# Primary Prevention of Substance Abuse among Homeless Children in Egypt

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Abstract: Substance abuse among homeless children is a critical and very important issue. This study Aimed to evaluate the effect of primary preventive program of substance abuse among homeless children in Egypt. **Design:** A quasi experimental design was used. **Setting:** This study was conducted at two shelters at Cairo Governorate in Egypt. Sample: A convenient sample was used for selection of 57street children. Data were collected through two main **Tools**: I-A structured interviewing questionnaire to determine homeless children' general characteristics, knowledge regarding substance abuse and its prevention and practices of children regarding precaution to avoid substance abuse. II- Likert scale to assess children' attitude toward substance abuse. **Results:** The current study results revealed that, 77.2% of studied children were male, 52.6% aged from 7 to < 11 years old, 42.0% of them being in a street resulting of family problems, only 17.5% of them had good total knowledge regarding substance abuse, 48.8% had negative total attitude and 71% had unsatisfied total practices score preprogram. While, after the program implementation the 52.6% of them had good total knowledge score, 61.4% had positive total attitude and 84.2% of them had satisfied total practices score after the program implementation. Conclusion: This study concluded that there were a significant improvement in homeless children' knowledge, attitude and their practices regarding prevention of substance abuse. **Recommendation**: Continuous preventive programs for homeless children, focusing on primary prevention of substance abuse facts as its' harmful effects, avoid imitate others in taking drugs, perform healthy daily living activities as exercises, eating and managing stress.

Key Words: Substance abuse, Shelters, Prevention

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### I. Introduction

Homeless (or street) children nowadays has become a significant matter of international concern. A street child is any child who has not come adulthood who the street has become his/her home and who is inefficiently protected [1]. The problems of homeless children are more significant in the developing than developed world and it was estimated that more than 100 million children live on the streets in the developing countries. The number of homeless children has grown in recent decades because of a widespread recession, political turmoil, civil unrest, increasing family disintegration, natural disasters and growing urbanization [2].

Substance abuse among children is one of the major problems facing the world. It is destroying lives, families and communities. The only long-term solution is to educate and support children and young people and those who care for and have responsibility for them in order that preventing them from becoming involved with substance abuse [3]. Substance abuse is often characterized by the poly substance use of inexpensive and accessible substance not for intended effects but for their perceived other effects such as alcohol, tobacco, cannabis and volatiles such as glue, benzene and solvents. These drugs are harmful and even deadly for children below the age of 18 years [4].

Risk factors for substance abuse represent challenges to an individual's emotional, social, and academic development. Short- and long-term negative physical and mental health effects of using substance abuse like inhalants include cognitive and neurological impairment, teratogenic effects, sudden sniffing death syndrome due to cardiac arrhythmia, and renal, hepatic, and pulmonary damage [5], [6]

Primary prevention aims to prevent substance abuse before it ever occurs. This is done by preventing exposures to hazards that cause substance abuse as peer pressure, altering unhealthy or unsafe behaviors that

can lead to substance abuse, and increasing resistance to it, like education about healthy and safe habits as eating well and exercising regularly [7], [8].

Nurses need to understand how to apply the level of prevention to homeless children. Nurses can use every opportunity to provide preventive care and health teaching to them, they play an important role in preventing substance abuse among them through educate them facts about it especially its' harmful effects and changing the behavior of children with respect to their health, as well as they advocate for preventive measures for homeless children[9], [10].

#### Significance of the study

UNICEF suggest that there are tens of millions of street children, and 90% are found in low- and middle-income countries. Estimates of the prevalence of homeless children are available in some countries as Ethiopia has over 150 000, Kenya over 300 000, Egypt over 1 million, Bangladesh over 400 000, Latin America over 7 million and Russia has over 16 000 children working on the urban streets [11].

Homeless children are one of the most vulnerable and marginalized groups would be at a considerably higher risk of substance abuse. Substances use are often characterized by the poly substance use of inexpensive and accessible substances such as alcohol, tobacco, cannabis and volatiles such as glue, benzene and solvents. These drugs are harmful and even deadly for children below the age of 18 years [12]. Therefore, this study was conducted to improve homeless children' knowledge, attitude and practices regarding substance abuse and its' prevention.

#### Aim of the study:

The study aimed to evaluate the effect of primary preventive program of substance abuse among homeless children in Egypt through:

1-Assessing children' knowledge and practices regarding substance abuse.

2- Assessing children' attitude regarding substance abuse

3-Developing and implementing substance abuse preventive program

4- Evaluating the effect of preventive program of substance abuse.

