University of Chile

Social sciences faculty

Sociology department

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The importance of open communication in Substance Dependent Individuals' rehabilitation: a case study

Author: Tristán Gramsch

Professor: Rodrigo Asún

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Abstract

Introduction: Epidemiological surveys over the last 30 years show an increase in substance use in Chile and the world. Many drug therapies and programs, such as Narcotics Anonymous (NA), help Substance Dependent Individuals (SDIs) to maintain abstinence. SDIs present several physiological and sociological impairments that make them prone to compulsively seek and consume drugs. Furthermore, drug-related stigma produces communication problems that exclude SDIs from non-consuming networks that could help them to maintain abstinence. Contrarily, NA members can openly talk about stigmatized topics in NA meetings and they might process this as social connection. Therefore, open communication would allow SDIs members of NA to form healthy non-consuming networks that makes them prone to maintain abstinence. The question of whether open communication also helps SDIs from other therapies to maintain abstinence remains open. Methodology: The aim of this analysis is to understand the communicational patterns participants had with important networks during a Problematic Consumption Period (PCP) and after maintaining abstinence. 8 participants of the "Nehuén" rehabilitation center diagnosed with mild or heavy dependence were interviewed. Data was analyzed using a qualitative content analysis. Results: All participants had communicational problems with non-consuming networks produced by lack of 'trust' or 'pride' during PCP. Communicative interactions about stigmatized ('deep') issues tended to be stressful discussions that would trigger craving. Some participants could only communicate openly with consuming networks in consuming contexts. While maintaining abstinence all participants changed their consuming networks and could stablish healthier communicative interactions with non-consuming networks. Discussion: This data provides insight into how the communication patterns that SDIs and non-consuming networks maintained during PCP restrained giving social support and worked as stressors that might reinforce consumption. The possibility to openly communicate about 'deep' issues might have sociological, psychological, and physiological consequences that help SDIs to maintain abstinence.

Keywords: Stigma, Substance Dependence, Open Communication, Networks, Abstinence.

Resumen

Introducción: Durante los últimos 30 años, estudios epidemiológicos indican que el consumo de sustancias ha incrementado en Chile y el mundo. Varios programas y terapias de drogas como Narcóticos Anónimos (NA), le facilitan a Drogodependientes (SDIs) a mantenerse abstinentes. Los SDIs presentan impedimentos fisiológicos y sociológicos que los hacen propensos a buscar y consumir drogas compulsivamente. Sumado a esto, la estigmatización relacionada a las drogas le genera problemas comunicativos a los SDIs que los excluye de redes de no consumo que podrían ayudarlos a mantenerse abstinentes. Al contrario, los miembros de NA sí pueden comunicarse abiertamente de temas estigmatizados en las reuniones de NA, lo que podrían procesar como vinculación social. Por lo tanto, la comunicación abierta permitiría que los SDIs miembros de NA formaran redes de no-consumo que los harían más propensos a mantenerse abstinentes. Aún no se ha investigado si la comunicación abierta también ayuda a SDIs que participan en otras terapias. Metodología: El propósito del análisis es comprender los patrones comunicativos de los participantes con sus redes durante un Período de Consumo Problemático (PCP) y luego de mantenerse abstinentes. Se entrevistaron a 8 participantes del centro de rehabilitación "Nehuén" diagnosticados con dependencia media o alta. Se utilizó un análisis de contenido cualitativo para analizar los datos. Resultados: Durante el PCP, todos los participantes presentaron problemas comunicativos con sus redes de no consumo por falta de 'confianza' o por 'orgullo'. Las interacciones comunicativas respecto a temas estigmatizados ('profundos') tendían a ser discusiones estresantes que gatillarían el síndrome de abstinencia. Algunos participantes sólo podían comunicarse abiertamente con redes de consumo en contextos de consumo. Luego de mantener la abstinencia, todos los participantes cambiaron sus redes de consumo y pudieron establecer interacciones comunicativas sanas con redes de no consumo. Discusión: La información generada permite comprender cómo los patrones comunicativos que los SDIs y las redes de no consumo mantuvieron durante el PCP, restringieron la posibilidad de entregar apoyo y funcionaron como estresores que pudieron haber reforzado el consumo. La posibilidad de comunicarse abiertamente respecto de temas 'profundos' podría tener consecuencias sociológicas, psicológicas, y fisiológicas que le facilitan a los SDIs a mantenerse abstinentes.

Palabras clave: Estigma, Drogodependencia, Comunicación Abierta, Redes, Abstinencia.

Introduction

In the last 25 years, the world has experimented a steady increase in consumption, production, and distribution of drugs (United Nations Office on Drugs and Crime [UNODC], 2016) that has led to more scientific research and increased public perception of drug consumption (Kuhar, 2011). It is estimated that in 2014, 1 in every 20 adults between 15 and 64 years old had consumed at least one illegal drug, which represents one fourth of a billion people; and that 29 million people consume problematically (UNODC, 2016). 1 out of 6 of the 29 million people that consume problematically are involved in treatment (UNODC, 2016). The monetary cost that drugs produce in the United States, considering eradication policies and lost productivity, is estimated to approximate 1 trillion dollars (Adicction-Treatment, 2017). Without considering drug related violence, drug consumption produces 200.000 deaths annually around the globe (UNODC, 2016). These deaths are not only produced by illegal drugs: 61% of overdose related deaths in the United States are caused by prescription drugs (UNODC, 2016).

In Chile, the consumption of all drugs has significantly increased from 1994 to 2016 (SENDA, 2015). 4.8 million Chileans drink alcohol monthly and 2 million get drunk at least once a month; marijuana is consumed monthly by 1.1 million Chileans, and cocaine by 130 thousand approximately (SENDA, 2015). It has been noted that young drug consumption has also increased: all drugs, except tobacco, are more frequently consumed by underaged youngsters in secondary school, even though the age of first consumption has also increased (SENDA, 2016). This means that alcohol, marijuana, cocaine, “pasta base”[1], inhalants, and tranquilizers are significantly more consumed in 2016 than in 2001 (SENDA, 2016).

Some drug consumers have maintained recognizable behavioral patterns, beginning with an initial stage of rewarding drug use, that later develops into compulsive drug seeking (Wise & Koob, 2014). These have been named by Regner et al. (2016) as Substance Dependent Individuals (SDI). SDIs are characterized for a dependence syndrome that has physiological and behavioral effects that lead the individual to consumption (Kalant, 2009). The particularity of drug dependence, in contrast with other types of dependence, is that it

[1] Name of the crude extract of coca leaf consumed in Chile.

requires the auto-consumption of psychoactive substances, i.e., substances that alter the way the brain operates (Kuhar, 2011). These substances can be classified in ten groups: caffeine, nicotine, cannabinoids, stimulants, hallucinogens, inhalants, opioids, alcohols, anxiolytics, and others (Kuhar, 2011).

Harmful drug consumption is an important issue that increasingly affects people from all ages in Chile and the world. The reasons that lead an individual to consume drugs for the first time are varied and depend on diverse factors. Among these, first consumption has been related to sensation seeking, to wanting to be part of a group, and to lack of familiar cohesion (Kuhar, 2011). Continued consumption of drugs has been strongly related to four factors: familiar (abandonment, conflictive relations, harmful drug consumption in the family, etc.), social (unemployment, easy access to drugs, little access to recreations, etc.), environmental (living in or using spaces with consumers), and personal (social anxiety, psychological anxiety, illness) (Taheri, Amiri, Hosseini, Mohsenpour, & Davidson, 2016).

In general, many authors refer to this model of behavior as drug addiction, widely defined has a mental illness that leads individuals to compulsively seek and consume drugs despite negative physical, psychological, and social consequences (Fattore & Diana, 2016; Piazza & Le Moal, 1998). Nonetheless, this definition is contentious in scientific literature because the effects of chronic drug use are well studied, but the definition tends to be too broad to be accurate. This study refers to SDIs but also considers studies that use the terms drug addicts, drug addiction, and chronic drug consumers.

How is the drug consumption issue confronted?

Drug rehabilitation programs

Diverse drug rehabilitation programs have acknowledged the patterns that explain substance dependence and have developed ways to confront it accordingly. The United States' National Institute on Drug Abuse has classified drug rehabilitation programs into several groups (National Institute on Drug Abuse, 2018). Most rehabilitation programs start with detoxification and abstinence of the individual. This usually lasts from 3 weeks to 6 months, according on how the abstinence process is managed. After detoxification, programs focus on facing the psychological, social, and behavioral causes of drug abuse.

Long term residential treatment

Long term residential treatments provide continual care in therapeutic communities generally in non-hospital settings. Patients tend to participate from 6 to 12 months in expert-organized programs and their departures are controlled. Residential treatments isolate the patient from stressors and networks that might induce drug consumption. Dual-diagnosed patients that participated in long term residential treatments have been more likely to maintain abstinence after a 6-month follow-up than patients in short term residential treatment (Brunette, Drake, Woods, & Hartnett, 2001).

Short term residential treatment

Short term residential treatments provide intense but brief treatment from 3 to 6 weeks. After detoxification, patients will be monitored and encouraged to participate in other rehabilitation programs, such as Narcotics Anonymous (NA). Short residential treatments are designed to help the patient in craving stages and reduce the risk of relapse. Short term residential treatments with follow-ups are related to lower relapse rates than short term treatments with no follow-ups (Hubbard R. L., Craddock, Flynn, Anderson, & Etheridge, 1997).

Outpatient treatment programs.

Outpatient treatment programs are designed to support patients while they maintain normal life hoods. Low intensity outpatient treatment programs are usually for those who do not suffer greatly from drug dependence. High intensity outpatient treatment programs also offer networks of support that the patient can reach to control craving or drug seeking behaviors. Participants in outpatient methadone programs report less weekly heroin use than those who left the program (Hubbard R. L., Craddock, Flynn, Anderson, & Etheridge, 1997), but higher use than participants in other long treatment programs (Hubbard, Craddock, & Anderson, 2003).

Individualized drug counseling

Individualized drug counseling is a one-on-one intervention with a therapist focused on personal issues of the patient. It addresses impaired functioning in some of the patient's life

aspects as jobs or human relations, and focuses on short term behavioral change. Individualized relapse prevention aftercare has been effective in limiting cocaine use in patients who consumed during 1-3 months, but was less effective than Standard group counseling in rates of complete abstinence (McKay et al., 1997).

Group counseling

Group counseling is the most popular therapy program in the world (Pagano, White, Kelly, Stout, & Tonigan, 2013). Alcoholics Anonymous (AA) related institutions have promoted gatherings between consumers that help group members stay sober. In the gatherings, peer discussion is used to promote drug-free lifestyles and follow a 12-step program.

Drug Therapies

The National Institute on Drug Abuse has also a classification of drug therapies, which are tools used in programs to achieve abstinence by modifying social behaviors that induce drug consumption (National Institute on Drug Abuse, 2018).

