

## Chapter 6

---

# A Three-Year Perspective: Trends and Changes in Substance Addiction and Emergency Call Data

Sevcan Kılıç Akıncı\*  

*\*Asst. Prof., Department of Business Administration, Erzurum Technical University, 25100, Erzurum, Türkiye*

DOI: [10.70020/BI.20240801.6](https://doi.org/10.70020/BI.20240801.6)

### Abstract

This chapter examines the importance of analysing calls to emergency hotline (Alo 1191) related to substance use and addiction, with the main goal of improving the effectiveness of interventions and resource allocation by the Northern Cyprus Prime Ministry's Office of Anti-Drug Commission (ADC). Results from the ADC report, cover the period between 2021 and 2023, was examined for demographic information, reason for contacting and which substances are being used by the individuals. The results analysed both using quantitative and qualitative approaches. Findings provide insights in the main reason of emergency calls, demographic information of those making the calls, the substance types mentioned which provided insights for the implications for ADC strategies. In the conclusion section, it has been recommended that the emergency response protocols should be improved, preventative measures should be implemented, and awareness campaigns should be organized to foster community participation and education. Lastly, the results of the study emphasize the significance of analysing emergency calls to inform strategic decisions and enhance the ADC's efforts in combating substance abuse and addiction effectively.

*Keywords: Substance use, emergency calls, addiction, intervention strategies, data analysis*

## 6.1. Introduction

Substance misuse and addiction are intricate health concerns that can have severe and often detrimental consequences on society (Galea, 2004, Hoffman & Goldfrank, 1990; Slaymaker, 2012). Investigating emergency calls, particularly with regards to addiction crises and surging trends in substance use, can yield crucial information. Alo 1191 is a mobile response service hotline for counselling and support that allows people from across Northern Cyprus to connect via phone to a peer operator with lived experience of substance use. This peer operator collects key information, provided either by the substance user or a relative, including a client's demographic information, and the substance used. During these calls, operators often maintain friendly conversation.

The examination of emergency calls is essential for improving the efficacy of interventions, allocating resources effectively, and devising policies to combat addiction (Togia et al., 2008).

The Northern Cyprus Prime Ministry's Office Anti-Drug Commission (ADC) seeks to improve emergency responses in addressing addiction by analysing emergency call information. The aim of this evaluation by the ADC is to improve the ability to provide prompt and appropriate assistance to individuals struggling with addiction and their loved ones.

This research entails a thorough examination of emergency call data spanning from 2021 to 2023. The aim was to uncover the function of emergency calls in tackling substance addiction and to investigate the dispersion of these calls in terms of demographics, timeframes, reasons and trends in substance use.

## 6.2. Literature Review

Substance misuse and addiction can cause critical health concerns and even might give way to criminality in certain circumstances. Although, there are several hotlines serving to substance users, little is known about demographic characteristics of those who need help.

The demographic characteristics of emergency hotline callers for substance use indicate a prevalence of younger adult females and white individuals, with common reasons for calling including suicidality, depression, and interpersonal problems. The frequency of emergency hotline calls varies based on the type of substance use, with an increase in calls for substance use following the COVID-19 pandemic. The most commonly requested interventions or support services by emergency hotline callers for substance use include addressing adverse mental health events and reducing harm for individuals with mental health and/or substance use disorders. However, there is a need for further investigation into the relationship between hotline use and caller outcomes.

De Souza et al. (2008) searched Vivavoz telephone help line data for drug abuse calls. The study revealed important findings. In total there was higher prevalence of women, students, single individuals, older than 35 years, with incomplete primary education and family income lower than five minimum wages. Men aged 18-25 years were prevalent in the sample. The most frequently used drugs were tobacco, cannabis, alcohol and cocaine. Tobacco use was similar for both genders. Males used more illicit drugs. Most drug users were dependent, and men had higher rates of addiction to tobacco and solvents.