#### Hypothesis

Primary preventive program Substance abuse will improve homeless children' knowledge and attitude regarding to substance abuse, and help them to conduct substance abuse preventive measures.

### II. Subjects and Methods

**Design:** A quasi-experimental design was utilized to conduct the study. **Setting:** 

The study was conducted in two shelters, affiliated to social welfare institutions, Helwan shelters and Wadihof in Cairo Governorate. These shelters were selected because their children's age ranged between 6-18 years old.

### Sample:

A convenient sample was used to select a study sample, the actual number of children in these shelters is 57. All children of both sexes were chosen.

### Tools of data collection:

Two tools were used for collecting data based on literature review and experts' opinion:

### I- An Interviewing questionnaire to assess:

**a**- General characteristics of homeless children as shelter name, age, gender, duration of living in shelter, reasons for being in the street and receiving education about substance abuse.

**b**- Children' knowledge regarding to substance abuse, it included four main sections such as kinds of substance abuse (nicotine, alcohol, narcotics, Marijuana and inhalant), predisposing risk factors (peer pressure, family risk factor as addictive member of the family, availability of substance or drugs and individual factors as low self-esteem), Adverse consequences (harmful effect, dependence or addiction and intoxication) and preventive measures of substance abuse (raising awareness regarding substance abuse, avoid peer pressure, and find support).

### Knowledge scoring system

The child's knowledge was calculated for each item as follows: The complete and /or correct answer was scored 2, the incomplete correct answer was scored 1, and don't know or wrong answer was scored 0, and means and standard deviations were estimated. The higher scores reflect higher levels of knowledge about substance abuse. The total score was evaluated in three categories as follows: Good: equal 75% or more, average: equal 50% -< 75% and poor equal : < 50%.

**c**- Practices of children regarding precaution of substance abuse as self-reported such as choosing good friends, perform healthy daily living activities as exercises, eating and managing stress, avoid bad friends, avoid imitating others in taking drugs, go away from smokers until they stop smoking, and engaging in recreational activities.

### Practices scoring system

Children' practices were calculated for each item as follows: done practice was scored 1 and not done was scored 0. The total score was evaluated in two categories satisfied practices more than 60% and unsatisfied less than 60%.

#### II- Likert scale

To assess homeless children' attitude which include five negative items such as I think it gives a sense of happiness, I feel that they improve the memory and the ability to learn, I think it reduces the feeling of depression in some diseases, I think it provides self-confidence and It allows to identify new friends.

#### Likert scale scoring system

Likert scale that had two responses, agree, and not agree. The child's response was calculated for each item as follows: not agree was scored (1), and agree was scored (0). The total score was evaluated in two categories, positive attitude was more than 60% and negative less than 60%

#### **Pilot Study:**

It was conducted on 6 homeless children to test the content clarity, applicability and simplicity of the tools used. There were no modifications were made.

#### **Content validity:**

The tools were revised by 5 experts from the Community Health Nursing and Pediatric Nursing specialties of Faculty Staff Nurses.

## **Ethical Considerations:**

Permission for conducting the study was obtained from the administrative authority of the shelters. The researchers took into consideration homeless children' rights based on their needs, giving complete necessary information, assuring them that confidentiality will be maintained and homeless children have the right to refuse participation or withdraw at any time without giving any reason.

#### **Field Work:**

- A written letters obtained from the Dean of Nursing Faculty, Benha University were forwarded to the directors of shelters to obtain their permission to visit the shelters and carried out of the study.
- Each homeless child was interviewed individually after illustrating the aim of the study to obtain his / her informed consent to participate in the study.
- The primary preventive program was constructed after reviewing of related literature.
- Data collection was carried out in the period from beginning May to the end November 2016, three days weekly for three hours/daily
- Time plan was developed and the homeless children were organized into groups (10-13 homeless child).
- The program starts from 10 .00 a.m. to 2 .00 p.m. Each group of homeless children received 6 (4 for theory and 2 for practices) sessions. Each session lasted 30-45 minutes.

#### Statistical Design:

Collected data were analyzed using the statistical Package for Social Sciences (SPSS) version 20. Data was presented as number, percent, and mean and stander deviation. Comparison between groups was done by Chi-square test. P < 0.05 was considered to be statistically significant of results.

#### Primary preventive program construction:

The primary prevention program was conducted in four consecutive phases

#### Assessment phase:

A pre-program assessment tools, using the previous interviewing questionnaires for data collection from homeless children. This phase aimed at identifying the homeless children' needs regarding substance abuse and its' prevention.

#### Planning and implementation phase:

The primary preventive program of substance abuse and its' prevention was designed for homeless children according to their needs to prevent substance abuse.

