

## The Effect of Nursing Physical and Psychosocial Instructional Sessions on Suicidal Ideation Among Adolescent Girls

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### Abstract

**Background:** Adolescence is the developmental period with the highest incidence of suicide ideation, especially among girls. Therefore, the nursing physical and psychological sessions is required to improve suicidal ideation associated with the nature of the adolescent girls. The current study aimed to evaluate the effect of nursing physical and psychosocial instructional sessions on suicidal ideation among adolescent girls. **Research design:** a quasi-experimental research design. **Setting:** The present study was conducted at the Gamaa Ain shams secondary school for girls in El-fayoum City, El-fayoum Governorate. **Sample:** A convenience sample of (105) adolescent girl was included for the conduction of the current study. **Tools of data collection:** Three tools of data collection (1)- Structured Interview Questionnaire (2)- Rosenberg's Global Self-esteem Scale. (3)- The Adolescent Suicidal Behavior Assessment Scale (SENTIA). **Results:** The main findings of the current study showed that there was a highly significant improvement in the total scores of suicidal ideation levels and self-esteem levels post sessions implementation among study sample compared to pre sessions implementation. Also, there was a high significant association between self-esteem levels and suicidal ideation levels after follow up interventions **Conclusion:** The findings of the study supporting the research hypothesis that nursing instructional sessions have positive effect on suicidal ideation among adolescent girls that contributed to a reduction in suicidal ideation among the participants as the post instructional sessions "Moderate Suicidal ideation and behavior level" was decreased from pre instructional sessions **Recommendations:** Activate the role of the school's social worker and the psychologist for early detection of risk factors and provide positive support to the adolescent girls in order to get rid of suicidal ideation.

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**Key words:** *Adolescent girls, Physical and psychosocial sessions, Suicidal ideation*

### Introduction

Adolescence is a period of transition from childhood to adulthood marked by dramatic changes in body, mind and behavior. During this transitional period, adolescents are vulnerable to psychosocial problems. Suicide is a common cause of death among teenagers, especially in recent decades, the number of deaths caused by suicide increased dramatically (Yang et al., 2023).

Several factors function to expose adolescents to suicidal ideation risk. These include: (a) individual factors, such as the presence of mental disorders (primarily trait depression), substance abuse, negative self-concept, and isolation (b) familial factors, such as dysfunctional family dynamics, poor parental attachment, and family history of suicide and (c) specific life events-traits, such as school bullying, acute conflicts (with parental figures or intimate partners), (d) Developmental changes (physiological and psychosocial problems) during puberty and history of physical or sexual abuse (Qaddoura et al., 2022).

Hormonal surges and consequent physical maturation linked to pubertal development in adolescence are believed to impact multiple aspects of brain development, social cognition, and peer relations; each of which have also demonstrated associations with risk for mood swings, suicidal ideation and anxiety disorders. These puberty-related effects may combine with other non-pubertal influences on brain maturation to transform adolescents' social perception and experiences, which in turn continue to shape both mental health and brain development through transactional processes (Pfeifer & Allen, 2022).

Suicidal behaviors range from SI, suicide plans (SPs), and SAs to completed suicide. SI is widely accepted as a reflection of engagement in suicide-related behaviors. SAs are defined as potential self-injurious behaviors associated with at least some intent to die. Manifested as the deliberate, self-induced destruction of body tissues, the definition of NSSI as an essential component of SIB is based on the absence of suicidal intent. As the main component of SSIRBs, which are a severe public health problem, suicide-related behaviors often lead to serious adverse consequences. These results are mainly reflected in personal psychological and physical pain as well as negative impacts on families and even communities (Lu et al., 2023).

In the adolescent years, a teen's identity may change from one month to the next. Adolescent is like an opportunity to experiment with personal values, style, beliefs, and sexuality. Adolescent with healthy self-esteem and a strong support system, can build a new identity with confidence. But many teenagers struggle with having sense of self-worth, feeling of inability to measure up to the standards of parents, teachers, or friends. Teenagers who suffer from low self-esteem are more vulnerable to the negative influences of peer pressure and more likely to suicidal ideation (Hampton et al., 2022).

It is important for nurse not only to assess suicidal ideation risk factors, but also to ask about protective factors. Although protective factors have not been as well studied in adolescents as in adults, research has shown that factors that are protective against suicide risk in adults are similar in adolescents. Both internal factors, consisting of higher self-esteem, "zest for life," cultural and religious beliefs that discourage suicide, and positive coping skills, and external factors, including strong social supports and feeling of inclusion, contribute to resilience, which can protect youth from suicide attempts (Morfin-López, 2022)

Providing suicide prevention education program is crucial for adolescent girls, Many school professionals fear that teaching about suicide prevention provides students with ideas and methods about killing themselves and, therefore, leads to increased suicide attempts. However, research shows that, when issues concerning suicide are taught in a sensitive and educational manner, students show significant gains in knowledge about suicidal warning signs and more positive attitudes toward help seeking behaviors with troubled peers (Ayer & Colpe, 2023)

### Significance of the study:

According to the World Health Organization (WHO), over 700, 000 individuals die by suicide each year, with approximately twenty attempted suicides for every completed one, and even more individuals experiencing suicidal ideation. Adolescent girls have higher rates of suicidal ideation, suicide attempts, and non-suicidal self-harm. According to the most recent data, at a global level suicide is the third leading cause of death among girls aged 15 to 19. Furthermore, adolescents represent a social group where suicidal ideation is more widespread (WHO, 2023).

