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Research Article

Prevalence and Factors Associated with Substance Use Among Street Children in Hawassa City, Sidama Regional State, Southern Ethiopia

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Abstract

Introduction: Worldwide, the prevalence of substance use is becoming an alarming problem, and it not only harms individuals but also negatively affects families and society. Street children are vulnerable to a variety of problems because they are a socially isolated group, and they are mainly involved in transactional sex and harmful drug use for survival. Continuous exposure to the street and its associated lifestyles makes street children vulnerable to the use of different harmful substances and has devastating consequences for them. Thus, we aimed to evaluate the prevalence and factors associated with substance use among street children in Hawassa City, southern Ethiopia. *Methods and materials:* A community-based cross-sectional study design was employed among 328 street children in Hawassa City, Sidama National Regional State, Southern Ethiopia, from May 1–30, 2024. A structured questionnaire was used to collect the data. The data had been entered into Epi Data version 3.1 and exported to SPSS version 25 software for analysis. Both bivariate and multivariable logistic regressions were computed to identify associated factors. Candidate variables with p-values< 0.25 in bi-variable regression were selected for multiple logistic regression analysis. The degree of association was assessed using an odds ratio, and statistical significance was declared at a 95% confidence level and p-value of less than 0.05. *Result:* From a total of 328 street children who participated in this study, 134 (40.9%) with 95% CI [35.5–46.4] were substance users currently. Alcohol 129 (39.3%) was the most common substance used, and peer pressure 38 (26%) was the main reason for engagement in substance use. Crime participation history [AOR: 4.04, 95% CI: 2.08-7.83], having any family member use substances [AOR: 3.354; 95% CI: 1.98-5.69], negative attitude toward the community [AOR: 1.79; 95% CI: 1.01-3.19], and living on the street as beggars [AOR: 2.17; 95% CI: 1.18-3.97] were significantly associated factors with current street children's substance use. Conclusions: The prevalence of substance use among street children is high as compared to the other studies in Ethiopia, as well as other African and Asian countries.

Keywords

Substance, Substance Use, Street Children, Hawassa, Ethiopia

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1. Introduction

Any psychoactive material that primarily acts on the central nervous system, resulting in temporary changes in perception, mood, consciousness, and behavior, is referred to as a substance [1]. In Ethiopia, commonly used substances include alcohol, cigarettes, khat, and cannabis. Unfortunately, all of these substances, except cannabis, are legal in Ethiopia and are openly sold and consumed [2]. In Ethiopia, Street children are particularly vulnerable to substance use, with common substances used by them including benzene sniffing, smoking, chewing chat, and using plastic [3].

Street children are defined as individuals under the age of 18 who spend all or part of their time on the streets, lack supervision or protection, and the street has become their home or source of livelihood [4]. They can be categorized as children of the street, children on the street, or street-working children, and children from street families [5]. Being a street child exposes them to various challenges such as inadequate nutrition, unsanitary living conditions, violence, and a lack of support, love, and protection [6]. In such circumstances, substance use, as well as risks such as HIV/AIDS, sexually transmitted diseases, and unwanted pregnancies, poses significant dangers to their well-being [6].

Substance use among street children is a major public health concern in both developing and developed countries. However, developing countries, including Ethiopia, are particularly vulnerable due to their poor socioeconomic conditions [7, 8]. Substance use has detrimental effects on individuals, families, and society as a whole [9]. In Ethiopia, urbanization has led to an increased number of children participating in street life, estimated at around 600,000 [10]. These street children are highly susceptible to substance use due to their exposure to street lifestyles and the need to engage in transactional sex for survival [8-10]. Substance use among street children often leads to involvement in criminal activities to fund their addiction, with a high percentage of street children reporting such involvement [11, 12].