Cognitive-Behavioral Therapy

Cognitive-behavioral therapies focus on modifying behaviors related to drug abuse and on providing tools to handle stressful circumstances and environmental cues that may trigger craving. As maladaptive behavioral patterns are learned, individuals can identify and correct behaviors that will lead them to consumption (Carrol & Onken, 2005). In cases of cocaine dependence, behavioral therapies have had more effects when combined with prescription drugs (Carroll et al., 2004).

Contingency Management Interventions/ Motivational incentives

Contingency management principles involve giving patients tangible rewards to reinforce positive behaviors that lead to abstinence. This can range from vouchers to participation in the chance of winning a money prize. Contingency management proved to have a significant effect on retention and abstinence in marijuana-dependent young adults (Carroll et al., 2006). Abstinence incentives of 120 dollars in prizes have also increased stimulant abstinence in treatment clinics (Peirce et al., 2006).

Community reinforcement

Community reinforcement uses a range of social reinforcements to promote a rewarding non-consuming lifestyle. A few individual counseling sessions focus on giving learning tools to the patient to minimize drug use and develop stronger networks. Vouchers are often delivered if the patient is drug-free. It has been found that the use of the Community reinforcement approach plus vouchers in contrast with only the Community reinforcement approach reduces alcohol and cocaine consumption, decreases criminal behavior, and increases paid employment days (Higgins et al., 2003). Nonetheless, there is no clear evidence showing that the Community approach is more effective when it comes to continuous abstinence (Roozen et al., 2004).

12 step programs.

12 step programs consist in actively following a series of tasks that promote reflection over one's behaviors that lead to drug consumption. By becoming involved in a 12 step self-help group, members actively help each other to reach abstinence. AA and NA follow a 12-step spiritual program that promotes 3 main ideas: a) acceptance of the fact that drug addiction is a disease upon which one has no control; b) surrender to a higher power and to the rules of the 12-step support program; c) active involvement in the 12-step meetings and activities.

A growing amount of rigorous studies show that there is consistent evidence that 12-step programs help their members to achieve abstinence (Humphreys, 2004; Pagano, White, Kelly, Stout, & Tonigan, 2013; White, 2009). A positive association between AA participation and abstinence has been reported for diverse populations (Forcehimes & Tonigan, 2008; Stevens, Jason, Ram, & Light, 2014). Involvement in AA meetings has been related to enhanced friendship with non-consuming networks and active coping of "sober" behaviors (Keith, Mankowski, Moos, & Finney, 1999); and reduced anxiety levels of its members (Arnaud, Kanyeredzi, & Lawrence, 2015).

Other therapies

Other therapies consist in therapeutic communities based on conversations with experts (Amram, 2013); therapies based on "mindfulness" (Shonin, Gordon, & Griffiths, 2014), esthetic preferences (Mathis, 2015); mixed therapies that include psychological,

pharmacological and group therapies all together (Pokrajac, Nolimal, & Leskovsek, 2016); and self-help groups that focus more explicitly on both substance abuse and other psychiatric concerns (Kelly & Yeterian, 2008); nonetheless, all therapies have cases of success and cases of desertion.

Narcotics Anonymous

NA is an international organization mostly integrated by drug consumers that has the purpose of helping its members to maintain abstinence (Narcotics Anonymous, 2016). It organizes reunions of anonymous addicts that can become members with no need of registration whatsoever, so they can share drug-related issues based on a conversation guideline. NA emphasizes the anonymity of its members and the intellectual and administrative independence of the institution to ensure open expression in the reunions. Accordingly, NA defines drug addiction as a disease of the soul and not as a medical disease (Narcotics Anonymous World Services [NAWS], 2016). According to a non-published investigation by the author of this text, the possibility of entering or leaving reunions at any given moment helps to generate an adequate atmosphere for recovery in the reunions (Bodenhofer, Cruzat, Gramsch, & Sánchez, 2015). NA indicates that this kind of freedom enables more members to join (NAWS, 2016). NA also indicates that the empathy that drug consumers with the same experiences can have with one another is important to build strong support networks. Furthermore, NA literature indicates that drug consumers follow recognizable behavioral patterns that lead them to consume.

Physiological grounding of drug dependence

Scientific literature has extensively studied the risk and protective factors that lead an individual to regularly consume drugs. In the following sections, explanations of drug dependence consumption from different fields will be exposed.

The brain is an organ mostly formed by nerve cells called neurons that signal each other by neurotransmitters that interact with neurotransmitter receptors. Drugs stimulate the natural mechanisms that neurons use to signal each other. In most cases, drugs module the mechanisms that activate the brain's Mesocorticolimbic Pathway, related to food and sexual stimuli and feelings of pleasure (Franklin, Hauser, Bell, & Engleman, 2013). This

means that drugs activate the same mechanisms that allowed most mammals to survive by 'teaching' them to repeat certain behaviors (Eisenberger, 2013). Drugs like cocaine, marijuana, alcohol, amphetamines, etc. allow the secretion of dopamine or the blockage of conductors that permit its reinsertion in transporters, which lead to its increase in synaptic levels (Mathis, 2015) and in sensations of pleasure.

Many kinds of drugs can be consumed harmfully independently of the neural circuits that each affect; independently that the neurotransmitters and receptors they stimulate have different functional and pharmacological characteristics; and independently that there is a different prevalence drug use (Liu, 2012). E.g., in cases of harmful consumption of nicotine, specific subunits of acetylcholine receptors are involved in the appearance of the abstinence syndrome (Rose et al., 2016; Dani, Jenson, Broussard, & Biasi, 2011); deficiencies in serotonin secretion have been related with harmful MDMA consumption (Zimmermann & Becker, 2016); it has been indicated that marijuana commercialized today has a lower percentage of cannabinoids associated with psychosis inhibition (Oberbarnscheidt & Miller, 2017), which makes it highly addictive and a risk factor of schizophrenia (Miller, Oberbarnscheidt, & Gold, 2017). Despite that the composition and taxonomy of drugs has varied historically, all produce common effects and stimulate similar dopaminergic circuits (Nestler, 2001). Therefore, all drugs can lead to dependence.

Contemporary cerebral scan tools have shown the neurological consequences of consumption. All chronic consumption has been related to dysfunctionality in the brain's reward circuit due to neuroadaptations produced by genetic and/or environmental factors (Blum et al., 2012). Human and animal studies indicate that in normal circumstances the brain has a 'reward cascade' that leads to normal dopamine secretion (Liu, 2012; Blum et al., 2012). Chronic consumption of drugs lead to a hypodopaminergic (decreased) state that produces the necessity of consumption for the maintenance of normal levels of dopamine (Mathis, 2015). In addition, chronic consumption is related to cerebral dysfunction due reduced bonding potential of neurotransmitter transporters (Zimmermann & Becker, 2016; Thanos, Michaelides, Umegaki, & Volkow, 2008), and to reduced cerebral volume and structure that affects its performance and its response to diverse stimuli (Zimmermann & Becker, 2016). Compared with non-consumers, chronic drug consumers have a reduced

amount of neurotransmitter receptors in the Mesocorticolimbic pathway, making it harder for consumers to modulate sensations of pleasure without drugs (Thanos, Michaelides, Umegaki, & Volkow, 2008).

A plethora of evidence shows that the mechanisms that produce chronic consumption of drugs are enabled by changes in genetic expression (Seltenhammer, Resch, Stichenwirth, Seigner, & Reisinger, 2016; Oberbarnscheidt & Miller, 2017). Transcription factor ΔFosB ~33kd is activated as a response to drugs, stress, and other stimuli (Dani, Jenson, Broussard, & Biasi, 2011). In answer to chronic stimuli ΔFosB ~33kd is replaced by highly robust transcription factors that accumulate in the brain and produce neuroplasticity, making individuals more prone to the reinforcing effects of drugs and allowing drugs to maintain homeostasis in the brain and other body systems (Seltenhammer, Resch, Stichenwirth, Seigner, & Reisinger, 2016). The tendency to consume various types of drugs at once has synergic or additive effects that can accelerate neuroadaptation (Franklin, Hauser, Bell, & Engleman, 2013). In general, the whole organism of a chronic consumer has adapted functionally to operate relying on drugs, therefore not consuming produces negative emotional states (Koob & Volkow, 2010).

Animal models of chronic drug use have also contributed relevant information to the field of drug consumption. Independently from the type of validity these pursue, animal models try to explain human chronic consumption by arguing that the coevolution of other species and humans make them have similar biological structures (Ryabinin, 2012), meaning that certain environmental stimuli will have similar effects in humans and in other species. Thanks to this approach, it has been discovered a wide variety of phenomena related to drug consumption: stressful situations and depression leads to more auto-administration of drugs (Thanos, Delis, Rosko, & Volkow, 2013); hormonal differences between individuals can lead to proneness to consumption (Sun Wei, Nazarian, Jenab, Zhou, & Jenaba, 2015); the consumption develops conditioned spatial preference among other typical behaviors (Sun Wei, Nazarian, Jenab, Zhou, & Jenaba, 2015); the interaction of various drugs have harmful pharmacological effects (Althobaiti & Sari, 2016); and that humans and animals respond similarly to socially induced stress (Ryabinin, 2012). Nonetheless, animal models

cannot completely explain drug dependence in humans due a difference in the complexity of the studies (Ryabinin, 2012).

In the present section, it has been noted that drug dependence can be partially explained by the physiological consequences drug consumption has on consumers, for it perturbs the consumers' organism functionally and reconfigures its operations in front of certain stimuli.

Social connection and drug consumption

An important factor to explain drug consumption and drug dependence is social connection. Human social connection cannot be precisely defined because it can vary from culture to culture, but sociological, psychological and biological studies have come to several conclusions regarding social connection and drug consumption.

Social disconnection has stressful effects in animals, permitting reinforcing use of drugs due to dopaminergic hyperactivity (Morgan et al., 2002). Rats that live in social isolation and environments lacking resources have higher dopamine synaptic levels than rats living among peers and in rich environments (Blanc et al., 1980). In addition, stressors produce an enhanced craving in animals that were heavy users in the past as rats living in impoverished environments (Vengeliene, Siegmund, Singer, Sinclair, & Li, 2003; Kamenetzky & Mustaca, 2004). Dominant male crab monkeys have higher dopamine D2 receptors than subordinate monkeys, which makes dominant monkeys less vulnerable to reinforced consumption (Morgan et al., 2002). In general, social hierarchies have a wide range of effects in health, motivation and wellbeing in humans and animals (Swencionis & Fiske, 2014).

In humans, the conditions that lead a regular consumer to chronic consumption have been typified (Weinberg, 2011), and it has been pointed that depend on the social relations the consumer stablishes (Fallon, Williams, Hanks, & Ghodse, 1997). Groups with strong bonds share social rules that delimit the behavior of its members (Del pilar, 2009) and processes of human separation might lead to anomy and eventually suicide (Durkheim, 1988; Gonnet, 2015). This separation process can happen in any kind of human group if the set of rules it stablishes is no longer followed by some members, which can cause the rejection (and stigma) of these old members (Srole, 1956). In the case of SDIs, this can be evidenced in

that drug users punctuate high in Srole anomy scale (Arce, Díaz, & Justo, 2003; Lasky & Ziegenfuss, 1979); and in that individuals prone to auto-administer drugs punctuate high in anomy scales (Dull, 1983); and that individuals separated from their important-people network also punctuate high in anomy (Agarwal, Varma, & Dang, 1980). Therefore, chronic drug consumers are less likely to follow an abstinent living if they stride away from people that do not consume.

