

 <p>INNOVATIVE JOURNAL ЮНКІВ</p>	<p>Contents lists available at www.innovativejournal.in</p> <p>INTERNATIONAL JOURNAL OF NURSING DIDACTICS</p> <p>Homepage: http://innovativejournal.in/index.php/ijnd</p>	 <p>IJND ISSN: 2231-5454</p>
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Utilization of an Electronic Mail to Reveal the Hidden of Reproductive Health Problems among Female Students at Fayoum University

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DOI: <https://doi.org/10.15520/ijnd.v10i02.2816>

Abstract: Background: Reproductive health is an important part of world health and as a part of human rights. It is vital for wellbeing, to prevent morbidity and maintain economic productivity **Aim:** the study aimed to evaluate the effect of utilization of an electronic mail to reveal the hidden of reproductive health problems among female students at Fayoum university. **Design:** Quasi-experimental design was utilized. **Sampling:** A total of 350 female university students comprised in the study sample and were purposively selected, from 16 faculties at Fayoum University. **Tool:** A web based structure questionnaire was used as a tool for data collection. **Results:** the mean age of students under study were 18.1±1.3 years; 61.7% of the study sample had menstrual disorder; as 80.1 % of them didn't reveal this problem for any one. Also 72% of the sample had symptoms of RTIs and 69.8% of them didn't report this problem also. In addition 12.6% of the sample reported breast problem and 90.0% of them didn't seek treatment or tell anyone. The results also reveal 63.4% of the sample had unsatisfactory knowledge regarding reproductive health. As, 87.1% had unhealthy practices score level regarding items in reproductive health. On the other hand 6% of the sample exposure to sexual harassment and 100% of them didn't discuss this problem with any one. Also, a strong positive correlation was detected between students' total knowledge score level and total practice score level ($p < 0.001$). **Conclusion:** Majority of the female students at Fayoum University didn't reveal her reproductive health problem for any one. While by electronic email more than half of the female students who had reproductive health problem prefer to express their problem with the researchers, in addition about quarter of female students who had reproductive health problem agree to referral to health care services by the researchers. **Recommendations:** Develop and evaluate strategies to overcome the factors facing adolescent students to express the reproductive health problem and use reproductive health services.

Keywords: Reproductive health, Female University Students, prevent morbidity.

INTRODUCTION

Reproductive health is a crucial part of general health and a central feature of human development. It is a reflection of health during childhood, and crucial during adolescence and adulthood. [1] Reproductive behaviors are governed by complex biological, cultural and psychosocial factors. Therefore, the attainment of reproductive health is not limited to interventions by the health sector alone. Nonetheless, most reproductive health problems cannot be significantly addressed in the absence of health services and medical knowledge and skills. The status of girls and women in society, and how they are treated or mistreated, is a crucial determinant of their reproductive health. Educational opportunities for girls and women powerfully affect their status and the control they have over their own lives and their health and fertility. The empowerment of women is therefore an essential element for health [2].

The reproductive years are usually thought of as the years spanning from menarche, with onset usually between ages 12 - 14, to menopause at around age 50. Reproductive health is defined as "A state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity, in all matters related to the reproductive system and to its functions and process.[3] Adolescence, is a very important years in the reproductive years and consider the transitional stage of development between childhood and adulthood, represents the period of time during which

person experiences a variety of biological changes and encounters a number of emotional issues. [4] According to the World Health Organization (WHO), adolescence covers the period of life between 10 and 20 years of age. [5].

Adolescence is a critical time for health promotion and many health problems and much of the risky behavior that underlies later health problems begin during adolescence. Prevention, early intervention, and timely treatment improve health status for adolescents prepare them for healthy adulthood, and decrease the incidence of many chronic diseases in adulthood [6]. Youth represent one of the main pillars of any society. In Egypt, they form a large significant and growing population group. Despite that, young people do not receive much attention and suffer poor knowledge of reproductive health; they form a relatively high proportion of the country's unmet health needs, new infections, and maternal mortality rates. While these dynamics are attributed to a number of complex social, cultural, economic and gender-related factors [7].

