and severity of substance use (Fiorentini et al., 2011).

Drugs that seem commonplace in society, such as cannabis, also contribute to adverse reactions in relation to psychosis. Murray and Di Forti (2014) found that the earlier use of cannabis, greater frequency of use, and more potent cannabis used resulted in greater risk and earlier age of onset of

psychosis. Tetrahydrocannabinol (THC) is the ingredient in cannabis that can elicit psychotic symptoms through stimulating specific receptors in the brain (Murray & Di Forti, 2014). Fattore (2016) reports similar effects, adding that psychosis-like symptoms including paranoia, disorganized behavior, visual and auditory hallucinations may occur during synthetic cannabinoid intoxication (Fattore, 2016).

Similarly, an overwhelmingly large majority of cocaine abusers experience transient psychosis. Comparable to primary symptoms of psychosis, cocaine-induced psychotic disorders (CIPD) bring on auditory and visual hallucinations, as well as paranoia (Tang, Martin, & Cotes, 2014). These drug-induced psychoses frequently lead this population to seek mental health treatment, often inpatient and involuntarily.

Methamphetamine Use and Psychosis

Certain drugs can contribute to the onset of severe psychiatric disorders like schizophrenia (Murray & Di Forti, 2014). A study that examined evidence for shared genetic risk between methamphetamine-induced psychosis and schizophrenia had similar findings. Results supported previous epidemiological and neurobiological evidence for a relationship between methamphetamine-induced psychosis and schizophrenia (Ikeda et al., 2013). Additionally, there seems to be a connection between the genes studied having higher probability as susceptibility genes for psychosis (Ikeda et al., 2013). This makes the link between psychosis and drug use, in relation to vulnerability, more perplexing.

Findings from Murray and Di Forti (2014), as well as Ikeda et al. (2013), show significant evidence for increased genetic vulnerability between drug-related psychosis and primary psychotic disorders.

Dore and Sweeting (2006) had findings that echoed a link between methamphetamine use and psychosis. A case study of drug-induced psychosis related to crystalline methamphetamine was examined. The subject, who had already been exhibiting Borderline Personality traits, developed a protracted drug-induced psychosis related to chronic high-dose crystalline methamphetamine use. It is worth noting, a complete resolution of symptoms occurred after the use of antipsychotic medication and abstinence from methamphetamine (Dore & Sweeting, 2006).

Repeated or high-dose use of methamphetamine may result in a drug-induced psychosis that mirrors paranoid schizophrenia. Although this type of psychosis usually resolves with discontinuation of drug use, some cases of protracted drug-induced psychosis in those who are vulnerable have been reported (Dore & Sweeting, 2006). Zarrabi et al. (2016) showed similar findings, which indicated that the recovery time from psychotic symptoms is becoming longer in Iran, which matches with many other studies suggesting that recovery from methamphetamine-induced psychosis can take more than a month to resolve.

However, not all literature points to an increase in inpatient hospitalizations and length of stay. Medel-Herrero, Amate, Saz-Parkinson,

Gómez-Beneyto (2016) found that psychiatric hospital beds and length of stays, in Spain, remained stable by 2004, after having been gradually increasing since 1980. It should be noted, however, that an abrupt change in antipsychotic drug prescriptions was observed in 2004, as well, which could have been a contributing factor in the stabilization (Medel-Herrero et al., 2016).

Theories Guiding Conceptualization

The main theory that guides conceptualization of the ideas in this study is Systems Theory. Systems theory emphasizes the relationship among individuals, groups, organizations, or communities and influencing factors in the environment. Systems Theory also focuses on the interrelationships of elements in nature such as biology and social relationships (Michailakis & Schirmer, 2014). This is relevant to the present study because the link between illicit drug use and psychosis is a multi-faced issue that is prompted by all of the elements described in Systems Theory. The two elements that are most relevant are biology–because there is a link to genetic vulnerability, and social relationships–because substance use is often influenced by interpersonal relationships.

Some other factors within a person's systems that may be relevant to the present study include gender and age. Arranz et al. (2015) provides some evidence of gender differences in the pattern of substance use, which suggests a need for gender-specific approaches in interventions for patients with first-episode psychosis, as well as specific substance use programs for men (Arranz et al., 2015).

As for relevant factors in different age groups, Degenhardt et al. (2015), found that 13 percent of youth partaking in substance abuse screened positive for psychosis. In congruence with the theme of the present study, Degenhardt et al. (2015) found that amphetamine, sedative and cannabis dependence were all strongly associated with screening positive for psychosis (Degenhardt et al., 2015). In relation to Systems Theory, participants who screened positive for psychosis were more likely to have unstable housing, have been expelled from school, a family history of substance use/mental health problems, and depressive symptoms (Degenhardt et al., 2015). Per Systems Theory, all factors shown to be significant for the youth population are hallmark factors in this theory.

The case study mentioned earlier, Dore and Sweeting (2006), also shows the significance of systems in relation to vulnerability for psychosis. The subject of the study was emotionally vulnerable as a child, following the loss of her father early in life. Some traits that resulted included emotional instability, impulsivity with severe drug dependence and intense, unstable interpersonal relationships, particularly with abusive, antisocial male partners (Dore & Sweeting, 2006). This reiterates that multiple systems often contribute to mental health and substance use disorders; this is true also for the problem the current study addresses.