Another similar study was conducted in Greece. Togia et al. (2008) analysed Hellenic National Centre for Emergency Care call data which received 5,836 emergency drug abuse-related calls pertaining to the metropolitan area of Athens, Greece. Drug abuse-related calls represented 2% of all emergency calls. Drug abuse-related calls represent a significant load for emergency medical services in metropolitan Athens. However, it is noted that a relatively small percentage of the drug addicts finally are transported to the hospital. For that reason, appropriately equipped motorcycles seem to be an effective means for the prehospital management of drug-abuse cases.

## 6.3. Methodology

### 6.3.1. Research Aim and Questions

The research aims to better understand the nature of emergency callers of hotline Alo 1191 in order to improve the effectiveness of interventions and resource allocation by the Northern Cyprus Prime Ministry's Office of Anti-Drug Commission (ADC). To this aim following research questions are searched.

- i. RQ 1: What are the demographic characteristics of callers to the emergency hotline?
- ii. RQ 2: What are the substance types used by the callers of emergency hotline?
- iii. RQ 3: How is the seasonal distribution of calls change during the year?

### 6.3.2. Research Design and Data Collection Tools

The research gathered information from secondary data recorded by ADC.

### 6.3.3. Research Sample and Data Collection Procedure

The tables of the analysis for this research are derived from the "ADC 2021-2022-2023 report," which provides a wide range of statistical information on substance misuse and addiction cases. This report includes details such as demographic information, the types of substances used, and the timing of ADC applications. The data regarding emergency calls was obtained from anonymized call records, which covered information such as the frequency of calls, the gender of the caller, the reason for the call, and the types of substances mentioned.

#### 6.3.4. Analysis of Data

The analysis of the data incorporated both qualitative and quantitative methods. Quantitative data, which included the distribution of calls over time and trends in substance use, were examined using statistical techniques. On the other hand, qualitative data, including the reasons for calls, were analysed through content analysis to offer a more comprehensive understanding of the situation (White & Marsh, 2006).

#### 6.3.5. Ethical Considerations

The research was carried out in accordance with ethical principles. The data collected for the study were anonymized and processed to safeguard the privacy of participants and prevent the inclusion of any personal information.

### 6.4. Findings

#### 6.4.1. Overview of Emergency Calls and Application to the ADC

In 2021, two of the callers applied to the ADC, 1 (50%) female and 1 male (50%). In 2022, 18 of the callers applied to the ADC, 3 (17%) of them were female, and 15 (83%) were male. In 2023, 14 of the callers applied to the ADC.

#### 6.4.2. Overview of Emergency Calls in 2023

In 2023, 83 people called the emergency hotline. 24 of the people who called emergency hotline (n=83) Alo 1191 applied to the ADC. The gender distribution among these individuals was 58.33% male (n = 14) and 41.66% female (n = 10). Regarding the purpose of the calls, 29 people called to schedule or confirm appointments, while 28 sought information about the ADC or had questions on various topics. Eleven individuals on probation also had contact with the ADC. The nine incidents recorded as unanswered calls,

resulting from the caller hanging up after the phone rang, indicated that these calls were left unanswered. These data are valuable for understanding the demand for ADC services and the need for emergency responses. Of those who called Alo 1191, 2 applied to the ADC in 2021, 18 in 2022 and 14 in 2023.

6.4.2.1. Substance Used by the Callers of Alo 1191 in 2023

The data of the callers of Alo 1191 reveal the substance used by the callers or relatives involved (see table 6.1.).

**Table 6.1.** Substance analysis table of callers in 2023

Substance Type Used by the Callers in 2023	Number of Callers	Percentage
Alcohol	20	23.52%
Meth (Methamphetamine)	6	7.05%
Cocaine	1	1.17%
Prescription Drugs	7	8.23%
Bonzai	4	4.70%
Technology	1	1.17%
Unknown	41	48.23%
<b>Total</b>	<b>83</b>	<b>100%</b>

Alcohol (23.52%) was the most mentioned substance in calls made to the ADC, followed by meth - (methamphetamine) 7.05%, and prescription drugs - 8.23%. Calls related to cocaine, bonzai, and technology are less frequent. However, a significant proportion of calls (48.23%), did not specify which substance was used.