Around the world, adolescence is a time of opportunities as well as vulnerabilities to risk-associated behaviors that can have lifelong consequences for health and well-being.[8] Numerous World Health Organization (WHO) consultations and studies have confirmed the importance of caring and meaningful relationships, as well as pro-social connections with individuals and social institutions, reducing risks and promoting healthy and positive

developmental outcomes. Many researchers, and various WHO documents, have also called for more attention to and more research on where, why and how adolescent seek help (i.e. their help-seeking behavior) and the sources of and nature of help available to them in their specific contexts (i.e. social supports) [9].

Any action or activity carried out by an adolescent who perceives them self as needing personal, psychological, affective assistance or health or social services, with the purpose of meeting this need in a positive way. This includes seeking help from formal services as; clinic services, counselors, psychologists, medical staff, traditional healers, religious leaders or youth programs, as well as informal sources, which includes internet, peer groups, friends, and family members or kinship groups. [10]

Nurses working in health settings and university affiliated health clinics and services, should focus on providing female university students with clear and complete information about reproductive health and the urgency of determine any disease early as well as prevent it. They also need firm advice about what to do and what not to do.[11]The “help” provided might consist of a service as medical consultation, clinical care, a referral for a service provided elsewhere or for follow-up care or talking to another person informally about the need in question. The nursing role also focus on emphasize addressing the need in a positive way to distinguish help-seeking behavior from behaviors such as association with anti-social peers, or substance use in a group setting, which a young person might define as help-seeking or coping, but which would not be considered positive from a health and well-being perspective[12].

Significant of the study:

Adolescents comprise 20% of the world's total population, Out of 1.2 billion adolescents worldwide, about 85% live in developing countries [13].In Egypt adolescents form around 25 percent of the country’s population, and represent even greater proportion of the country’s human potential [14].According to the estimates of the World Health Organization (WHO), reproductive health problems accounted for 18 percent of the total global burden of diseases [9]. Reproductive health is a vital aspect of growth and development throughout the lives, especially among the adolescence. Reproductive health problems remain the leading cause of sickness and death for female of childbearing age worldwide .Reproductive health affects, and is affected by, the broader context of people's lives, including their education, living conditions, family environment, social, gender relationships, the traditional and legal structures within which they live. In Egypt specially rural area, female adolescents are consider vulnerable group and uncomfortable discussing private reproductive issues, because they experiencing socially embarrassing or “stigmatizing” symptoms, afraid because their culture consider any female complain from something relating to reproductive issue, so her morality not good. Internet services are available in the university, as well as cheapness, so it available in students mobile , many homes, and could be serving the purpose of informing and asking question for the girls about her reproductive issue in confidentiality way.

This allows them to explore sensitive topics online which they may not want to reveal to parents, physicians; from this issue the current study adopted the idea of electronic mail to reveal the hidden problem of the reproductive among the rural female students in Fayoum University which help to reduce the morbidity rate among this age in such community.

Aim of the study:

This study aims to evaluate the effect of utilization of an electronic mail to reveal the hidden of reproductive health Problems among female students at Fayoum University

This aim achieved through the following:

- Develop electronic mail focus on the most common reproductive health problem among female University.
- Disseminate the electronic mail for female students through Fayoum University site with special precautions, confidentiality and password.
- Evaluate the effect of utilization the electronic mail to reveal the hidden of reproductive health problem.

Hypothesis:

The electronic mail in confidential way enhance the female university students at Fayoum university reveal their hidden reproductive health problem.

SUBJECT AND METHODS

Design : Quasi-experimental design was utilized in this study.

Setting: The study was carried out in 8 faculties at Fayoum University, in Fayoum governorate, including both scientific & literary faculties except faculties of medicine and nursing.

Sampling: For accurate faculties' representation, number of students to be enrolled in the study was selected from each faculty according to the following equation:

Number of female students to be selected from each faculty=

No of female students at each faculty × Number of the calculated sample size

Total number of female students at each year in the (8) faculties

Sampling type: A purposive sampling technique was used to achieve study aims.

Size: A total of 350 female university students comprised the study sample under the following criteria: Female University students who enrolled in any academic years, Age range between 18-21 years and unmarried student.