Since 40% of Egyptians are under the age of 18, it is crucial to research suicide attempts in this demographic. Adolescent suicide is associated with a number of variables, such as stress from school, issues pertaining to relationships and with family, hopelessness, financial challenges, isolation from society, tension from work, physical and psychological trauma, addiction to alcohol and other drugs, and other mental health conditions (Rabie et al., 2025)

### Aim of the Study:

This study aimed to assess the effect of nursing physical and psychosocial instructional sessions on suicidal ideation among adolescent girls.

### Research hypothesis:

Nursing physical and psychosocial instructional sessions will have a positive effect on suicidal ideation among adolescent girls.

## Subject and Methods

### Research design:

A quasi experimental research design was used to achieve the aim of the study. **Setting:** This study was conducted at the Gamaa Ain shams secondary school for girls in El-Fayoum City- El-Fayoum Governorate, which is affiliated to The Ministry of Education. The school has one building. The building has three floors ; the first floor consists of 6 class rooms for first grade and social worker room; the second floor consists of 6 class rooms for second grade, library, computer room and nursing room; and the third floor consist of 5 class rooms for third grade and science lab. The total number of students was 898 students (105 students from them were included in the study.

### Sampling:

A convenience sample that received the nursing physical and psychological educational sessions.

- **Sample Type :** Convenience sampling (is a type of non-probability sampling that involves the sample being drawn from that part of the population that is close to hand).
- **Sample Size:** (105) adolescent girl were included for the conduction of this study and agreed to participate in the study.
- **Technique:** The researcher went to setting of study for assessment of study sample for two times per week within two weeks as the researcher interviewed small groups of adolescent girls consists of (3-5) girls who have suicidal risk factors and accept to participate in the study , the researcher also prepared a supportive booklet ,then implement the instructional sessions.
- **Inclusion criteria:**
  1. Adolescent aged 14- 17 years old,
  2. Has suicide risk factor
  3. Willing to participate in the study.

### Tools for data collection:

The data was collected through utilizing the following tools: -

#### Tool (I): Structured Interviewing Questionnaire:

This tool was developed by the researcher based on pertinent literature ( *Díez-Gómez et al .,2020 ; Ivey-Stephenson, 2020*) and include three parts.

**Part one: Socio- demographic characteristics of adolescent girls:** consists of 7 items, Which was constructed to describe adolescents' age, residence, educational grade, father and mother education and occupation.

**Part two: Assessment of physical status:** consists of 14 item Which was constructed to describe adolescents' anthropometric measurements(weight , height and body mass index ), medical history( presence of any chronic disease , injury and family history of mental disease ) and menstrual history(onset of menarche , menstrual status , interval between menstruation, days of menstruation , presence of any menstrual problems , presence of any congenital anomalies related to genital organs and size of breast )

**Part three: Risk factors for suicide:** consists of 17 item which was constructed to describe adolescent's family type, family income, living status, number of family members, number of rooms, number of members in the room, major life events and exposure to bullying and/or harassment and its effect on psychological status.

#### Tool (II): Rosenberg's Global Self-esteem Scale:

This scale was developed by *Rosenberg (1965)* to measure self- esteem. It was translated into Arabic language by *Ahmed, (2011)*.The researcher adopted the Arabic version of the scale is composed of 10 statements (5 statements are phrased positively and 5 statements are phrased negatively). These statements are rated on a 4-point Likert scale, which are:

(4) strongly agree, (3) Agree, (2) disagree, (1) strongly disagree. According to answers, total scoring ranges from 1 to 40 score, with 40 score indicating the highest possible score. Scoring for negative answers was reversed, i.e., (1) for strongly agree and 4 for strongly disagree, and so on.

#### Scoring system:

**Total scores were graded as follows:**

- Low level of self-esteem = < 20 score.
- Moderate level of self-esteem = 20 - <25 score.
- High level of self-esteem  $\geq$  25 score.

#### Tool (III): - The Adolescent Suicidal Behavior Assessment Scale (SENTIA).

This scale was developed by *Díez-Gómez et al., 2020*. It is a self-report instrument designed for the assessment of suicidal ideation for adolescents. It is composed of 16 question ; 3 components: Act/planning item (includes 7 questions), Communication item (includes 4 questions) and ideation item (includes 5 questions); which are answered with Yes or No and (14) question of them are scored as (1) for Yes and (0) for No. Two questions are scored in the opposite direction (1) for No and (0) for Yes ,question number (11) and (14).

