Chapter

General introduction
Chapter 1

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General Introduction

Usually, young people developing a Substance Use Disorder (SUD) had a story behind them, a context that has carried them to that situation. Nevertheless, non-drug users generally have negative perceptions and feelings related to young with SUD due to a social representation that links them to delinquency and poverty. This social representation causes fear and rejection and, consequently, stigmatization. Unluckily, common people few times think about these life stories behind them. Young people with SUD must: (1) deal with life stories that brought them to Substance Use (SU), (2) face the biological, psychological, and social consequences of this use, and (3) cope with the social stigmatization they are confronted with. Furthermore, they are not the only ones who must endure these hard consequences. Their families also suffer with them because family members are also affected by-and have to deal with-the SUD of their child and the social stigma related to substance use disorder. Therefore, many times it is difficult to involve them in the programs for their children. We need to better understand SUD and the factors involved in treatment, including those related to family support and providers of treatment that, together, may create better conditions for favorable outcomes in drug treatment for young people.

1. What is the problem concerning substance use?

a. SU and SUD in the young population

SU and SUD have become a world problem. According to the world report on drugs 2019, about 5.5% of people between 15 and 64 years old (approximately 271 million people) used an illicit drug during 2017. Moreover, about 35.5 million people who used drugs were estimated to develop SUD, meaning that their SU is harmful to the point where they may need treatment. There are some differences between countries about SU. For instance, worldwide cannabis is the substance most used, but injected drugs cause the most damage. Although, in Chile injected drugs are almost not used, it is still among the countries with the highest rates of SU of the American continent (Table 1).
Usually, young people developing a Substance Use Disorder (SUD) had a story behind them, a context that has carried them to that situation. Nevertheless, non-drug users generally have negative perceptions and feelings related to young with SUD due to a social representation that links them to delinquency and poverty. This social representation causes fear and rejection and, consequently, stigmatization. Unluckily, common people few times think about these life stories behind them. Young people with SUD must: (1) deal with life stories that brought them to Substance Use (SU), (2) face the biological, psychological, and social consequences of this use, and (3) cope with the social stigmatization they are confronted with. Furthermore, they are not the only ones who must endure these hard consequences. Their families also suffer with them because family members are also affected by - and have to deal with- the SUD of their child and the social stigma related to substance use disorder. Therefore, many times it is difficult to involve them in the programs for their children. We need to better understand SUD and the factors involved in treatment, including those related to family support and providers of treatment that, together, may create better conditions for favorable outcomes in drug treatment for young people.

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Chapter 1

Table 1.

<table>
<thead>
<tr>
<th>Country</th>
<th>Alcohol (%)</th>
<th>Cannabis (%)</th>
<th>Cocaine (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina (2017)</td>
<td>50.1</td>
<td>11.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Barbados (2014)</td>
<td>32.8</td>
<td>16.9</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>Chile (2016)</strong></td>
<td><strong>35.6</strong></td>
<td><strong>34.2</strong></td>
<td><strong>4.2</strong></td>
</tr>
<tr>
<td>Colombia (2013)</td>
<td>37.1</td>
<td>8.4</td>
<td>2.8</td>
</tr>
<tr>
<td>Costa Rica (2015)</td>
<td>19.5</td>
<td>9.4</td>
<td>0.5</td>
</tr>
<tr>
<td>El Salvador (2016)</td>
<td>7.6</td>
<td>7.3</td>
<td>1.0</td>
</tr>
<tr>
<td>Paraguay (2014)</td>
<td>25.0</td>
<td>3.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Perú (2017)</td>
<td>8.0</td>
<td>3.0</td>
<td>1.0</td>
</tr>
<tr>
<td>United States (2016)</td>
<td>19.8</td>
<td>22.6</td>
<td>1.4</td>
</tr>
<tr>
<td>Uruguay (2014)</td>
<td>38.7</td>
<td>17.0</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Source: Based on data from Comisión Interamericana para el Control del Abuso de Drogas (CICAD) (2019).