Tool of Data Collection:

Web based structure questionnaire sheet: was designed by the researchers in Arabic language after reviewing the related and updated articles to collect data for the current study. This tool comprised of four main parts as the followings:

Part I. Socio-demographic characteristics: including age, faculty, mother educational, & occupation, and monthly income,

Part II. Health Assessment: includes (15) questions regarding: a- Medical history; it includes medical problems

as; anemia, diabetes mellitus, hypertension, rheumatic fever, nutritional problems as obesity and underweight. **b-** Menstruation; age of menarche, characteristics of the menstruation and any problem associated with it. **c-** Symptoms related to different common reproductive health problems as polycystic ovarian syndrome, reproductive tract infection (RTI), breast problems and sexual violence. **d-** Type of consultant adopted by the students in case of present reproductive health problem.

Part III. Knowledge assessment: It includes 27 questions from both open & closed ended questions pertaining to assess knowledge regarding: **A-** Biological health aspect includes questions related to the anatomical structure of female reproductive health system and its function, hormones, and normal vaginal discharge, it includes (12) questions. **B-** Reproductive Tract Infection (RTI), it includes (8) questions on related to definition of RTI, causes, risk factors, signs and symptoms, types, complications, effect of RTI on reproductive health. **C-** Question related to structure of the breast and abnormal symptoms related to it, which diagnosed as breast problem, it includes (7) questions.

Scoring system for students' knowledge: The female students' knowledge was calculated for each item as follows: Correct answer was scored (3 points), Incomplete correct answer was scored (2point), while don't know or wrong answer was scored (one point). The total score for all questions related to knowledge was 27-54 point and categorized into two levels as followings: satisfactory $\geq 60\%$ of the total score and unsatisfactory $< 60\%$ of the total score.

Part IV. Health practices among female University students regarding prevention of RTI which include (18) questions about the healthy practices related to: **A-** Perineal hygiene includes questions concerning cleaning perineal area, methods of cleaning, direction of cleaning, dryness of perineal area, using antiseptic solution or talcum powder, removal of pubic hair. **b-** Menstrual hygiene, includes questions about type of towels used during menstruation, changing of towels, shower during menses, route of shower, cleaning perineal area during menstruation, using perfumed materials, washing hands, and exercise during menstruation.

Scoring system for student health practices as student's reported:

Each healthy practice was scored as; for the practice "yes" response scored as two score and if response "no" scored as one score. The total score of practices was 36 points, which represents 100%. Final practice assessment score was as healthy practice $\geq 75\%$ and unhealthy practice $< 75\%$.

Tool Validity and reliability: Tool was submitted to a panel of three experts in obstetric and gynecological nursing field to test the face and content validity. Each of the experts was asked to examine the tool for content coverage, clarity, wording, length, format, and overall appearance. Modifications were done according to the comments "rephrasing of three questions and cancelling for two questions". The researchers test tool reliability by Cronbach Alpha coefficient; was $r=0.87$ for web based structure questionnaire sheet.

Ethical consideration:

The approval was obtained from dean of each faculty shared in the study as well as from IT center in the University. The researchers visit each faculty and introduced themselves to the female students then informed them about the purpose of this study in order to obtain their acceptance to share in this study. The researchers ensured that, the study posed no risk or hazards on their health and their participation in the study is voluntary. Students' who were willing to participate in the study were approached by the researchers and asked for verbal consent to confirm their acceptance, and all events that occurred during data collection were considered confidential "this assured by given a code for each student".

Pilot Study:

After the development of the tool a pilot study was carried out on 10% of the total sample (35female students). Each faculty students had only ten days for access the web based structure questionnaire sheet to fill the tool. These students were not included in the main study sample. The purposes of the pilot study were to ascertain the relevance and content validity of the tool, estimating the exact time needed for each student and detect any problem peculiar to data collection tool that might face the researchers and interfere with data collection. Tool of data collection took 30-35 minutes to be completed. After conducting the pilot study, the necessary changes were performed; some questions were rephrased and others cancelled on the questionnaire, then tool was reconstructed and made ready for use.