Studies have shown that substance misuse among street children is associated with psychological distress, suicide attempts, functional impairment, physical health problems, and risky behavior [9, 13]. Substance use exacerbates various consequences in the lives of street children, including emotional health issues, disrupted relationships, academic failure, social marginalization, and criminal behavior [14, 15]. In Ethiopia, substance use among street children is a growing problem, worsened by public indifference to their struggles. Their situation was worsened by the negative attitude of the public, who were insensitive to their problems [9, 16]. Previous studies have primarily focused on the economic, social, and cultural causes of homelessness among street children, as well as their involvement in risky sexual behaviors and the prevalence of diseases such as HIV/AIDS [17-19]. However, there is a lack of research specifically addressing the issue of substance use among street children. Thus, understanding the prevalence and factors associated with substance use among street children is crucial for designing evidence-based intervention programs to address this problem and improve the lives of these vulnerable children.

2. Methods and Material

2.1. Study Setting and Period

Hawassa city is 273 km (170 mi) south of Addis Ababa, the capital city of Ethiopia. Addis ketema, Hayk dar, Bahil adarash, Misrak, Menahreya, Tabor, Mehal ketema and Tula are its sub city. The city's current predicted population is 329,734 according to the 2007 G.C census. The numbers of street children in Ethiopia have to be estimated at over 100,000 and out of them, about 2,555 are found in the streets of Hawassa [16]. A community-based cross-sectional study design was employed. The study was conducted from May 1–31, 2024 G.C.

2.2. Source and Study Population

2.2.1. Source Population

All street children who live on the streets of Hawassa City.

2.2.2. Study Population

All street children who fulfill the selection criteria in the sampled area during the study period.

2.3. Inclusion and Exclusion Criteria

2.3.1. Inclusion Criteria

Street children who were between the ages of 12 and 18 and who lived in Hawassa City and expressed a willingness to participate were included in the study.

2.3.2. Exclusion Criteria

Street children who have lived in Hawassa City for less than one month were not included.

2.4. Sample Size Calculation

2.4.1. The Sample Size for the First Objective

The sample size for the first objective was determined by using the formula for a single population the proportion for a cross-sectional study and using a basic assumption of 95% confidence level, 5% margin of error, and taking the proportion of substance use among street children as 30.8% from a similar study done in Jimma town [8].

To determine the representative sample size using the

formula,

$$N = \frac{Z2P(1-P)}{d2}$$

$$N = (1.96)^2\ 0.308(0.692)/\ (0.05)^2 = 328$$

$$n = 328$$

The study populations are less than 10 000 so I can use population correction formula

$$n = n/1+ ((n-1))/N$$

$$= 328/1+ ((328-1))/2555$$

$$N=290$$

But I have got more participants so I use the first 328 as a final sample size for this study .

2.4.2. The Sample Size for the Second Objective

The sample size for the second objective was calculated by using EPI INFO version 7 for those factors that can influence children's substance use. During calculation 95% CI, 80% power, percent of unexposed with outcome, and adjusted odds ratio of best friend substance use and mother substance use were assumed.

The calculated samples for both objectives are compared to obtain the maximum sample. Since the sample size calculated by a single population proportion is large, it is taken as a final sample. The final sample size was 328.

2.5. Sampling Technique

In light of the high mobility of the studied population and sensitive issues of substance use, a consecutive sampling technique was used to select a participant. First, the researcher has searched areas where street children are mainly found. Then based on the inclusion criteria they were gathered at the nearby health center. Then the data collectors were interviewed face-to-face individually with each child. The procedure was continued until the minimum sample size was reached.

2.6. Data Collection Tools and Procedures

The data were collected using interviewer-administered structured questionnaires by face-to-face interviews which were prepared by reviewing different kinds of literature and data collection tools that can address the socio-demographics, family, environmental, personal, and substance use characteristics of the children. The data were collected by 21 data collectors at three different health facilities and the principal investigator supervised the whole data collection process. All data collectors were given comprehensive training before data

collection about the objectives of the study, the issues of verbal assent, and the rights of the respondents.

2.7. Study Variables

2.7.1. Dependent Variable

Substance use.