#### Scoring system:

The questionnaire was evaluated giving a range of 0 -16. If the total Suicidal Ideation score was “ 0-7 ” , Adolescent girl was classified as had “low suicidal ideation.”, and if the total score was “8 – 11” , Adolescent girl was classified as had “Moderate Suicidal Ideation”, and if the total score of was “12 – 16” , Adolescent girl was classified as had “Sever Suicidal Ideation”

#### Preparatory phase:

It includes reviewing of literature, different studies and theoretical knowledge of various aspects of the research topic using books, articles, internet, periodicals and magazines. This also helped in designing the study tools. The researcher also prepared a supportive booklet ,then implement the instructional sessions

#### Supportive material:

- 1- Educational booklet
- 2- Audio-visual aids
- 3- Manual (practical ) activities

#### Validity:

The validity of the three instruments was done by three experts (Professors in Maternal and Newborn health care Nursing ) who examined the instrument for the relevancy, clarity, fluency, and simplicity of each component in the instrument . Also, professors were asked to judge the items for completeness and clarity (content validity). The Experts found the tool was useful and helpful.

#### Reliability:

Reliability was estimated among 10 participants by using test retest method with two weeks apart between them. Then Cronbach alpha was calculated between the two scores using SPSS computer package . Reliability score indicate that

Tool	Reliability score
Instrument one (Socio-demographic and risk factors for suicide ideation questionnaire)	0.81
Instrument two (Rosenberg Global Self – Esteem Scale)	0.78
Instrument three (Adolescents Suicidal Behavior assessment Scale)	0.83

**Administrative design:**

A written approval letter was issued from the Dean of the Faculty of Nursing - Helwan University. The letter was directed to the director of basic education school for girls.

**Ethical considerations:**

An official permission to conduct the proposed study was obtained from the Scientific Research Ethics Committee. Participation in the study is voluntary and girls were given complete full information about the study and their role before signing the informed consent. The ethical considerations were include explaining the purpose and nature of the study, stating the possibility to withdraw at any time, confidentiality of the information. Ethics, values, culture and beliefs were respected

**Pilot study**

A pilot study was conducted before starting data collection on 10% of adolescent girls (10 girls) to test the clarity and applicability of the study tools, and identify the time required to fill each tool. The sample of the pilot study was included to the total sample because there is no modification was done

**Field work:**

The field work started at the beginning of March / 2024 and completed by the end of May / 2024, consuming three months. The field work carried out through the following stages:

**First: Assessment phase:** This phase included reviewing of relevant different studies, related to the study topic using books, articles, journals and the INTERNET. A clear picture of all the aspect related to research topic to design the sessions and study tools for data collection during this phase.

- During the assessment phase the researcher interviewed the adolescent girls, explained the aim of the study and distribute the study tools .
- Revise the study tools after completion in order to assess physical and psychosocial status , suicidal ideation risk factors , self-esteem and suicidal behavior and identify the studied girls' needs

**Second: Planning phase:** This phase aimed to finalize the nursing physical and psychosocial instructional sessions based on the results of the assessment phase through setting educational objectives, preparing the instructional sessions and designing the methodology and the suitable media. This Phase done in order to eradicate suicidal ideation among adolescent girls.

The nursing physical and psychosocial instructional sessions has a set of sessions (6 sessions) have a general and specific objectives. The sessions content was developed by the researcher in the form of educational booklet, after that it was distributed to the adolescent girls in the second session after An introduction session for adolescent girls and making sure of their willing to participate in the study.

**The objectives of Supportive material are:**

- 1- Ensuring family connectedness.
- 2- Stimulate social communication among colleagues.
- 3- Engage student girls in groups or psychologically health atmosphere to avoid isolation and depression.
- 4- Increase self-esteem of adolescent girls.
- 5- Motivate positive view of the future.

**Third: Implementation phase:** This phase was begun by pretest then implementation of the nursing physical and psychological educational sessions for the adolescent girls. The pre-test was collected two days/ week, 25-30 girl / day. The time needed to fulfill the tools was approximately 20 min.

### Implementation of the sessions

#### The educational sessions consisted of 6 sessions

First session: Concept of puberty

Second Session: Hormonal and physiological changes associated with puberty

Third Session: developmental crisis (puberty)

Fourth Session: suicidal ideation and suicidal ideation risk factors

Fifth Session: Suicidal ideations and how to deal with it

Sixth session: Keep healthy psychological status

This phase focus on the implementation of the nursing physical and psychological educational sessions for all adolescent girl of the study (105) The adolescent girl of the study were divided into four groups (first , second and third group consisted of 26 girl and the last one consisted of 28 girl ). In each session, The selected group of the adolescent girls have session to practice a new skill . The time needed to complete the session was 45 minutes .