These insights underline the importance of enhancing ADC's emergency response protocols and resource allocation, preventive strategies, and awareness campaigns to be more effective in planning and implementing measures against substance use and addiction (Ladis et al., 2018; Perumbilly & Stephen, 2015; Volkow et al., 2019). This analysis also highlights the critical role of community engagement and education in addressing the emerging

needs related to substance use and addiction (Sprague Martinez et al., 2020), ensuring that ADC's services and interventions can meet these challenges effectively.

The data revealed a broad range of calls connected to substance use and addiction. The fact that alcohol is the most frequently mentioned substance indicates its prevalence in society and the existence of individuals seeking assistance for this issue. Calls concerning other substances, such as methamphetamine and prescription drugs, highlight significant concerns about their use. The high percentage of calls without specific substance information suggests a general apprehension about substance use and hesitation among individuals seeking help to explicitly mention certain substances.

This research offers valuable perspectives on the potential causes of shifts in substance use trends over time, as well as the factors that contribute to increases or decreases during specific periods. Further investigation is required to better understand the impact of variables such as holidays, paydays, and seasonal patterns on substance use.

#### 6.4.2.2. Demographic Analysis of Callers and Applicants of ADC in 2023

Upon examining the demographic distribution of calls made to the ADC, 30 out of 83 callers were female (36.14%) and 53 were male (63.85%) in 2023. In terms of the purpose of the calls, 41 individuals sought help from themselves, while 42 called on behalf of a relative (see table 6.2.). These data and numerous additional sources indicate that issues related to substance use affect not only individuals but also their families and social circles (Daley & Douaihy, 2019), underscoring the need for ADC support and intervention services to reach not only individuals but also their close contacts (Swanepoel et al., 2023).

**Table 6.2.** Caller analysis table for the year 2023

Callers of Alo 1191 in 2023		
Female	Male	Total
30	53	83
Herself/Himself	Relative	Total
41	42	83

**Table 6.3.** Age group analysis table of applicants to the ADC in 2023

Applicants to the ADC in 2023	
Age Group	Number of People
15-19	3
20-24	6
25-29	2
30-34	0
35-39	1
40-44	2
45-49	0
50-54	0
55-59	0
60-64	0
65-69	0
<b>Total</b>	<b>14</b>

When 2023 year data is examined according to the ages of the people who applied to the ADC, it is seen that 3 people (21%) of 14 people are between the ages of 15-19, 6 people (43%) are between the ages of 20-24, 2 people (14%) are between the ages of 25-29, 1 person (7%) is between the ages of 35-39, 2 people (14) are between the ages of 40-44 (see table 6.3.).



**Table 6.4.** Education level analysis table of applicants to the ADC in 2023

Education Level of the Applicants to the ADC in 2023	
Education Level	Number of People
Primary School	2
Secondary School	3
High-School	5
Undergraduate	3
Illiterate	1
<b>Total</b>	<b>14</b>

When 2023-year data is examined according to the education level of the people who applied to the ADC, of the 14 people, 2 (14%) were primary school graduate, 3 (21%) were secondary school graduate, 5 (36%) were high school graduate, 3 (21%) were from university graduate and 1 person was illiterate (see table 6.4.).

**Table 6.5.** Professional analysis table of applicants to the ADC in 2023

Professions of the Applicants to the ADC in 2023	
Profession	Number of People
Yes	7
No	6
Student	1
<b>Total</b>	<b>14</b>

When 2023-year data is examined according to the professions of the people who applied to the ADC, it is seen that 7 people (50%) of 14 people have a profession, 6 people (43%) do not have a profession and 1 person (7%) is a student (see table 6.5.).

