

## A Health Education Program regarding Personal Hygiene among Homeless Youth in Fayoum Governorate

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### Abstract

**Background:** Homeless youth present a serious public health issue for communities. Personal hygiene is the basis of a healthy lifestyle, a condition for effective primary and secondary prevention of various diseases. **The aim** of this study was to evaluate the effect of health educational Program to improve awareness regarding personal hygiene among homeless youth in fayoum governorate. **Design:** A quasi-experimental design was used to conduct this study. **Setting:** The study was conducted at social care shelter in Fayoum Governorates. **Sample:** Convenience sample of 60 homeless youth was used in this study. **Tool:** Part I: Demographic characteristics of homeless youth, part II: Homeless youth knowledge regarding personal and menstrual hygiene, part III: Homeless youth attitude regarding personal hygiene. Part IV: Homeless youth self-reported practice regarding personal and menstrual hygiene. **Results:** The presenting study showed that, 80.0 % of participants scored poorly knowledge, which reduced drastically to 10.0% post-program, 66.7% of participants had a negative attitude, which decreased to 8.3% post-program. 78.3% of participants reported unsatisfactory practices, which decreased to 11.7% post-program. A highly significant correlation had found between personal hygiene knowledge, attitudes and practices toward personal hygiene. **Conclusion:** The current study concluded that there were statistically significant improvements in the total knowledge, total attitude and total reported practice scores of homeless youth after the implementation of the program. **Recommendation:** Applying continuous health education program.in large sample and other settings for generalization.

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**Keywords:** Educational Program, Homelessness, Personal Hygiene and Youth.

### Introduction:

Homelessness means an individual who lacks a fixed, regular and adequate nighttime residence or living in residence that is a public or private place not designated for regular sleeping accommodation for human beings including a car, park, abandoned building, bus, train station, airport and camping ground. Conditions of homelessness vary widely, depending on whether the individual or family is in an emergency shelter, a transitional housing program and on the streets so that homelessness comes in many forms. Worldwide, in 2020 over 100 million people were homeless and over 1.6 billion people lack adequate housing (Mosites et al., 2021; Sullivan, 2023).

Youth means those in the transition period from adolescence to young adulthood, roughly ages 16 through 25. Without adequate psychological support, an estimated 50% of transition-age homeless youth continue experiencing housing instability or homelessness into adulthood. In 2020, 89 % of homeless youth were between the ages of 18 to 24. The remaining 11 % were under the age of 18 (**Fuligni et al., 2022**).

The number of homeless people in the U.S. has gone up every year for the past four years. From a low in 2016, the number of people counted as homeless went up by about roughly four to five times the per capita homeless people by 2022(**Zhao, 2023**). According to Egyptian Central Agency for Statistics and Packing (CAMPAS), (2021) Egyptian income poverty increased from 27.8% in 2015, up to 32.5% in 2018, leaving 32 million Egyptian population below the national income poverty line. The poverty rate dropped to 29.2 percent in 2019, before increasing again to about 32 percent in 2020. The outbreak of the coronavirus pandemic probably contributed to the increase of the poverty rate in 2020.

Homeless youth present a serious public health issue for communities. The unstable living in dangerous places leads to the difficulties of surviving at the streets, a lack of access to consistent health care, homeless youth experience greater incidences of illness and injury, increased rates of sexual transmitted infections (STIs), pregnancy, substance abuse, mortality, poor nutrition, dental and periodontal disease, increased future risk of diabetes, heart disease, arthritis and musculoskeletal disorders (**Schifalacqua et al., 2019**).

Personal hygiene is the basis of a healthy lifestyle, a condition for effective primary and secondary prevention of various diseases. Personal hygiene develops the principles of maintaining and promoting health by observing hygiene requirements in daily personal life and activities. Personal hygiene includes body and oral hygiene, physical education, hardening, prevention of bad habits, clothing and footwear hygiene, rest and sleep hygiene and other types (**Bardov et al., 2022**).

Hygiene (translated from Greek means "bringing health", "promoting health") is one of the sciences about human health, means and methods of preserving and strengthening it. Following the rules of personal hygiene involves, first of all, a rational daily regimen, careful body care, hygiene of clothes and shoes. Compliance with a rational daily regimen creates optimal conditions for vigorous activity and effective recovery of the body, contributes to an increase in mental and physical performance (**Muminova, 2021**).

A community health nurses have an active role in disease prevention through assessment of education level, literacy level, and other demographic data because nurses work as an educator and counselor can transmit information about disease prevention and education. The nurse must be focusing on increasing personal hygiene awareness through teaching homeless youth essential facts about importance of personal hygiene, its components, tools, types, correct techniques of implementing personal hygiene strategies and risks of poor personal hygiene (**Medina et al., 2022**).

### Significance of the study:

Homelessness is affecting an increasing number of people around the world, posing a difficult challenge for governments and service providers as well as being a public health issue. There are 12 million homeless persons in Egypt. Poverty and other socioeconomic challenges beyond the individual's control, migration to cities, contribute to Egypt's high prevalence

of homelessness (Asibey et al., 2020). Homeless youth have higher all-cause mortality and higher prevalence of multiple morbidities, infectious diseases and disabilities (Rabinovitz et al., 2020).