- In the first session, the researcher welcomed the adolescent girls and provided them with a detailed information about the number of group members, duration of the sessions and length of each session, general and specific objectives of the sessions, summary about the content of the sessions and rules of the group e.g. confidentiality and honesty.
- Each session was started with a summary about the content of the previous session to ensure that the adolescent girls understand it. The title of the new session were mentioned.
- The researcher used group discussion , brain storming and active participation during the session to promote active involvement and enhance interest in the session and to grasp the full attention of them.
- The session may involve different activities such as drawing, writing lovely kind message for each other that promote happiness, making shapes using beads like bracelet and rings. The researcher gave positive reinforcement to the girls; rewards like chocolate cake, sweets and biscuits.
- The researcher demonstrated relaxation exercises like deep breathing exercise and the adolescent girls re-demonstrated it. Also encourage the girls to practice meditation or imagination and discuss their experience through open discussion.
- Also the researcher discuss an examples from daily life and the experienced case studies to explain the theoretical knowledge and relate to the real life and encourage girls to provide additional examples from their own experience and discuss it in objective manner.
- At the end of every session, the researcher provided a summary about the content of the session and a home work given to promote transfer and maintenance of the learned skills. Finally inform the girls about the date and the tittle of the next session.
- At the end of each session there is a free time for discussion , answer questions and feedback , the researcher shared mobile number which had what's-app for help , support ,sharing in solve problems and ventilation.
- At the beginning of each session, the researcher check the homework assignment of the previous session and thanked girls who done it and encourage the girls who did not perform the homework assignment to do it for the next time and gave them a chance to do it.
- At the end of the educational sessions the researcher thanked the girls and gave small gifts such as personal hygiene supplies , pen ,candy, hair tools or hair pins and optimistic messages for them and take personal photos for memories.

**Fourth: Evaluation phase (post-test):** This phase aims to estimate the effect of the nursing physical and psychological educational sessions on suicidal ideation among adolescent girls through distribute a post-test by the same manner of the pre-test of the study. After one month of post-test a follow up test was done.

### Statistical design:

The collected data in pretest and post-test were organized, categorized, tabulated according to the type of each data

### Statistical analysis:

Data was coded and transformed into specially designed form to be suitable for computer entry process. Data was entered and analyzed by using SPSS (Statistical Package for Social Science) statistical package version 22. Graphics were done using Excel program. Quantitative data were presented by mean (X) and standard deviation (SD). Qualitative data were presented in the form of frequency distribution tables, number and percentage. It was analyzed by chi-square ( $\chi^2$ ) test. However, if an expected value of any cell in the table was less than 5, Fisher Exact test was used (if the table was 4 cells), or Likelihood Ratio (LR) test (if the table was more than 4 cells). Level of significance was set as P value  $<0.05$  for all significant tests.

### Results

**Table (1)** show that, ( 55.3%) of the studied adolescent girls aged between 14 to  $<16$  years old with mean of  $15.3 \pm 1.2$  years old, (65.7%) of them were in first grade. As regards their fathers education, approximately half of them had university education (48.6%), while (34.3%) of them had secondary or intermediate education, while only ( 3.8%) were Can't read and write. As regards their mothers education, approximately half of them had high education (46.7%), while more than third of them had secondary education (35.2%), while (8.6%) were can't read and write.

**Table (2)** show that, ( 59%) of the studied adolescent girls had nuclear family, (19%) of them were extended family. As regard family income of them (51.4%) of them hadn't enough income while (14.3%) only had enough income. As regard their living status (52.4%) were owners of their houses. As regard number of their family members (55.2%) had 6-7 members in their family while only (2.9%) of them had 3 members in their family. As regard number of their house rooms (46.7%) of them had 3 rooms in their house and only (12.3%) of them had 4 rooms in their house.

As regard number of members per room (62.9%) of them were had 1-2 member per room. As regard major life events of them (51.4%) of them were exposed to major life events; (29.5%) of them were loss of loved one while (4.8%) of them were exposed to accidents. As regard exposure to bullying (57.1%) of them were bullied; (75%) of them physical bullied while (25%) verbal bullied and (96.7%) of them were affected psychologically by bullying. As regard exposure to harassment (31.4%) of them were exposed to harassment; (60.6%) of them were verbally while (39.4%) were physically harassed and all of them affected psychologically by harassment.

**Figure (1)** The effect of nursing physical and psychosocial instructional sessions on total score Self Esteem levels among Adolescent girls Pre, post, and follow up instructional sessions. Post - instructional sessions revealed a highly significant improvement ( $p<0.0001$ ) in the total score of self-esteem levels. The post sessions "High Self-esteem level" was increased from 8.6% pre instructional sessions to 30.5% post instructional sessions, and to 28.6% in follow up instructional sessions and the difference was highly significant ( $P<0.0001$ ) for each ( $p<0.0001$  for each). On the other hand, the low "self-esteem level" decreased from 67.6% pre instructional sessions to 5.7% in both post as well as follow up instructional sessions, and also this difference was highly significant ( $p<0.0001$  for each instructional session).