**Table 6.6.** Marital status analysis table of applicants to the ADC in 2023

Marital Status of the Applicants to the ADC in 2023	
Marital Status	Number of People
Single	12
Married	1
Others	0
Widow-Divorced	1
<b>Total</b>	<b>14</b>

When 2023-year data is examined according to the marital status of the people who applied to the ADC, it is seen that 12 people (86%) of the 14 people are single, 1 person (7%) is married, 1 person (7%) is widowed-divorced (see table 6.6.).

**Table 6.7.** Application month table of applicants to the ADC in 2023

The Month Applicants Applied to the ADC in 2023	
Application Date to the ADC	Number of People
January	0
February	2
March	5
April	2
May	0
June	1
July	1
August	3
September	0
October	0
November	0
December	0
<b>Total</b>	<b>14</b>

When we examine the dates when people applied to the ADC, it is seen that 1 person out of 14 (7%) came in January, 2 people (14%) in February, 5 people (36%) in March, 2 people (14%) in April, 1 person (7%) in June, 1 person (7%) in July, 3 people (21%) in August (see table 6.7.).

### 6.4.3. Analysis of Data of Applicants of the ADC in 2022

#### 6.4.3.1. Substance Used by the Applicants of the ADC in 2022

**Table 6.8.** Substance analysis table of applicants of the ADC in 2022

Substance Type Used by the Applicants in 2022	Number of People
Synthetic Cannabinoids	3
Alcohol	1
Methamphetamine	3
Marijuana	4
Bonzai	1
Volatile substances	1
Marijuana and prescription drugs	1
Marijuana and Methamphetamine	1
Gambling Addiction (Casino)	1
Marijuana and cocaine	1
Crack	1
<b>Total</b>	<b>18</b>

According to the substances used by the people in 2022, out of 18 people, 3 people (18%) were synthetic cannabinoids, 1 person (5.5%) was alcohol, 3 people (18%) were methamphetamine, 4 people (22%) were marijuana, 1 person (5.5%) was bonzai, 1 person (5.5%) was volatile substances, 1 person (5.5%) was marijuana and prescription drugs, 1 person (5.5%) was cannabis and methamphetamine, 1 person (5.5%) marijuana and cocaine, it is seen that 1 person (5.5%) uses crack and 1 person (5.5%) applied for gambling addiction (casino) (see table 6.8.).

### 6.4.3.2. Demographic Analysis of Callers and Applicants of ADC in 2022

Demographic analysis of the applicants of ADC in 2022 reveals important findings.

**Table 6.9.** Age analysis table of applicants to the ADC in 2022

<b>Age groups of the Applicants to the ADC in 2022</b>	
<b>Age</b>	<b>Number of People</b>
15-19	0
20-24	8
25-29	3
30-34	3
35-39	3
40-44	0
45-49	0
50-54	0
55-59	0
60-64	0
65-69	1
<b>Total</b>	<b>18</b>

When 2022 data is examined in terms of age, it is seen that 8 people (44.5%) out of 18 people are between the ages of 20-24, 3 people (18%) are between the ages of 25-29, 3 people (18%) are between the ages of 30-34, 3 people (18%) are between the ages of 35-39 and 1 person (5.5%) is between the ages of 65-69 (see table 6.9.).

**Table 6.10.** Educational level analysis table of applicants to the ADC in 2022

<b>Education Level of the Applicants to the ADC in 2022</b>	
<b>Education Level</b>	<b>Number of People</b>
Primary School	2
Secondary School	4
High-School	9
Undergraduate	2
Illiterate	1

When the educational status of applicants is examined, it is seen that 2 people (11%) out of 18 people are primary school, 4 people (22%) are secondary school, 9 people (50%) are high school, 2 people (11%) are university and 1 person (5.5%) is illiterate in year 2022 (see table 6.10.).

**Table 6.11.** Marital status analysis table of applicants to the ADC in 2022

<b>Marital Status of the Applicants to the ADC in 2022</b>	
<b>Marital status</b>	<b>Number of People</b>
Singe	13
Married	3
Others	1
Widow-Divorced	1

When 2022 data is examined in terms of marital status, it is seen that 13 people (72%) out of 18 people are single, 3 people (18%) are married, and 1 person (5.5%) is widowed-divorced (see table 6.11.).