Homeless youth face significant disadvantages in attaining and maintaining a healthy lifestyle. Homeless youth experience poor health outcomes with a prevalence of mental health illness, alcohol and drug misuse, and communicable diseases higher than in the general population. Opioid poisoning, heart failure, infectious diseases and external causes, such as accidents, often contribute to the higher rate of mortality among street dwellers (South et al., 2022).

### **Aim of study:**

The aim of this study was to evaluate the effect of a health education program regarding personal hygiene among homeless youth in Fayoum governorate

### **Research Hypothesis:**

Homeless youth knowledge, attitude and practices regarding personal hygiene would be improved after implementing the health educational program.

### **Subjects and Methods:**

#### **I. Technical Item:**

#### **Research design:**

A quasi-experimental research design (one group pre and post) was used.

#### **Setting:**

The study was carried out at Social care shelter in Fayoum Governorate that provide educational, social, promotion, recreational, living and health services for both sex of homeless children up to 21 years old. The government and donation fund the shelter.

#### **Type of Sample:**

Convenience sample of homeless youth was used in this study to collect data for about 6 months (December \ 2023 – June \ 2024). It consisted of 60 homeless youth, male: 34 (56.7%), female: 26 (43.3%) living at the study setting

#### **Inclusion criteria:**

- Included homeless youth aged from 12-18 years old.
- They would agree to participate.

#### **Tool for data collection:**

Data was collected through using the following tool.

**Tool I: A Structural Interviewing questionnaire:** Data for this study was collected by using a questionnaire sheet, which designed, by the researcher after reviewing related literatures (Leibler et al., 2017; Akter et al., 2019; Ballard & Caruso., 2021). The interviewing questionnaire consisted of four parts:

**Part I - Demographic characteristics of homeless youth:** this part composed of (9) closed – end questions such as sex, age, latest level of education, years living on the streets, place of origin, relation with family, No. of family members, reasons of homelessness and person is being responsible for providing care for homeless youth.

**Part II – Homeless youth knowledge about personal hygiene:** this part divided into three sub items as the following:

- A- Knowledge regarding personal hygiene constructed of (8) closed – end questions concerned with homeless youth knowledge regarding personal hygiene such as personal hygiene meaning, importance, types, Components, Basic

equipment, factors negatively impact personal hygiene, negative effects of poor personal hygiene and correct methods of personal hygiene.

- B- Knowledge regarding menstrual hygiene included (14) closed – end questions concerned with homeless youth knowledge regarding menstrual hygiene such as: Meaning of Menstruation, The normal age for menarche, Duration of regular menses, premenstrual syndrome, ways of relieving pain, Physiology of menstruation, sources of information, menstrual product, frequency of changing pad, ways of disinfecting and disposing the soiled pads, dangers of poor menstrual hygiene, importance and correct ways of caring the sensitive area.
- C- Knowledge regarding male genital hygiene included (6) closed – end questions concerned with male homeless youth knowledge regarding genital hygiene such as: importance of daily genital hygiene, if poor genital hygiene can cause health problems, types of diseases resulting from poor genital hygiene, differences in hygiene needs between circumcised and uncircumcised males, symptoms of infections linked to poor genital hygiene, receiving any advice or health education about genital hygiene.

#### **Scoring system for homeless youth knowledge regarding personal hygiene**

Related to homeless youth knowledge regarding personal hygiene: Its questions were recorded into Yes, correct answer with 1 grade and No, incorrect answer with 0 grade The total grades were ranged from 0 – 28 and classified as the following scoring: poor score = less than 50% (less than 14 grades), fair score= 50- 70 % (14 -19.6 grades) and good score = more than 70% (> 19.6 grades).

**Part III - Homeless youth attitude toward personal hygiene:** this part composed of (13) closed – end questions such as: if There is difference between personal and general hygiene requirement, importance of washing hands with soap, using of tooth, importance of brushing teeth correctly and genital care, if towel is a personal hygiene instrument, harm effect of nail biting and poor personal hygiene, proper cough technique, changing clothes periodically, hygiene tools are not appropriate to share, following up the dentist and ophthalmologist.

#### **Scoring system for attitude**

A three – point likert scale was assigned to all questions (agree, neutral, disagree) coded from one to three, as: (Agree = 3, Neutral = 2, Disagree = 1) with 39 total score that summed up and divided into three categories as the following: Negative attitude < 50% (< 19.5 grades).

Indifference attitude 50% - 70% (19.5 – 27.3).

Positive attitude  $\geq 70\%$  ( $\geq 27.3$ ).

**Part IV: Homeless youth personal hygiene reported practices:** this part divided into three sub items as the following:

A- Practices regarding personal hygiene consisted of (18) closed – end questions concerned with homeless youth personal hygiene reported practice such as: washing hands regularly, timing, materials, washing face regularly, performing correct technique, washing face regularly, having special towel, teeth brushing timing and correctly, doing gargling, visiting dentist, showering number and its location, genital care, menstrual hygiene, care of foot, nail, ear, eye and hair, changing underwear, laundry frequency and methods, wound cleaning and avoiding sharing personal tools.