**Table (3)** The effect of nursing physical and psychosocial instructional sessions on total score Suicide ideation levels among Adolescent girls Pre, post, and follow up instructional sessions. Post - instructional sessions revealed a highly significant improvement ( $p<0.0001$ ) in the total score of Suicide ideation levels. The post instructional sessions "moderate suicidal ideation and behavior level" was decreased from 62.9% pre instructional sessions to 4.8% post instructional sessions, as well as to 2.9% in follow up instructional sessions and the difference was highly significant ( $P<0.0001$ ) for each ( $p<0.0001$  for each). On the other hand, the low "Suicide ideation level" increased from 23.8% pre instructional sessions to 95.2% and to 97.1% in both post as well as follow up instructional sessions, and also this difference was highly significant ( $p<0.0001$  for each instructional sessions). As regards suicidal behavior only 10 adolescent girls (9.5%) had

suicidal trial. These results approved the current study hypothesis which stated "Nursing physical and psychological instructional sessions will have a positive effect on suicidal ideation among adolescent girls".

**Table (4)** demonstrate that there was a high significant association between self-esteem levels and suicidal ideation levels after follow up of the instructional sessions ( $P < 0.0001$ ). All adolescent girls who have high self-esteem showed the highest percentage of low suicidal ideation (100%), and the lowest percentage of moderate suicidal ideation (0%), compared to adolescent girls who have low self-esteem who showed the lowest percentage of light suicidal ideation (66.7%), and the highest percentage of moderate suicidal ideation (33.3%). This difference was high statistically significant  $p < 0.01$ .

## Discussion

Regarding age of the studied girls, the present study revealed that, more than half of the studied girls age ranged between 14 - 16 years with  $M \pm SD (15.3 \pm 1.2)$  years. This result consistent with *Sourander et al., (2024)*, in a study entitled Suicidality and Self-Harm Behavior of Adolescents During the Early Phase of the War in Ukraine who found that nearly two thirds of the studied girls aged above 13 years old.

Regarding educational grade of the studied girls, the present study revealed that two thirds of the studied girls were in first grade. This result is consistent with *Kurniawan et al., 2024* in a study entitled Predictors of suicidal behaviors among school-going adolescents: a cross sectional study in Indonesia who found that nearly half of the studied girls were in first grade.

Regarding fathers and mother education of the studied girls, the present study revealed that approximately half of fathers had University education and regarding mother education, approximately half of them had high education and more than third of them had secondary education. This result is consistent with *Elsayed & Shaban., 2023* in a study entitled Effect of Social Skills Training Program on Emotional Intelligence, Happiness, and Self-esteem among Adolescent Girls who found that less than half of fathers had high education and less than half of mothers had secondary education.

Regarding suicidal risk factors of the studied girls, the present study revealed that more than half of them had nuclear family, and nearly quarter of them was extended family. This result is consistent with *Mathew et al., 2020* in a study entitled Exploring the Family factors associated with Suicide Attempts among Adolescents and Young Adults: A Qualitative Study and found that nuclear families have increased. Furthermore studies have shown that perceived family factors such as hostile family environment, critical comments and invalidation from parents, and lack of emotional support from family members influence suicidal behavior among adolescents and young adults (*Mathew et al., 2020*).

From researcher point of view the decision to attempt suicide is a highly personal one, largely influenced by the individual's perception of his/her environment, relationships, and sociocultural milieu.

Regarding family income of the studied girls, the present study revealed that more than half of them hadn't enough income while only fourteen percentages of them had enough income. This study is inconsistent with *Begum et al., 2018* in a study entitled Parental socio-economic position and suicidal ideation among adolescents in Rural Bangladesh who found that most of the parents of studied sample had monthly family income enough. Also mentioned that families with not enough income display higher suicidal ideation among adolescents; nearly sixth percentage of the studied sample than families earning more. From researcher point of view this result may be due to expensiveness of the living condition.

Regarding living status of the studied girls, the present study revealed that more than half of them were owners of their houses. This result is consistent with *Begum et al., 2018* who found that most of the parents of studied sample have home. Also mentioned that adolescents who don't have a home show higher suicidal ideation more than quarter of the studied sample than adolescents who do. From researcher point of view parent's having own house is a protective factor for adolescent's suicidal ideation.

Regarding number of family members, the present study revealed that more than half of them had six to seven members in their family while only nearly three percentages of them had three members in their family. This result is inconsistent with *Closson et al., 2022* who found that more than half of studied sample had 3 to 4 members in their family. From researcher point of view this result may be due to the cultural beliefs about having a big family.

Regarding number of house's rooms, the present study revealed that nearly half of them had three rooms in their house and nearly two thirds of them were had from one to two members per room. This result is inconsistent with

**Roychowdhury, 2022** in a study entitled health needs of adolescent girls in urban Slum of a kolkata who found that most of study sample living with 5-6 family member in room. From researcher point of view this result may be related to the socioeconomic status of the parent.

Regarding exposure to major life events of the studied girls, the present study revealed that more than half of the studied girls were exposed to major life events; nearly third of them were loss of loved one and little of them exposed to accident. This result is consistent with **National institute of mental health, 2023** that mentioned that exposure to stressful life events as loss of loved one and exposure to accidents are risk factors of suicide. From researcher point of view this result suggest that loss of loved one and accidents may be risk factor for suicide this may be due to unresolved grief that result from loss of loved person or the physical and psychological effects of accidents can turn into complicated grief that make trouble resuming one's own life.