2.7.2. Independent Variables

1. Socio-demographic characteristic (age, sex, religion, ethnicity, educational status)
2. Types of work they do on the street
3. Duration on the street and age at first joining the street
4. Sleeping place
5. Feeding frequency
6. Family factors like maternal, paternal, and sibling substance use
7. Best friend substance use
8. Attitude towards the society
9. Types of the reason being a street child

2.8. Operational Definitions

Substance: - are any non-medical chemicals (including khat, cigarette, alcohol, shisha, and inhalers) that affect activity of the brain and distorting and making it work artificially and induce temporary happiness.

Street children: - children between the ages of 12 and 18 who work and/or sleep on the streets.

Substance use ever: - using one or more substances (khat, cigarette, alcohol, shisha, and inhalers) to alter mood or behavior.

Substance use currently: - using one or more of any types of substance (khat, cigarette, alcohol, shisha, and inhalers) in the last one month.

2.9. Data Management and Analysis

The entire field questionnaire was checked for completeness, cleaned manually, coded, and entered into Epi data version 3.1, exported to SPSS version 25 statistical packages then cleaned and edited for further analysis.

Descriptive statistics like frequencies and percentages were used for the categorical variables. Mean, median, variance, and standard deviation was used to summarize continuous data. Tables and charts were used for data presentation. Bi-variable logistic regression was done to select candidates for multivariable logistic regression analysis with a p-value < 0.25 at 95% confidence. Then, candidate variables were entered into a multiple logistic regression model using the backward elimination method. The degree of association was assessed using an odds ratio and statistical significance was declared at a 95% confidence level and p-value of less than 0.05. Hosmer & Lemeshow's test was done as well as its

significance status (p-value >0.05) to check the fitness of the model.

2.10. Quality Assurance Techniques

Data qualities were ensured during collection, coding, entry, and analysis. To increase the quality of data during data collection a properly designed, structured, and pretested data extraction format was used.

The questionnaire was prepared in English and translated into Amharic language and it was translated back to English to assess consistency. Amharic language version was used while carrying out the interview. Questionnaires were pretested on 5% of the street children in Yirga Alem town, which is 40 kilometers from Hawassa prior to actual data collection.

Some modifications and updating of tools were done based on the result of the pretest. The filled questionnaires were reviewed at the end of data collection every day for completeness, consistency, and taking corrective measures to be contentiously managed during the data collection periods.

3. Ethical Consideration

Despite the fact that this study was non-invasive and unlikely to cause harm to participants, important ethical considerations were addressed during its execution to give priority to the respondents' welfare. After approval of the document by the Hawassa University College of Medicine and Health Sciences institutional review committee, ethical approval and an official letter were obtained. Permission to conduct the study was obtained from the Hawassa city administration. There was no personal identifier attached during data retrieval. There was no intention to collect any additional information from the individual and there were no risks that followed with participation in this research.

4. Result

4.1. Socio-demographic Characteristics

A total of 328 street children participated in this study, out of this participant 312 (95.1%) were males. One hundred fifty (45.7%) of the respondents were in the age group of 12-14 years and the mean age was 14.98 (±2.20 SD).

Two hundred twenty-seven (62.2%) of children were protestant religious followers. In terms of educational level more than half of the subjects 195 (59.5%) of the respondents were below grade 4 completed, with only 4 (1.2%) were completed grade 9 and above. Currently nearly 300 (91.5%) of children were out of school enrolment.

Street children were also asked at what age they joined street life and how long they had been on the streets and around 205 (62.5%) children indicated that they joined at the age below the age of 12 and 267 (81.4%) had been staying less

than 5 years. The median age of joining street life was 12 and the median duration of stay on the street was 3 years with interquartile range (IQR) of 4 and 4 years respectively.

Participant involved in this study not only attaché their life to the street more than half of them sleep at night on street 214 (65.2%). While about feeding frequency 203 (61.9%) feed less than three times per day. (Table 1)

Table 1. Socio demographic characteristics of street children in Hawassa city, Sidama Regional State, Southern Ethiopia, November / 2022 (n= 328).

