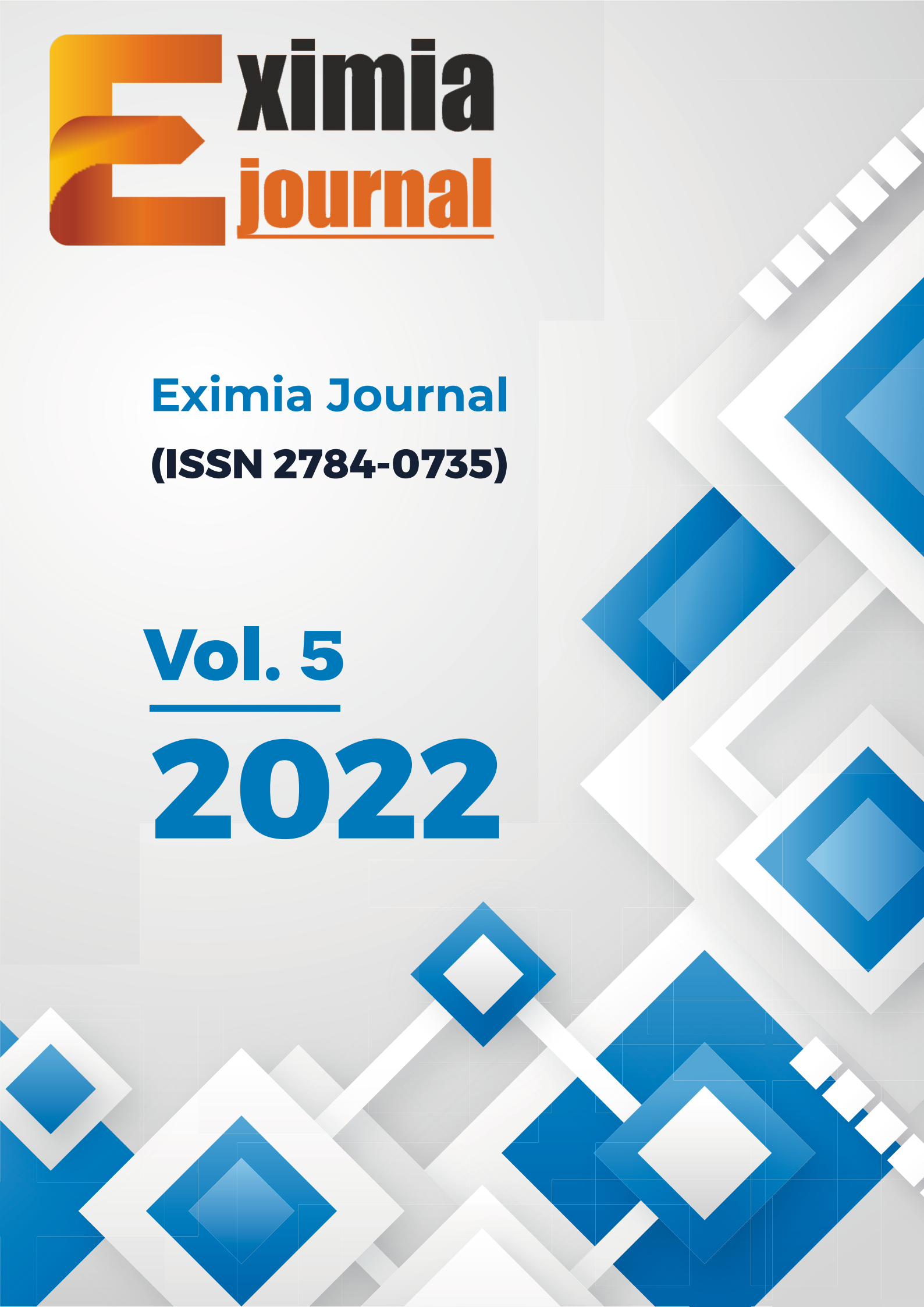




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Implications of Covid-19 Pandemic on Drug Use and Substance Use Disorders in Sexual Minority Youth Worldwide: A Qualitative Review of the Literature and Future Research Agenda