Field work:

The study was carried out at the Fayoum University. The data collection period started from the beginning of July 2019 and completed at the end of December 2019. Firstly the researchers met the female students' in the shared faculties at their classroom to explain the purpose of the study and taken the oral consent. The classroom was containing only the female students to avoid embarrassment from male students. Then the researchers informed the students with the accurate steps to fill tool of data collection as follow;

- Write the name of web site on the internet browser to access to the web page of the questionnaire.
- The researchers clarified that each student had a code for web page site instead of his tag name also there was a user password for each one.
- The researchers mentioned that the first page enclosed title, aim of the study, in addition to tool included questions about reproductive health knowledge , practice and problems.
- The researchers told students that they can't proceed to the next question without answer the previous one.
- The researchers made an applied example to fill tool of data collection for students on each faculty.
- The researchers informed students in each faculty that each faculty had two weeks only for accessing the previously mentioned site to fill the tool of data collection. The researchers designed time schedule for each faculty to access the web site to avoid the crowding on the site and avoid any problem, after this period the site closed automatically.

- At the end of time schedule for each faculty the researches access the web site to know number of students felt tool and analyzed data.
- At the first trail 280 of 350 female students only access to the web site, so after all faculties end their schedule (first rotation) the researchers open the site second time to complete the predetermined sample size for the faculties which had missed students.

Statistical analysis:

It was performed using the statistical package program for the social science (SPSS version 22). Frequency and percentage distribution, mean, standard deviation were used .

RESULTS

Table (1): Shows that, the mean age of the studied students was 18.1±1.3 years. Regarding the type of faculty, 59.7% of the studied students were in literary faculties. Concerning the level of mother education, it was found that 44.6% of their mothers completed only their basic education &70 % of their mothers were housewives. 74.3 % of the studied students had sufficient monthly income.

Table (2): Shows that mean age of menarche was 13.8±1.6 and 61.7% of the studied sample had menstrual disturbances. The most common disturbance was dysmenorrhoeal and represented 92.6%. On the other hand 80.1% of the female students who had menstrual disturbance didn't discuss their problem with any one.

Table (3): Revealed that 44.6% of the studied sample complains from hair lose, as well as 42.9% complain of increase appetite. In addition 82.6% of the female students didn't discuss their problem with any one.

Table (4): This table displays that 72% of the studied students had experience symptoms of RTI. The most common symptoms reported by the students was abnormal vaginal discharge, represented 100%. Moreover 69.8% of the female students who have symptoms of reproductive tract infection didn't discuss the issues related to reproductive tract infection with any one.

Table (5): This table pointed to 12.6% of the studied female students represents symptoms of breast problem. The most common symptoms reported by the students were breast pain that doesn't go away with the menstrual cycle and breast hypertrophy, represented 45.5% and 36.4% respectively. Moreover 90.9% of the female students who have symptoms of breast problem didn't discuss the issues with any one.

Table (6): Shows that, 63.4% of the students had unsatisfactory knowledge score levels in relation to items related to reproductive health.

Table (7): This table pointed to 6% of the studied female student's exposure to sexual harassment. The most common harassment Person was from colleague, represented 2.9. In addition the female student's exposure to sexual harassment didn't express this problem for any one.

Table (8): Shows that there was a strong positive correlation with a highly statistical significant difference between the studied students total knowledge score level and their total practice score level (**P<0.001**).

Table (9): this table displays that 58 % of the studied students by electronic mail agree to express their problem with the researchers, in addition 22% of female students who had reproductive health problem agree to referral to health care services by the researchers.

Table (1) Socio-demographic characteristics of the studied sample

Items	N(350)	%
Mean±SD of age	18.1±1.3	
Type of Faculty		
Scientific	141	40.3
Literary	209	59.7
Mother's education		
Can't read and write	89	25.4
Basic	156	44.6
Secondary	76	21.7
University	29	8.3
Mother's occupation		
Working	105	30
Housewife	245	70
Income/ Monthly needs		
Sufficient	260	74.3
Insufficient	90	25.8