Several studies show a positive correlation between human social connection and mortality/morbidity (Yang, Li, & Frenk, 2014). In contrast with isolated individuals, individuals that have robust social networks tend to live longer, have better results in psychological tests, are more resistant to several somatic, cardiovascular and infectious diseases, and are less likely to have cancer (Eisenberger, 2013). Due the importance that social connection has for the survival of several mammals, social disconnection is processed by some of the same neuronal regions that process basics treats to survival and, consequently, social disconnection triggers responses that have negative effects on health (Eisenberger, 2013, 2). In experimental conditions, giving and receiving social support is processed by some of the same neural regions that process security or protection, inhibiting the kind of responses that are harmful to health (Eisenberger, 2013). Emotional support has psychological and physiological effects that generate a state associated with security.

Several conceptualizations of emotional support have remitted to love, necessity, estimation, or affability, which are not necessarily directly related with the experience of protection, but produce physiological consequences related to it (Almeida, Subramanian, Kawachi, & Molnar, 2011). Neuroscientific experiments need to consider the specific cultural representations of emotional support he studied population has. For example, individuals in the United States process security when looking at pictures of their wives (Eisenberger, 2013). Therefore, independently of the cues that trigger emotional support in individuals, it is processed as protection and has positive physiological consequences for the individual.

In the present section, it has been pointed that human social connection with non-consuming networks makes an individual less likely to be dependent of substances, for

social connection has sociological, psychological and physiological effects that determine consumption.

Non-consuming and consuming networks

Social environment and social relationships grew in importance for explaining human health in the second part of the XX century (Peña, 2005); specifically in areas of substance abuse (Panebianco, Gallupe, Carrington, & Colozzi, 2016). From the beginning of the XX century several scholars argued that social interaction was fundamental for normalized development (e.g. Durkheim, 1986), that social relations alter resistance to illness (Cassel, 1974), to stressful events (Roda & Fuertes, 1992), and that different social roles (e.g. being a husband) promote the control of health conditions (Umberson, 1987).

Social networks have gained an ever-increasing importance in explaining SDIs' abstinence and relapse (Kirshenbaum, Olsen, & Bickel, 2009). SDIs that have strong networks of people who do not consume tend to achieve abstinence more easily (Groh, Olson, Jason, Davis, & Ferrari, 2007), and tend to have a diminished sense of public discrimination (Cheung & Cheung, 2003). In general, SDIs that achieve abstinence change their past networks that consumed for non-consuming networks that are denser and more open; and abstinent consumers that have weaker bonds with higher hierarchy individuals tend to have reduced risk of relapse (Panebianco, Gallupe, Carrington, & Colozzi, 2016). Social networks can work as a relapse risk factor for they can provide money or information to buy drugs, places to consume, etc. (Panebianco, Gallupe, Carrington, & Colozzi, 2016). Therefore, networks can be a risk or a protective factor of consumption depending on the "norms" they stablish (Cheung & Cheung, 2003).

Accordingly, several network therapies exist to maintain abstinence. Network therapies emphasizes the involvement of people considered important by the consumer, like family or friends (Copello, Orford, Hodgson, Tober, & Barrett, 2002), and has proved more effective than medication management in heroin-use treatment (Galanter et al. 2004). The 'Social Behavior and Network Therapy' (SBNT) holds the premise that effective abstinence is only reached through the support of social networks and only these can

change harmful behaviors that lead to consumption (Copello, Williamson, Orford, & Day, 2006).

Stigma and Open communication

Drug consumers are among the most stigmatized, which makes them less prone to seek medical or professional aid (Pokrajac, Nolimal, & Leskovsek, 2016); to have a reduced sense of self-efficacy, a greater perception of stress, and a reduced self-stem (Room, 2005; Keyes, et al., 2010). Stigma impedes high familiar cohesion making consumers face a series of typical problems related to it; furthermore, consumers lack proper tools to resolve familiar problems: they have poor conflict resolution, poor emotional self-control, poor communication skills, among others (Singh, Bhattacharjee, Goyal, Munda, & Nizamie, 2012). Stigma has stressor effects on drug consumers and impedes healthy social relations that can help maintain abstinence. It is interesting to notice that, throughout history, interest groups have used their power positions to stigmatize other social groups (Abdullah, 2005) leading some excluded groups to be internally supportive (Casey & McGregor, 2012) as NA proves to be.

The author of this text noted in a non-published research that NA members could openly communicate about highly stigmatized topics in NA meetings, and concluded that it helped them maintain abstinence (Bodenhofer, Cruzat, Gramsch, & Sánchez, 2015). The topics would range from painful experiences with drugs, to fears, traumas, criminal behaviors, among others. Members would not talk about some of these stigmatized topics outside the meetings, especially with their family networks, because these topics were too conflictive and talking about them led to argues or fights. NA members struggled to communicate openly with non-consuming networks about stigmatized topics because they were met with contempt and were less likely to form or strengthen connections with these networks.

Systemic theories of communication inform this debate. Systemic models of communication propose that communication is an emerging system that comes from the interaction of components that define the messages that the system reproduces (Baecker, 2013). This means that communication is the reproduction of redundancies than an observer can distinguish (Bateson in Baecker, 2013). In highly evolved mammals (as

humans) these redundancies generate psychological frameworks of categories that are used in any situation (Bateson, 1976, 4; Bateson, 1976, 2), in other words, highly evolved mammals learn to act according to certain communicative situations. Bateson (1976, 3) argues that communicative incongruences, called double binds, occur when the individual face certain situations in which he cannot communicate accordingly to his psychological framework; double binds are related to stress and the appearance of psychiatric diseases. Double binds reduce the possibilities of a 'congruent' communication and can produce stress in the participants of communication (Watzlawick & Jackson, 1993). Congruent and open communication can be considered the same, and incongruent communication about stigmatized topics could work as a stressor for SDIs.

NA members openly talk about stigmatized topics in the reunions. It seems to help them to have a strong sense of community and to follow a strict set of rules to maintain abstinence. NA members might process open communication in meetings as a form of social connection that has positive health effects.

Problematization

In summary, it has been pointed that drug consumption has gained importance in recent years and that several therapies as NA have tried to help SDIs to maintain abstinence. SDIs present several physiological and sociological impairments that make them more prone to consume drugs. In addition, it has been argued that stigma produces communication impairments that exclude drug consumers from non-consuming networks that could help them to maintain abstinence. In instances as NA meetings, drug consumers can openly talk about stigmatized topics that allow them to build a sense of community and to follow a strict abstinent living. Open communication might be processed as social connection by NA members and could have positive sociological and physiological effects that make NA members resistant to drug consumption. The question of whether open communication also helps SDIs from other therapies to maintain abstinence remains open.

Research question

This research aims to produce information about how SDIs that currently maintain abstinence signify their past communicative experiences during a Problematic

Consumption Period (PCP); and how they signify their current communicate experiences. Specifically, it is intended to produce information about the capacity that SDIs have to communicate openly about stigmatized topics with their networks. Therefore, the state of their network of important people during PCP and the current state of their network of important people must be assessed. The objective is to discern if the communication patterns that SDIs present helps them to maintain abstinence.

The research question is the following: How SDIs that currently maintain abstinence signify their communicative experiences with their networks?

The objectives are the following: First, to discern the communication patterns that SDIs maintained with networks during PCP. Second, to discern the communication patterns that SDIs maintain with their current networks. Third, to discern if the possible changes in the communication patterns currently help SDIs to maintain abstinence.

Hypothesis

Hypothesis 1: SDIs could not openly talk about stigmatized topics during PCP with their networks. SDIs did not trust their network of important people and would not engage them in any discussion about topics that they considered important or emotionally difficult to address. If they tried to talk about some of these topics they would engage in stressful discussions that would trigger craving. The important people in the life of the participants were family and friends, and conflictive family relations reproduced the inability to communicate about important topics. This inability to talk about important topics would make SDIs to feel isolated and to be sociologically and physiologically more prone to consumption.

Hypothesis 2: SDIs can now openly talk about stigmatized topics with their current networks. SDIs learned to trust their network of important people and can now start discussions about topics that they considered important or emotionally difficult to address. When they try to talk about some of these topics they do not engage in stressful discussions that trigger craving and instead engage in discussions that end in feelings of pleasure. The important people in the life of the participants are non-consuming networks of family and friends. Open communication of important topics allows SDIs to mollify conflictive family

relations. This ability to talk about important topics make SDIs to feel socially connected and to be sociologically and physiologically more resistant to consumption.

Methodology

Venue of the study/Participants

This study was carried out in the 'Nehuén' drug rehabilitation center, located in the city of Curacaví in Chile. This is an independent institution funded by the Municipal Health Corporation of Melipilla affiliated with the Chilean public health-care system. The sample consisted of 8 participants of the 'Nehuén' rehabilitation program above 18 years old and diagnosed with heavy or mild dependence to any kind of drug as stablished by the rehabilitation center's diagnosis tool. This means that participants described their usage of drugs as "impossible to stop" and consumed heavily at least once every two days. Of the 8 participants 6 were males and 2 were female. Table 1 outlines participants' demographics.

Instrument

A novel interview guideline was created based on some of the questions regarding communication in the SBNT questionnaire. The interview guideline can be found in the appendix in its original language (Spanish). The interview guideline was applied by semi-structured individual conversations that ranged from 30 to 48 minutes. The interviews were supervised by members of the rehabilitation center that would observe and probe additional questions based on the participant's response. Furthermore, members of the rehabilitation center would provide emotional support to the participants if needed. All interviews were recorded. Informed consents about the anonymous usage of the information produced in the interview were signed by all participants. Informed consents were approved by the concealing professor. Participants were assured that they could ask any type of questions they had and that they could stop the interview any time they wanted if they felt uncomfortable. Participants were not asked to respond to many demographics or socioeconomic variables because such questions could generate distrust or the feeling of being judged, possibly biasing the answer.

Analysis procedure

The interviews were analyzed using a qualitative content analysis as proposed by Graneheim & Lundman (2004) and Bengtsson (2016). The qualitative content analysis approach is not regularly used in the field of addiction or drug consumption research (Neale, Allen, & Coombes, 2005), but it has been used in some research (Brooks, Lòpez, Ranucci, Krumlauf, & Wallen, 2017; Rhodes, Davis, & Judd, 2004; Amos, Wiltshire, Bostock, Haw, & McNeill, 2003; Furst, Herrmann, Galea, & Hunt, 2004). Regarding the field of addiction and drug consumption, the qualitative content analysis aims to produce complex information about the social relations and living experiences that drug consumers have (Neale, Allen, & Coombes, 2005). A qualitative research on drug consumption tries to understand how drug consumers manage their day to day situations regarding drug consumption; and it also tries to describe the meanings that are created and reproduced regarding those everyday experiences (Rhodes, 1995).