B- Practices regarding menstrual hygiene constructed of (10) closed – end questions concerned with homeless girls' reported practices regarding menstrual hygiene such as: type of absorbents used, Pad\ cloth changing timings, reusing the cloth, methods of disposal of soiled pads, performing menstrual hygiene, frequency of perineal care, shaving pubic hair, changing under wear periodically and practices for relieving pain and menstrual cramps.

C- Practices regarding male genital hygiene consisted of (7) closed – end questions concerned with homeless youth personal hygiene reported practice such as frequency of genital washing Weekly, methods of cleaning the genital area, if drying the genital area well after each washing, daily changing underwear, regular shaving pubic hair, having genital itching or inflammation, methods of dealing with itching or inflammation.

#### Scoring system for personal hygiene-Reported Practices

It included questions related to homeless youth reported practices regarding Personal hygiene: its questions were recorded into Yes or Done answer with 1 grade and No or Not done answer with 0 grade and the total grades were collected, ranged from 0 – 35 and classified as the following: Unsatisfactory = less than 50% (17.5 or less) and Satisfactory = equal or more than 50% ( $\geq 17.5$ ).

#### Validity:

The data collection tools were reviewed by a panel of three experts community health nursing field to test the face and content validity. Each of the experts was asked to examine tools for content coverage, relevance, understanding, comprehensiveness, wording, length, format and overall appearance. Modification was done based on the comments.

#### Reliability:

To assess reliability, the study tools were tested by the pilot subject's reliability for calculating cronbach's Alpha coefficient test, which revealed that the tools consisted of relatively homogenous items as, indicated through the following table:

Tool	Number of items	Cronbach's $\alpha$	95 % CI	
			Upper	Lower
Knowledge about Personal Hygiene	8	0.822	0.755	0.892
Menstrual-hygiene knowledge	14	0.806	0.725	0.879
Attitude toward Personal Hygiene	13	0.797	0.713	0.873
Personal-hygiene practices	18	0.889	0.848	0.923
Menstrual-hygiene practices	10	0.852	0.772	0.923
All items	63	0.923	0.898	0.956

Using: Cronbach's  $\alpha$  is a classical-test-theory reliability coefficient

#### Ethical consideration:

An official permission to conduct the proposed study obtained from the scientific research ethics committee of faculty of nursing at Helwan University No= (34) at 16<sup>th</sup> May 2023. Participation in the study was voluntary and subjects took complete full information about the study and their role before taking the informed consent. The ethical considerations included explaining the purpose and nature of the study, stating the possibility to withdraw at any time, confidentiality of the information where was not accessed by any other party without taking permission of the participants. Ethics, values, culture and beliefs were respected.

## II. Operational Item:

### Pilot Study:

A pilot study was carried out on 10% from the study subjects (6 homeless youth) and was excluded from the total sample to test the applicability, clarity and the efficiency of the tools. There were no major modifications found after the pilot study. The pilot showed very high levels of reliability.

### Field work:

A written approval letter was issued from Dean of Faculty of Nursing, Helwan University. The letter was directed to manager of social care shelter in Fayoum Governorate. At the beginning, the researcher introduced her- self and explained the purpose of study to homeless youth to gain their confidence and trust to convince them to participate in the study then the verbal consent was obtained from them. Actual fieldwork was carried out in the period from December 2023 years up to June 2024 years. The researcher collected data during 2 days-week (Sunday and Wednesday), visiting from 3 pm- 6 pm. The questionnaires completed and collected through the researcher interview with homeless youth consuming about 20 minutes with homeless youth to fill the questionnaire sheet. The health education program was developed, implemented by the researcher and distributed on six sessions. The researcher classified program on 6 sessions (each session took 30 - 45 minutes approximately). Every day includes one session and every session has specific objectives and specific ways of education. During theoretical sessions, the researcher gave personal hygiene education program to each 20 homeless youth.

### Educational program:

It consisted of four phases:

#### Phase 1: Preparatory phase:

The educational program was designed by the researcher based on reviewing of the related recent, national and international literature and theoretical knowledge of various aspects of the study using books, articles, scientific journal and the internet. A panel of expertise in community health nursing validated the content of the educational program.

#### Phase 2: Assessment phase:

This phase included assessment of the knowledge of homeless youth regarding personal hygiene through using the developed interviewing questionnaire tool as pre-test using after identifying the homeless youth who fulfilled the criteria of the study, the researcher explained the aim of the study to them, and their informal consent to participate was obtained, the activity took place in the social care shelter at fayoum city. The researcher read the sheet and explained each items of the study in front of the homeless youth and recorded responses to each item except illiterate ones, the researcher recorded responses of them. The time consumed for answering the study sheet 20 minutes.

The health education program covered the following topic and divided in two parts of sessions (theoretical and practical).