Variable	Category	Total	Percentage
Sex	Male	312	95.1
	Female	16	4.9
Age category	12-14 years	150	45.7
	15-18 years	178	54.3
Educational Status	Illiterate	45	13.7
	1-4	195	59.5
	5-8	84	25.6
	9-12	4	1.2
Current School Enrollment	Yes	28	8.5
	No	300	91.5
Religion	Orthodox	48	14.6
	Muslim	24	7.3
	Protestant	227	69.2
	Catholic	18	5.5
	Cultural	3	.9
	Other	7	2.1
Duration on the street (year)	<6	267	81.4
	≥6	61	18.6
Age children at first join street life	≤12	205	62.5
	>12	123	37.5
Usual sleeping place	On street	214	65.2
	Out of street	114	34.8
Feeding Frequency	≥3 per day	124	37.8
	< 3 per day	203	61.9

When they live on the street, study participants have been participating in different income- generating activities for survival in street life. The sources of income for living for males and females were the same. They were involved mostly by carrying small items 258 (78.7%), followed by scavenging 169 (51.5%) and begging 100 (30.5%). (Table 2)

Table 2. Socio economic characteristics of street children in Hawassa city, Sidama Regional State, Southern Ethiopia, November / 2022 (N= 328).

Types of activity done for living	Frequency	Percentage (%)
Begging	100	30.5
Scavenge ring	169	51.5
Carrying small goods	258	78.7
Shoe shining	77	23.5
Selling small goods	71	21.6
Theft	30	9.1
Other	8	2.4

4.2. Family Status of Study Participants

Out of the total 328 street children who participated in this research 41 (12.5%) and 66 (20.1%) of the respondents have lost their natural (biological) mother and father respectively. Regarding, parent educational levels 182 (55.5%) and 127 (38.7%) of respondents' mothers and fathers can't read and write respectively. In terms of family size of children, 161 (49.1%) children who participated in this study come from families of having greater than 6 members. In addition to this 125 (38.1%) of respondents' family didn't live together. (Table 3)

4.3. Prevalence of Substance Use

This study revealed that from a total of 328 street children who participated in this study 146 (44.5%) with 95% CI [39.1–50.1] used at least one substance in their lifetime. Among those, 134 (40.9%) with 95% CI [35.5–46.4] were current substance users.

Table 3. Family characteristics of street children in Hawassa city, Sidama Regional State, Southern Ethiopia, November / 2022 (N= 328).

Variable	Category	Substance Use		Total	Chi-square p-value
		Yes (%)	No (%)		
Mother alive	Yes	119 (41.5)	168 (58.5)	287	0.552
	No	15 (36.6)	26 (63.4)	41	
Father alive	Yes	108 (41.2)	154 (58.8)	262	0.787
	No	26 (39.4)	40 (60.6)	66	
Father's education	Literate	95 (47.3)	106 (52.7)	201	0.003**
	Illiterate	39 (30.7)	88 (69.3)	127	
Mother's education	Literate	68 (46.6)	78 (53.4)	146	0.059
	Illiterate	66 (36.3)	116 (63.7)	182	
Parents living together	Yes	76 (37.4)	127 (62.6)	203	0.109
	No	58 (46.4)	67 (53.6)	125	
Reason for not living together	Divorce	13 (72.2)	5 (47.8)	18	0.019*
	Separated due to conflict	6 (66.7)	3 (33.3)	9	
	Separated due to work	4 (57.1)	3 (42.9)	7	
	Other (Died)	35 (38.5)	56 (61.5)	91	
Number of family	≤6	80 (48.5)	85 (51.5)	165	0.006*
	>6	54 (33.5)	107 (66.5)	161	

Table 4. Distribution of substance use among street children in Hawassa city, Sidama Regional State, Southern Ethiopia, November/ 2022 (N=328).

|		Yes	No
Substance use	Ever used	146 (44.5%)	182 (55.5%)
	Current use	134 (40.9%)	194 (59.1%)

Among 134 current substance users, 126 (94%) were males and 68 (50.7%) of them were between the age of 12 and 14 years old. Meanwhile, more than three quarter 119 (88.8%) of them drop out of school currently.