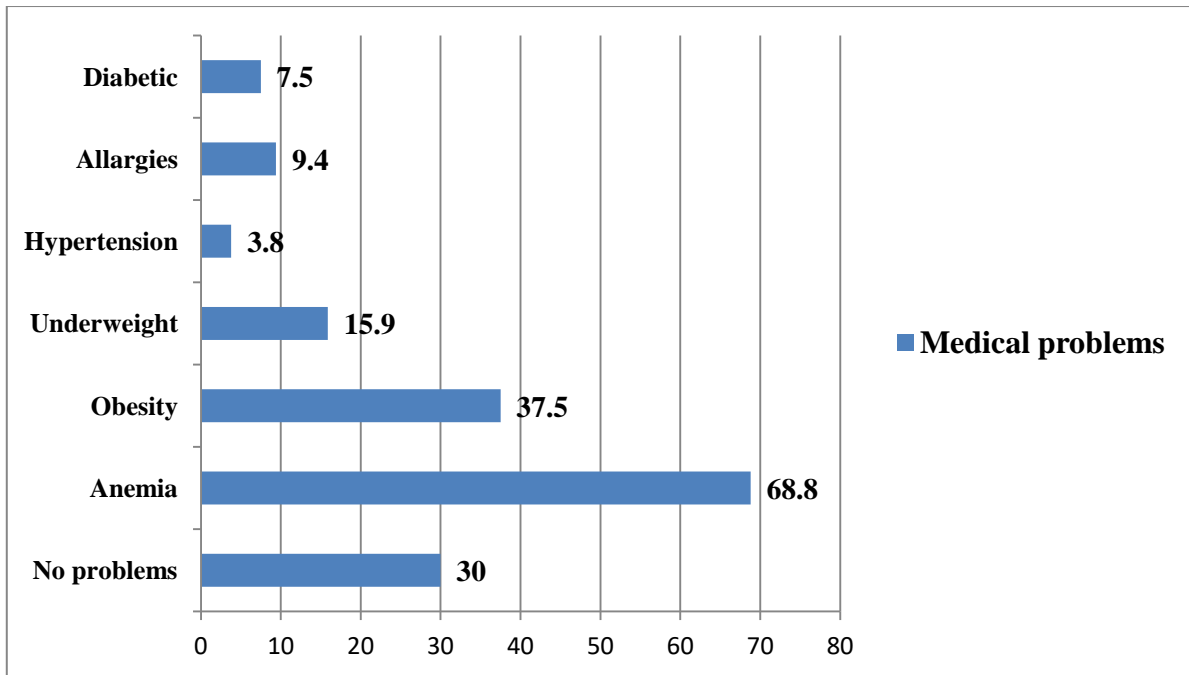


Figure (1) Distribution of medical problems among the studied sample.(n= 350)

Table (2) Distribution of menstrual cycle characteristics, problem and treatment seeking behavior among the studied sample.

Items	N(350)	%
Mean ±SD of menarche	13.8±1.6	
Menstrual characteristics		
Regular	255	72.9
Irregular	95	27.1
Menstrual disturbances		
Non	53	15.1
Can't decide	81	23.1
Had menstrual disturbances	216	61.7
*Type of menstrual disturbance stated :(n=216)		
Metrorrhagia	116	53.7
Amenorrhea	65	30.1
Oligomenorrhea	71	32.9
Polymenorrhea	187	86.6
Dysmenorrhea	200	92.6
Menometrorrhagia	94	43.5
Bleeding between menstrual periods	88	40.8
Discuss the issues related to menstrual problem with someone:(n=216)		
Yes	43	19.9
No	173	80.1

N.B: * "Answers were not mutually exclusive".

Table (3) Distribution of Poly cystic syndrome symptoms and treatment seeking behavior among the studied sample.

Symptoms of polycystic ovarian syndrome	N(350)	%
Abnormal hair growth on female appearance	43	12.3
Uncontrolled weight gain	95	27.1
Increase appetite	87	24.9
Skin change(Colure/Appearance)	52	14.9
Hair lose	156	44.6
Discuss the issues related to polycystic ovarian syndrome with someone		
Yes	61	17.4
No	289	82.6

N.B: * "Answers were not mutually exclusive".

Table (4) Distribution of RTI and treatment seeking behavior among the studied sample.