Specifically, data was analyzed using a Manifest Content Analysis according to Bengtsson (2016). The results of a Manifest Content Analysis describe what the informants say and say they do; it draws categorizations from the actions and behaviors of the informants. A Manifest Content Analysis infers conclusions according to past research and to what informants have expressed, even if it is not on a descriptive level. Therefore, latent content of the interview will be revised only in the conclusions. This procedure resembles the work of Brooks, Lòpez, Ranucci, Krumlauf, & Wallen (2017).

The analysis was divided in 4 stages that follow one another according to Bengtsson (2016). First, the audios of the interview were listened and 'meaning units' were identified and arranged. 'Meaning units' are the smallest units of the analysis and contain manifest information. Secondly, the audios of the interview were listened again and the 'meaning units' were 'contextualized' in 29 categories that grouped them. Thirdly, the audios of the interview were listened again and the 29 categories were grouped into 15 homogeneous groups. Fourthly, the 15 homogeneous groups were merged with demographic variables into three 'compilations': Experiences and networks before/during the problematic consumption period (PCP); Experiences and networks while maintaining abstinence; and Other experiences. The results show the manifest content of the 'compilations' and the conclusion show the possible latent content of these 'compilations'.

As the purpose of this research is to produce information about the capacity that drug consumers have to communicate openly about stigmatized topics, a fundamental concept is 'deep issues'. 'Deep issues' are defined as conversations topics that are emotionally hard to share for the participants, that are mostly shared with trusted people, and that are related to stigmatized topics as traumas, drug consumption, violent behaviors, violent thoughts, etc.

Non-consuming networks are the networks of people that the participant considers important -as in the SBNT (Copello, Williamson, Orford, & Day, 2006)- in his or her life and that oppose the type of consumption the participant had. Non-consuming networks might or might not consume drugs themselves, but they tended to maintain abstinence. Consuming networks are the networks of people that the participant considers important in his or her life that also consume. These networks were friends or family with which the participant tended to consume. Participants were clarified about the meaning of all this concepts during the interview.

Results

Table 1

Participant's demographics

Participants (P)	Age	Gender	Age of first consumption of their main drug	Main drug consumed during the Problematic Consumption Period	Problematic Consumption Period (PCP)	Last day of consumption before the interview (July 4, 2017)
P1	38	Male	20	Cocaine	25-30 years old	1 week
P2	57	Female	21	Alcohol, cocaine	21-29 years old	1 year and 6 months
P3	41	Male	15	Alcohol	24-30 years old	Missing
P4	61	Male	18	Marijuana, Alcohol, Cocaine	19-23 years old	2 years
P5	41	Female	13	Alcohol	26-30 years old	6 months
P6	43	Male	12	Alcohol, cocaine,	19-26 years old	2 months

				'neoprene'		
P7	36	Male	18	Alcohol	22 years old	18 days
P8	39	Male	18	Cocaine, 'pasta base'[2]	18-30 years old	9 years

Experiences and networks before/during the problematic consumption period (PCP)

Age, age of first consumption, age of most problematic consumption, gender

All participants are adults, with ages ranging between 36 and 61 years and with a mean of n≈45. P1, P3, P5 and P6, started consuming sporadically when they were less than 16. The rest of the participants started consuming between the age of 16 and 21. P3 stated he started regular consumption at age 18.

Participants were asked to stablish a period in which they consumed most problematically. The Period of most problematic consumption (PCP) ranges between ages 19 and 30. P7 did not stablish a PCP and only acknowledge that when he was 22 years old he consumed problematically. Despite being asked again, P7 did not respond. P1, P3 and P5 consumed problematically after they were 24 years old. The rest of the participants all started their PCP's earlier.

Familiar violence

All participants declared experiences of familiar violence even though they were not asked for this category. The types of violence participants lived are insults, hitting and shoveling, rapes, abandonment, and public humiliation. All participants consider these violent experiences as constitutional of their family relations. P1, P2, P4, P5, P6, P7 and P8, lived violent situations with their families that involved physical abuse. P7's sister was raped by his father, P8 was almost raped by a family member. P8 and P3 lived either abandonment or desperate situations related to abandonment.

Illustrative quotes demonstrating familiar violence events that participants mentioned in their interviews in both the original language (Spanish) and English.

[2] Refer to footnote 1

"Una vez me acuerdo que fui al sur con mi abuela, el otro día le comentaba a una amiga, y un tío huaso de allá casi me viola loco, casi me viola loco, un huaso bruto bueno pal copete. Y yo tenía como quince años ¿cachai o no? Un montón de situaciones, un montón de situaciones en soledad" (P8).

"I remember one time I went to the south with my grandmother, I commentated this event with a friend, a huaso[3] almost raped me man, he almost raped me man, a brute huaso good for drinking. And I had like fifteen years, do you get me? A lot of situations, a lot of situations of solitude" (P8).

"Vivo en un entorno de siempre que han tomado, mi papá verdadero, mi padrastro y mi mamá. Y siempre me crie así po. Los veía tomar, los veía discutir y después empecé a ser así yo. Hace poco igual, tomaba y empezaba a insultar a los chiquillos (refiere a sus hijos) y ya ahí me di cuenta que no quería lo mismo para ellos de lo que pasé yo" (P5).

"I live in an environment of plenty of drinking, my real dad, my step-father and my mom. And I was raised always like that. I saw them drinking, I saw them arguing and then I started to be like them. Not long ago, I would drink and started to insult the boys (refers to her children) and there I realized I did not want for them to live the same I did" (P5).

"Me crie más con ella (refiere a su tía) porque nosotros tuvimos problemas con nuestro papá, porque mi papá violaba a mi hermana, le pegaba a mi mamá, nos pegaba me pegaba a mí, a los dos po, entonces fue muy malo con nosotros. A los trece años estaba botado en la calle, mi abuelo teniendo casi una cuarentena de negocios" (P7).

"I was raised by her (refers to aunt) because we had trouble with our dad, because mi dad raped my sister, he beat my mom, he beat us, he beat me, both of us yo, he was very mean with us. At age thirteen I was dumped in the streets, mi grandfather having almost forty shops" (P7).

Traumatic events

All participants experienced traumatic events. They shared trauma related information despite not being asked. Although the events are different from each other, all participants

[3] Chilean traditional peasant

evaluate them as life-changing experiences and as closely related to consumption. P2 and P4 tried to commit suicide. P1 was raped and P8 was almost raped. P3 and P6 got intoxicated and had to be hospitalized. P5 got incarcerated after a familiar fight. P8 met his mother when he was 15 years old. P7 was shocked by seeing his father in bed with a man. In general, traumatic events led participants either to consumption or to decide to stop consuming. All participants believe that traumatic events were a key factor in their harmful consumption. P7 and P6 declared that their inability to talk about traumatic experiences was replaced with consumption to achieve a state of numbness.

Illustrative quotes demonstrating traumatic events that participants mentioned in their interviews in both the original language and English.

"Una vez vi a mi papá acostado con otro hombre, entonces eso me psicoseo, llevábamos harto tiempo tomando, llevábamos harto tiempo trabajando en Chicureo de ahí nos vinimos a Curacaví, de ahí seguimos tomando en la casa y la cuestión. Un día me desperté medio curado si po y veo y entro ahí y lo veo con otro gallo, entonces como que me choqueó. Entonces ahí caí en el hospital y seguí tomando, tomando, tomando, y de ahí me choqueó, o sea, esa imagen me quedó pegada en la cabeza y no la podía borrar, cerraba los ojos y no quería dormir, después estuve como diez días sin dormir, y de ahí después me llevaron al hospital" (P7).

"I once saw my dad sleeping with another man, so that traumatized me, we were drinking for a long time, we were working in Chicureo[4] for a long time and from there we came to Curacaví[5], from there we kept drinking and so on. One day I woke up a bit drunk and see, I enter (his room) and I saw him with another dude, so it shocked me. So then I ended up in the hospital and then I kept drinking, and drinking, and drinking, and then I was shocked, I mean, that image was stuck in my head and I could not erase it, I shut my eyes and I would not want to sleep, then I was like ten days without sleeping, and then they took me to the hospital" (P7).

[4] Chilean town
[5] Chilean city

"Mi niñez fue triste, mi niñez fue muy triste (llanto) triste, yo todos los… cuando sabía que estaba de cumpleaños, pascua y navidades y año nuevo, yo lloraba hermano. Me acuerdo que vivíamos en el cerro con mi abuela, a los pies del cerro San Cristóbal ahí teníamos la casa, ahí vivíamos, y pal lado de atrás de la casa se veía toda la población como un mirador (...) y había como una terraza y yo me iba siempre pa allá hermano, tengo esa imagen clavada en mi mente, de tristeza, y me preguntaba por qué yo no tenía papás (...) porque todos mis primos tienen todos sus papás y por qué yo no tengo nada" (P8).

"My childhood was sad, my childhood was very sad (the participant starts crying), sad, in every… when I knew it was my birthday, Easter and Christmas and new year, I cried brother. I remember that we lived in the hill with my grandmother, at the bottom of Cerro San Cristobal[6]*, there we had the house, there we lived, and from the back of the house you could see the ghetto like in a looking post (…) and there was some kind of terrace and I would always go there brother, I have that image imbedded in my mind, of sadness, and I would wonder why I did not have parents (…) because all of my cousins have their parents then why I have nothing" (P8).*

Day of last consumption, drug, reasons for consuming

Participants were asked to declare the drug they consumed the most during their PCPs. Alcohol, cocaine, and cocaine derivatives were the most consumed drugs. P4 acknowledge that he also consumed marijuana during military service and that he then quitted when he started consuming other drugs. P1, P2, P4, P6, P8 declared that they would usually start consuming alcohol and then they would take other drugs, leading to poli-consumption.

Participants were asked to declare their last day of consumption before the interview. This question was added during the second interview and it is not present in the questionnaire. Therefore, there is one missing case. P1 and P7 consumed 18 or less days ago. The rest of the participants have been sober for at least 2 months.

Participants were asked for the main reason they consumed. The reasons vary, but are all related to stressful situations and can be classified as contextual or continuous. Contextual reasons are related to specific situations that triggered consumption. For example, P2 and

[6] Iconic hill located in Santiago, Chile.

P3 consumed because they wanted to be more gregarious and outgoing in parties. P4 would consume for his fear of going to war during his military service. P4 would also consume after arguing with his wife. P5 would consume when she was alone in her house. P6 would consume to relax after seeing his father beating his mother. P7 would consume every time he felt he was close to having a panic attack.

Continuous reasons for consumption are related to feelings, thoughts, or usual behaviors, that do not change over time and trigger consumption. P1 consumed looking for self-destruction and the possibility of not waking up at the next day. P1, P3, P5, and P8 consumed for the lack of parental support or the feeling of abandonment. In the case of P1 his inability to communicate with his parents worked as a stressor that led to consumption. P6 and P7 consumed to 'numb the pain' of traumas and other harmful memories.

Illustrative quotes demonstrating reasons for consumption that participants mentioned in their interviews in both the original language and English.