Summary

This study will explore the link between illicit drug use and psychosis. More specifically, it aims to explore whether the use of methamphetamine or other illicit drugs increase vulnerability in developing primary psychotic disorders.

Systems Theory is related to the subject matter of this study because it emphasizes the various systems in an individual's life that impact their experience. In this study, Systems Theory ties into the correlation between the biological and social systems. Lastly, this study seeks to include clinical social workers in the dialogue about drug-induced psychosis, as they can shed valuable insight on the subject based on a therapeutic perspective.

CHAPTER THREE

METHODS

Introduction

This study aimed to study how knowledgeable clinical social workers are on the impact illicit drug use on the development of psychotic disorders. It also aims to explore the perspectives of clinical social workers regarding the influence of illicit drug use on the development of psychotic illnesses. This chapter contains the details of how this study was executed. The sections discussed will include study design, sampling, data collection and instruments, procedures, protection of human subjects, and data analysis.

Study Design

The objective of this study was to explore clinician perspectives toward drug-induced psychosis based on experiences in direct clinical social work practice. Hence, this research project was an exploratory study. This research project sought to better understand possible factors that contributed to the perspectives clinical social workers hold regarding drug-induced psychosis. Given that there was not a wealth of information that exits on the topic of drug-induced psychosis, from the perspective of clinical social workers, this study intended to contribute to the literature and aid in future research may be conducted.

This study utilized a mixed methods approach, in which both qualitative and quantitative measures were used. This method was best suited for the area of interest because it allowed for anonymity as well as free-range responses. The quantitative aspect of the study involved gauging clinician knowledge about drug-induced psychosis via an anonymous survey. Additionally, the qualitative aspect of the study involved individual interviews and a focus group, in which the social workers were given the opportunity to express their opinions on the topic freely.

One limitation of the qualitative aspect of this study was that it was a forward approach and did not allow for anonymity in the responses given, especially in the focus group. Participants may have hesitated to voice their opinions openly and honestly due to response bias. Participants may have wanted to answer in a more socially acceptable manner amongst the interviewer and other participants. Participants may have also felt like the interviewer desired for them to answer in a specific way. Some participants may have had gaps in knowledge but felt pressure to respond in agreement with the other participants during the focus group. These factors could have had an impact in the validity of the data collected. However, the quantitative portion of the study–the anonymous survey, allowed for complete anonymity, thus rendering more truthful responses in attempt to mitigate some of the response bias that may have resulted from the focus group and or/individual interviews.

Another limitation of a qualitative design was that cause and effect relationships could not be made. Because qualitative measures were used,

which are inherently subjective, causal inferences could not be made about any of the information gathered. On the other hand, there were benefits to employing qualitative measures, as well. Utilizing individual interviews and focus groups that consisted of open-ended questions to collect data from subjects allowed for exploration of the depth and complexity of the area of interest.

This study sought to answer two main questions regarding drug-induced psychosis: 1) How knowledgeable are clinical social workers on the impact illicit drug use has on the development of psychotic disorders? 2) What are the perspectives of clinical social workers regarding the influence of illicit drug use on the development of psychotic illnesses? Both questions are in attempt to expand the literature in discussion of drug-induced psychosis to include clinical social workers.

Sampling

The purpose of this study was to explore clinical social workers' perspectives on drug-induced psychosis based on experiences in direct clinical social work practice. Therefore, this study utilized a non-random, purposive sample of clinical social workers. These clinical social workers were from Patton State Hospital. These clinical social workers are psychotherapists for the patients at are admitted to the institution for short-term or long-term care at the treatment facility. The purpose of collecting data at Patton State Hospital was that this site has access to a large population that have a history of drug-induced psychosis. Clinical social workers were chosen as the sample for this study

because they are the primary psychotherapists at Patton State Hospital and would have a wealth of relevant and useful insight about the population of interest.

Data Collection and Instruments

Approval was sought and granted by Patton State Hospital in November of 2016. Permission was granted to collect data quantitative data during one of the monthly social workers meeting in the coming months. Permission was also granted for the collection of qualitative data in subsequent focus group. The anonymous survey was administered during February's monthly meeting, held on February 8th. Approximately 50 clinical social workers were said to be in attendance.

The researcher provided a brief explanation about the purpose of the survey. Informed consent (Appendix A) was collected prior to administering the survey. The anonymous survey (Appendix E) was distributed to all clinical social workers in the meeting who wished to participate in the study. The survey also contained an attached demographics questionnaire. A sign-in sheet (Appendix D) was passed around, requesting clinicians to participate in a focus group that would take place on another date.

Qualitative data was collected via individual interviews and a focus group. The participants for the individual interviews and focus group were recruited via a sign-in sheet (Appendix D) passed around at monthly social workers' meeting on February 8th, 2017. The individual interviews were held via telephone calls due to

the impacted schedules of the clinicians. Individual interviews all took place in late March 2017. The live focus group was conducted on March 23rd, 2017, at Patton State Hospital; two clinicians participated in the focus group. Informed consent (Appendix B) and demographic information was collected prior to the start of each individual interview and the focus group. Demographic information was collected via a demographics questionnaire (Appendix C). This questionnaire consisted of age, gender identification, ethnicity identification, and number of years in clinical practice.