#### Phase 3: Program planning &Implementation:

##### Planning phase:

This phase included analysis of the pre-test findings; the researcher designed the educational session's content according to the homeless youth needs. Detected needs, requirements and deficiencies were translated into the aim and objectives of the educational protocol sessions in the form of a booklet. The booklet included knowledge and practices about personal hygiene, such as meaning, importance and required tools, types, importance and techniques of each type and basic knowledge of menstrual hygiene such as meaning of cycle, its causes, normal duration and menarche, premenstrual



syndrome, methods of relieving menstrual pain and cramps, importance of menstrual hygiene, risks of poor menstrual hygienic practice and techniques of health practices during menstruation.

### **Implementation phase:**

Based on the results from the interviewing questionnaire as well as literature review, the health education program modified by the researcher and revised by the supervisors then implemented and carried out in the study group in the previously mentioned setting. The program consisted of two main parts:

- Theoretical part: the health education program included 4 sessions and covered the basic knowledge about personal hygiene and its types.
- The practical part: the health education program included 2 sessions covering correct techniques of personal hygienic practices, techniques of health practices during menstruation and proper techniques of male genital hygiene.

The implementation of the program composed of six separate main sessions (4 theoretical, 2 practical sessions) for the study group. Subjects arranged into 4 groups, each group contained 20 homeless youth according to the available time of the homeless youth presented in the shelter. The program was implemented over a 3-weeks period, 2 sessions/ week for each group of them; the duration of each session ranged from 30 – 45 minutes, followed by 5-10 minutes for a summary and discussion of what has been taught. The researcher encouraged the participants to bring their caregivers at the shelter with them to know how to support and help them in their care.

### **Program sessions:**

**First Session:** At the beginning of the first session, the researcher welcomes and introduces self to homeless youth; an orientation to objectives of the program was given, set an agreement on the time and duration of sessions. The researcher provides a trust, warm and secure atmosphere between homeless youth to relieve anxiety, tension and increase the motivation to participate in all sessions of the health educational program. Begin with content of the booklet, provide introduction about personal hygiene. The researcher also emphasized the significance of ongoing attendance and active involvement. They were given the pretest questionnaire (pre-program test). Inform the caregivers that each session started by summary about previous session and objective of new topics.

- **Second session:** Covered basic knowledge about meaning, importance, tools of personal hygiene, types of personal hygiene c, importance of each type.
- **Third session:** Covered causes and risks of poor personal hygiene, Preventive ways of those risks, meaning of menstrual cycle, its normal age (menarche), causes and normal duration of menstrual cycle.
- **Fourth session:** Covered premenstrual syndrome, methods of relieving them, importance of menstrual hygiene, risks of poor menstrual hygienic practices and providing basic knowledge about male genital hygiene for male homeless youth.
- **Fifth session:** (practical) involved application of correct techniques of hand washing- eye, ear, hair and dental care, bathing, clothes- foot and nail care).
- **Sixth session:** (practical) demonstrate types of sanitary pads and techniques of menstrual hygiene, practices of perineal care., Determine methods of relieving menstrual pain and cramps, correct technique of discarding or decontamination of

sanitary pads, practices of perineal care and correct techniques of implementing male genital hygiene.

#### 4) Evaluation of the program:

Immediately after the implementation of the prevention program, reassessment of elderly in the study using the study tool (knowledge and attitude assessment interview questionnaire), and (homeless youth reported practices questionnaire) were used to evaluate the effect of the program.

#### Administrative item:

After explanation of the study aim and objectives, an official permission was obtained from the Dean of Faculty of Nursing, Helwan University and manager of social care shelter in Fayoum Governorate asking for cooperation and permission to conduct the study.

#### IV. Statistical analysis:

Upon completion of data collection, data was computed and analyzed using statistical Package for the Social Science (SPSS), version 24 for analysis. The P value was set at 0.05. Descriptive statistics tests as numbers, percentage, mean  $\pm$  standard deviation ( $\pm$  SD), were used to describe the results. Appropriate inferential statistics such as —F| test or —t| test was used as well. Chai-square test ( $x^2$ ) was used for comparison between qualitative variables. Spear mean correlation measures the strengths and the direction of association between two ranked variables. Regression analysis was used after testing for normal distribution, normality, and homoscedasticity and analysis of variance for the full regression models were done.

#### Results:

**Table (1):** shows that, the demographic data of the study group (n=60) revealed a predominantly young population, with half aged between 12 and 15 years. The group consisted of 56.7% males and 43.3% females. Educationally, 48.3% could not read and write, while 10% had secondary education.

38.3% lived at the shelter for 3-5 years, and 68.3% came from urban areas. Family presence was almost evenly split, with 53.3% had a present relationship with family. A significant 81.7% came from families with five or more members. Common reasons for homelessness included family poverty (76.7%), death of a parent (38.3%), and divorce (26.7%). Maltreatment and drug abuse were less reported but still notable. 75% took personal responsibility for their care.

**Table (2):** illustrates that, personal hygiene knowledge scores showed an improvement following the program. Initially, a significant 80.0% of participants scored poorly, which reduced drastically to 10.0% post-program. Meanwhile, those with good knowledge scores rose impressively from 6.7% to 70.0%. The fair score category saw a slight increase from 13.3% to 20.0%.

**Figure (1):** shows that, Female participants' menstrual hygiene knowledge scores improved following the program. Initially, 76.9% of participants had good knowledge regarding menstrual hygiene scores surged from 7.7% to 69.2%. The chi-square test value of 27.938 and a p-value of <0.001 indicate these changes were statistically significant.