Children who sleep on the street have high substance use prevalence of 96 (71.6%) when compared to those who sleep out of children. On the other hand, 95 (70.9%) of children who use substances currently have a feeding frequency of less than three times per day. (Table 5)

Table 5. Cross tabulation of different socio demographic factors with substance use among street children in Hawassa city, Sidama Regional State, Southern Ethiopia, November / 2022 (n=134).

| Variable	Category	Substance Use		Chi-square p-value
		Yes (%) n=134	No (%) n=194	
Sex	Male	126 (94)	186 (95.9)	0.445
	Female	8 (6)	8 (4.1)	
Age category	12-14 years	68 (50.7)	82 (54.7)	0.130
	15-18 years	66 (49.1)	112 (62.9)	
Current School Enrollment	Yes	15 (11.2)	13 (6.7)	0.152
	No	119 (88.8)	181 (93.2)	
Usual sleeping place	On street	96 (71.6)	118 (60.2)	0.043*
	Out of street	38 (33.3)	76 (39.2)	
Feeding Frequency	≥3 per day	39 (29.1)	86 (44.3)	0.005**
	< 3 per day	95 (70.9)	108 (55.7)	

4.4. Types of Substance Used by Street Children
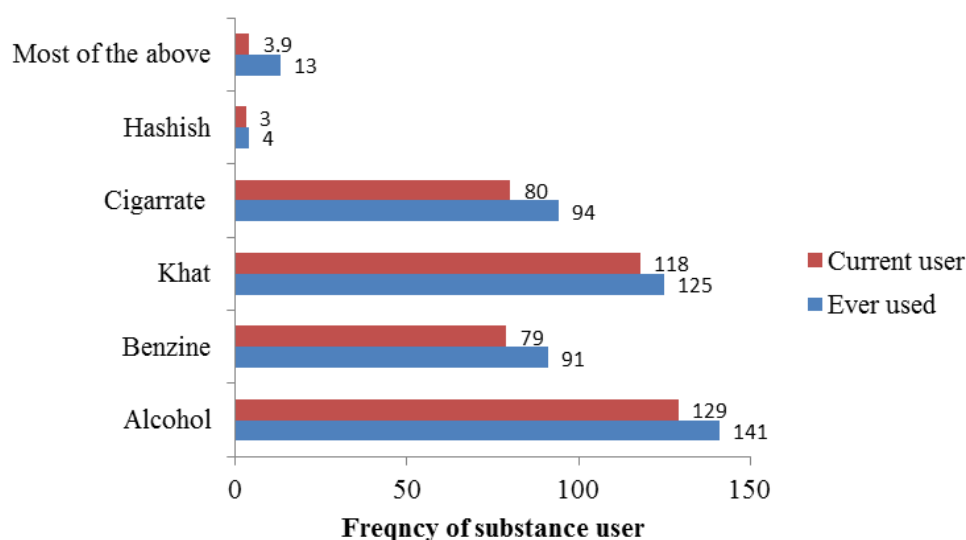
Figure 1. Frequency of types of substances used by street children in Hawassa city, Sidama Regional State, Southern Ethiopia, November / 2022.

In this study variety of types of substances were used by study participants. The most common substance used among street children was alcohol, 141 (42.9%) were ever drinking alcohol in their lifetime while 129 (39.3%) of them were current alcohol users. Followed by 125 (38.1%) ever khat chewing in their lifetime and 118 (35.9%) of them chew khat currently.