The general objective of the program: To improve homeless children' knowledge, attitude regarding substance abuse and their practices to prevent it among them.

This primary preventive program was consisted of 6 sessions 4 for theory and 2 for practices by using simple Arabic language to suit children level of understanding. Each session duration ranged from 30-45 minutes. At the end of each session, the children were informed about the content of the next session and it's time. Different teaching methods were used, including lecture, small group discussion, brainstorming, demonstration and redemonstration. The teaching aids used were brochures, and colored posters. A booklet distributed to all studied children to achieve its objective

#### **Program content:**

- Substance abuse meaning
- Components
- Types
- Risk factors
- Harmful effects
- Practice healthier daily living as
  - \*Diet,
    - \*Stress management and
  - \*Different types of exercises
- How to avoid temptations and peer pressure (how to say no)
- How to choose good friends
- How to avoid bad friends
- How to go away from places of smoking or drugs
- Importance of engaging in recreational activity

#### **Evaluation phase**

The effect of the primary preventive program was evaluated by using the same format of pre-test to constitute the post-test and follow up test

### III. Results

**Table (1)** shows that; 63.2% of studied participants were from Wadihof shelter, 77.2% of them were male, and 52.6% aged from 7 to < 11 years old.

Figure (1) displays that, 42.0% of studied participants being in a street as results in family problems.

Figure (2) displays that, 84.2% of studied participants didn't receive any education about substance abuse.

**Table (2)** shows that improving of mean and stander deviation of studied participants post program  $5.87\pm0.59$  compared by  $2.15\pm0.79$  preprogram regarding kinds of substance abuse. There were statistically significant differences regarding all knowledge items between pre and post program implementation.

Figure (3) demonstrates that the total homeless children knowledge score was improved post program with statistically significant difference.

**Table (3)** illustrates that, 54.4% of studied participants preprogram agreed that substance abuse reduces the feeling of depression in some diseases, 66.6% agreed that it provides self-confidence which decreased to 21.1% and 31.6% respectively post program. As well as there was highly statistically significant difference between pre and post preventive substance abuse program implementation regarding most of attitudes items except to studied participants' agreement concerning to it gives a sense of happiness (p<0.001).

**Figure (4)** displays that, there was improving in total homeless children' attitude score post program, 51.2% of homeless children had positive attitude preprogram compared by 61.4% positive attitude post program.

**Table (4)** reveals that there were improving of studied participants' practices regarding to precaution to avoid substance abuse as a self reported post program than pre program, particularly for performing healthier daily Living activities as exercises, eating and managing stress 22.8% pre program to 96.5% post program and avoid bad friends from 31.6% pre program to 84.2% post program. On the whole the results have statistically significant differences pre and post program for all practice items.

**Figure (5)** shows that, 71% of total studied participants' practices were unsatisfied preprogram. However, 84.2% of total studied participants' practices were satisfied post program.

**Table (5)** shows that there was a statistically significant correlation between the studied participants' total knowledge score and their total practices score pre program and highly statistically significant difference between total knowledge score and total practices score post program.

**Table (6)** shows that, there was a statistically significant correlation between studied participants' total practices score and their total attitude score pre program and highly statistically significant difference between total practices score and total attitude score post program.

General characteristics items	No	%
Shelter name		
Helwan	21	36.8
Wadihof	36	63.2
Gender		
Female	13	22.8
Male	44	77.2
Age		
7-	30	52.6
11-	14	24.6
14+	13	22.8
Duration of living in shelter( in years)		
<1	6	10.5
1-3	13	22.8
>3	38	66.7

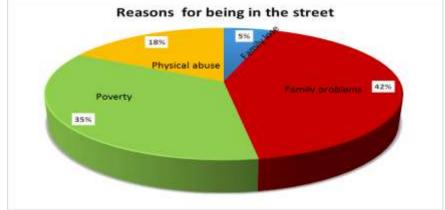


Figure (1): Distribution of studied sample regarding to reasons for being in the street

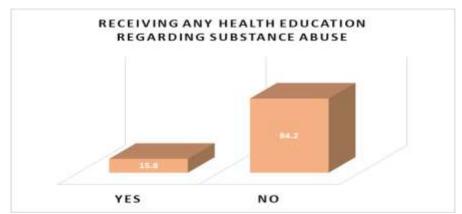


Figure (2): Distribution of studied sample regarding to receive education about substance abuse

 Table (2): Mean and stander deviation of studied participants regarding their knowledge about substance abuse pre and post program implementation