**Table 6.12.** Profession analysis table of applicants to the ADC in 2022

<b>Professions of the Applicants to the ADC in 2022</b>	
<b>Profession</b>	<b>Number of People</b>
Yes	8
No	10

When 2022 data is examined in terms of their professions, it is seen that 8 people (44.5%) of 18 people have a profession and 10 people (55.5%) do not have a profession (see table 6.12.).

**Table 6.13.** Application month table of applicants to the ADC in 2022

The Month Applicants Applied to the ADC in 2022	
Application Date to the ADC	Number of People
January	1
February	0
March	2
April	0
May	0
June	0
July	0
August	2
September	1
October	11
November	0
December	1

When 2022 data is examined in terms of the month the applicants applied to the ADC, it is seen that 1 person out of 18 (5.5%) came in January, 2 people (11%) came in MARCH, 2 people (11%) came in August, 1 person (5.5%) came in September, 11 people (61%) came in October and 1 person (5.5%) came in December (see table 6.13.).

#### 6.4.4. Analysis of Data of Applicants of the ADC in 2021

In 2021, two of the callers of Alo 1191 applied to the ADC.

**Table 6.14.** Table of gender distribution of applicants of the ADC in 2021

<b>Genders of Applicants to the ADC in 2021</b>	
<b>Gender</b>	<b>Number of People</b>
Female	1
Male	1
<b>Total</b>	<b>2</b>

Education level of those who applied to the ADC was primary or secondary school, one for each, and none of them were married. The substance used by one of them was alcohol (50%) and the other was synthetic cannabinoid (50%). They applied to the ADC one in September and the other one in December.

The analysis of emergency calls based on data from the ADC report for the years 2021-2023 includes the following findings:

- In 2021, only two people applied to the emergency line with a 50-50 split between male and female callers applied to the Commission. Emergency hotline callers increased by the passing years (see table 6.14.).
- In 2023, of the 14 people who called the emergency line applied to the ADC, 29% were female and 71% were male, and the distribution of dates when people came to the ADC was recorded from January to August.

In light of these data, it is clear that the Northern Cyprus Prime Ministry's Office of Anti-Drug Commission (ADC) needs to further improve its emergency response and substance addiction intervention strategies. Improving the efficiency of ADC by incorporating healthcare providers' support and methods can result in more rapid and successful outcomes in the battle against substance addiction (Cao et al., 2011; Rao et al., 2017).

In addition, it is clear that the Anti-Drug Commission (ADC) of the Northern Cyprus Prime Minister's Office requires further improvement in its emergency responses and intervention strategies for substance addiction

(Westhuizen et al., 2018). By collaborating with healthcare providers and adopting their methods and support, ADC can enhance its effectiveness, thereby achieving more rapid and potent outcomes in the fight against substance addiction (Clark, 2002; Marinelli-Casey et al., 2002; Yatsco et al., 2020).

## 6.5. Discussion

The analysis of contacts made to the hotline plays a crucial role in shaping the emergency response plans and resource distribution of the Prime Minister's Office Anti-Drug Commission in Northern Cyprus. It is clear that the nature of these contacts has a direct effect on how ADC handles emergency calls and allocates resources. For instance, majority of the contacts were about particular substances such as methamphetamine, alcohol and prescription medications. These underlies the necessity for specialized interventions and resources for the aforementioned substances. Furthermore, majority of calls made without providing personal information shows the need for and importance of anonymous support services and information campaigns.

The significance of call patterns in creating and increasing awareness and crafting preventative strategies for ADC cannot be underestimated. For instance, there was a spike in calls during October in 2022 suggesting the need for tailored awareness campaigns and prevention efforts especially during these months. The fact that the majority number of the calls were associated with specific substances also indicates their widespread use. This finding also pinpoints the need for ADC to develop specialized prevention strategies and targeted awareness campaigns especially for these substances.