Although substances are used in all ages and all socioeconomic statuses (SES), young people are more at risk of SU. In Chile, the highest use is seen in men under 25 years old, from lower SES. Major substances used are alcohol, cannabis, cocaine, and coca paste -a cocaine derivative shipper and more harmful.3 Moreover, the onset of illegal drug use is at age 14, and the percentage of use rises as they grow up.5 Additionally, Chile presents high rates of estimated people in need of treatment due to SUD. For instance, people using drugs met the criteria for abuse, harmful use, or dependence (according to ICD-10 or DSM IV criteria) in the 20.3% for cannabis, 37.9% for cocaine, and 54.8% for coca paste. Meanwhile, 9.3% of people using alcohol met the criteria for high-risk alcohol use, according to the AUDIT Test.3 Therefore, adolescence is a critical period to start drug use6 due to the influence that the context may exert over adolescents. The most important context is the family by the socialization processes that help children learn how to behave and react in different circumstances and contexts.7 Family may create an environment that prevents adolescents from using substances or instigate them to do so.

b. SU and SUD in justice-involved youth (JIY)

In Chile and worldwide, among young people who need treatment (ICD-10 or DSM IV), JIY presents higher percentages of SUD and start SU earlier than the general population.8 Unluckily, there is not much research on this specific group. On the one hand, JIY is usually out of all the national assessments (which are made at homes and
schools). On the other hand, specific research has been conducted to understand delinquency and recidivism, using SU and SUD as risk factors. The few existing assessments in Chile revealed that 40% of children not criminally responsible needed rehabilitation. Similarly, 70% of JIY used illicit drugs, and half of them were using more than one substance. A more recent study, showed that 95% of JIY started using cannabis at an average age of 11.9 (SD=0.07), 71% cocaine at an average age of 14 (DS=0.07), and 38% coca paste at an average age of 14,6 (DS=0.1). Moreover, 49% of JIY using cannabis, 33% of JIY using alcohol, and 18% of JIY using cocaine met the DSM-VI or ICD-10 criteria for dependency.

This specific population is also affected by social factors such as reiterated admissions in the Chilean Children Protection System, weak or absent family ties, little parental control, domestic violence, school dropouts, among others. All these aspects imply deeper damage to their physical and mental health. It is important to notice that as the family may be a contributing factor for SU and SUD in children, adolescent and young SUD has also an impact on family environment. Caring for a child with SUD may be very stressful and demanding, leading to high levels of physical and mental health problems, especially to parents or adults in charge of JIY.

**c. Drug treatment for justice-involved youth in the Chilean context**

In 2007, in the context of the implementation of the Chilean juvenile justice law, it was implemented complementarily at the National Drug Treatment Program for Justice-involved Youth. The program was structured in four treatment modalities according to the severity of the drug use and the biopsychosocial compromise (BPSC). The BPSC is a clinical diagnosis designed by the Chilean government to assess the severity of problems in other areas of life. For instance, the biological area identifies the existence of diseases associated with SU and the nutritional state, among others. The psychological area considers elements such as the adaptive capability and mental health state. Finally, the social area evaluates family support, social integration, peer group, among others. This BPSC can be categorized as low, mild or severe.

There are four treatment modalities (outpatient treatment, inpatient treatment, treatment for incarcerated youth and detoxification) that follow the national guidelines for drug treatment for JIY. These guidelines include mainly a psychosocial intervention along with a pharmacological intervention when it is needed. It is focused on a comprehensive diagnostic and a child developmental approach. It also indicates interventions on eight areas of child development (e.g., physical health,
modulation of transgressor behavior, motivation, family), and relapse prevention. However, even though the Chilean national guidelines declare the importance of the JIY family in drug treatment, they clearly focus on the individual. This pivotal point means that the guidelines do not indicate what treatment teams should do with these families. Therefore, each team implements aims, strategies, and interventions according to their own background.