Both individual interviews and the focus group were comprised of the questions outlined in the Focus Group Interview Guide (Appendix E). The Focus Group Interview Guide was a tool developed specifically for this study. Its purpose was to obtain information pertaining to the subjective experiences and unique insights of the clinical social workers. At the beginning of each individual interview and the focus group, clinicians were asked to give a brief explanation of their role at Patton State Hospital and to share previous clinical experience, if applicable. In the individual interviews and focus group, participants were asked to share their beliefs and perspectives pertaining to drug-induced psychosis. Towards the end, participants were asked to share any insightful information about their experiences with the population of interest, which was not addressed by the Interview Guide. Lastly, the stress diathesis model was opened up to discussion and the clinicians were asked their opinion about whether illicit drug

use increases vulnerability in developing primary psychotic disorders. Responses and any themes that emerged were documented, accordingly.

The researcher utilized additional probing and clarifying questions, depending on the responses that were given by participants. The researcher took steps during the focus group to ensure that both members were given the opportunity to share their ideas and opinions.

The anonymous survey was aimed at assessing the clinical social workers knowledge of drug-induced psychosis. The main themes of the survey included the link between drug use and psychosis, symptoms of psychosis, drugs associated with psychosis, and shared symptoms between drug-induced psychosis and primary psychotic disorders. For the purpose of the quantitative data collection technique, the independent variables were age and gender. The dependent variable was knowledge of psychosis development. The researcher developed the Anonymous Survey, Focus Group Interview Guide, Demographics Questionnaire, and Focus Group Sign-up Sheet, as well as all corresponding procedures.

Procedures

The data collection took place at Patton State Hospital during the monthly social workers meeting. Patton State Hospital granted permission to give a brief presentation of the research project and its purpose at the beginning of the meeting. During this designated time, the researcher addressed confidentiality and presented basic information about the research project. Prior to

administering the survey, the researcher informed the participants that a corresponding focus group would be held at a later date. Incentives for participating in the focus group was mentioned, a Starbucks gift card. Then, a sign-up sheet was passed around in order to recruit for the focus group. The informed consent was passed out and subsequently collected. Next, the anonymous survey was administered. A demographics questionnaire was attached to the survey, as well. Lastly, the researcher briefly mentioned the purpose of the study.

Protection of Human Subjects

The identity of the focus group members was kept confidential and the sign-in sheet was only accessible to the researcher. The focus group was held in setting in which responses were not audible to anyone outside of the focus group. However, the participants were informed that their confidentiality and anonymity was limited due to the nature of focus groups. Participants were assigned numbers in order to maintain anonymity when data was transcribed, at a later time. Participants each read and signed an informed consent for participating in the focus group and being audio recorded (Appendix B) prior to participating in the focus group. The audio recordings were stored under an application on the researcher's cellphone, which is password protected and only accessible to the researcher. Three months after completion of the study, the audio recordings will be deleted; at that time, the anonymous surveys, informed consents, demographics forms, and sign-up sheet will and shredded, as well.

Data Analysis

The data gathered in the focus groups was analyzed using qualitative techniques. The audio recording of the individual interview and focus group was transcribed into writing. The participants' comments were coded according to their designated number assigned at the start of the focus group. The researcher read transcripts several times to be certain of themes and sub-themes that emerged. Individual statements were color coded and numbered for the thematic review.

The data gathered from the anonymous survey was analyzed using quantitative techniques. The independent variables were age and gender. The level of measurement for age was ratio. The level of measurement for gender was nominal-dichotomous. Its levels were male and female. The dependent variable was knowledge of psychosis development. The level of measurement for the dependent variable was ratio. The levels were based on the score received on the Anonymous Survey. The statistical tests that were used were Correlation Tests and an Independent Samples t-test.

Summary

This study examined how knowledgeable clinical social workers were on the impact illicit drug use on the development of psychotic disorders. The present study also explored clinical social workers' perspectives regarding the influence of illicit drug use on the development of psychotic illnesses. The data gathered

through qualitative and quantitative measures gave way to relevant insight in the area of interest, from a clinical social work lens.

CHAPTER FOUR

RESULTS

Introduction

This chapter presents the findings from the quantitative and qualitative data that was gathered for the research conducted. First, the demographic characteristics of the sample will be outlined. Next, the result of the quantitative data will be presented. The Statistical Package for the Social Sciences (SPSS) version 24 was used for the analysis of the quantitative data. Lastly, themes from the qualitative data will be defined. The quantitative data was analyzed through a content/thematic review of the individual interviews and focus group.

Presentation of Findings

Descriptive Statistics

Table 1 presents the demographic characteristics of the study's participants. The mean age of the survey participants was 43 years (SD=10.36). There were a greater number of females (n=23, 63.9%) than males (n=13, 36.1%) in the sample. Seventeen (47.2%) of the participants identified as Caucasian, eleven (30.6%) identified as Latino, seven (19.4%) identified as Black, and one individual (2.8%) identified as Asian/Pacific Islander. The survey participants reported a mean of 13 years (SD=6.64) of experience.

Table 1. Demographics	N	(%) / mean (SD)
Age (in years)		42.6 (10.4)
Gender		
Male	13	36.10%
Female	23	63.90%
Ethnicity		
Caucasian	17	47.20%
Latino	11	30.60%
Black	7	19.40%
Asian	1	2.80%
Clinical Experience (in years)		13.0 (6.6)
Sum of correct responses (range 4-7)		6.2 (0.9)
7	17	47.20%
6	10	27.80%
5	6	16.70%
4	2	5.60%

Note: Three respondents did not specify age and two respondents did not specify experience.