Regarding exposure to bullying of the studied girls, the present study revealed that more than half of the studied girls were exposed to bullying; three quarter of them exposed to physical bullying while one quarter exposed to verbal bullying and the majority of them were affected psychologically by bullying. This result is consistent with **Chen& Elklit., 2018** in the study entitled Exposure to Bullying Among Adolescents Across Nine Countries who found that nearly half of the studied sample exposed to physical, verbal and social bullying.

Bullying is a profoundly distressing experience for young people that can have a big impact on their mental health and well-being. Young people who are bullied may experience anxiety, stress, nightmares, sadness, isolation, and fear. Exposure to bullying, especially during childhood and adolescence, might lead to the development of maladaptive beliefs regarding self, justice, and authorities (**Yassin, 2024**). From researcher point of view this result may be due to that adolescence is a difficult developmental period due to biological changes interacting with social and psychological challenges such as identity issues and social competence. Adolescents may participate in bullying others to gain peer acceptance and status in the group.

Regarding exposure to harassment, the current study revealed that nearly third of the studied girls were exposed to harassment; nearly two thirds of them were verbally while more than one third of them were physically harassed and all of them affected psychologically by harassment. This result is consistent with **Mohamed et al., 2022** in a study entitled Sexual Harassment among Adolescent's Girls: Role of Social and Psychological Empowerment and found that more than two thirds and more than one thirds of the studied girls experienced verbal and (or) physical harassment respectively. From researcher point of view this result may be due to that harassment is a form of violence that can affect any adolescent regardless of, race, age, or social class. This result suggest that social and psychological empowerment is very important becaues it enables adolescent girls to refuse harassment, overcome its negative effects, and seek help and support when needed.

Regarding the effect of nursing educational physical and psychosocial instructional sessions on Self Esteem items among Adolescent girls Pre, post , and follow up sessions, post -instructional sessions; the present study revealed a highly significant improvement ( $p<0.0001$ ) in each self-esteem item (  $p<0.0001$  for each ). This result is consistent with **Waite et al., 2024** in a study entitled Psychosocial Interventions for Children and Young People With Visible Differences Resulting From Appearance-Altering Conditions, Injury, or Treatment Effects: An Updated Systematic Review, who found improvements on self-esteem at post-intervention compared to pre-intervention.

From researcher point of view this findings may be due to instructional sessions has contributed to improve the self-esteem level of the adolescent girls, as inclusion at the instructional sessions for a group training activities and providing continuous feedback by participants that had a positive role in increasing their intention to participate actively as well as the interaction of the researcher with the latest requirements which may have a positive effectiveness in the level of self-esteem and raise the level of enthusiasm to attend more meetings containing topics and information pertaining to personal and behavioral reality.

Regarding self-esteem pre , post , and follow up instructional sessions among adolescent girls, the current study revealed that self-esteem score increased post instructional sessions from pre instructional sessions and the difference was highly significant( $P<0.0001$ ). Similar pattern was observed when we compared pre instructional sessions mean total self-esteem with the follow up instructional sessions, and also the difference was highly significant. This result is consistent with **Elsayed & Shaban, 2023** in a study entitled Effect of Social Skills Training Program on Emotional Intelligence, Happiness, and Self-esteem among Adolescent Girls who found that the score of self-esteem among studied adolescent girls

had improved post-intervention, as the majority of students had normal self-esteem post intervention compared with less than three fifths of them having a normal self-esteem before intervention.

Also the results of the current study are in line with those of *Kheirkhah, 2020* in a study entitled investigating the effect of social skills training on happiness, academic resilience and self-efficacy of girl students who found that the academic self-efficacy of female students increased as a result of social skills training. As well, the study done by *Ali et al., 2018* in a study entitled Effect of social skills training program on self-esteem and aggression among children in residential institutions in Port Said City who found that the social skills training program has the beneficial effect of raising self-esteem levels.

From researcher point of view this result may be ascribable to the physical and psychological session's success in increasing the experience, knowledge, and communication skills that improve self-confidence and adaptable to different life offices.

Regarding the effect of nursing educational physical and psychosocial instructional sessions on total score Suicidal Ideation levels among Adolescent girls Pre, post, and follow up instructional sessions. Post -instructional sessions, the current study revealed a highly significant improvement ( $p < 0.0001$ ) in the total score of suicidal ideation levels. The post instructional sessions "low suicidal ideation level" was increased from approximately one quarter pre instructional sessions to 95.2% post instructional sessions , and to 97.1% in follow up instructional sessions and the difference was highly significant ( $P < 0.0001$ ) for each ( $p < 0.0001$  for each). On the other hand, the moderate "suicidal ideation level" decreased from 62.9% pre instructional sessions to 4.8% in both post as well as follow up instructional sessions, and also this difference was highly significant ( $p < 0.0001$  for each intervention).