To conclude, the analysis of calls helps ADC to plan, develop and implement emergency response protocols, initiate preventative measures, allocate resources and organize awareness campaigns. By conducting such analyses, ADC can increase its efficacy and precision in combating substance abuse and addiction.



## 6.6. Conclusion

According to this analysis, the following recommendations for enhancing emergency response and general ADC strategies can be made:

- i. **Improving Emergency Response Protocols:** Analysing the data obtained from the calls indicates crucial insights for developing effective emergency response plans and allocating resources. Given the majority of the calls related to substances like alcohol and methamphetamine, it is important to provide specialized training and resources for emergency scenarios particularly involving these substances for the expert personnel on the hotline. Also, through all media channels including social media, public should be encouraged to call the hotline.
- ii. **Preventive Measures and Awareness Campaigns:** Such campaigns are crucial, as call patterns play a significant role in for preventative strategies and awareness campaigns. The growing number of contacts related to specific substances highlights their increasing prevalence and raises concerns in the society about their use. This highlights the cruciality of implementing educational programs and raising awareness, especially among young people, to prevent the use of illicit substances (Volkow et al., 2019).
- iii. **The Importance of Community Participation and Training:** Community participation and providing training for preventing substance misuse is crucial for the society. For instance, the ADC should collaborate with schools, local community groups, and healthcare providers to plan and develop comprehensive awareness. Additionally, training initiatives that highlight the hazards of substance misuse is another crucial protocol that should be planned. These programs can significantly influence early intervention and the prevention of substance abuse and addiction (Sprague Martinez et al., 2020).

- iv. Data Analysis and Monitoring: The ADC should analyse the call data routinely to identify changes in substance abuse trends and modify its strategies with regards to the alterations. By doing so, the ADC can improve the effectiveness of its interventions and optimize the use of its resources.
- v. Diversifying the Channels to Ask for Help: It is needed to diversify the channels that patients seek help. This can be either via hotlines of public, or other related institutions which have the jurisdiction to provide help on drug related issues.

In conclusion, the results of the call analysis indicated several needs and worries connected to substance use and addiction within society. The significant number of calls about specific substances, including alcohol and methamphetamine, as well as the numerous calls that do not specify a substance, indicates a widespread concern. Moreover, understanding the timing and pattern of these calls, and the diversity of substance types, is crucial for comprehending substance use trends in society and detecting emerging issues related to these trends.

Monitoring and adjusting ADC's strategies continuously through data-driven approaches are important to address substance misuse and addiction (McKay et al., 2009). In-depth examination of the collected data is crucial for enhancing emergency response procedures (Pichini et al., 2016), determining resource allocation, implementing preventive measures, and planning awareness campaigns (Ladis et al., 2018). The significance of community involvement and educational initiatives in tackling substance use and addiction is highlighted by this study (Sprague Martinez et al., 2020). Such initiatives are essential in reaching various segments of society, providing them with the necessary information to prevent substance misuse emergencies. Engaging in informative and training activities is crucial for effectively addressing emerging needs related to substance use and addiction (Best et al., 2013).

The findings of this study indicate that the examination of telephone communications concerning substance use and addiction constitutes a

valuable asset for enhancing and refining ADC strategies and tactics. This method is essential in improving current services and devising innovative approaches and interventions to address the evolving requirements of society (Lin et al., 2019). Constant observation and evaluation of data are crucial elements in formulating strategic choices that will result in more favourable results in the struggle against substance abuse and addiction. This study suggests that the analysis of such calls can provide valuable insights for the ongoing enhancement of ADC strategies.

## 6.7. Challenges and Limitations of the Study

The data of callers of emergency hotline is critical to better understand the callers and improve the effectiveness of interventions and resource allocation by the Northern Cyprus Prime Ministry's Anti-Drug Commission. However, nearly half of the callers who are either the substance users themselves or the relatives (48%) restrained to answer the substance used, which constituted a limitation.