Inferential Statistics Analysis

Two Correlation Tests and an Independent Samples t-Test were conducted in order to analyze the survey data. A Pearson correlation coefficient indicated no significant relationship between age and knowledge of psychosis development, $r = .15$, $n = 32$, $p = .42$. A Pearson correlation coefficient indicated no significant relationship between years of experience and knowledge of psychosis development, $r = .05$, $n = 33$, $p = .77$. An independent samples t-test was conducted to compare knowledge of psychosis development for males and females. There was no significant difference in knowledge of psychosis development between males ($M = 6.08$, $SD = .76$) and females ($M = 6.27$, $SD = 1.03$); t (33) = .59, $p = .56$, two-tailed).

Qualitative Interview Data

Five individuals were interviewed in order to collect qualitative data. Three of the five participants provided insight during individual interviews and the remaining two did so by taking part in a focus group. The length of the three individual interviews varied from 9 to twenty-five minutes, with the average being eighteen minutes per interview. The focus group lasted twenty minutes. The same six questions were asked in each interview session, aimed at gaining the insight these clinicians have on the topic of drug-induced psychosis and exploring their individual perspectives based on direct practice with this population. The questions asked pertained to drug-induced psychosis in terms of prevalence, demographic patterns, drugs that are most frequently associated, recurrence of psychosis with future drug use, drug usage leading to first psychotic breaks, and primary psychotic disorders that are most commonly associated. The final question asked the clinicians' opinions about whether illicit drug use can lead to the development of primary psychotic disorders. From the responses given by the participants, the themes that emerged included drugs exacerbating existing mental illness, presence of personality disorders, high occurrence of drug usage among patients, lack of historical, collateral, and post-discharge information.

Prevalence of Drug-induced Psychosis. The five respondents varied in their responses when answering how common they believe drug-induced psychosis to be. Participant one believed it to be "very rare" and participant two

answered “extremely common.” Participant three was hesitant to answer but believed that it could be generalized to be “very common” due to the high occurrence of co-occurring disorders. Participant three explained:

> “Yeah, that’s a difficult question. Only because, a crime is committed, they then go through the court process, then they are determined to not be able to go through the court process, so then they come to Patton. So, to say that you know, yes, it is drug-induced psychosis, it’s really difficult because so much time has passed and then you don’t necessarily know so much history. They aren’t always so forth coming…because we are dealing with a population that has a mental illness and a majority of the patients on my unit are homeless or are really low SES, I can generalize and say the majority of them have dabbled in drugs. So, your questions is how common? I would say it’s very common because you are dealing with those factors as well people who do not have a lot of education.”

Participant four stated that the prevalence varied depending on the setting; she saw it more on the admissions unit (1370). She explained:

> “Well, when I was on a 1370 unit, I would probably see it more often, and the only reason that I would think that it was due to drugs is that medication wasn’t even an issue and they ended up stabilizing…So, I am assuming that it had something to do with the drugs, the substances out on the outside. Like, I don’t know, because that would depend on how long they were in jail, were they using while they were in jail…?”

Participant five believe that it was not very common. He explained:

> "It's not as prevalent as you might think. On my unit, there are probably, on my caseload of thirty, there are probably three of four that I can think of off the top of my head, that we thought there was some kind of substance-induced psychosis issue. But, that's not necessarily my opinion representative of what we have. I often wonder if it gets under-diagnosed, when they are being evaluated, and that's part of the problem too, right? When they are being evaluated for their commitment and their hospitalizations. I think they tend to slap schizophrenia labels on patients faster because they don't always have a full history, they don't have the collaterals."

A theme that emerged when discussing the prevalence of drug-induced psychosis was a lack of lack of historical, collateral, and post-discharge information. Many of the clinicians were hesitant to answer this question because they did not feel that they enough background to come to that decision. Participant two agreed with this idea as well. Later in the interview, when talking about the duration of drug-induced psychosis, she added:

> "You know what, I don't know because we see them in the midst of it so it's hard for me to tell you that. Obviously, we see them when they're stopping but we don't know how long it's been going on. We have no idea, and we don't see them after they leave here so we don't see that either."

Patterns in Demographics. The participants were asked if any patterns in terms of age, gender, ethnicity, and socio-economic patterns stood out, in relation to patients who have experienced drug-induced psychosis. Most clinicians stated that these factors varied, with the exception of a few. Participant one noted that ethnically, most patients were Caucasian and "right around the thirties." He added that these patients had a "lower SES" (socio-economic status). Participant two agreed with "low SES" and stated the patients were "mostly twenty to forty" years of age. Participant three also agreed with "low SES" but did not note any other patters. Both participants four and five did not note any patterns in age, gender, ethnicity, or socio-economic status. None of the participants noted patterns in gender, mostly citing that they either worked on strictly male or female units; those who worked on co-ed units or both male and female units did not note any patterns.

Drugs Most Frequently Associated with Drug-induced Psychosis. All five participants stated that the drug most frequently associated with drug-induced psychosis, in their experience, has been some variation of stimulants or amphetamines. Some of the participants added other illicit drugs to the list. The drugs mentioned were the following: participant one, "PCP;" participant two, "meth and marijuana;" participant three, "methamphetamine and marijuana;" participant four, "amphetamines and cocaine;" participant five, "mostly stimulants."