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Abstract. *Background.* Substantial concern exists regarding the impact of the COVID-19 pandemic on substance use behaviours (SUD). Sexual minority youth are a particularly vulnerable group and more prone to display an array of mental health disparities and in particular substance use disorders, than their heterosexual peers or even older people belonging to LGBT community. *Aims.* The purpose of the present meta-review is to examine the existing literature on the consequences of Covid-19 on drug use behaviors substance use disorders among sexual minority youth world-wide. *Methods.* An extensive search was conducted for all available research using the Google Scholar search engine as the primary source of data extraction. All relevant quantitative, qualitative and meta-analytical studies, dating back from 2019 - 2022 were included, all published in the English language. *Results.* Seven most pertinent studies were identified. All, but one employed quantitative, cross-sectional, longitudinal, population and survey-based research methods. Five studies were conducted in USA and two in Canada. *Conclusion.* Albeit a seemingly accumulative body of research on increased use of illicit drugs and substance use disorders among sexual minority young adults, it is undoubtedly clear that further qualitative, quantitative and mixed method studies are warranted in Israel and worldwide to shed light on the impact of Covid-19 on drug related trajectories and SUD in sexual minority youth. There is a need for implementation of specific tailored health care programs for this population.

Keywords. LGBT, sexual minority, substance use disorders, Covid-19, Israel

Introduction

The Covid-19 Pandemic –Origins and State of the Problem

In December 2019, an outbreak of pneumonia of unknown origin was reported in Wuhan, Hubei Province, China. The World Health Organization (WHO, 2020) declared it to be a global pandemic and named it officially Covid-19 (coronavirus; SARS-CoV-2) (Li et al., 2020; Xu, Wu & Cao, 2020). As the coronavirus crisis has threatened the world, countries around the globe, adopted varying levels of preventive measures to slow the spread of the virus. Such measures included social distancing, community curfews, restrictions on social

gatherings, transitions to working from home, and mandatory stay-at-home orders. Detrimental outcomes on mental health, including stress, depression and anxiety (Anjum et al., 2020; Banerjee, 2020; Kola, 2020; Chen, Wu & Tong, 2020; Salari et al., 2020; Sampogna, Pompili, & Fiorillo, 2021; Xiong et al., 2020) and substance use associated with the Covid-19 pandemic have been widely documented in the general population (Avena et al., 2021; Jemberie et al., 2020; Kumar et al., 2021., Sun et al., 2020; Yei & Shah, 2020; Zaami et al., 2022; Volkow & Blanco, 2021).

Previous, pre Covid-19, research, has established that sexual minority youth (people who identify as lesbian, gay, bisexual, or queer; transgender) experience worse mental health (including depression, anxiety, and suicidal ideation) (Amos et al., 2020; Bradford, Ryan, & Rothblum, 1994; Batchelder et al., 2021; Burns et al., 2015; Lucassen et al., 2017; Fulginiti, et al., 2021; Marshall et al., 2011; Plöderl & Tremblay, 2015) and more so, exhibit higher rates of alcohol and substance use disorders than their heterosexual and cisgender counterparts (Boyd et al., 2019; Bränström & Pachankis, 2018; Bonny-Noach & Shechory-Bitton, 2020; Cochran et al., 2007; Drabble et al., 2018; Fish & Baams, 2018; Goldbach et al., 2014; Hughes et al., 2020; Jordan, 2000; Krueger, Fish & Upchurch, 2020; Lee et al., 2016; McCabe et al., 2009; Marshall et al., 2008; Mereish, 2019; Rosario, Hunter, & Gwadz, 1997; Schuler & Collins, 2020; Shechory-Bitton, & Noach, 2022). The Covid-19 pandemic may have exacerbated an array of mental health disparities (Drabble & Eliason, 2021; Gibb et al., 2020; Kamal et al., 2021; Philpot et al., 2021) in LGBTQ+ populations, and substance use disorders, especially in adolescents and young adults, a highly vulnerable sexual minority age group. The current review is designed to summarize the existing literature on the implications of Covid-19 pandemic, on prevalence of illicit drug use and substance use disorders in sexual minority youth.