This result is consistent with *Baetens et al., 2024* in a study entitled The Effectively of a School-Based Early Intervention Targeting Psychological Complaints and Non-Suicidal Self-Injury in Adolescents who found that the prevention program effectively reduced NSSI and psychological distress, particularly for adolescents with a history of NSSI. Also this result is consistent with *Morken et al., 2019* in a study entitled the effects of interventions preventing self-harm and suicide in children and adolescents: an overview of systematic reviews who found that school-based interventions prevent suicidal ideation and attempts short term, and possibly suicide attempts long term.

From researcher point of view this result may be due to the success of nursing physical and psychosocial sessions in which the researcher assist the adolescent girls to properly express their internal thoughts and feelings that they aren't express in the past, as well as provided opportunities for them to interact with each other, providing more opportunity to express relationships with others, provided positive feedback, and the researcher during the sessions encouraged the girls to make activities such as drawing, writing text for each other that promote happiness, making shapes using beads like bracelet and rings. The researcher gave positive reinforcement to the girls; rewards like chocolate cake, sweets and biscuits.

Regarding relation between self-esteem levels and suicidal Ideation after follow up instructional sessions among adolescent, the current study revealed that there was a high significant association between self- esteem levels and suicidal ideation levels after follow up instructional sessions ( $P < 0.0001$ ). All adolescent girls who have high self-esteem showed the highest percentage of low suicidal ideation and the lowest percentage of moderate suicidal ideation, compared to adolescent girls who have low self – esteem who showed the lowest percentage of low suicidal ideation, and the highest percentage of moderate suicidal ideation. This difference was high statistically significant ( $p < 0.01$ ).

This result is consistent with *Shagufta, 2022* in a study entitled Self-esteem and Suicidal Ideation in Pakistani Undergraduates who found that students with negative self-esteem were more prone towards suicidal ideation ( $\beta = .15, p < .001$ ) and those students who were having positive self-esteem were less likely indicating suicide ideation which suggested that positive self-esteem is a protective factor against suicidal ideation ( $\beta = -.10, p < .05$ ).

From researcher point of view this result may be due to that the mental and emotional well-being is an essential component of self-esteem, so mental and emotional well-being lead to increased self-esteem. Furthermore, low self-esteem associated with negative overall opinion of oneself, judging or evaluating oneself negatively, and placing a general negative value of oneself as a person, these negative thoughts about self may lead to psychological distress, which can lead to hopelessness and eventually heightened suicidal ideation. In contrast, high levels of self-esteem have been indicated to mitigate suicide risk.

## Conclusion

The current study concluded that nursing instructional sessions were effective in enhancing adolescent girls' knowledge about puberty, including the associated physiological and psychosocial changes. This improvement contributed to a reduction in suicidal ideation among the participants as the post instructional sessions "moderate suicidal ideation and behavior level" was decreased from Two-thirds of adolescent girls pre instructional sessions to fifth of adolescent girls post instructional sessions, as well as to approximately third percent of adolescent girls in follow up instructional sessions, supporting the research hypothesis that nursing instructional sessions have positive effect on suicidal ideation among adolescent girls. Additionally, the findings emphasize the importance of structured and comprehensive education in improving mental health and enhancing adolescents' understanding of the changes they experience during puberty.

## Recommendation

Based on the results of the current study the following items are recommended:

- Develop educational program for early detection of risk factors and provide positive support to the adolescent girls in order to get rid of suicidal ideation
- Activate the role of the school's social worker and the psychologist for early detection of risk factors and provide positive support to the adolescent girls in order to get rid of suicidal ideation.
- Build a trust relationship and effective communication between the girls themselves, school personnel and the families.
- Integration on physical, social and psychological changes that occurs during puberty and adolescence in the educational curriculum.
- Further study: Study / investigate the effect of social media on suicidal ideation among adolescent girls.

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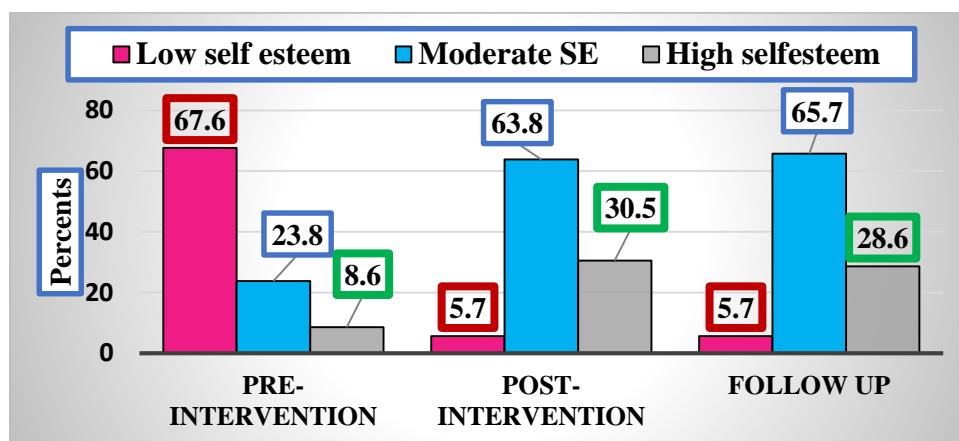
**Table (1):** Distribution of the studied adolescent girls according to their Socio -demographic characteristics (N = 105)