4.5. Reasons of Substance Use

In this study, the respondents had varying reactions to the reasons why they were engaging in different substance use. They mentioned a variety of reasons for their usage of various substances throughout their lifetime. Among this Peer pressure 38 (26%) and to reduce hunger 36 (25%) were the leading reasons stated by the study participants. (Figure 2)
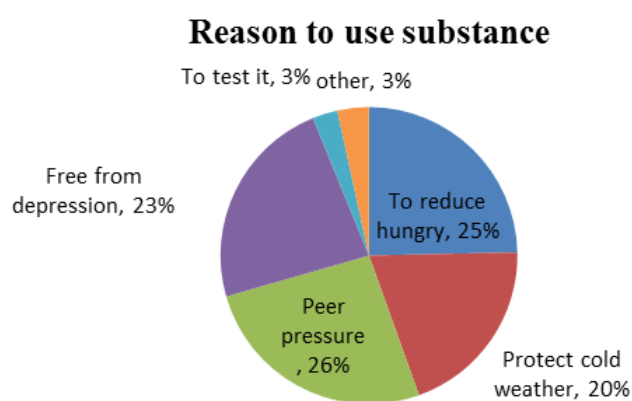
Figure 2. *Types of reason to use substances among street children in Hawassa city, Sidama Regional State, Southern Ethiopia, November / 2022 (n=134).*

4.6. Factors Associated with Substance Use

Among socio-demography, family-related, socio-economic-related, and environmental-related factors different variables were entered into a bi-variable logistic regression. From those variables, any family member's substance use, place of usual sleep, joining the street due to peer pressure, Joining the Street due to parents' conflict, having a history of crime participation on the street, feeding by scavenging, feeding frequency and children's attitude toward the community were significantly associated with substance use at a 5% level of significance.

In addition to the above significantly associated variables in the bi-variable logistic analysis, variables like duration of stay on the street, fathers' education, and age at joining the street were taken as candidate variables for multivariable logistic regression at a p-value ≤ 0.25.

The output from multivariable logistic regression showed that having a crime participation a history, having any family member use the substance, negative attitude toward the community, and living on the street as begging were significantly associated with current substance use at p-value <0.05 after adjustment to confounding variables.

Street children who had history of crime participation had 4.04 times higher odds of being substance users [AOR: 4.04, 95% CI, 2.08-7.83] than those children who had no crime participation history on the street, provided that the other variables were kept constant.

Similarly, street children who had any family member who used substances had 3.354 odds of being a substance user [AOR: 3.354; 95% CI: 1.98-5.69], than those whose family member didn't use substances by keeping the other variables constant.

Likewise, street children who have a negative attitude toward the community were 1.79 times more likely to be substance users than those children who have a positive attitude [AOR; 1.79; 95% CI: 1.01-3.19]. However, there were no significant differences in substance use between the children who had positive attitudes and neutral attitudes. (Table 6)

Moreover, street children who lived as Begging on the street had a higher prevalence of substance use than those who were doing other work. [AOR; 2.17; 95% CI: 1.18-3.97].

Table 6. *Logistic regression of factors associated with substance use among street children in Hawassa city, Sidama Regional State, Southern Ethiopia, November / 2022 (N=328).*

Variable	Category	Substance Use		COR (95% CI)	AOR (95% CI)
		Yes (%)	No (%)		
Duration stays on street (Year)	<6	105 (39.3)	162 (60.7)	1	1
	≥6	29 (47.5)	32 (52.5)	1.39 (0.79-2.45)	1.25 (0.62-2.51)
Substance use in the family	No	49 (25.5)	143 (74.5)	1	1
	Yes	85 (62.5)	51 (37.5)	4.86 (3.02-7.82) ***	3.78 (2.22-6.42) ***