Methods

(a) Search strategy and study selection

An extensive search was conducted for all available research, between the years 2019-2022, using the Google Scholar search engine as the primary sources of data extraction. The search strategy was designed based on a-priori selected key words such as, “sexual minority youth”, “LGBT”, “substance use disorders”, “Covid-19”, and “Israel”, in various combinations. The initial search identified 17,000 citations. All articles were published in the English language. The published papers were evaluated for their relevance primarily based on their abstracts. Only studies that addressed directly and specifically the consequences of Covid-19 on substance use disorders in young sexual minority were included. Articles that addressed other mental health aspects of the Covid-19 outbreak in sexual minority population (i.e., depression, anxiety, eating pathology) or used exclusively an age group sample of 30+ were excluded from the review.

Results and Discussion

Table 1. Table that summarizes the most pertinent studies included in this review, indicating study design, sample characteristics (age and size), country where the study was conducted and main outcome measures.

Study	Design	Sample characteristics	Country	Age group	Sample size (N)	Main outcomes measures
<i>Felner et al. (2020)</i>	Qualitative descriptive (in depth semi-structured interviews)	lesbian, gay, bisexual, transgender, and queer	USA	21-34	59	Relationships between experiences of LGBTQ-related stressors, substance use, and socio-cultural influences in adolescence and young adulthood
<i>Starks et al. (2020)</i>	Quantitative. Cohort comparison	Sexual minority men	USA	18+	455	Association of illicit drugs and sexual behaviour during Covid-19.
<i>Salerno et al. (2021)</i>	Cross-sectional, survey-based	Sexual and gender minority university students	USA	Mean age = 22	509	Changes in alcohol use since the onset of COVID-19 in association with psychological distress
<i>Chaiton et al. (2021)</i>	Survey-based	LGBTQ (bi-sexual, queer, lesbian, a-sexual, other..)	Canada	Mean age = 21	1404	Experience of barriers to access or delay in access to mental health or addictions services
<i>Slemon et al. (2022)</i>	Repeated cross-sectional on-line survey	Sexual and gender minority (SGM)	Canada	18-34 35-54 55+	Round 1 (n = 2984) and Round 2 (n = 3009)	Comparing SGM mental health and substance use impacts of the COVID-19 pandemic to non-SGM peers to identify risk factors for adverse mental health and substance use outcomes
<i>Janulis et al. (2021)</i>	Data was extracted from a longitudinal cohort study of Mustanski et al., (2019)	Article II. Young men who have sex with men (YMSM) and young transgender women	USA (Chicago)	16-29	458	Frequency of Marijuana use following the onset of Covid-19
<i>Moody et al. (2022)</i>	Survey-based	Black cisgender, sexual minority men and transgender women	USA (Chicago)	16-34	226	Compared rates of poly-substance use, across socio-demographic. characteristics in Chicago population

(a) On carefully reviewing all citations, a total of 7 articles met the rigorous inclusion criteria and consequently were analyzed in this short, but exhaustive review.

(b) **Felner et al (2020)** employed a qualitative descriptive research design and using in depth semi-structured interviews, with 59 LGBT young respondents (46 of whom were White non-Hispanic), (age range 21-34) to examine how the participants perceive their substance use disorders in relation to their sexual identity. Thematic analysis of the data revealed that participants used illicit drugs as a psychological coping mechanism. Transgender and other participants (N=7) with a gender identity not traditionally associated with their birth sex (gender minority) described unique stressors (e.g., coping with two identity disclosure periods) at the intersection of gender identity and sexual orientation, shaping substance use and disorders over time. **Starks et al. (2020)**, in a cohort comparison study on sexual minority men (gay, bisexual and other men who have sex with men), (N= 455; aged 18+), examined the use of illicit drugs and sexual behaviour during Covid-19. The survey was conducted between May