Socio demographic characteristics	N0.	%
<b>Age (Years)</b>		
14 - < 16 years	58	55.3
16 - 17 years	47	44.7
<b>Mean <math>\pm</math> SD</b>	<b>15.3 <math>\pm</math> 1.2 years</b>	
<b>Father Education:</b>		
Can't Read &write	4	3.8
Basic education	14	13.3
Secondary education	36	34.3
Higher education	51	48.6
<b>Mother Education:</b>		
Can't Read &write	9	8.6
Basic education	10	9.5
Secondary education	37	35.2
Higher education	49	46.7
<b>Father occupation?</b>		
No work	1	1
Intermittence occupation	33	33.4
Professional occupation	71	67.6
<b>Mother occupation:</b>		
Employee/worker	51	48.6
Housewife	54	51.4
<b>Residence</b>		
Rural	33	31.4
Urban	72	68.6
<b>Total</b>	<b>105</b>	<b>100</b>

**Table 2:** Distribution of studied Adolescent girls according to suicidal risk factors.(N=105).

Suicidal risk factors	N0.	%
<b>Family type:</b>		
Extended family	20	19
Nuclear family	62	<b>59</b>
Single parent(mother or father )	23	22
<b>Family income:</b>		
Enough	36	34.3
Not enough	54	<b>51.4</b>
Enough and save	15	14.3
<b>Living status:</b>		
Owners	55	<b>52.4</b>
Rent	50	47.6
<b>No. of family members:</b>		
3 members	3	2.9
4 – 5 members	33	31.4
6 -7 members	58	<b>55.2</b>
> 7 members	11	10.5

<b>No. Of house rooms : :</b>	1 - 2 rooms	28	26.7
	3 rooms	49	<b>46.7</b>
	4 rooms	15	14.3
	> 4 rooms	13	12.3
<b>No. Of members per room:</b>	1-2 members	66	<b>62.9</b>
	3 members	29	27.6
	4 members	8	7.6
	> 4 members	2	1.9
<b>Major life event :</b>	<b>Yes</b>	54	<b>51.4</b>
	No	51	48.6
<b>Type of event :</b>	No	51	<b>48.6</b>
	Accidents	5	4.8
	Death of loved person	31	29.5
	Disease	18	17.1
<b>Being bullied:</b>	Yes	60	<b>57.1</b>
	No	45	42.9
<b>Type of Bullying: (60)</b>			
	Verbal	15	25
	Physical	45	<b>75</b>
<b>Does it affect psychological status? (60)</b>	Yes	58	<b>96.7</b>
	No	2	3.3
<b>Degree of effect : (60)</b>	No effect	2	3.3
	Mild	2	3.3
	Moderate	28	<b>46.7</b>
	Sever	28	<b>46.7</b>
<b>Harassed before?</b>	<b>Yes</b>	33	31.4
	No	72	<b>68.6</b>
<b>Type of Harassment: (33)</b>			
	Physical	13	39.4
	Verbal	20	<b>60.6</b>
<b>Does Harassment affect your psychological status(33)</b>			
	Yes	33	<b>100</b>
	No	0	0
<b>Degree of effect: (33)</b>	Mild	0	0
	Moderate	19	<b>57.6</b>
	Sever	14	42.4
<b>Total</b>		<b>105</b>	<b>100</b>



**Figure (1):** Levels of adolescent girls ' total Self-esteem pre , post, and follow up instructional sessions (N=105)

**Table (3):** The effect of nursing educational physical and psychosocial instructional sessions on total score Suicidal ideation and behavior levels among Adolescent girls Pre, post, and follow-up instructional sessions (N=105).

Total score of Suicide Ideation levels	pre instructional sessions		post instructional sessions		Follow up instructional sessions		*Test of Sig.	P value
	N0.	%	N0.	%	N0	%		
low Suicide ideation level (< 8)	25	23.8	100	95.2	102	97.1	$\chi^2=215.7$	<0.0001
Moderate Suicide ideation level (8 - 11))	66	62.9	5	4.8	3	2.9		
Sever Suicide ideation and behavior level (12- 16)	14	13.3	0	0	0	0		
<b>Total</b>	<b>105</b>	<b>100.0</b>	<b>105</b>	<b>100</b>	<b>105</b>	<b>100</b>		

Test of Sig.  $\chi^2=215.7$ 

P value&lt;0.0001

**Table 4:** Relation between Self Esteem levels and Suicidal Ideation levels after follow up instructional sessions, among studied adolescent girls (N=105)

Follow up instructional sessions	Follow up instructional sessions Suicidal Ideation levels				Total		Test of significance	P value
Self-Steam levels	Low SI		Moderate SI					
	N	%	N	%	N	%		
Low SE	4	66.7	2	33.3	6	100	LR=9.2	P<0.01
Moderate SE	68	98.6	1	1.4	69	100		
High SE	30	100	0	0	30	100		
Total	102	6.4	16	12.8	105	100		

Test of significance :LR=9.2

Pvalue P&lt;0.01