2. What do we know about SU and SUD?

a. Research on SU and family factors

The Risk and Protective Factors Model states that while risk factors increase the probability of using drugs, protective factors mitigate the negative effects of risks, having a beneficial influence, especially for those at risk of substance use. These factors can be related to the individual (i.e., psychological characteristics), the near context (i.e., the family), as well as a more general context (i.e., public policies). Among all these contexts, the family has shown to play an important role in the initiation and maintenance of substance use in young people, through socialization processes. These processes allow a child to acquire skills, motives, attitudes, and behaviors required for successful adaptation to a family and a culture. These processes include parenting style, parental monitoring, parental attitude towards drug use, and parental and sibling drug use. These family factors may increase (e.g., parents modeling drug use) or decrease (e.g., parents monitoring adolescents’ activities) the likelihood of substance use in adolescents. Similarly, research has found that family influences children’s psychological aspects, such as self-control and affect. In turn, these psychological aspects are related to SU and SUD.

b. Research on drug treatment interventions with adolescents

International research has revealed that when drug use starts before age 15, it is needed an average of 29 years to reach one year of abstinence. This average time can be reduced to half if treatment starts in an early stage. Thus, researchers advised to develop drug treatment programs for young population. Drug treatment interventions have been developed under different paradigms and theories. Some interventions have been developed with a focus on the family, which is in accordance with the Pan-American Health Organization’s guidelines to intervene with adolescent
population. From a child developmental perspective, the family is a pillar to support or discourage behavioral changes in youth. Moreover, research has shown that interventions with a family-centered design that integrates the family obtained better results than interventions addressing only individual factors. These types of interventions have revealed to be more effective in improving youth’s health and associated behaviors, as well as enhancing parenting skills and relationships within the family. However, JIY present worse rates of SU and SUD, as well as lower levels of motivation for treatment and low compliance with treatment programs. Moreover, a Cochrane review about trials targeting interventions for justice-involved people (young and adults) revealed limited success with reducing self-reported drug use and some success with reducing re-incarceration rates. In the case of JIY, these interventions have youth-centered design instead of family-centered designs.

Chile has implemented a drug treatment program to address the high rates of SUD among JIY, which was a vital step. Like other similar programs, it has a youth-centered design, and we do not expect to have better results than those found by scholars. We need to find ways to improve drug treatment for this population. Family-centered designs have shown to present better results and integrating the family may be a good path to explore. However, research usually does not inform about specific family or parental variables that have shown to be worthwhile in this task. Then, how to improve drug treatment for JIY by including the family? Is literature about risk and protective factors for SU and SUD meaningful to address in a drug treatment context? Are these international findings valid for the Chilean population? Would families be interested in participating in such interventions? Would professionals be willing to implement interventions for a population that is not their main patient?

3. What is this thesis adding?

a. Research in a middle-income country and a wider concept of family

Most research on SU and SUD has been conducted in a small number of high-income countries (i.e., Australia, Germany, the Netherlands, New Zealand, and the United States). The World Health Organization stated that more research is needed to confirm findings in other countries. Furthermore, some studies conducted in the United States, including family factors, have shown differences between families from Latin America and the United States. For instance, the relationship between
adolescents and their families is stronger in adolescents from Latin American than from the United States. Likewise, the traditional structure/composition of the nuclear family (parents-children) is different in middle-income countries such as Chile. Thus, this thesis uses a broader definition of family that includes non-relatives or members from the extended family who fulfill family roles.

**b. A wider view on drug use and the association with family factors in different stages**

This thesis includes general adolescent populations as well as JIY in drug treatment, which allows us to have a broader overview of family factors involved in different stages of SU in young people: when starting drug use, when it becomes a harmful use, and when a SUD is developed. In contrast to most research related to SU, this thesis focuses not only on adolescents using or not drugs, but also distinguishes between adolescents who use substances with and without problems (harmful use or dependence). This knowledge can be helpful to develop effective prevention strategies based on the individual’s profile, such as universal (general non-user population), selective (i.e., preventing use in specific groups with higher risk of use) or indicated prevention (i.e., preventing problematic use in users).