Knowledge items	Preprogram	Post program	T test	p-value
Kinds of substance abuse	2.15±0.79	5.87±0.59	31.8	0.000
Predisposing factors	$1.47 \pm .98$	4.85±1.12	45.71	0.000
Adverse consequences	.91±.73	$3.75 \pm .12$	31.7	0.000
Preventive measures	.19±.39	2.29±.46	35.2	0.000

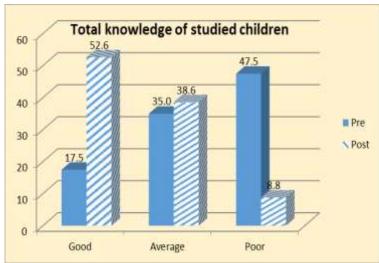


Figure (3): Distribution of studied participants' total knowledge score about substance abuse pre and post program implementation

Table (3): Distribution of studied participants' attitudes regarding to substance abuse pre and post					
program implementation					

	Preprogram		Post program			
Attitude items	Agree	Not agree	Agree	Not agree	X <sup>2</sup>	р
	%	%	%	%		
I think it gives a sense of happiness	52.6	47.4	40.4	59.6	1.7	.130
I feel that they improve the memory and the ability to learn	22.8	77.2	86.0	14.0	45.8	.000
I think it reduces the feeling of depression in some diseases	54.4	45.6	21.1	78.9	13.4	.000
I think it provides self-confidence	66.6	33.4	31.6	68.4	14.0	.000
It allows to identify new friends	47.4	52.6	22.8	77.2	7.5	.005

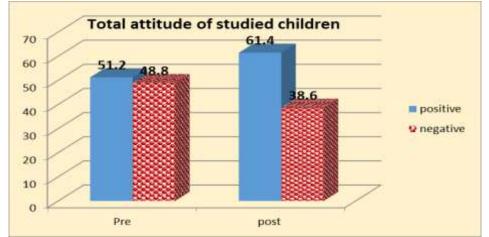


Figure (4): Distribution of studied participants' total attitudes score regarding to substance abuse of pre and post program implementation

-	Preprogram		Post program			
Practices items	Done	Not done	Done	Not done	X <sup>2</sup>	р
	%	%	%	%		
Choose good friends	33.3	66.7	96.5	3.5	49.9	.000
Perform healthier daily Living activities as exercises, eating and managing stress	22.8	77.2	96.5	3.5	64.2	.000
Avoid bad friends	31.6	68.4	84.2	15.8	32.3	.000
Avoid imitating others in taking drugs	24.6	75.4	68.4	31.6	22.0	.000
Go away from smokers until they stop smoking	26.3	73.7	82.5	17.5	36.2	.000
Engaging in recreational activities	35.1	64.1	77.2	22.8	20.3	.000

#### Table (4): Distribution of studied participants' practices regarding to precaution to avoid substance abuse pre and post program implementation

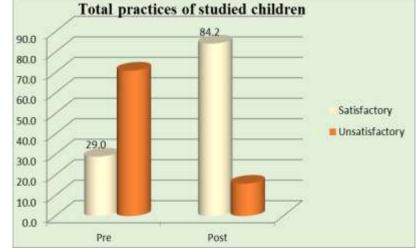


Figure (5): Distribution of studied participants' total practices score regarding to precaution substance abuse pre and post program implementation

Table (5): Correlation between studied participants' total practices and their total knowledge score pre					
and post program					

Total practices	Total knowledge				
	Preprogram		Post program		
	r	р	r	р	
	.28	0.05	.57	.001	

 Table (6): Correlation between studied participants' total practices and their total attitude score pre and post program

	Total practices			
Total attitude	Preprogram		Post program	
1 otal attitude	r	р	r	р
	0.41	0.004	0.72	.000

# IV. Discussion

Concerning general characteristics. The present study revealed that, more than half of the studied sample aged from 7 to < 11 years old. The results also showed that, more than three-quarters of homeless children under study were male. These findings are supported by **Sharma [2]** who studied preventing -substance abuse among street children in India, found that more than two thirds were boys and most of the street children abuse nicotine and alcohol. The finding related to gender is in the same line with **Cumber et al., [11]** who studied the pattern and practice of psychoactive substance abuse and risky behaviors among homeless children in Cameroon, reported that, approximately four fifths (80.2%) of the participants were boys. However, their

finding related to children age didn't match with this study finding, they found that the mean and standard deviation age of study population was 15.4 years.

As regards reasons for being in the street, two-fifths of the studied subject are in street related to family problems. This is in agreement with **Hosny** [1] who studied environmental behavioral modification program in Alexandria, Egypt, found that, 57% of the children went out to streets to escape from family problems and 11% to escape physical abuse at home. According **Sharma** [2] who revealed that the major reason for the children to be on the streets was poverty and peer pressure, for substances abuse.