## 6.8. Acknowledgment

Tables of Report of Northern Cyprus Prime Ministry's Office of Anti-Drug Commission (ADC), which are developed by the aforementioned Commission, are officially provided to the author for academic use. The author would like to thank to Northern Cyprus Prime Ministry's Office of Anti-Drug Commission (ADC).

## References

- Best, D., Savic, M., Beckwith, M., Honor, S., Karpusheff, J., & Lubman, D. I. (2013). The role of abstinence and activity in the quality of life of drug users engaged in treatment. *Journal of Substance Abuse Treatment*, 45(3), 273–279. <https://doi.org/10.1016/j.jsat.2013.02.010>
- Cao, D., Marsh, J. C., Shin, H.-C., & Andrews, C. M. (2011). Improving Health and Social Outcomes with Targeted Services in Comprehensive Substance Abuse Treatment. *The American Journal of Drug and Alcohol Abuse*, 37(4), 250–258. <https://doi.org/10.3109/00952990.2011.591016>
- Clark, H. W. (2002). Bridging the gap between Substance Abuse Practice and research: The National Treatment Plan Initiative. *Journal of Drug Issues*, 32(3), 757–767. <https://doi.org/10.1177/002204260203200302>
- Daley, D. C., & Douaihy, A. (2019). Treatment of substance use disorders. In *A Family Guide to Coping with Substance Use Disorders* (pp. 38–53). Oxford University Press. <https://doi.org/10.1093/med-psych/9780190926632.003.0005>
- De Souza, M. F., Kohlrausch, E. R., Mazoni, C. G., Moreira, T. D. C., Fernandes, S., Dantas, D. C. M., & Barros, H. M. T. (2008). Profile of users of the VIVAVOZ telephone service on drugs of abuse. *Revista de Psiquiatria do Rio Grande do Sul*, 30(3), 182–191. <https://doi.org/10.1590/S0101-81082008000400007>
- Galea, S. (2004). The social epidemiology of substance use. *Epidemiologic Reviews*, 26(1), 36–52. <https://doi.org/10.1093/epirev/mxh007>
- Hoffman, R. S., & Goldfrank, L. R. (1990). The impact of drug abuse and addiction on Society. *Emergency Medicine Clinics of North America*, 8(3), 467–480. [https://doi.org/10.1016/s0733-8627\(20\)30253-4](https://doi.org/10.1016/s0733-8627(20)30253-4)
- Ladis, B. A., Macgowan, M., Thomlison, B., Fava, N. M., Huang, H., Trucco, E. M., & Martinez, M. J. (2018). Parent-Focused Preventive Interventions for Youth Substance Use and Problem Behaviors: A Systematic Review. *Research on Social Work Practice*, 29(4), 420–442. <https://doi.org/10.1177/1049731517753686>
- Lin, L. (Allison), Casteel, D., Shigekawa, E., Weyrich, M. S., Roby, D. H., & McMenamin, S. B. (2019). Telemedicine-delivered treatment interventions for substance use disorders: A systematic review. *Journal of Substance Abuse Treatment*, 101, 38–49. <https://doi.org/10.1016/j.jsat.2019.03.007>
- Marinelli-Casey, P., Domier, C. P., & Rawson, R. A. (2002). The gap between research and practice in substance abuse treatment. *Psychiatric Services*, 53(8), 984–987. <https://doi.org/10.1176/appi.ps.53.8.984>
- McKay, J. R., Carise, D., Dennis, M. L., Dupont, R., Humphreys, K., Kemp, J., Reynolds, D., White, W., Armstrong, R., Chalk, M., Haberle, B., McLellan, T., O'Connor, G., Pakull, B., & Schwarzlose, J. (2009). Extending the benefits of addiction treatment: Practical strategies for continuing care and