"El problema empezó de chico. Habían peleas en la casa y de a poco fui escondiéndome en el alcohol. Pero yo no me daba cuenta que me escondía, yo me desahogaba en el alcohol" (P6).

"The problem started when I was a kid. There were fights in the house and little by little I hid in the alcohol. But I did not realize I was hiding, I found relief in alcohol" (P6).

"Las discusiones me llevaban a consumir drogas y alcohol" (P4).

"Argues led me to consume drugs and alcohol" (P4).

"Yo sentía que pa pasarlo bien tenía que consumir o… o tener más personalidad porque a mí el consumo me hacía tener más personalidad, más no sé po, sociable" (P2).

"I felt that I had to consume to have a good time or… or to be more outgoing because consuming made me more outgoing, more, I don't know, sociable" (P2).

Communication with networks during the PCP, trusted people during the PCP

To assess the state of their networks, participants were asked to declare with whom they had meaningful interactions during the PCP. P1, P2, P3, P4, P6, and P8, recognized to have a group of friends with whom they consumed. They declared to interact with these friends only in party contexts and while consuming. The type of parties participants mentioned were night gatherings, soccer games, and barbeques. P1, P2, P3, P4, P6, P7, and P8 all assert that these were 'fake' friends because they would mostly interact with them in party settings and felt they could not rely on them when in need for emotional support, money, or help of other kind outside party settings. P5 declared to have no friends during her PCP.

Participants were asked if they were confident enough to share 'deep' issues with their networks during the PCP. All participants understood what 'deep issues' meant and used other expressions to refer to it as 'issues of the soul', 'real issues', 'sensitive issues' and 'personal issues'. P1, P2, P6 and P7, could openly share 'deep' issues with their network of friends if under consumption. P1, P6, P7 would sometimes cry with their friends when sharing 'deep issues'. P3 and P8 would not share 'deep issues' with their friends because they would only talk about 'common' issues as those related with soccer, women, or work. Even while consuming, they did not share 'deep issues'.

All participants had some kind of relationship with their relatives during the PCP. Participants were asked if they could share openly about drug related problems with their relatives. It was problematic or 'forbidden' for all participants to talk about drug related-problems with their parents. P1 and P3 declared to have 'exploded' during their PCPs and revealed to their parents that they could not stop taking drugs, both declared to be criticized and then to be rejected by their parents; the interaction triggered consumption for both males. During their PCPs and after stressful situations, P4 and P8 revealed to family members that they could not stop consuming drugs; P4 to his daughter, and P8 to his mother in law. Both were emotionally supported by their relatives and signified the experiences as a great relief and as an opportunity to start treatment. P3, P4, and P8 were married and had children; P2 and P5 were divorced and had children. In these cases, participants would not share 'deep' issues with their children or their wives. P1 and P6

would not share ‘deep’ issues with relatives. Only P7 would share ‘deep’ issues with his aunt.

Participants were asked to declare whom they trusted during their PCPs. It was explained that to ‘trust’ people meant that they could rely on them if in the need of economical or emotional aid and that they should be able to share ‘deep’ issues with them. When asked, P1, P2, P5, and P6, immediately responded ‘in no one’. P1, P2, P3, P4, and P5 declared that they did not feel confidence to share ‘deep’ issues with family members. P6, P7, and P8 declared to be too ‘proud’ to share ‘deep issues’ as they claimed to be making enough money to sustain consumption. All participants had problems communicating openly about drug related and trauma related subjects during the PCP.

Illustrative quotes demonstrating how participants communicated with networks during the PCP and participant’s trusted people during the PCP in both the original language and English.

“No, nunca fui de amigos, es que hasta el día de hoy no tengo amigos” (P5).

“No, I was never a friends person, even until today I do not have friends” (P5)

“(Refiere a hablar temas ‘profundos’) Con los amigos de repente no más y ya andábamos curaos ya po, ahí uno conversaba como que se desahogaba se ponía medio llorón y cosas así po (…) El copete po, era el copete po y cosas así, como que salía la melancolía, uno ya estaba curao ya po. Lúcido nunca nada, trataba de no contar mis problemas, de mostrar que no tenía problemas, que era un cabro tranquilo y feliz, pero no era así, era yo que me escondía en el alcohol y en la droga” (P6).

“(Refers to talking about ‘deep’ issues) Just with friends once in a while and we were already drunk, then one would talk and would find like relief and one would get a bit weepy and stuff like that. The booze man, it was the booze and stuff like that, like the melancholy would come out, one was already drunk. It was never ever sober, I tried to keep my problems to myself, to show that I had no problems, that I was a quiet and happy dude, but I wasn’t, it was me who hid in the alcohol and in the drugs” (P6).

“Bueno cuando uno está metido en la droga confía en todos, todos son amigos ahí, no hay enemigos. Pero después uno se da cuenta que no son amigos, son enemigos (…) Yo me dedicaba más a pasar con ellos, yo igual trabajaba, salía del trabajo y descuidé de familia, y llegaba a la casa y salía al tiro. Por eso perdí mi familia” (P4).

“Well when you are involved with drugs you trust everyone, everyone is a friend there, there are no enemies. But then you realize that those are not friends, those are enemies (…) I used to hang out with them very often, I also worked, I came out work and overlooked the family, I came to the house and then left immediately. That is why I lost my family” (P4).

“Cuando andaba mal conversaba, me desahogaba, me desahogaba con los amigos, porque igual no le conversaba a mi tía porque igual hay cosas que de repente no podís conversar (…) no sé po, no sabría decirte en este momento, pero hay cosas que uno se las guarda (…) en cambio a los amigos, a los amigos uno les dice todo, no sabis que estoy… no sé po en palabras vulgares ‘sabis que estoy culiando’ y a la tía no po ¿me entiendes?” (P7).

“When I was down I talked, I got it out of my chest, I got it out of my chest with my friends, because I did not talk to my aunt because there are things that you cannot speak (…) I don’t know man, I couldn’t tell you right now, but there are things that you keep to yourself (…) but instead to friends, to friends you can tell everything, you know that… I don’t know man in rude words ‘you know I’m fucking’ and not to the aunt, do you understand me?” (P7).

“Es que cuando… no era tener miedo, era que me daba rabia que me criticaran, que me dijeran cosas siendo que todo lo que yo hacía lo hacía con mí dinero, no andaba macheteando, no andaba haciendo na esas cosas. Siempre anduve bien vestido y todo, pero igual me volaba y todo, siempre con mi plata en el bolsillo. Por eso me daba rabia cuando me decían ‘oye mira como andai’” (P6).

“The thing is that… it wasn’t because I was scared, is that it infuriated me to be criticized, to be said things considering that everything I did was with my own money, I wasn’t begging, I wasn’t doing something like that at all. I was always well dresses and everything, but I got high and everything, always with money on my pocket. That’s why I was infuriated when someone told me ‘hey, look how you are doing’” (P6).

"No pero es que… siempre yo hablaba con mi mamá pero siempre me criticaba po, de todo. Me cuestionaba todo lo que le decía y mejor me guardaba mis cosas, hasta que yo explotaba" (P5).

"No the thing is… I always talked with my mom but she always criticized me everything. She would question everything I would tell her so it was better to save the things I had to say, until I exploded" (P5).

Stigma, inability to communicate

Participants declared to have lived situations related to drug-related stigma. Participants mentioned stigma related to being a drug consumer and stigma related to being on drugs. All participants believe that drug consumers face stigma that hampers them from openly sharing 'deep' issues.

P1 declared that he felt he was seen as a delinquent or as a 'potential demon' because he consumed drugs. P3 declared to be embarrassed of being seen entering the rehabilitation center, and feared being 'bullied' by people that would call him 'drunk', or 'crack-head'. P1 and P6 declared that people would not 'hear them' or would 'look down' on them when drugged. P7 declared to feel shame when he was around people because he thought he was being compared to his 'weird' family. P8 declared that during PCP no one would believe him and he would feel like the 'scum' of his family. P5 explained that she is afraid of being seen in her shop as the woman 'she was in the past' before rehabilitation. Finally, P2 stated that her coworkers gathered to offer support, and even though their intentions were 'good', she declared she felt downgraded and uncomfortable.

Participants were asked for specific topics that were difficult to share or that could not be shared during the PCP. P1 declared that he could not talk to anyone about the details of his rape. P3 and P4 acknowledge that the fear of being criticized stopped them from sharing drug-related and sexual-related conversation topics. P2 and P5 could not talk about abandonment or parental issues with their parents. Despite talking about feelings was not criticized, they would not do it for lack of confidence. P6 could not openly talk about his fears because he felt no one would care about them. P7 could not openly talk about his fears unless he consumed. Finally, P8 would not communicate about 'deep' issues with his ex-

wife because their conversations ended in stressful argues or fights. All participants declared that open communication was hindered by either the lack of confidence or by the fear of being criticized.

Illustrative quotes demonstrating stigma-related situations and the inability to communicate participants declared in both the original language and English.

"Cuando escucho que están hablando cualquier cosa y cosas que alguien tiene que meterse como hombre, porque en la casa son casi puras mujeres, hay puras mujeres y está mi primo no más, y otro primo que tenía… que se volvió no se po se volvió gay, se volvió mujer. Se operó, tiene pechos y toda la cuestión, está en Italia ahora, entonces ahí también hay otro atado. Tengo un tío que mató a otro gallo, violó a un cabro chico. Mi papá por otro lado se acuesta con hombres. Tengo un enredo más o menos en la familia, entonces todas esas cuestiones, siento de repente que la gente me mira y dice 'puta a lo mejor soy (refiriendo a él) igual'. Entonces eso me… como que me, a veces cuando ando tomando me imagino esas cosas, cuando ya se me quita la cuestión no pesco a nadie, como que hago un círculo alrededor mío y digo 'ya energías malas para afuera, yo soy diferente, yo no soy así'" (P7).

"When I hear that they are talking things and things in which a man has to intervene, because in my house almost all are female, there are only females and there is my cousin that's it, and my other cousin that had… that became I don't know, he became gay, he became a woman. He went through surgery, he has breast and everything, he is in Italy now, so there is another hassle there. I have an uncle that killed another folk, he raped a kid. My dad on the other hand sleeps with man. I have a big mess in my family, so with all this things, I feel that sometimes people look at me and say 'shit at best you are the same'. So that… it's like, when I'm drinking I imagine those things, and when I'm sober I listen to no one, I draw a circle around me and I say 'ok bad vibes go outside, I'm different, I am not like that' (P7).

"Todavía estaba con esa sensación, con caña. Yo de repente despertaba así como si estuviera con caña. Los primeros meses era así, cuando yo soñaba con alcohol y todo, ya al otro día me levantaba y me dolían las piernas, el cuerpo y todo como si yo hubiese

tomado. Y ahí no me creía (refiere a su padre), no me creía que me sentía mal, 'qué si no querís trabajar' y ahí me frustraba y ahí por dentro como que el diablo me decía 'ya toma no más si es mejor así' y cosas así po" (P6).