Recurrence of Psychosis with Future Drug Use. Most participants did not have a definitive answer to this question. Participant one stated, “Yeah, I wouldn’t be able to answer that. I mean, I can speculate, but…” Participant two had an opinion on the matter; she stated:

> “Prior to working here, I worked doing intakes and we did 5150s mostly. Over there it was frequent. Offenders would repeat and repeat. They would stop using their meds and start using drugs and came back. So I, personally, think it quite high.”

Participant three had similar views, mentioning that patients that have discharged sometimes come back. She explained:

> “I’m just thinking of the CONREP population over there with the patients that get released and then return. Many of them, who return, or even patients that I have that have been here before, that are not my recurring patients, but have been here before, have said to me ‘yeah well I got out and I relapsed.’ So, generally speaking, I would say that its common.”

Participant four strongly agreed that recurrence of psychosis with future drug usage is likely. She gave an example of a former patient:

> “We just had a patient that came and spoke to the NAMI meeting…or the friends and family support group meeting the other day, a former patient from here and he’s not on any psychotropic medication now… the interesting part is that he ended up getting sober here, and hasn’t touched alcohol or drugs since that day…so whether it was that that was the

trigger for psychosis and then just with time, it just kind of stabilized out…yeah so, I think that yes, if start using drugs or alcohol, yeah you can trigger symptoms. I think that's just, like, a given.

Participant five stated, "oh, yes, yes," when asked if he believed recurrence of psychosis is common with future drug usage. He articulated his reasoning further by adding:

"Yeah, and I think that for me, there's certainly a high prevalence for relapse with addiction. So, that's where I am kind of basing my opinion on it. There is a high prevalence of relapse with regard to addiction and then if there is a high relapse of addiction, then there is a high relapse of the psychosis… but is it likely that they could relapse and re-experience that psychosis? Yeah. Have I actually seen it happen and actually had the same patient return to me? No."

Drug usage leading to first psychotic breaks. Participant one did not believe that drug usage led to first psychotic breaks. He stated:

"I think that the majority of them have pre-existing psychosis and they cope with the drugs… and then the drugs exacerbate their symptoms."

Participant two had different beliefs on the matter, explaining:

"Ok, I'm going to go back to my previous experience in the outpatient setting. I think that we saw that quite a bit. That was a frequent speech our psychiatrist would give to people for the first time. Especially associated with Marijuana."

Participant three did not give a concrete answer. She believed that some psychotic symptoms existed prior to drug usage and first psychotic breaks. She explained:

> "Um, yeah I can say that some of them, but I don't necessarily know a whole bunch of them. Because a lot of times, especially the guys, in their early 30s, tell me that…or through assessment we can kind of come to the conclusion that they started using. Because they started experiencing symptoms in the prodromal stages, like 18, 19, 20s, because they are experiencing some anxiety or they are starting to hear whispers or um…you know, kind of feeling paranoid. Most of the reports are that; it's less often that I've heard it the other way here. But it does happen…but not as common as a person already having some of the features."

Primary Psychotic Disorders Associated with Drug-induced Psychosis.

The clinicians were asked which primary psychotic disorder they had noticed to be most commonly associated with drug-induced psychosis. All of the answers included the mention of schizophrenia, bipolar disorder, or both. Participants one and two named schizophrenia as the main primary psychotic disorder they have observed to be associated with drug-induced psychosis. Participant three stated "schizophrenia and bipolar." Participant four stated, "bipolar…or even schizoaffective, that gets into the mix." Participant five agreed, "bipolar, yeah." He explained further, "so bipolar is typically is what I have seen a lot of them

misdiagnosed as…when its substance-induced psychotic disorder.” Participant one also echoed this idea; he stated,

> “Depending on the drug they are taking, they kind of mimic bipolar… with the PCP, they have the lack of sleep, they have the…feel like they can do anything. Something like meth, where they are just constantly going and going and going, kind of like the high of Bipolar."

A theme that emerged when speaking of linked diagnoses, in relation to drug-induced psychosis, was the mention of personality disorders. Two participants, one and five, both mentioned that a number of the patients who have experienced drug-induced psychosis have a personality disorders. Participant one, who works for Patton State Hospital’s conditional release/reentry program, commented that some patients whose psychosis has been deemed to be related to drug-use, that have stabilized, are released, while others are still kept at the hospital. He explained,

> “They have more of an axis two, like an anti-social personality disorder, which keeps them here… one that I was actually able to release…after about 90 days of being in treatment, all of his symptoms subsided and we were able to release him back into the community. But then, like I said, we have quite a few other ones that have more of the axis two style, like the anti-social personality disorders, and those ones end up staying here even though they are not displaying psychotic symptoms. They just have other

maladaptive behaviors that deem them not safe to return to the community.

Participant five also mentioned personality disorders while speaking of co-morbidities. He stated,

> "Because typically for us, the substance use disorders, and the personality disorders, that's what I see when I am looking at my patients that have a primary substance use psychotic disorder…typically for the patients that I have treated, the secondary issue is a personality disorder. It's not a mental illness."

Illicit Drug Use and the Development of Primary Psychotic Disorders. After the five questions from the Interview Guide were asked, the researcher asked participants to share any additional insight they may have about drug-induced psychosis. At this time, the researcher inquired about the clinical social workers opinions about the correlation between illicit drug use and the development of primary psychotic disorders. During this free-flowing portion of the interview, most of the participants shared their opinions about whether illicit drug usage increases vulnerability in the development of primary psychotic disorders. Participant one:

> "…but generally, what we see here in the hospital is most of them have a history of mental illness and then they take drugs, and then they commit a crime, and then that's why they end up here in the hospital. So its not really more of the drug-induced psychosis, its more of the drugs

exacerbated their symptoms of their mental illness… typically we see that mental illness starts to peak around the age of 21 to 25, that's generally the time that we are in college, generally the time that we have more stress in our life, and its generally the time that we start dabbling with drugs as well… so all of those factors play a role, I think, into each other. So, I don't know if its nature versus nurture. I think that it's kind of all of it together."