**Table (3):** clarifies that, the program led to a significant change in the study group's attitudes toward personal hygiene. Initially, 66.7% of participants had a negative attitude, which decreased to 8.3% post-program. Those with an indifferent attitude slightly decreased from 25.0% to 16.7%. Most notably, the proportion of participants with a positive attitude surged from 8.3% to 75.0%. The chi-square test value of 60.222 and a p-value of <0.001 indicate these changes are statistically significant.



**Table (4):** displays that, initially, 78.3% of participants reported unsatisfactory practices, which decreased to 11.7% post-program. Conversely, those with satisfactory practices rose from 21.7% to 88.3%. The chi-square test value of 53.86 and a p-value of <0.001 signify that these changes are statistically significant.

**Table (5):** represents that there was a highly significant correlation between personal hygiene knowledge and attitudes toward personal hygiene. Participants with poor knowledge predominantly show a negative attitude (66.7%) and some degree of indifference (33.3%), while none display a positive attitude. In contrast, those with fair knowledge are split, with 50% showing indifference and 41.7% having a positive attitude. Participants with good knowledge overwhelmingly exhibit a positive attitude (95.2%), with only a small percentage showing indifference (4.8%) and none showing a negative attitude.

**Table (6):** clarifies that a highly significant correlation between personal hygiene knowledge and self-reported hygiene practices. Participants with poor knowledge overwhelmingly reported unsatisfactory practices (66.7%), with only a small percentage reporting satisfactory practices (33.3%). In contrast, the majority of those with fair knowledge reported satisfactory practices (91.7%), and only 9.3% reported unsatisfactory practices. All participants with good knowledge reported satisfactory practices (100%), with none showing unsatisfactory practices.

**Table 1: Frequency Distribution of Demographic Data of the studied sample (n=60)**

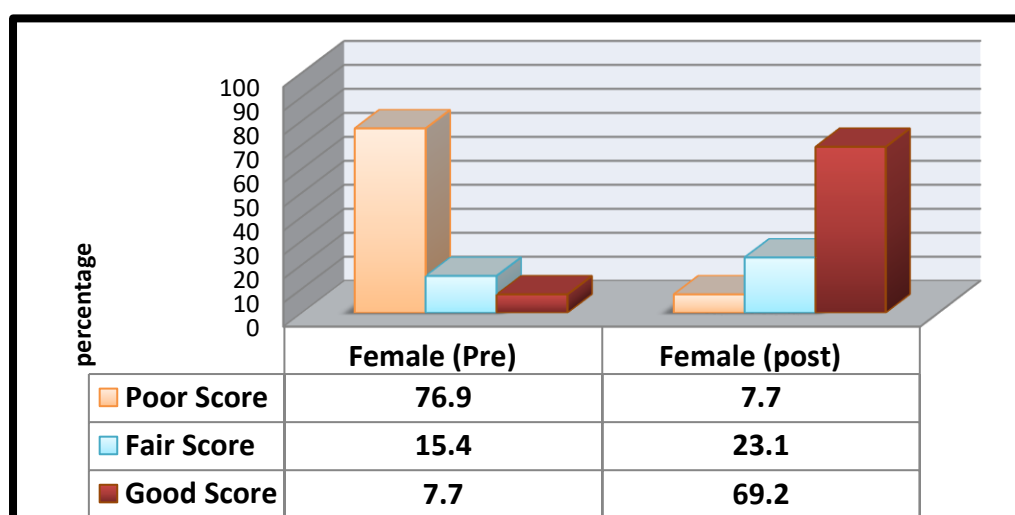
Items		Study Group (n=60)	
		N	%
Age	12 : < 15	30	50.0
	≥15 : < 17	19	31.7
	≥17	11	18.3
	Mean ± SD	15.21±3.68	
	Range	12 – 20	
Gender	Male	34	56.7
	Female	26	43.3
Level of Education	Not read and write	29	48.3
	Read and write	14	23.3
	Basic Education	11	18.3
	Secondary education	6	10.0

Years living at the shelter	< 1 year	8	13.3
	1-2 years	20	33.3
	3-5 years	23	38.3
	+ 5 years	9	15.0
Residence	Rural	19	31.7
	Urban	41	68.3
Relation with family	Present	32	53.3
	Not Present	28	46.7
No. Family members	3 members	4	6.7
	4-5 members	7	11.7
	≥ 5 member	49	81.7
Reasons of homelessness	Death of parent	23	38.3
	Divorce	16	26.7
	Family poverty	46	76.7
	Peer pressure	15	25.0
	Maltreatment (physical abuse)	14	23.3
	Maltreatment (sexual abuse)	2	3.3
	Drug abuse	4	6.7
Who is being responsible of your care	I	45	75.0
	person responsible for taking care of the home	12	20.0
	family member	3	5.0

**Table 2: Frequency Distribution of Personal hygiene knowledge score of the studied sample (n=60)**

Total knowledge	Study Group (Pre) (n=60)		Study Group (post) (n=60)		Test value	P-value
	N	%	N	%		
Poor Score	48	80.0	6	10.0	64.861	<0.001**
Fair Score	8	13.3	12	20.0		
Good Score	4	6.7	42	70.0		