"I still had that sensation, hangover. I used to suddenly wake like I was hungover. The first months were like that, I dreamt with alcohol and everything, and when I woke up the next day my legs hurt, and my body and everything like I had been drinking. And then he didn't believe me (refers to his father), he didn't believe I felt bad, 'this is because you don't want to work' and then I would get frustrated and in my insides the devil would tell me 'go on, drink, it's better like that' and things like that man" (P6).

"(Refiere a la pregunta de si habían temas especialmente conflictivos) Sí, porque siempre le critiqué a mi mamá por qué nos abandonó a mí y a mi hermana, y se vino con este hombre. Porque, yo cuando estaba muy metida en la droga, yo caí presa y nunca me fueron a ver. Así que nunca tuve un apoyo como cercanamente de una madre" (P5).

"(Refers to the questions of especially conflictive topics) Yes, because I always criticized my mother why she abandoned me and my sister, and came with this man. Because when I was deeply involved with drugs, I ended up in jail and they never visited me. So I never had a close support from a mother" (P5).

"Yo decía 'porque a quién le interesa'. Si era mi mundo, yo trabajo, consumo, a quién le voy a salir con una preocupación, a nadie. Yo me preocupaba de mi hijo y nada más" (P6).

"I said 'why would anyone care'. If it is my world, I work, I consume, who am I going to worry, nobody. Y cared about my son and nothing else" (P6).

Behavioral patterns, personal experiences

Participants attributed behavioral patterns to all drug consumers. P1 declared that he and all consumers knew how to manipulate their networks in order to maintain consumption. He exampled that he knew how to ask for money without revealing it was for consumption. P2 believes that all consumers went through traumatic events. P4 and P8 believe that drug consumers always think 'they are right', and their pride would make them act egoistically. P4 exampled that to prove he did not have a problem with alcohol he would go out to drink.

P4, P6 and P8 believed that addiction can only be surpassed by a personal and 'from one-self' effort. For them, forcedly participating in activities and institutions does not lead to rehabilitation. P2, P4, P7, and P8 declared that consuming gets consumers to unsafe or unwanted places. Being sober helped them to discern more accurately what places to avoid. Finally, P8 believed that the addict is compulsive and obsessive for he/she searches only for the most gratifying experience in short.

Illustrative quotes demonstrating behavioral patterns and personal experiences participants acknowledge in both the original language and English.

"Yo creo que todas las personas que consumimos tuvimos… traímos algo de atrás de nuestras vidas. (…) Entonces por eso confiaba mucho en ella (refiere a amiga), le decía 'ya yo te ayudo', pensé que era mi mejor amiga (…) Pero cuando empecé a venir acá (refiere a centro de rehabilitación) dejé de verla a ella, como que me recordaba los traumaba, era un factor de riesgo" (P2).

"I believe that all of us who consumed had… we carry something in our lives (…) That is why I did not trust her a whole lot (refers to a friend), I said to her 'ok, I will help you', I thought she was my best friend (…) But when I started coming (refers to rehabilitation center) I stopped seen her, it was like I remembered my traumas, she was a risk factor" (P2).

"Mira, una imagen. Uno de los amigos entre comillas que uno tiene que conoce en la calle, compañero de trabajo. Me acuerdo que, está weá es tan fuerte loco, que decíamos, estábamos en la casa de él (…) era sábado como a las 4 de la mañana. Teníamos plata, teníamos drogas en los bolsillos (…) habíamos tres locos consumiendo. Mira po, en su minuto yo dije, yo decía… cerré los ojos y decía 'diosito yo quiero estar en mi cama, quiero estar abrazado con mi mujer y mi hijo' A las 4 de la mañana, le pedía a Dios volao y todo, así pero volao volao; así y todo yo le pedía con mi corazón a Dios y abría los ojos Tristán (nombre del entrevistador) y estaba en esa silla, no me podía mover, y abrí los ojos y seguí consumiendo. (…) estaba atrapado por las garras de la adicción hermano, cachai. Pero sin embargo yo no quería estar ahí po, mi corazón quería estar en la casita. (…) ¿Cómo no va a ser fuerte? Entonces cada vez más, me iba comunicando menos. Me

comunicaba de menos maneras y ya después no quería que nadie me hablara. Vivía como un ogro po" (P8).

"Imagine this picture. One of my friends in double quotes that one has meet on the streets, co-worker. I remember, this shit was so strong man, that we said… we were in his house (…) it was Saturday at like 4 in the morning. We had money, we had drugs in our pockets (…) there were three of us consuming. Look man, in a minute I said, I said… I closed my eyes and said 'dear god I want to be in my bed, I want to be hugging my woman and my son' At 4 am I asked God high and all, very high; still in that situation I asked with my heart to God and I open my eyes Tristán (name of the interviewer) and I was in that chair, I could not move, and I opened my eyes and kept consuming (…) I was trapped by the claws of addiction bro, do you get me? But nonetheless I did not want to be there, I wanted to be home (…) How is that not strong? So more and more I communicated less and less. I communicated in fewer ways and then I didn't want anyone to even talk me. I lived like and ogre man" (P8).

Experiences and networks while maintaining abstinence

Networks after treatment, Communication's feeling good

To assess the state of their current networks, participants were asked to declare with whom they had meaningful interactions at the time of the interview. All participants declared to have changed old networks or the relation they had with old networks after going to treatment.

P1, P2, P3, P4, P8 declared that they do not currently gather with their networks of 'fake' friends and avoid them in mutual contexts as parties. P3 also declared that he avoids the contexts that induced consumption as company celebrations or soccer games. P1, P4, P6 and P8, declared that they can share 'deep' issues with their current group of friends. P6 is the only participant who declared to gather with his old network of friends in consumption contexts such as parties; he was emphatic to point that his friends learned to stop offering drugs to him and that he offered them help to stop consuming. P7 was not clear about the state of his network of friends because he declared that he did not gather with them, but also that he gathered with them when he was bored. P7 declared that his friends are happy

that he quitted drinking but that he does not trust them. Finally, P5 declared that she still has no friends.

P3, P4, and P5 declared that they can share 'deep' issues with family members or couples. P3, P4, P5 and P6 also declared to feel closer to their families, to communicate better, or to be more responsible of family matters. P2 declared that she can share topics regarding problematic consumption with her brother, but not other 'deep issues'. P2, P3, P6 and P8 declared that the relationship that they now have with their families help them to stay sober. For example, P2 and P3's families ceased consuming in front of them; P6 and P8 have less stressful interactions with family members that trigger craving. P1 and P7 have a similar relationship with their parents and are still not able to share 'deep' issues with them. P7 declared to tolerate less of his father's homosexual behaviors. P5 filled a restraining order against her parents and only relates to her mother to lend her money. P5 also declared to feel more comfortable when serving clients in her shop.

Participants were asked for what they felt when they shared 'deep' issues. P1, P2, P3, P4, P5 and P7 all used the word 'relief' to refer to that feeling. P2, P4, P7 and P8 declared that when they needed to consume talking about their craving diminished the need to do it. P1, P4 and P7 acknowledge that their new communication skills helped them to openly share traumatic experiences and reduce craving. P1 also declared that he felt relief when his consuming networks confirmed that he could buy drugs. P4 also declared that his new communication skills have helped him to make new friends. P3, P4 and P7 declared that they felt the interview itself was a relief. P5 and P6 declared to no longer need to take drugs to communicate openly and that that has enabled them to strengthen family bonds. Finally, P8 stressed that talking with God helped him to reduce craving.

Illustrative quotes demonstrating the current state of the participant's networks and the feelings they declared to have when sharing 'deep' issues.

"Fui aprendiendo porque el (nombre de pareja) me decía que… es que yo siempre he sido como entracada de lo que me pasó con mi familia (…) y siempre me da miedo como hablarle a las personas porque pensaba que todos me iban como a rechazar como… es que igual me han visto como era antes, y tenía ese miedo de incriminarme 'pucha podís hablar

con ella ahora, y antes era curá' Y ahora no po, ahora yo le he contado a algunas personas y me han dicho que yo soy super valiente porque estoy dando la cara y estoy siguiendo, no me quedé entrancada así con el trago; y todos me halagan, y eso me hace seguir con más fuerza de decir ya no" (P5).

"I started to learn because (name of spouse) told me that… the thing is that I have always been like stuck about what happened to my family (…) and I was always kind of afraid to talking to people because I thought that everyone was going to reject me like… it's just that they have seen me like I was before, and I had that fear of being incriminated 'well you can speak to her now, but she was a drunk before' And now I don't, now I have told some people and they have said that I am super brave because I'm facing the problem and I'm keeping going, I didn't get stuck with booze; and everyone flattered me, and that gives me more strength to say no" (P5).

"No si igual comparto con ellos, trasnocho con ellos pero no tomo, no me vuelo nada. Los escucho, me río, repiten 3 veces las mismas cosas, se ponen porfiados, y así uno era antes (…) no dejo de juntarme con ellos (…) al final yo cambié, si no quieren cambiar ya es cosa de ellos (…) yo estoy con mi fuerza de voluntad firme, porque estoy bien como estoy" (P6).

"No yeah I still share with them, I hang out with them but I don't drink, and don't get high nothing. I hear them, I laugh, they repeat the same things, they start acting stubbornly, and one was like that before (…) I didn't stopped hanging out whit them (…) in the end I changed, if they don't want to change is their problem (…) I'm here with a firm will, because I'm good like this" (P6).

"Me hace más fuerte sacar mis cosas que tengo escondidas hacia afuera. Tratar de no esconderme las cosas, porque siento que me hace mal y ahora que me comunico, que converso con la gente, me siento como más liviano, no ando con mi mochila llena de piedras" (P6).

"It makes me strong to take the things I have hidden outside. To try to not hide things in me, because I feel it's bad for me and now that I communicate, that I talk to people, I feel as I'm lighter, I don't have with my backpack full of stones" (P6).

"Desahogo, desahogar. Porque cuando yo vi a mi papá con la cuestión de este gallo, yo me traumé po, o sea, porque yo no, yo nunca he visto esas cuestiones. O sea, he visto muchas cosas pero ver a mi papá… a mí papá yo lo tenía muy alto (…) cuando lo vi me choqueó y toda esa cuestión me choqueo, ya se me pasó y toda la cuestión. Ahora le tiro la talla, me río" (P7).

"Relief, to relief. Because when I saw my dad in this situation with that dude, I got traumatized man, I mean, because I don't, I had never seen such things. I mean, I have seen lots of things but seeing my dad… I had my dad in a pedestal (…) when I saw him I was shocked and all what happened shocked me, it's on the past now and all that. Now I joke with him, I laugh" (P7).

"La humildad pa poder decirlo todo sin pensar que vai a ser menos que los demás porque contai ¿cachai? Por lo que cuentan. Entonces eso es primero, la humildad. Después la honestidad, pa decirlo, firmemente, lo que te está pasando todo, echa afuera, echa afuera, tira toda la carne a la parrilla, ¿cachai? Y ahí, cuando tirai toda la carne a la parrilla… es como si andai con una mochila llena de piedras, andai pa la cagá po si es pesao, esto te cuesta, caminai despacio que sé yo como incorrecto. Y si vai sacando las piedras, es como ir sacando las piedras, te vai sintiendo más aliviado ya después podís caminar más rápido, trotar y correr po, es lo mismo. Si yo suelto todo, es como sacar toda la mierda que tengo y quedo liberado y ya 'paf' escucho una sugerencia" (P8).