Participant three:

"Absolutely. Because I do see that. That some type of event, um, you know, something traumatic has led them to…so here's where it gets difficult, right? So some type of event has been affecting the person, so then they go and maybe drink and dabble in some kind of drugs. Maybe not so heavily, but the two coupled together, then has created that stressor…but, its hard to tell."

Participant four:

"Yeah, I agree…for me, the only reason I think this way is, all the family interviews that I have done, there has always been some kind of other history, like schizophrenia, almost always, somebody has schizophrenia, even if it were some other kind of mental health disorder. And its like maybe *this* person didn't get it, but they have never used drugs. And *this* person started experimenting with drugs and they got the mental health issue."

Participant five:

> "Right, right. So, I-I…cause I think I know what you're asking…so you're asking, does that substance-induced psychotic disorder ever turn into schizophrenia? And…for me, I don't know. And here is why I say that, because I think that if that has *happened*, its already *happened*. And unless we, again, have a really good history and we can clearly delineate, at what point that happened, and why, then we have already diagnosed them with schizophrenia. Because the symptoms haven't remitted, right? When the drugs remitted.

CHAPTER FIVE

DISCUSSION

Introduction

This chapter discusses the findings of the present study, and contextualizes them within the existing literature. Presented will be the conclusions that can be drawn from the results, limitations of the study, implications for direct social work practice, and suggestions for future research.

Discussion

The purpose of this study was to examine how knowledgeable clinical social workers are about drug-induced psychosis. The study also explored clinical social workers' perspectives regarding the influence of illicit drug use on the development of psychotic illnesses. There are several noteworthy findings in regards to the quantitative and qualitative data collected. The quantitative results of the study indicated that clinical social workers are fairly knowledgeable about the topic of drug-induced psychosis. The mean of the sum of correct responses on the anonymous survey, 6.2 out of a possible score of 7, demonstrated that the clinical social workers at Patton State Hospital have adequate knowledge of the basics drug-induced psychoses.

Additionally, the two Correlation Tests performed did not yield significant findings in terms of the independent variables, 1) age and 2) years of clinical experience and the dependent variable, sum of correct responses. The

conclusion that can be drawn from this is that all clinical social workers, regardless of age or years of clinical experience, were equally knowledgeable about drug-induced psychosis. Furthermore, the Independent Samples t-Test determined that there were no differences between genders when comparing the mean scores of the survey; thus, all social workers, regardless of gender, were equally knowledgeable about drug-induced psychosis.

The qualitative data collected by the means of the individual interviews and focus group revealed the clinicians' valuable insight. Furthermore, the findings from the qualitative data illustrated the participants' familiarity with the topic of drug-induced psychosis, resulting from their clinical experience in direct practice. One substantial finding was the clinicians' knowledge of illicit drugs associated with drug-induced psychosis. All participants noted amphetamines as the main illicit drug linked to psychosis. Existing literature strongly suggest a relationship between the intake of amphetamines and the development of acute psychosis (Bramness et al., 2012; Dore & Sweeting, 2006; Ikeda et al., 2013). Most participants also named the other linked illicit drugs supported by the current literature, marijuana and cocaine. Reports suggest that synthetic cannabinoids may exacerbate previously stable psychotic symptoms in vulnerable individuals or trigger new-onset psychosis in individuals with no previous history of psychosis (Fattore, 2016). Similarly, cocaine has a wide range of neuropsychiatric effects, including transient psychosis (Tang, Martin, & Cotes, 2014).

Another notable finding of the study was the clinicians' knowledge of recurrence of psychosis with future drug use. Most of the participants agreed that the likely hood of recurrence of psychosis being high with future drug use. The current literature supports this idea as well. Some of the clinicians also noted other factors that may trigger psychosis, along with illicit drug use. They identified that drug use, in conjunction with stressful live events/stressor, may trigger psychosis, as well. The literature supports this idea. A case study demonstrated that complete resolution of symptoms with antipsychotic medication and abstinence from methamphetamine. Rapid recurrence of symptoms occurred at a time of high stress associated with minimal methamphetamine use and cessation of low-dose quetiapine. Symptoms rapidly resolved with abstinence, quetiapine and reduction of stressors (Dore & Sweeting, 2006).

A few of the participants voiced their inability to come to a conclusion on their opinion of whether illicit drug use increases vulnerability in developing a primary psychotic disorder. A sizeable portion of the current literature supports the idea that there is a link between the two, while the rest is unsure. The clinicians' responses echoed the literature. The participants mostly voiced that there is a link that lies between the use of illicit drugs and increasing vulnerability in developing a primary psychotic disorder, however, they made this assertion with caution. The participants mostly agreed that the issue is complex and multifaceted. While the symptoms of psychosis induced by amphetamines are very similar to those of acute schizophrenia spectrum psychosis, distinguishing

the two types of psychosis on the basis of acute symptoms is difficult. The similarities between the two conditions are, in fact, so pronounced that this has been used as an argument for using amphetamine-induced psychosis as a model for primary psychotic disorders (Bramness et al., 2012).