6th to 17th, 2020. A matched control group was also included (surveyed between November, 2017 and November, 2019). Results showed that marijuana and illicit drug use was declined significantly during Covid-19, (34.5 % versus 45.7 % pre-COVID, $p < .001$ and 11.0 % versus 22.9 % pre-COVID, $p < .001$ respectively, but the interactive effects of illegal drug use and condomless sexual intercourse rates were greater in the Covid cohort. In another, cross-sectional, large survey study **Salerno et al (2021)**, investigated changes in alcohol use since the onset of COVID-19 in association with psychological distress among sexual and gender minority university students (N=509). Results indicated that average psychological distress ($M = 27.79$, $SD = 7.82$) was relatively high as per existing research and established clinical cut-off scores. Roughly 32% had increased alcohol use since the start of COVID-19. Additionally, it was found that greater alcohol use ($p < .05$) since the start of COVID-19 was associated with higher psychological distress among SGM university students, and among females but not males assigned at birth. Study findings emphasize the importance of culturally responsive mental health, alcohol use, and higher education practice and response to address the needs of SGM university students amid and beyond COVID-19. **Chaiton et al. (2021)**, in an online survey-based study in Canada, with 1404 Canadian 2SLGBTQ+ youth, looked at the associations between previous mental health experiences, diagnoses, and substance use and barriers to access or delay in access to mental health or addictions services. Bivariate and multinomial logistic regression analyses revealed that multiple sociodemographic, mental health, and substance use variables significantly associated with both expressing a need for and experiencing barriers to care. Also, statistical analysis revealed that gender identity, sexual orientation, ethnicity, and level of educational attainment to be significantly correlated with both cases. Results support an emerging body of research suggesting that gender and sexual minority youth are experiencing immense mental health challenges during the current COVID-19 pandemic and there is a need to consider tailored treatment programs. In their study, in Chicago, USA **Janulis et al (2021)** used a sample of young men who have sex with men (YMSM) and young transgender women (N =458; age 16-29). Data was extracted from another ongoing longitudinal cohort study (YMSM-YTW; see Mustanski et al. 2019). The authors examined the frequency of marijuana use following the onset of Covid-19. Results showed no change in the prevalence or frequency of marijuana use. Furthermore, a decrease of non-marijuana drug use and a slight increase in frequency of non-marijuana drug use was observed. **Slemon et al (2022)** in a repeated cross-sectional survey in Canada, in a sample of sexual and gender minority (SGM) compared SGM mental health and substance use impacts of the COVID-19 pandemic to non-SGM peers to identify risk factors for adverse mental health and substance use outcomes. Data were drawn from two rounds of a repeated cross-sectional monitoring survey of 6027 Canadian adults, with Round 1 conducted May 14–19, 2020 and Round 2 conducted September 14–21, 2020. Findings from this analysis indicated that, across all measures, SGM young adults are significantly more likely than their non-SGM counterparts to experience wide-ranging mental health challenges amid the Covid-19 pandemic, including suicidal ideation, self-harm, poor coping, and using substances to cope with the Covid-related stress. Finally, **Moody et (2022)**, also in a survey based study, in Chicago, with a sample of 226 black cisgender, sexual minority men and transgender women (age range 16-29), examined poly-substance use during the Covid-19 peak period. Main findings were that alcohol and marijuana were the most used substances. Tobacco and other illegal drugs were also reported to be in use by the respondents. As such, the authors concluded that poly-substance use (i.e., using two or more substances) was common in this sample. In addition, substance use, including poly-substance use, was high in a sample of Black SMM and transgender women

during the initial peak of the COVID-19 pandemic. The study suggests that continued monitoring is needed given the duration of the COVID-19 pandemic and the negative health consequences associated with substance use in this population.

Concluding remarks

As this short, albeit comprehensive review has shown, sexual minority young adults are clearly suffer more from psychological distress and display higher rates and prevalence of drug use substance use disorders, amid to Covid-19, compared to heterosexual individuals. Though studies included in this review, differed on a number of variables, methods and sample characteristics, it is denoted from these studies that immediate interventions are needed for sexual minority youth. With that being said, due to paucity of research, it is undoubtedly necessary to examine further and to the full extent the consequences of the Covid-19 pandemic not only on drug-related disparities, but also on a range of physical, psycho-social, mental, psychological, emotional health factors in a younger sexual minority sub-group, that is adolescents, aged 14-16. Moreover, it would be of great value to address the issue employing more qualitative, as well as quantitative and mixed method research paradigms. There is a need for additional studies on the prevalence of substance use disorders in sexual minority youth, with consideration of extraneous factors, like religiosity, ethnicity; gender differences. In Israel, being a special case, with numerous lockdowns during the pandemic, it is critical to generate empirical data as to the ramifications of Covid-19 in the lives of sexual minority youth, across religious and ethnic subgroups and to examine the trajectories of illicit drug use in this population.

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