Concerning education about substance abuse, the present study found that, more than four-fifths of children didn't have any education. This finding doesn't match with **Embleton, et al., [13]** who studied knowledge, attitudes, and substance use practices among homeless children in Western Kenya, reported that, 29% of studied subjects had ever been taught the dangers of drug abuse.

Concerning participants' knowledge about substance abuse, the current study revealed that, improving mean and stander deviation of studied participants post program 5.87±0.59 compared by 2.15±0.79 preprogram regarding kinds of substance abuse. There were statistically significant differences regarding all knowledge items between pre and post program implementation. This result reflects the importance of preventive program for improving homeless children' knowledge about substance abuse which support prevention of substance abuse among them. This is in the same line with **Frost**, **[14]** who studied health promotion theories and models for program planning and implementation, Arizona, suggested that providing information and awareness through intervention programs could be appropriate for preventing substance abuse among street children. Also **Narayan and Suresh [15]** who studied preventing substance abuse among homeless children in India who stated that, integrated program for homeless children provide support by courses and alternative education for protecting children and preventing health hazards.

More than half of studied participants preprogram agreed that substance abuse reduces the feeling of depression in some diseases, two thirds agreed that it provides self-confidence which decreased to less than one quarter and less than one third respectively post program. As well as there was highly statistically significant difference between pre and post preventive substance abuse program implementation regarding most of attitudes items except studied participants' agreement concerning to it gives a sense of happiness (p<0.001). These findings agree with **Gemeay [16]** who studied psych educational intervention for caregivers of institutionalized school age children, found that there was a significant difference in relation to supervisor's positive attitude toward institutionalized school age children.

Studied participants' practices regarding to precaution to avoid substance abuse as self reported improved post program compared with pre program particularly for performing healthier daily living activities as exercises, less than one quarter for eating and managing stress pre program which increased to be the most of them post program and avoid bad friends from less than one third pre program to majority of them post program. On the whole the results have statistically significant differences pre and post program for all practice items. According to **National Institute on Drug Abuse [5]** which studied preventing drug use among children and Adolescents, A research- based guide for parents, educators, and community leaders, found that early intervention with risk factors often has a greater impact than later intervention by changing a child's life path away from problems.

Regarding the total practice score more than two thirds of studied participiants had unsatisfied total practices regarding precaution to avoid substance abuse which decreased to less than one fifth post program These findings are supported by **Gemeay [16]** who found that practice toward institutionalized children inadequate before intervention, while, after intervention, there was improvement with significant differences. Also congruent with **Griffin & Botvin [17]** who studied evidence-based interventions for preventing substance use disorders in adolescents, reported that resistance skills training programs teach participants ways to recognize situations which expose them to smoke, drink, or use drugs. These programs teach children ways to avoid or otherwise effectively deal with these high-risk situations.

There was a statistically significant correlation between studied participants' total knowledge score and their total practices score pre program and highly statistically significant difference between total knowledge score and practices score post program. This may be due to the primary preventive program equipped the homeless children with essential information related to substance abuse which associated with improved their practices regarding precaution to prevent substance abuse. These findings are supported by **Nebhinani1[18]** who studied substance-related knowledge and attitude in school and college students, clarified that prevention-based programs are necessary to decrease demand through informing people about the relative risks of dependence on various illegal drugs based on present knowledge of these risks. Education provided is important in modifying young peoples' responses in drug addiction.

There was a statistically significant correlation between studied participants' total practices score and their total attitude score pre program and highly statistically significant difference between total practices score

and total attitude score post program. This may due to the attitude of homeless children may have regarding substance abuse and their effects can influence their use of preventive measures to avoid and prevent substance abuse.

#### V. Conclusion

Based on the results of this study and research hypothesis, it concluded that, more than three quarters of studied children were male and more than half aged from 7 to < 11 years old. In addition the majority of homeless children didn't receive any education about substance abuse. The primary preventive program improved homeless children' knowledge, practices, and significantly changed positively their attitudes toward child substance abuse prevention. These study results were supported the study hypotheses.

#### Recommendations

Based on the findings of the current study, the following recommendations can be suggested:

- Continuous of primary preventive programs for homeless children, focusing on facts of harmful effects substance abuse, avoid imitate others in taking drugs, perform healthy daily living activities as exercises, eating and managing stress.
- Availability of booklets with illustrated pictures about substance abuse and its' prevention should be provided in homeless shelters and schools.
- Further research to be carried out regarding knowledge, attitude and healthy practices for preventing substance abuse among the homeless.

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