**c. Study a specific group such as JIY with SUD**

Studies on SUD show that an important percentage of young people had committed offenses. On the other hand, studies on young people who had committed offenses present higher rates of SU and SUD than the general population. Due to this strong association between SUD and criminal behavior, research on interventions targeting JIY assesses mainly effectiveness (reduction of delinquency and SU). Unluckily, research indicates little about young people’s characteristics and family factors involved, even when interventions are centered on the family. Therefore, this thesis investigates family factors that can be related to JIY’s behavior and psychological wellbeing. It is an attempt to better understand the characteristics of this specific group, as well as their needs related to drug treatment.

**d. Address different perspectives: study of professionals and families’ perspectives**

Because of my professional background, I also find it a fundamental matter to integrate practical issues related to implementing public policy in the health care
system. For instance, even though the Chilean national drug treatment program for JIY was implemented in 2007, it has not been assessed or reviewed. In more than ten years, treatment teams have learnt from practice, but they need guidance on challenges that they have found hard to approach. For instance, national guidelines indicate that families need to be included in the intervention, but do not indicate what should be done with them. Moreover, research conducted before the implementation of the national drug treatment program\(^{13}\) showed that treatment teams were reluctant to work with families of JIY. Similarly, it is well known for the troubles to achieve family adherence in these programs. It is important to understand the experience of raising a child with SUD and how the family understands this problem. Consequently, this thesis includes the perspective of professionals and families to shed light on areas that may be addressed to improve implementation of interventions with JIY’s families.

4. Thesis overview

The present thesis is divided into two parts. **Part one** is related to general adolescent population to test whether international findings about familial factors associated to SU and risky use or dependency also apply to the Chilean context. Thus, using data from a National Survey in the General Population, **Chapter 2** was aimed to examine whether, in line with international findings, family and peer cannabis use were independently related to adolescent cannabis use in Chile, as well as to cannabis dependence in adolescents using cannabis. We also analyzed whether the adolescent’s age moderates these associations. **Chapter 3** made use of data from a National School Survey to investigate protective parental behaviors and attitudes related to drug use. Hence, we examined whether parental monitoring and parental attitude towards adolescent cannabis use were related to adolescent cannabis use and high-risk use, and whether perceived past parental drug use weakens the association of these protective factors with adolescent (high-risk) cannabis use.

After identifying similarities between outcomes obtained with Chilean adolescent population and international research, we examined a specific clinical group of adolescent and young population: JIY attending to a drug treatment program. Most treatments targeting JIY have a youth-centered approach, which perhaps may be improved by involving parental figures. Therefore, **Part two** targets the individual level and the context level. The first one looks for factors that may improve psychological factors in this young group in treatment, and the second searches for
elements that could help or may be a barrier to obtain better outcomes in treatment. At the individual level, chapter 4 was aimed to explore whether maternal and paternal factors are related to psychological factors associated to SUD in JIY. The first aim was to explore potential differences in positive and negative parenting, monitoring, and parental drug use between maternal and paternal figures. The second aim was to examine associations between these parental factors and JIY’s self-control, positive and negative affect, and internal motivation for treatment. On the context level, the family and the professionals working in treatment are key stakeholders in the generation of a protective, motivational, and supportive environment for young people in treatment. Thus, chapter 5 explored parents’ perceived barriers and needs of upbringing a JIY child with SUD. Chapter 6 explored professionals’ perceived barriers to intervene with parents or responsible adults of JIY with SUD. Finally, chapter 7 summarises and discusses general findings and implications from the present thesis.

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Chapter 1


PART ONE

General adolescent population
Capítulo

Mónica Lobato, Robbert Sanderman, Esteban Pizarro, Mariët Hagedoorn