Variable	Category	Substance Use		COR (95% CI)	AOR (95% CI)
		Yes (%)	No (%)		
Place of sleep usually	Out of street	38 (33.3)	76 (66.7)	1	1
	In street	96 (44.9)	118 (55.1)	1.63 (1.01-2.61) *	1.46 (0.83-2.57)
Children attitude towards society	Positive	69 (33.8)	135 (66.2)	1	1
	Neutral	9 (39.1)	14 (60.9)	1.26 (0.52-3.05)	1.01 (0.34-2.98)
	Negative	56 (55.4)	45 (44.6)	2.44 (1.49-3.97) **	1.78 (1.01-3.16) *
Joining street life due to conflict between parents	No	89 (35.9)	159 (64.1)	1	1
	Yes	45 (56.3)	35 (43.7)	2.297 (1.38-3.83) ***	1.522 (0.82-2.82)
Crime Participation	No	80 (31.3)	176 (68.7)	1	1
	Yes	54 (75)	18 (25)	6.6 (3.64-11.97) ***	3.91 (2.02-7.57) ***
Frequency of feeding	≥3	38 (30.6)	86 (69.4)	1	1
	<3	95 (46.8)	108 (53.2)	1.99 (1.24-3.19) **	1.27 (0.73-2.20)
Age at Joining Street	≤12	91 (44.4)	114 (55.6)	1	1
	>12	43 (35)	80 (65)	1.49 (0.94-2.36)	0.995 (0.55-1.82)
Street Scavenging	No	56 (35.2)	103 (64.8)	1	1
	Yes	78 (46.2)	91 (53.8)	1.58 (1.01-2.46) *	0.97 (0.54-1.73)
Begging	No	77 (57.5)	151 (77.8)	1	1
	Yes	57 (42.5)	43 (22.2)	2.6 (1.61-4.21)***	2.17 (1.18-3.97)*

COR Crude odds ratio; AOR Adjusted odds ratio; CI Confidence Interval *p<0.05, **P<0.01, ***P<0.001

Hosmer and Lemeshow goodness of fit test, P=0.341

5. Discussion

The study conducted among street children aged 12-18 years old in Hawassa city, Sidama Regional State, Southern Ethiopia revealed a high prevalence of substance use, with 41% of participants reporting current substance use. Alcohol was the most commonly used substance, followed by khat chewing and cigarette smoking. Factors associated with substance use included having a family member who uses substances, involvement in criminal activities, relying on begging as a source of income, and living on the streets. Peer pressure was identified as a significant influence on substance use among street children.

The overall prevalence of substance use was 41% with 95% CI [35.5–46.4], which was found to be comparable to a study done in Mumbai, India [20]. However this result was found to be higher than the study done among street children in Jimma, Ethiopia which was about 30% [8], and Mekele, Ethiopia which was about 37% [21]. The higher prevalence in the current study might be due to easily availability of substances in this study area and due to difference in source population.

The other possible reason for this difference may be the difference in sample size. On the other hand the prevalence of lifetime and current substance use reported in the current study was lower than that of the findings reported from studies in western Kenya, south-western Nigeria, Tehran, Iran and Guwahati City, India [22-24].

In this study different types of substances were used by street children. It revealed that about 39% of the respondents had drunk alcohol currently. The finding was comparable with a study done in sub-Saharan Africa, Jaipur city, India and resource-constrained settings [25-27]. but the result is higher than reports from a study done in Jimma, Ethiopia, Gambia, western Kenya and Delhi, Indian [8, 22, 28, 29]. This discrepancy may be due to the difference in sociocultural difference in source of population and the different implementation of alcohol restriction rules in the country.

On the other hand in this study 35% of the participants were chew khat currently. The result is consistent with the findings reported in Selected Towns of Ethiopia [13]. This result is also lower than the study done in Jimma, Ethiopia [8]. This discrepancy may be due to availability of khat, sociocultural difference of the respondents and difference sample size used.

But higher than from that of a study conducted in Kenya and Sub-Saharan Africa [27, 30]. This may be due to higher availability of khat in the current research setting.

In this study, 24% of the respondents were smoke cigarette currently. which was comparable to a study done in sub-Saharan Africa [27]. However it was much lower than from the study conducted in Jimma, Ethiopia which was 44% [8], south-western Nigeria which was 41% [24] and In Makassar, Indonesia 48% [31]. This discrepancy may probably due to differences in study settings and different sample size used.