Using:  $\chi^2$ : Chi-square test, when appropriate p-value  $>0.05$  is insignificant; \*p-value  $<0.05$  is significant; \*\*p-value  $<0.01$  is highly significant


**Figure 1: Frequency Distribution of Menstrual hygiene knowledge Score of the studied sample**
**Table 3: Frequency Distribution of Attitude toward Personal Hygiene Score of the studied sample (n=60)**

Total attitude	Study Group (Pre) (n=60)		Study Group (post) (n=60)		Test value	P-value
	N	%	N	%		
Negative	40	66.7	5	8.3	60.222	<0.001**
Indifference	15	25.0	10	16.7		
Positive	5	8.3	45	75.0		

Using:  $\chi^2$ : Chi-square test, when appropriate p-value  $>0.05$  is insignificant; \*p-value  $<0.05$  is significant; \*\*p-value  $<0.01$  is highly significant

**Table 4: Frequency Distribution of Personal hygiene Total Reported Practices Score of Homeless Youth (n=60)**

Levels of total practice	Study Group (Pre) (n=60)		Study Group (post) (n=60)		Test value	P-value
	N	%	N	%		
Unsatisfactory	47	78.3	7	11.7	53.86	<0.001**
Satisfactory	13	21.7	53	88.3		

**Table 5: Correlation between Personal hygiene knowledge and Attitude toward Personal Hygiene**

variables		Personal hygiene knowledge						Test value	P-value
		Poor Score (n=6)		Fair Score (n=12)		Good Score (n=42)			
		N	%	N	%	N	%		
Attitude toward Personal Hygiene	Negative (n=10)	6	100	4	33.3	0	0	19.874	<0.001**
	Positive (n=50)	0	0	8	66.7	42	100		

Using: X<sup>2</sup>: Chi-square test, when appropriate p-value >0.05 is insignificant; \*p-value <0.05 is significant; \*\*p-value <0.01 is highly significant

**Table 6: Correlation between Personal hygiene knowledge and Personal hygiene self-reported practices**

variables		Personal hygiene knowledge						Test value	P-value
		Poor Score (n=6)		Fair Score (n=12)		Good Score (n=42)			
		N	%	N	%	N	%		
Personal hygiene self-reported practices	Unsatisfactory (n=5)	4	66.7	1	9.3	0	0	28.711	<0.001**
	Satisfactory (n=45)	2	33.3	11	91.7	42	100		

Using: X<sup>2</sup>: Chi-square test, when appropriate p-value >0.05 is insignificant; \*p-value <0.05 is significant; \*\*p-value <0.01 is highly significant

## Discussion:

Homelessness refers to the condition of lacking stable, safe, and adequate housing. It encompasses individuals who live on the streets, in shelters, in temporary accommodations, or in places not intended for human habitation. Youth is a transitional stage of life between childhood and adulthood, typically characterized by ages ranging from 15 to 24 years, as defined by the United Nations. This period marked by physical, emotional, and psychological development, as well as increasing independence and responsibility (Sleet & Francescutti, 2021).

Hygiene refers to practices and conditions that promote health and prevent the spread of diseases, primarily through cleanliness. Personal hygiene plays a pivotal role in maintaining health and preventing the spread of infectious diseases, particularly among vulnerable populations such as homeless youth. Homelessness often results in limited access to basic

sanitary facilities, clean water, and personal care supplies, leaving individuals at a higher risk for infections, skin disorders, and other health complications. In Egypt, homeless youth face numerous challenges in maintaining personal hygiene due to socio-economic hardships, inadequate health education, and lack of supportive services (Sultana et al., 2022).

Regarding the demographic data of the study group, the current study results revealed that, a predominantly young population, with half aged between 12 and 15 years, more than half of them were males and less than half of them cannot read and write. The current study results were in harmony with the result of the study by Donaldson et al., (2022) who conducted the study in USA and studied "Understanding Young Adults Experiencing Homelessness through a Qualitative Approach", and who found that, the majority of the studied subjects were young adults aged and more than half of them were men. From the researcher point of view, this result might be matched with inclusion criteria of homeless youth aged from 12-18 years old. In addition, these matched with facts that most of homeless youth cannot read and write.

In addition, the present study results were in the same line with the study by Manal et al., (2018) who conducted the study in Egypt. and studied "Causes and Consequences of Street Life on Homeless Children: Choice or Compulsion", and who reported that, more than half of the studied subjects were young, with half aged between 12 and 12 years and the majority of them were boys.

The present study findings were reported that, more than one third of homeless youth have lived at the shelter for 3-5 years, more than two third of them come from urban areas. Also, more than half of them having a present relationship with family and a majority of them significant come from families with five or more members. This results were in agreement with the study by Buechler et al., (2020) who conducted the study in USA and who studied "Barriers, beliefs, and practices regarding hygiene and vaccination among the homeless during a hepatitis" and reported that less than two third of the studied participant were lived in homeless shelter. From the researcher point of view, this result could be due to the complexity of homelessness among youth in Fayoum governorate, influenced by urban migration, family dynamics, and socioeconomic pressures.