Symptoms of reproductive tract infection	N(350)	%
Experiencing symptoms of RTI		
Yes	252	72
No	28	8
Can't decide	70	20
Symptoms of RTI (n= 252)		
Abnormal vaginal discharge	252	100
Low backache	107	42.5
Pain in lower abdomen not related to menses	98	38.9
Itching or irritation over vulva	187	74.2
Pain on urination or defecation	46	18.3
Boils/ulcers/warts around vulva	29	11.5
Swelling in the groin	32	12.7
Discuss the issues related to reproductive tract infection with someone n= 252		
Yes	76	30.2
No	176	69.8

N.B: * "Answers were not mutually exclusive".

Table (5) Distribution of breast problem and treatment seeking behavior among the studied sample.

Symptoms of breast problems	N(350)	%
Breast problems		
Non	266	76
Can't decide	40	11.4
Had breast problem	44	12.6
Symptoms of breast problem (n= 44)		
Nipple discharge	11	25
Sacs filled with fluid(cysts)	8	18.2
Painless, movable, and firm round lumps (fibroadenomas)	5	11.4
Enlargement of lymph nodes in the breast	1	2.3
Breast pain that doesn't go away with the menstrual cycle	20	45.5
No breast development	6	13.6
Breast Hypertrophy	16	36.4
Know how to perform breast self-examination	5	11.4
Discuss the issues related to breast problem with someone		
Yes	4	9.1
No	40	90.9

N.B: * "Answers were not mutually exclusive".

Table (6) Distribution of female University Students according to their knowledge score level about items in reproductive health n= (350).

Knowledge score level	Satisfactory ≥ 60%		Unsatisfactory <60%	
	No	%	No	%
Structure and function of female reproductive system	120	34.3	230	65.7
Reproductive Tract Infection	132	37.7	218	62.3
Structure of breast and its problem	131	37.4	219	62.6
Total Knowledge score level	130	37.1	222	63.4

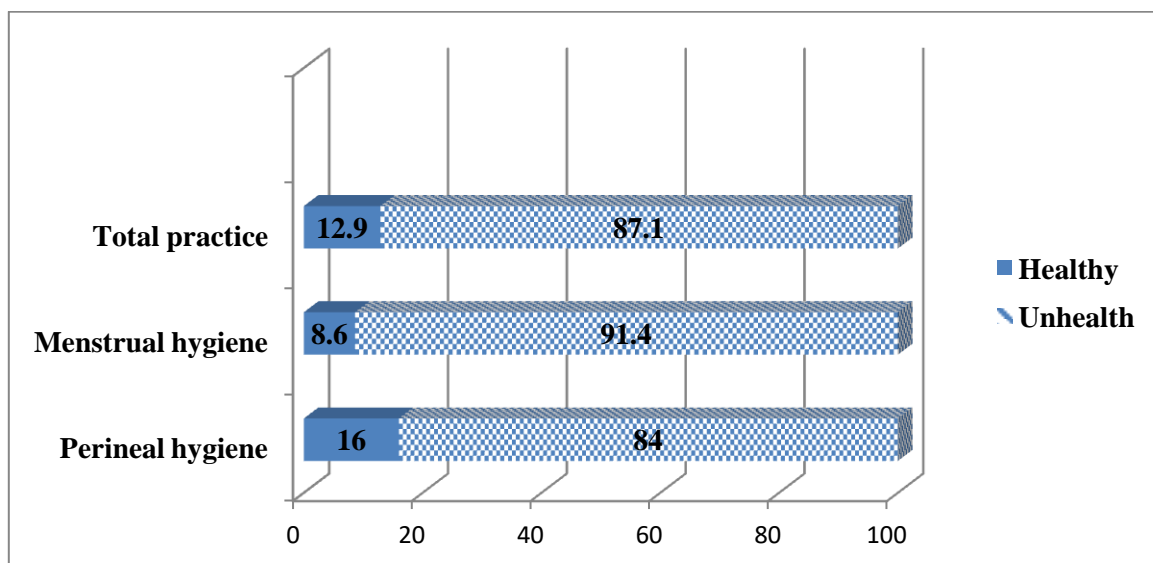
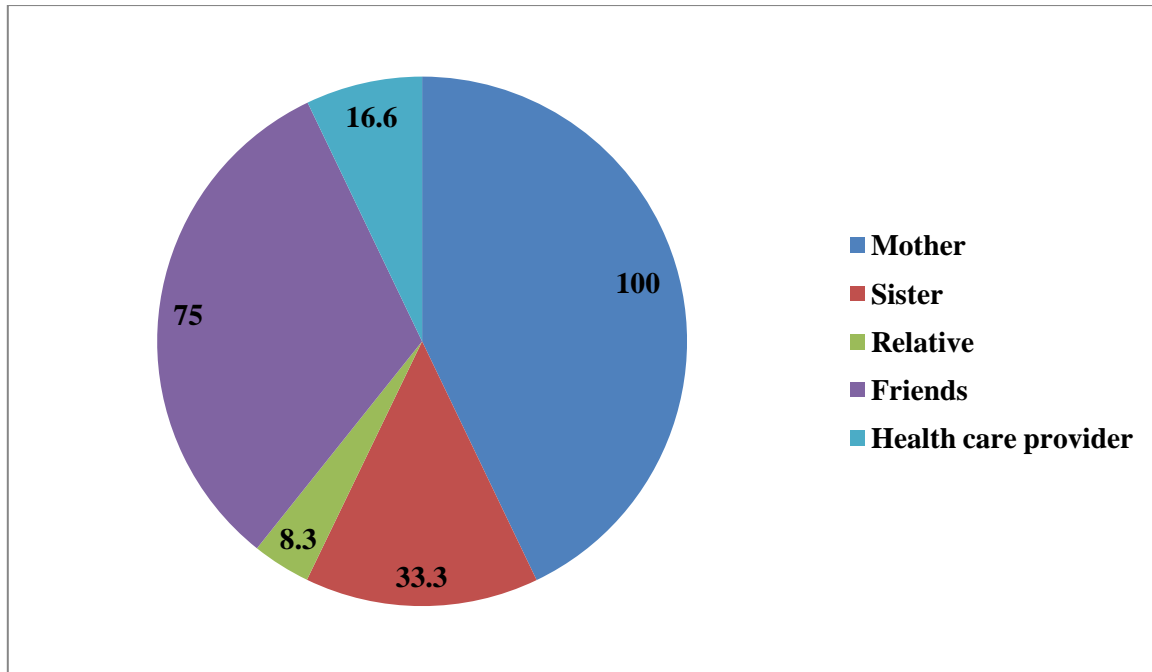