An unanticipated finding of the present study was the mention of drug-induced psychosis in association with bipolar-like symptoms. Three out of five of the participants in the qualitative portion of the study cited bipolar disorder or related symptoms to be associated with drug-induced psychosis. This was not a theme common highlighted very much in the literature reviewed for this study, when compared to the its mention in the data collected.

Limitations

The study encountered some limitations in in its process. One key limitation was that the sample only included clinical social workers at Patton State Hospital; therefore, the study's findings cannot be generalized to a larger population. Although the sample was diverse in terms of age, gender, ethnicity and experience, it is difficult to generalize its findings. It is important to note that the participants of this study were all clinical social workers, providing direct practice, that have a background in psychiatric social work. For this reason, the findings of this study cannot to generalized to social workers practicing in other specialties.

Furthermore, the sample of this study consisted of clinical social workers working in a forensic setting. The Department of State Hospitals-Patton is a

forensic psychiatric hospital that provides treatment to forensically and civilly committed patients within a secure treatment area. The hospital does not accept voluntary admissions. Thus, the clinical social workers are working in a further distinctive and specialized setting. Consequently, their knowledgebase becomes less generalizable to the greater population of social workers.

Another limitation was that the sample size for the quantitative portion of the study consisted of 36 clinical social workers and five for the qualitative portion. Patton State Hospital currently employs approximately 80 clinical social workers; not all were in attendance at the meeting in which data was collected. Furthermore, only a handful decided to participate in the qualitative portion of the study. Greater participation could have yielded more substantial results.

Recommendations for Social Work Practice, Policy and Research

There is a great need for further research on the topic of drug-induced psychosis. There is an even great need to further research the link between drug-induced psychosis in relation to the development of primary psychotic disorders. There is a considerable amount of literature that postulates there is a link between illicit drug use and the development of primary psychotic disorders. Although, it seems the literature leans in the favor of the idea that a link exists, there is no consensus. Much of the literature is unclear and issue appears to be complex.

The mental health sector is a large component of direct social work practice, especially in clinical social work. Within mental health, substance use

and co-occurring disorders are highly prevalent. There is overwhelming evidence that patients with psychotic disorders have an increased vulnerability to compulsive use of drugs of abuse, including psycho stimulants like amphetamines (Bramness et al., 2012). Social workers are the largest group of clinically trained mental health providers in the United States (Newhill & Korr, 2004; Substance Abuse and Mental Health Services Administration [SAMHSA], 2006). With that said, it is imperative, for clinical social workers to have adequate training and knowledge of mental disorder diagnostic criteria, symptomatology and differential diagnosis. With further research on illicit drug use and its effects on the development of primary psychotic disorders, clinical social workers, along with all mental health providers, will be able to provide higher quality services.

Based on the current study, suggestions for future research include collecting data from a larger sample size, based in multiple psychiatric settings. Another recommendation for future research on this topic includes studying drug-induced psychosis in relation to the possible presentation of bipolar-like features. This recommendation comes from an unanticipated finding based on the responses from the participants of this study.

Conclusion

The purpose of this study was to research clinical social workers' knowledge of drug-induced psychosis, as well as gain their perspectives regarding the influence of illicit drug use on the development of psychotic

illnesses. Although the quantitative data from this study did not yield statistically significant findings, several insights were formulated based on the qualitative data collected. The participants of the study were fairly knowledgeable about the concept of drug-induced psychosis and its clinical presentation. Likewise, they provided keen observations and feedback that aligned well with the existing literature on the topic. The clinical social workers that participated in the present study showed interest in the subject of drug-induced psychosis and agreed that it warrants further research and discussion.

APPENDIX A

INFORMED CONSENT - SURVEY

CALIFORNIA STATE UNIVERSITY
SAN BERNARDINO

California State University, San Bernardino
Social Work Institutional Review Board Subcommittee
APPROVED 2/2/2017 VOID AFTER 2/1/2018
IRB# SW1738 CHAIR

College of Social and Behavioral Sciences
School of Social Work

INFORMED CONSENT
ANONYMOUS SURVEY

The study in which you are asked to participate is designed to explore the social workers' perspectives of drug-induced psychosis. The study is being conducted by Asma Naseer, a graduate student, under the supervision of Dr. Armando Barragán, Assistant Professor in the School of Social Work at California State University, San Bernardino (CSUSB). The study has been approved by the Institutional Review Board Social Work Sub-committee at CSUSB.

PURPOSE: The purpose of the study is to explore social workers' perspectives about drug-induced psychosis.

DESCRIPTION: Participants will be asked a few questions pertaining to their knowledge of drug-induced psychosis.

PARTICIPATION: Your participation in the study is completely voluntary. You can refuse to participate in the study or discontinue your participation at any time without any consequences.

CONFIDENTIALITY OR ANONYMITY: Your responses will remain anonymous and data will only be accessible to the investigators.

DURATION: It will take approximately 5 minutes to complete the survey.

RISKS: There are no foreseeable risks to the participants.

BENEFITS: There will not be any direct benefits to the participants.

CONTACT: If you have any questions about this study, please feel free to contact Dr. Barragán at (909) 537-3501.

RESULTS: Results of the study can be obtained from the Pfau Library ScholarWorks database (http://scholarworks.lib.csusb.edu/) at California State University, San Bernardino after July 2017.