Concerning on common reasons for homelessness, the current study results found that, more than three quarter of reasons for homelessness among the studied subjects included family poverty and more than one third from death of a parent. Also, maltreatment and drug abuse are less reported but still notable

As well, results were in harmony with the result of the study by Donaldson et al., (2022) who conducted the study in USA and studied "Understanding Young Adults Experiencing Homelessness Through a Qualitative Approach", and who found that, highlight that the experience of homelessness for the youth in this study was related to negative experiences with their biological or foster family. Less than one quarter of participants said they were "kicked out" of their family home. There were a variety of scenarios associated with these experiences including, coming out as gay, pregnant, or causing pregnancy. Further, several participants experience of homelessness was caused by the death of a parent or grandparent they had been living with

From the researcher point of view, homelessness might be related to several interrelated factors that exacerbate vulnerability among youth experiencing homelessness as unemployment, low-income jobs, or unexpected financial crises, leaving families unable to afford basic living expenses, including stable housing. In addition, death of a parent lead to the loss of both emotional support and financial stability, increasing the likelihood of homelessness.

As regarding the homeless youth knowledge about personal hygiene, the present study indicated that, personal hygiene knowledge scores showed an improvement following the program as, the majority of the homeless youth had a poor knowledge about personal hygiene pre the program, while, more than two third of them had a good knowledge about personal hygiene post the program.

The present study findings were in the same line with the study by Folayan et al., (2020) who conducted the study in India and studied "Association between water, sanitation, general hygiene and oral hygiene practices of street-involved

young people in Southwest Nigeria". Further, who illustrated that, more than half of the studied young people had poor knowledge about personal hygiene, while, less than one third of them had a good knowledge about personal hygiene. Also, most of them had an improvement on knowledge about personal hygiene their after implementation of water, sanitation, general hygiene and oral hygiene practices program.

Moreover, this results were in harmony with the study by **Curry et al., (2021)** who conducted the study in USA and studied "Improving program implementation and client engagement in interventions addressing youth homelessness: A meta-synthesis," Children and Youth Services Review", and who reveals that, majority of the studied subjects had an improvement on knowledge about their healthy behaviors as personal hygiene after Improving program implemented among youth homelessness. From the researcher point of view, this result might due to that near to half of the studied homeless youth cannot read and write, while minority of them have secondary education. In addition, the initial poor knowledge may stem from lack of prioritization of personal hygiene due to their challenging living conditions. The significant increase in post-program knowledge reflects the value of providing structured, accessible, and context-specific educational content.

Regarding homeless youth knowledge regarding menstrual hygiene, the current study results were displayed that, the female participants' knowledge regarding menstrual hygiene showed significant improvement post-program as, more than three quarter of participants had poor knowledge regarding menstrual hygiene pre-program, while, more than two third of them had good knowledge regarding menstrual hygiene post-program.

The present study findings were in the same line with the study by **Taylor-Jennifer, (2024)** who conducted the study in United States entitled "Homeless Individuals' Experiences of Access to Personal Hygiene and Sanitary Products and Processes During Menstruation", also, who illustrated that, the majority of homeless individuals' had low knowledge level regarding menstrual hygiene and sanitary products and processes during menstruation. Moreover, the current study results were in agreement with the study by **DeMaria et al., (2024)** who conducted the study in USA and studied "Menstruating while homeless: navigating access to products, spaces, and services", also, who mentioned that, the majority of participants had poor knowledge regarding menstrual hygiene.

From the researcher point of view, while more than half of participants maintained some relationship with their family, the improvement in knowledge might be related to the reduced familial guidance prior to the program. In addition, the urban background of more than two third of participants could have facilitated access to program materials and resources post-intervention. The following results proved the research hypothesis which stated that implementation of the program will improve homeless youth attitude regarding personal hygiene.

Regarding homeless youth attitude toward personal hygiene, the present study findings were reported that, attitudes toward personal hygiene showed significant improvement following the program as, two third of homeless youth had a negative attitude toward personal hygiene pre the program, while, more than three quarter of them had a positive attitude toward personal hygiene post the program.

The present study results were in the same line with the study by **Mosites et al., (2021)** who conducted the study in United States and studied "Data Sources That Enumerate People Experiencing Homelessness in the United States: Opportunities and Challenges for Epidemiologic Research", and who showed that, most of the homelessness participants had a negative attitude toward personal hygiene and poor health outcomes. Furthermore, the present study findings were in agreement with the study by **Leibler et al., (2019)** who entitled "Homelessness, Personal Hygiene, and MRSA Nasal Colonization among Persons Who Inject Drugs", and who noted that, the majority of the studied participant had a negative attitude toward personal hygiene.

From the researcher point of view, these results could be due to more than three quarter of the studied subjects take personal responsibility for their care. Further, negative attitudes had been influenced by their lived experiences, including feelings of neglect, or low self-esteem. The program may have successfully created a supportive and nonjudgmental



environment, which encouraged the participants to reconsider their views and recognize the value of maintaining personal hygiene for their overall well-being.