This study showed that the odds of substance use was three times higher among street children who had any family member who use substance compared to street children who had not family member that use substance [AOR: 3.354; 95% CI: 1.98-5.69, p<0.001]. This result was consistent with studies done in Jimma Ethiopia, western Kenya and Jaipur City India [8, 22, 26]. This consistence of data suggests that, even though street children live alone on street currently, the family they raise and those with whom they living together substance use status have an impact on the children's current substance use. But this finding is in disagreement with a study done in Delhi, India [32].

Similarly Street children who have crime participation history had 4.04 times higher odds of being substance user [AOR: 4.04, 95% CI, 2.08-7.83, p=<0.001], than those who had no crime participation on street. This finding is in agreement with the study done in Nepal and Pakistan [33]. The possible reason may be street children who use substance had high chance of behavioral problem and fight with their friends or Most street children who use substance were involved in crime to reduce their stress, to fulfill their basic needs and their substance needs.

Street children who live on street as begging were 2 times more likely to use substances compared to those who were working other job as a source of income [AOR; 2.17; 95% CI: 1.18-3.97]. This may be due to street children who live as begging have no enough money to buy food so to relief their hunger they may be use substance as compared to those who have other work for source of income.

Even though it is not statistically significant the findings of this study showed that being not current school enrolled street children had high chance of substance use compared to street children who were currently school enrolled [89%, 11%].

It was also observed that street children were at significantly more risk of substance use as they are living on-street when compared to street off children [71%, 33%]. The high prevalence of substance use found among street-involved children and youth in the present study is in line with findings from a study done in Mekele, Ethiopia and western Kenya [21, 22]. The possible that the high prevalence of substance use among street on children may be due to the fact that they street on children were spent more of time on street and more influenced by their peers while the sleep on.

These study findings highlight several reasons to use different types of substance. It revealed that Peer pressure 26% was the leading reasons stated by the study participants which was in agreement with the studies done in Jimma, Ethiopia, Gambia and Jaipur city, India [8, 26, 29] but different in the study done in Zambia [34].

6. Conclusions and Recommendations

In conclusion, substance use is a serious problem among street children in Hawassa city, with nearly half of the study participants being substance users. This is high compared to other studies in Ethiopia and other African and Asian countries. Alcohol, khat chewing, and cigarette smoking were the most commonly used substances. Factors such as family substance use, criminal involvement, begging as a source of income, and peer pressure were associated with substance use.

The findings demonstrate the urgent need for effective interventions and policies to address this issue. Firstly, there is a need for comprehensive substance abuse prevention programs targeted strategies to resist peer pressure. Second, efforts should be made to strengthen family support systems, providing counseling and assistance to families with members who use substances. Third, crime prevention initiatives should be implemented, focusing on addressing the underlying reasons for street children's involvement in criminal activities and providing them with alternative means to meet their basic needs. Moreover, economic interventions should be developed to offer viable income-generating opportunities for street children, reducing their reliance on begging. Finally, collaboration between governmental and non-governmental organizations, as well as community stakeholders, is crucial to ensure the successful implementation of these interventions and to provide comprehensive support to street children in overcoming substance abuse challenge.

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
AOR	Adjusted Odd Ratio
CI	Confidence Interval
COR	Crud Odd Ratio
ETB	Ethiopian Birr
HIV	Human Immune Deficiency
IQR	Inter Quartile Range
NGO	Non-Governmental Organization
RDS	Respondent-Driven Sampling
SD	Standard Deviation
SPSS	Statistical Package for Social Sciences
STI	Sexual Transmitted Infection

Acknowledgments

providing all the necessary information for this study. We also acknowledge all data collectors, supervisors, data clerks, and the study participants for their cooperation.

Author Contributions

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Conflicts of Interest

The authors declare no conflicts of interest.

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