- recovery. *Journal of Substance Abuse Treatment*, 36(2), 127–130. <https://doi.org/10.1016/j.jsat.2008.10.005>
- Pichini, S., Busardò, F. P., Gregori, A., Berretta, P., Gentili, S., & Pacifici, R. (2016). Purity and adulterant analysis of some recent drug seizures in Italy. *Drug Testing and Analysis*, 9(3), 485–490. <https://doi.org/10.1002/dta.2134>
- Rao, R., Dhawan, A., Ambekar, A., Pusp, A., & Ray, R. (2017). Treatment of substance use disorders through the government health facilities: Developments in the “Drug De-addiction Programme” of Ministry of Health and Family Welfare, Government of India. *Indian Journal of Psychiatry*, 59(3), 380. [https://doi.org/10.4103/psychiatry.indianjpsychiatry\\_19\\_17](https://doi.org/10.4103/psychiatry.indianjpsychiatry_19_17)
- Perumbilly, S. A., & Stephen, A. A. (2015). Substance abuse prevention: perspectives from India’s addiction treatment professionals. *Artha - Journal of Social Sciences*, 14(2), 9. <https://doi.org/10.12724/ajss.33.2>
- Slaymaker, V. J. (2012). Occupational impact of drug abuse and addiction. In J. C. Verster, K. Brady, M. Galanter, & P. Conrod (Eds.), *Drug abuse and addiction in medical illness: Causes, consequences and treatment* (pp. 511–521). Springer Science + Business Media. [https://doi.org/10.1007/978-1-4614-3375-0\\_43](https://doi.org/10.1007/978-1-4614-3375-0_43)
- Sprague Martinez, L., Rapkin, B. D., Young, A., Freisthler, B., Glasgow, L., Hunt, T., Salsberry, P. J., Oga, E. A., Bennet-Fallin, A., Plouck, T. J., Drainoni, M.-L., Freeman, P. R., Surratt, H., Gulley, J., Hamilton, G. A., Bowman, P., Roeber, C. A., El-Bassel, N., & Battaglia, T. (2020). Community engagement to implement evidence-based practices in the HEALing communities study. *Drug and Alcohol Dependence*, 217, 108326. <https://doi.org/10.1016/j.drugalcdep.2020.108326>
- Swanepoel, I., Geyer, S., & Marcus, T. (2023). The impact of Substance Use Disorders on families and carers: A scoping review. *African Journal of Drug and Alcohol Studies*, 21(1–2), 38–54. <https://doi.org/10.4314/ajdas.v21i1-2.3>
- Togia, A., Sergeantanis, T. N., Sindos, M., Ntourakis, D., Doumouchtsis, E., Sergeantanis, I. N., Bachtis, C., Pyrros, D., & Papaefstathiou, N. (2008). Drug Abuse-Related Emergency Calls: A Metropolis-Wide Study. *Prehospital and Disaster Medicine*, 23(1), 36–40. <https://doi.org/10.1017/s1049023x00005537>
- Volkow, N. D., Jones, E. B., Einstein, E. B., & Wargo, E. M. (2019). Prevention and Treatment of Opioid Misuse and Addiction. *JAMA Psychiatry*, 76(2), 208. <https://doi.org/10.1001/jamapsychiatry.2018.3126>
- Westhuizen, C. van der, Malan, M., Naledi, T., Roelofse, M., Myers, B., Stein, D., & Sorsdahl, K. (2018). PW 2832 evaluation of a substance use screening, brief intervention and referral to treatment (SBIRT) service for injured and non-injured patients in South African emergency centres. <https://doi.org/10.1136/injuryprevention-2018-safety.676>
- White, M. D., & Marsh, E. E. (2006). Content analysis: A flexible methodology. *Library Trends*, 55(1), 22–45. <https://doi.org/10.1353/lib.2006.0053>

Yatsco, A. J., Champagne-Langabeer, T., Holder, T. F., Stotts, A. L., & Langabeer, J. R. (2020). Developing interagency collaboration to address the opioid epidemic: A scoping review of joint criminal justice and healthcare initiatives. *International Journal of Drug Policy*, 83, 102849. <https://doi.org/10.1016/j.drugpo.2020.102849>