According to homeless youth personal hygienic self-reported practices, the present study results were indicated that, self-reported practices in personal hygiene significantly improved following the program as, more than three quarter of homeless youth had reported unsatisfactory practices in personal hygiene pre the program, while, the majority of them had reported satisfactory practices in personal hygiene post the program.

The present study findings were in agreement with the study by **Anthonj et al., (2024)** who conducted the study in Netherlands entitled "Invisible struggles: WASH insecurity and implications of extreme weather among urban homeless in high-income countries - A systematic scoping review", also, who illustrated that, the majority of the studied participants had a poor practices in healthy hygiene behaviors due to pose safety and cleanliness issues, and access to non-public facilities may be cost-prohibitive for homeless populations. In addition, the present study results were in consistent with the study by **Valente et al., (2021)** who conducted the study in Canada. who studied "Homelessness and Hygiene Project (CSI). Final Research Report". Also, who stated that, self-reported practices in personal hygiene significantly improved following the hygiene project implementation.

From the researcher point of view, these results might be related to inadequate awareness of proper hygiene routines. By addressing these barriers through education and practical solutions, the program likely fostered a sense of responsibility and capability among participants, enabling them to implement the learned practices in their daily lives.

As regarding homeless youth menstrual hygienic self-reported practices, the current study results were confirmed that, the program had a significant impact on the menstrual hygienic self-reported practices of the female participants as, majority of female had unsatisfactory self-reported practices regarding menstrual hygienic pre the program, while, the majority of them had satisfactory self-reported practices regarding menstrual hygienic post the program.

The current study results were in agreement with the study by **Taylor-Jennifer, (2024)** who conducted the study in United States entitled "Homeless Individuals' Experiences of Access to Personal Hygiene and Sanitary Products and Processes During Menstruation", and who stated that, the majority of homeless individuals' had a negative thoughts and experiences regarding menstruation and menstruation problem solving. Also, suggested that training program will improve their partial level.

From the researcher point of view, the present findings were suggests that the educational content was directly relevant to the participants' daily lives and was effective in translating knowledge into action. Additionally, given the socio-economic challenges faced by homeless youth, access to menstrual hygiene products and resources is often limited. The program may have provided essential materials or guidance on how to access them, which could have contributed to the improvement in practices. This is particularly important as many homeless youth lack basic hygiene supplies.

Regarding correlation between personal hygiene knowledge and attitude toward personal hygiene, the current study results revealed that, there was a highly significant correlation between personal hygiene knowledge and attitudes toward personal hygiene. From the researcher point of view, the present study results might be attributed to increased awareness and understanding of how proper hygiene practices impact health and well-being, which motivates individuals to adopt and sustain such behaviors.

The present study results were in agreement with the study by **Sadauskas and Kewoh-Vainio, (2024)** who conducted the study in Lithuania and entited "Specifics of social work with young people experiencing homelessness", also, who revealed that, there was a highly relation between specifics of social work that support personal hygiene knowledge and attitudes with young people experiencing homelessness.

Concerning correlation between personal hygiene knowledge and personal hygiene self-reported practices, the present study results reported that, there was a highly significant correlation between personal hygiene knowledge and self-reported hygiene practices.

The current study findings were consistent with the study by **Folayan et al., (2020)** who conducted the study in India and entitiled "Association between water, sanitation, general hygiene and oral hygiene practices of street-involved young people in Southwest Nigeria". Further, who found that, there was a high statistical significant correlation between personal hygiene knowledge and personal hygiene reported practices.

From the researcher point of view, the present study findings highlighted that, individuals acquire more knowledge about personal hygiene; they are more likely to understand its importance for health and well-being. This knowledge can shape their attitudes toward hygiene, making them more likely to view hygiene practices positively. In this context, the more informed the participants are about the consequences of poor hygiene, the more likely they are to adopt and maintain positive attitudes toward personal hygiene.

## Conclusion

**Based on the results of the present study and research hypothesis, the current study concluded that,** there were statistically significant improvement in the total knowledge, total attitude and total reported practice sscores after the implementation of the program. The majority of the homeless youth had a poor knowledge about personal hygiene pre the program, while, more than two third of them had a good knowledge about personal hygiene post the program. The present study revealed that, two third of homeless youth had a negative attitude toward personal hygiene the pre the program, while, more than three quarter of them had a positive attitude toward personal hygiene post the program. In addition, more than three quarter of homeless youth had reported unsatisfactory practices in personal hygiene pre the program, while, the majority of them had reported satisfactory practices in personal hygiene post the program

## Recommendations:

**Based on the findings of this study the following recommendations are derived and suggested:**

- Applying continuous health education program about personal hygiene in large sample and other setting for generalization.
- Behaviour modification programs to control risky behaviors related to personal hygiene among homeless youth living in shelters should be applied.
- More researches are sugessred for studying negative effects of poor hygienic practices among homeless youth.
- Researches needed for studying shelters efforts regarding infectious diseases control among this vulnerable group.
- Posters and panners demonstrating methods of applying personal hygiene are recommened to be used in shelters for ensuring continuing enhancement in homeless youth behavior

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