****

This is to certify that I read the above and I am 18 years or older.

Please mark an X mark here _____ Date _____

909.537.5501
5500 UNIVERSITY PARKWAY, SAN BERNARDINO, CA 92407-2393

APPENDIX B

INFORMED CONSENT – FOCUS GROUP

CALIFORNIA STATE UNIVERSITY
SAN BERNARDINO

College of Social and Behavioral Sciences
School of Social Work

INFORMED CONSENT
FOCUS GROUP

The study in which you are asked to participate is designed to explore the social workers' perspectives of drug-induced psychosis. The study is being conducted by Asma Naseer, a graduate student, under the supervision of Dr. Armando Barragán, Assistant Professor in the School of Social Work at California State University, San Bernardino (CSUSB). The study has been approved by the Institutional Review Board Social Work Sub-committee at CSUSB.

PURPOSE: The purpose of the study is to explore social workers' perspectives about drug-induced psychosis.

DESCRIPTION: Participants will be asked a few questions pertaining to their knowledge of drug-induced psychosis.

PARTICIPATION: Your participation in the study is completely voluntary. You can refuse to participate in the study or discontinue your participation at any time without any consequences.

CONFIDENTIALITY OR ANONYMITY: Your responses will remain confidential within the focus group and will only be accessible to the investigators thereafter.

DURATION: The focus group will take place for approximately 30 to 60 minutes.

RISKS: There are no foreseeable risks to the participants.

BENEFITS: There will not be any direct benefits to the participants.

CONTACT: If you have any questions about this study, please feel free to contact Dr. Barragán at (909) 537-3501.

RESULTS: Results of the study can be obtained from the Pfau Library ScholarWorks database (http://scholarworks.lib.csusb.edu/) at California State University, San Bernardino after July 2017.

****

I consent to having our focus group audio recorded.

_____ _____
Please mark an X mark here Date

****

This is to certify that I read the above and I am 18 years or older.

_____ _____
Please mark an X mark here Date

909.537.5501
5500 UNIVERSITY PARKWAY, SAN BERNARDINO, CA 92407-2393

APPENDIX C

DEMOGRAPHICS QUESTIONAIRRE

DEMOGRAPHICS FOR FOCUS GROUP

Age

What is your age? _____

Gender

Please specify your gender.

- Female
- Male

Ethnicity

Please specify the ethnicity you most identify with.

- White / Caucasian
- Hispanic / Latino
- Black / African American
- Native American / American Indian
- Asian / Pacific Islander
- Middle Eastern
- Other, please specify: _____

Clinical practice experience

How many years have you worked as a mental health clinician? _____

APPENDIX D

FOCUS GROUP SIGN IN SHEET

FOCUS GROUP SIGN-IN SHEET

Scheduled date: _____

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

APPENDIX E

SURVEY AND FOCUS GROUP INTERVIEW GUIDE

SURVEY QUESTIONS

DEMOGRAPHICS

1. What is your age? _____

2. Please specify your gender
   - Female
   - Male

3. Please specify the ethnicity you most identify with.
   - White / Caucasian
   - Hispanic / Latino
   - Black / African American
   - Native American / American Indian
   - Asian / Pacific Islander
   - Middle Eastern
   - Other, please specify: _____

Clinical practice experience
How many years have you worked as a mental health clinician? _____

****

Instructions: Please answer the following questions to the best of your knowledge by **circling** your response.

****

1) The following are symptoms of which condition?

   lack of concentration, delusions of persecution, increased motor activity, disorganization of thoughts, lack of insight, anxiety, suspicion and auditory hallucinations

   a) Psychosis induced by amphetamines
   b) Acute schizophrenia spectrum psychosis
   c) Panic Disorder
   d) Generalized anxiety disorder
   e) Both A & B

2) There is a relationship between the intake of amphetamines and the development of acute psychosis
   TRUE FALSE I DON'T KNOW

3) Which of the following illicit drugs has been linked with psychosis:
   a) Cannabis
   b) Cocaine
   c) Methamphetamine
   d) Two of the above
   e) All of the above
   f) None of the above

4) Repeated use of amphetamines could increase the chances of developing psychotic symptoms in the absence of amphetamines
   TRUE FALSE I DON'T KNOW

5) Symptoms of psychosis induced by amphetamines are very similar to those of:
   a) Bipolar disorder
   b) Acute schizophrenia spectrum psychosis disorder
   c) Generalized anxiety disorder
   d) Major depressive disorder

6) Psychosis induced by amphetamines could last up to several years
   TRUE FALSE I DON'T KNOW

7) Which of the following is NOT associated with drug-induced psychosis?
   a) can result from taking too much of a certain drug
   b) can result from an adverse reaction after mixing substances
   c) can result if an individual has underlying mental health issues
   d) all of the above are associated with drug-induced psychosis

8) There is a link between illicit drug use and psychosis.
   TRUE FALSE I DON'T KNOW

FOCUS GROUP INTERVIEW GUIDE

1. Discuss working with individuals who have experienced drug-induced psychosis

   -how common?

   -gender/ethnic/age/socio-economic differences?

2. Which drugs have you noticed to be most frequently associated with drug-induced psychosis?

3. How common is recurrence of psychosis with future drug use?

4. How often have you noticed that drug usage has led to a first psychotic episode?

5. Which primary psychotic disorders have you noticed are most common in association with drug-induced psychosis?

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