"The humility to be able to talk it all without thinking that you are going to be less than the rest because you are telling, do you get me? Because of what they tell. So that is first, humility. Then there is honesty, to say it, firmly, everything that is going on, take it out, take it out, go the whole hog, do you get me? And there, when you go the whole hog… it's like if you with go around with a backpack full of stones, you go around limping of course it is heavy, it is a heavy toll, you walk slowly I don't now like incorrectly. And if you take out the stones, it's like taking stones out, you start to feel lighter and then you can walk faster, you can jog and run man, it's the same. If I drop it all, is like getting out all the shit I carry and I get free and 'paf' I can now listen a recommendation" (P8).

Other experiences

Participant’s observations, other observations

Participants were asked for what was the most important reason that explains consumption for all drug consumers. P2 and P5 believe that the most important reason that explains consumption is to feel alone or not supported. P1 believes that the most important reason that explains consumption is drug related ignorance that the educational system does not cover. According to him, people are not taught methods or strategies to cope with harmful drug consumption. P4 believes that being a ‘copy-cat’ explains consumption. P6 believes that having family problems lead to consumption. P7 believes that too much happiness or sadness leads people to consume. P6 and P8 did not addressed the most important reason directly.

Participants were asked for any thoughts they had about communication at the end of the interview. P2 believes that she is now self-confident enough to speak ‘freely’ to other people. P3 believes that communication was essential to regain his wife’s trust. P4 believes that his new communication skills allowed him to make new friends. P5 believes that the way she communicates now removes the feeling of solitude. P6 believes that ‘open’ communication is fundamental to understand the reasons one consume, as childhood traumas. P7 believes that communication is important to seize the chance of sharing problems. P8 commented that addiction ‘literally’ means ‘unable to speak’ to stress that honest communication was fundamental for recovery.

In at least one moment during the interview P2, P3, P4, P6 and P8 showed signs of crying. This happened when participants declared what they felt about trauma-related events. On the other hand, P1, P5 and P7 declared to have lived traumatic experiences or physical abuse from family members but did not declare what they felt about these experiences. The author believes that P7 was uncomfortable and hesitant when talking about traumatic events. The author also believes that P1 commented on trauma-related events as he was commenting on a procedure he already knew.

Illustrative quotes demonstrating participant’s observations on consumption reasons and communication.

“La causa más importante… sentirse sola (...) Sí, sentirte sola, sentirte sin apoyo… en todo sentido, sentirte sola, sentirte sin alguien con quien conversar, no tener esas cosas” (P2)

“The most important reason… is the feel alone (...) Yes, to feel alone, to feel no support… in all matters, to feel alone, to feel like you don’t have someone to talk to, not having those things” (P2)

“(Refiere a causa más importante que explica el consumo) De repente es más hacer ‘el mono’ en qué sentido, en que uno ve al otro y quiere hacer lo mismo. Por el otro lado, ‘pégate una fumaita’ y se va metiendo, se va metiendo, se va metiendo” (P4)

“(refers to the main reason of consumption) It would be to be a ‘copy-cat’, in the sense that one looks at others and want to do the same. The other is going to say ‘smoke a bit’ and one starts getting into it, getting into it, getting into it” (P4)

“Por pena puede ser. Puede ser por soledad (...) La soledad se da porque te sentís sola, porque sientes que no hay nada más lindo alrededor que el trago y te refugias en el trago (...) Y como me comunicaba como que sacaba la soledad, es que ya no me siento sola, me siento amada. A mí y a mis hijos sobre todo, me siento una mujer dicha sobre todo para decir que hay que seguir adelante con los proyectos y no tomar más” (P5)

“It might be because of sadness. It might be because of solitude (...) Solitude exists because you feel alone, because you have nothing of beauty around you besides drinking and you shelter in booze (...) And the way I communicated like it got me out of that solitude, I do not feel alone anymore, I feel loved. Me and my children above all, I feel like a woman made to say that most of all that I have to keep going with my projects and do not drink anymore” (P5)

Discussion

This data provide insight into understanding the communication patterns that participants of the Nehuén rehabilitation center recognize to have. The principal purpose of this study was to understand how Substance Dependent Individuals (SDIs) communicated with non-consuming and consuming networks in two moments -during a Problematic Consumption

Period (PCP) and in the present-. The data also provides information on broader concerns that participants face, including traumas, fears, stressful contextual situations, cues that trigger craving, etc.; and it might also provide deeper insight into the communication problems that other SDIs face. The evidence covered in this study suggests that the communication patterns that SDIs maintain with their consuming and non-consuming networks are related to substance dependence. To the extent of the author's knowledge, the communication patterns that SDIs manifest during PCP and after rehabilitation have not been studied using qualitative methodologies. Thus, it is important to understand the communication experience of SDI's in rehabilitation.

The results have shown that the communication patterns that participants maintained produced stress and did not allow them to have healthy communicative relations with non-consuming networks. Accordingly, research shows that SDIs face communication problems with their families, friends, and other networks that might help them to maintain abstinence (Singh, Bhattacharjee, Goyal, Munda, & Nizamie, 2012); and that families with alcoholic members tend to manifest poor cohesion and poor communication skills (Brinson, 1992; Barry & Fleming, 1990; Filstead, McElfresh, & Anderson, 1981). This occurs because drug consumption and SDIs are stigmatized (Pokrajac, Nolimal, & Leskovsek, 2016) and this might be related to negative attitudes and behaviors towards drug consumers that produce stress and hamper abstinence, as in the case of non-consuming family members that do not want to be involved in the rehabilitation program of other consuming family member (Rolls, 1995). In general, the communication patterns that SDIs and non-consuming networks maintain restrain giving social support and work as stressors that might reinforce consumption.

The following paragraphs will discuss six broad themes that emerged from the analysis and the reviewed literature.

Networks during PCP

This study has found that participants trusted 'no one' of their networks during PCP. Participants would not appeal to non-consuming networks when in need of economical or emotional support and would not share 'deep' issues with them. Regarding consuming networks, most participants had networks of friends referred as 'fake' because they would

only gather in consumption contexts and could not rely on each other when in need of economical or emotional support. Nonetheless, some participants could share 'deep' issues with consuming networks in parties and other consumption contexts. The 'relief' produced by sharing 'deep' issues might reinforce positive feelings associated with consumption contexts and networks, and would not be associated with non-consuming contexts and networks. It might be especially meaningful for participants that would cry when sharing 'deep' issues, for crying is considered a self-soothing behavior related with stress relief (Gračanin, Bylsma, & Vingerhoets, 2014). Participants could also learn to associate contextual cues in consumption contexts with the feeling of 'relief', and feel only comfortable to share 'deep' issues in those contexts or while consuming. Thus, participants' lack of trust might reinforce positive feelings associated with consumption contexts and networks.

Another interesting finding was that all participants had relationships with non-consuming networks -mostly family networks- that triggered craving during PCP. It occurred mostly because communicative interactions with non-consuming networks were stressful or conflictive. It was especially problematic or even 'forbidden' for participants to talk about 'deep' issues with non-consuming networks; and these seemed to increase the participant's need to consume, for participants would find frustration when trying to communicate and would cope that frustration with consumption. Failure to communicate about 'deep' issues might be related to learning that 'deep' issues are not to be shared, and would lead the participant to isolate from non-consuming networks. Therefore, some of the non-consuming networks that were able to help participants to maintain abstinence triggered craving instead.

Furthermore, non-consuming networks related to violent or traumatic events worked as cues that triggered a stressful response that would not allow participants to communicate properly. It is important to notice that there was little to no communication about 'deep' or conflictive topics with the networks related to violent or traumatic events during and after PCP, and that communicative interactions about 'deep' topics would usually end in stressful discussions that would trigger craving. Therefore, networks related to traumatic/violent events were not a source of support during PCP for the participants.

Networks related to traumatic/violent events were mostly the participant's parents, who had stiff and formal relations with their children.

It seems that the relationship that participants had with their parents was an important factor to explain consumption. This is because most participants had unresolved issues that would not communicate to their parents, and the inability to do so would cause stress, frustration or the feeling of abandonment. These refer mostly to lack of parental care. When participants tried to address these and other 'deep' issues –as the desire to stop consuming- they would get confronted and finally rejected by their parents. Therefore, participants' unhealthy communicative relations with their parents worked as a stressor that might be related to long term consumption.

Traumatic/violent events

This data provides insight on how relevant were traumatic events and familiar violence for the participants and how it relates to open communication. All participants declared to have lived events they considered traumatic or violent, even they were not asked for this category. Participants pointed that remembering traumatic/violent events worked as a stressor that triggered craving. Some would consume to 'numb' the pain or to forget about the traumatic/violent events and cues. These finding support the conclusions of Trappler & Newville (2007) who indicate that most SDIs who have a co-occurring disorder have faced traumatic events.

The impossibility that participants manifested to communicate about traumatic/violent events is possibly related to a recursive mental process studied by Watzlawick & Jackson (1993) in which the individual cannot stop thinking about the negative outcomes of a past harmful experience. Individuals would think about the negative outcome of the experience but also about possible negative outcomes that could follow the first one, leading to the ideation of stressful 'worst case' scenarios. The possibility to openly communicate about the thoughts and feelings associated with remembering trauma might help to end this recursive process because the interlocutor could ideate realistic scenarios that can mollify the individual, or could help the individual to ideate those realistic scenarios. Communicating openly about the feelings associated with traumatic experiences might help the interlocutor to better understand the situations that the individual is ideating.

Networks today

This study has found that all participants changed their networks or the relation they stablished with old networks when they started treatment. First and foremost, almost all participants stopped gathering with 'fake' friends or stopped attending consumption contexts, and almost all participants stablished new networks of friends. The only participant that still gather with old consuming networks in consumption contexts is open and clear about his abstinence. New networks of friends tend to discourage consumption. Secondly, most participants have now stablished better communicative relations with old non-consuming networks: they engage in stressful discussions less, they trust them more, and some can share 'deep' issues with them. Furthermore, participants feel more confident to communicate openly with strangers in public spaces, even about topics regarding drug consumption. Finally, most participants declared to trust the rehabilitation's center staff and that it helped them maintain abstinence.

By changing the relationship they had with their networks and/or by developing new non-consuming networks, participants managed to receive help and social support to maintain abstinence. Sharing 'deep' issues allows them to ask for help to control craving, to control stressful cues that trigger craving -as remembering trauma-, and to feel socially connected to others. In the words of P8 it allows to 'release the backpack of stones'. Hence, leaving consuming networks and changing problematic communicative relations with non-consuming networks helped participants to maintain abstinence. These findings support the conclusion of (Bond, Kaskutas, & Weisner, 2003) who indicates that network change is closely related to abstinence in alcohol consumers.

This data also provides insight about the individuals that seem to be more able to share 'deep' issues. It is noticeable that participants that maintained abstinence for 6 or more months can shamelessly share they attend a rehabilitation center and allow multiple networks to support them. It is also noticeable that participants that have long maintained abstinence can openly share the feelings associated with their traumas and express the sorrow associated with them. By being open about their problems they could discern the networks that would give support from the networks that could be a risk factor of relapse; and they could feel supported by the interlocutor. Nonetheless, few participants could

‘confront’ and openly talk about ‘deep’ issues with networks related to traumatic/violent events.

Stigma

One of the more significant findings to emerge from this study is that drug related-stigma seems to be the most important factor that explains communication impossibility. First, this study has shown that people on drugs are seemed as incapable of producing a coherent or relevant speech. Most participants felt they would not be listened or would be confronted while on drugs, so they avoided most communicative interactions with non-consuming networks. Secondly, participants were publicly embarrassed of being drug consumers and felt that people in general would judge them. It seems that participants’ awareness of being linked to drug consumption by other people, worked as a stressor even in cases of positive discrimination. Stigma made the participants uncomfortably enough to deny the communicative interactions that would allow them to feel socially supported or search for help. Therefore, stigma might be related to communication impossibility and drug dependence.

This data also provides insight into understanding that most ‘deep’ issues are stigmatized and that SDIs were ashamed to share them. Participants tended to avoid talking about ‘deep’ issues, especially those concerning traumatic experiences, because they thought they would get rejected or be ashamed. During PCP, participants needed an important motivation, as drug consumption or the feeling of desperation, to ‘explode’ and be able to talk about ‘deep’ issues. Stigma partially prevented participants from sharing ‘deep’ issues in a controlled and healthy manner, and thus it might be related to social exclusion and drug dependence.

Open communication’s consequences

The most interesting finding is that all participants associated open communication about ‘deep’ issues with feelings of ‘relief’. Open communication about ‘deep’ issues might have psychological, physiological, and sociological consequences that help SDIs to maintain abstinence.

Regarding psychological consequences, open communication helps the individual to re-signify traumatic experiences. To the extent of the author's knowledge, open communication resembles the scholarly use of congruent communication (Watzlawick & Jackson, 1993) and 'honest' communication (Herman, 2015). 'Honest' communication has been studied in trauma recovery (Herman, 2015); in romantic relationships (Shuangyue & Stafford, 2008; Graham & LaFollette, 1986); and in other 'face' studies (William & Carson, 2002). 'Honest' trauma communication is also important for Cognitive Behavior Therapy in hospital settings for successful treatment of long term hospital patients (Trappler & Newville, 2007). The objective of the Cognitive Behavior Therapy is to help participants to re-signify their traumatic experiences. To do so, patients have to detail the traumatic story and the feelings associated with it in protected environments, so new associations between trauma and contextual cues can be learned. According to Herman (2015) trauma recovery partially depends on the disclosure of the feelings associated with the trauma. Therefore 'honest', 'congruent' or open communication might allow drug consumers to re-signify painful experiences and associate them with non-stressful cues; and cues that once triggered intense craving will trigger less or no craving.

Regarding physiological consequences, the feeling of 'relief' that open communication produces might be linked to physiological responses. In specific, open communication might be processed by individuals as social connection and could trigger the same responses and neural pathways that are triggered by social connection and social protection reported in other situations (Eisenberger, 2013). Regarding sociological consequences, open communication about 'deep' issues needs and bolsters the SDI's trust in the interlocutor. That trust might be related to the group's social cohesion and would allow the group to follow certain behavioral patterns. In this case, to be a member of the rehabilitation center the participant must have the desire to stop consuming. It has been noted by NA literature that maintaining abstinence is easier when the members of the institution agree to follow an abstinent living (Narcotics Anonymous World Services, 2016).

Other discussions

The existing definitions of drug addiction seem to fail to explain the concept from a sociological perspective. The Fifth edition of the Diagnostic and Statistical Manual for Mental Disorders (DSM V) (American Psychiatric Association, 2013) broadly defines drug addiction as an individual's state in which pathological cognitive, behavioral, and physiological patterns make the individual to compulsively seek and consume drugs. Its diagnosis criteria consider impaired control, social impairment, risky use, and pharmacological criteria. Specifically, the social impairment criteria regard the interpersonal and social problems caused or exacerbated by drug consumption, preventing drug addicts to fulfill role obligations and hampering communication skills. However, one major drawback of this approach is that it focusses heavily on the social relationships the drug consumer stablishes and not on the relationship others stablish with the drug consumer. As this study has shown, the impossibility that SDIs have to communicate openly is caused by problematic communicative relations due to stigma, trauma, violence, etc. Therefore, drug consumers are not to be considered blameworthy of addiction because their drug consumption depends heavily on the communicative relation networks have stablished with them. It seems that compulsion to seek and consume drugs is a well-studied individual problem, but that 'drug addiction' is a sociological problem that should consider that drug consumers can maintain mostly problematic relationships with their networks, even if they want to improve them.

This study seems to have methodological and social relevance that could be considered in other studies. First, the manifest content analysis of the data might have been a better option than a latent content analysis in this study, because the aim was to produce information about the capacity that SDIs had to communicate openly about stigmatized topics. To do so, it was needed to know if participants could communicate openly with their networks, but not a further interpretation that could lead to the assumption of 'hidden' meanings. Congruently, a similar methodological example was used by Graneheim & Lundman (2004) who claim that Watzlawick's theory can be used to interpret communication patterns. Secondly, this analysis suggests that stigma impairs the possibility of SDIs to communicate openly during PCP and while maintaining abstinence, thus supporting the assumption of the Nehuén rehabilitation center that building confidence is a

first step to good rehabilitation practices. Future investigations could study if the same SDIs' communication patterns replicate in other geographic locations; and could also study socioeconomic and health related variables that might be associated with open communication. Furthermore, it could be helpful to study what are the most soothing messages drug consumers can receive from their networks to maintain abstinence.

Closing statement

The reasons participants acknowledge to not communicate openly are consistent with the ideas of Watzlawick (2002), Bateson (1976) and Carroll (2006). Participants did not want to communicate about stigmatized topics because they knew they would face stressful situations, and learned to not communicate openly. This learning was applied to other situations that seemed to have no relation with the first: participants felt shame or contempt with people that did not know about their usage of drugs. The main finding of this study is that no participant could communicate openly about stigmatized topics with their non-consuming networks during PCP. As this happened, they tended to get closer to consuming networks that encouraged consuming. Open communication plays an important role when it comes to maintaining abstinence for it bonds consumers to supporting networks. The feeling of "relief" that open communication produces is possibly related to the physiological consequences that social connection has. Open communication also permitted participants to follow the behavioral patterns the rehabilitation center proposed to maintain abstinence, as communicating properly non-consuming networks. In other words, open communication of stigmatized topics produced social connection and had positive sociological, psychological and physiological consequences.

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Appendix

Pauta de entrevista

Participante Nehuén

Leer a participante: Agradezco profundamente que seas parte de este estudio. El aporte que realices puede ayudar a comprender las causas más profundas de por qué consumimos. Como te indiqué anteriormente, mi intención es conocer cómo te comunicabas con tus cercanos y si eso pudo haber sido bueno o malo para ti. Esta entrevista durará aproximadamente 45 minutos, pero podemos parar cuando quieras si así me lo indicas. Esta entrevista es 100% sin presiones, si hay algo que no quieras contestar no lo contestas no más, justamente porque necesito que seas lo más abierto y sincero que puedas. Puedes interrumpir la entrevista si tienes alguna pregunta o por cualquier otra cosa. Con eso en mente empecemos ¿Te parece?

1. Apoyo social y Comunicación abierta antes de ingresar a Nehuén.

A. Primero quiero saber de tu situación antes de ser miembro de este centro. En ese período de mayor consumo ¿Quiénes eran las personas en que realmente confiabas y con las que compartías cariño? ¿Quiénes eran tus amigos? ¿Cómo eran tu relación con esos amigos?
B. ¿Podías contar con esas personas en caso de necesidad? Por ejemplo, cuando te faltaba plata, o cuando necesitabas un favor, o simplemente cuando necesitabas que alguien te escuchara.
C. Esas personas ¿Consumían igual que tú? ¿Qué opinión tenían de consumir?
D. Ahora quiero conocer un poco sobre cómo te comunicabas con estas personas. Si nos ponemos en la situación hipotética de que vas a un médico o a un psicólogo y sabes que puedes hablarle de lo que sea porque sientes la confianza para hacerlo y no temes que te critiquen o juzguen ¿Podías hablar de esa manera con tus cercanos?
E. (Nota: sólo si reporta problemas de comunicación con sus cercanos) ¿Qué impedía y qué favorecía que pudieras hablar abiertamente con esas personas cercanas?
F. (Nota: sólo si reporta problemas de comunicación con sus cercanos) ¿Cuáles eran los temas que, por diferentes razones, no podías hablar? ¿Qué era lo que no toleraban y por qué?
G. Si alguna vez quisiste dejar de consumir pero no pudiste ¿Tenías la confianza de recurrir a tus personas cercanas para pedirles ayuda y así no consumir? Si es así ¿cómo te recibían normalmente? ¿Ayudaron o hicieron que te sintieras peor?

2. Estado de la red y Comunicación abierta manteniendo abstinencia en Nehuén (actuales)

A. ¿Cuándo comenzaste a venir al centro y por qué?
B. Quiero conocer un poco acerca de qué ocurrió con la relación que tenías con estas personas al entrar al centro. Primero ¿Cambió esa “red” de personas que eran cercanas a ti?
C. Estas personas cercanas ¿Te apoyaron en el proceso de abstinencia?

D. Si es que consumían ¿dejaron de consumir por ti o dejaron al menos de consumir frente a ti?
E. Si es que tuvieras que hacer un ejercicio antes/después ¿Dirías que tu “red” antigua facilitaba el consumo y que tu “red” nueva lo impide?

3. Comunicación abierta

A. En la experiencia que has tenido durante el tiempo en que has sido miembro ¿Por qué crees que el centro te ayudó? ¿Qué había en estas reuniones y terapias que no había en otras partes?
B. Me gustaría en este momento, conversar específicamente de la comunicación que lograste en el centro. (Nota: solo si reportó problemas de comunicación con sus amigos) Volviendo un poco a esos temas que no podías hablar con tus cercanos por diversas razones ¿Sentiste aquí la apertura suficiente como para poder hablarlos? ¿Por qué?
C. ¿Qué crees que permitió o no la apertura necesaria para hablar de estos temas?
D. (Nota: preguntar en caso de apertura comunicativa lograda) ¿Qué te provocó el poder relacionarte de manera tan sincera con otros miembros?
E. Y respecto a esto ¿Crees que esa apertura te ayudó con el proceso de abstinencia? ¿Por qué?

4. Reflexión libre

A. Finalmente me gustaría que me contaras una reflexión más libre ¿Qué fue para ti lo más importante para superar la adicción?
B. ¿Quieres decir algo más o se te viene a la mente algo luego de esta entrevista?