Figure (2) Distribution of female University students according to their total Practice score levels regarding items in reproductive health n= (350).

Table (7) Distribution of sexual violence and treatment seeking behavior among the studied sample.

Sexual violence questions	N(350)	%
Do you have any event for Sexual harassment	21	6
Person responsible for harassment		
Relative	4	1.1
Collogue	10	2.9
stranger	7	2
Do you express this problem for someone		
Yes	0	0
No	21	100



N.B: * "Answers were not mutually exclusive".

Figure (3) Distribution of person's consultant adopted by the studied sample in case of present reproductive health problems.

Table (8) Statistical correlation between students' total knowledge score level and their total practice score level.

Total knowledge score level	r	P value
Total practice score level	0.393	0.001HS

Highly Significant P<0.001

Table (9) Percentage of female students who agree for referral and its type.

Items	menstrual cycle	PCO	RTI	breast problem	sexual violence	Total
(%)						
Health care services	20	66	14	10	0	22
Researchers	80	34	86	90	0	58

DISCUSSION

The reproductive health embraces human growth and development human production, maternal mortality and other related activities. The aim of reproductive health is to improve the quality of life of the family. Reproductive health includes the structure and functioning of the reproductive system. Besides, the physical and emotional changes associated with the development process come under reproductive health. The physical, mental and social well-being of the person is highly affected by reproductive process and nature of family.[4] There is little knowledge relevant to gynecological and reproductive morbidity in young populations (such as female university students), adolescent gynecology is also a subspecialized field of gynecology that has not yet been optimally investigated.

And advantage is taken of modern technology developed in the last quarter of the twentieth century. Some of these modern technologies have been tested as an assessment tool in health studies. E-mail can be a way of surveying a large number of people while safeguarding confidentiality[15]. In the current study, this tool utilized to collect demographic and gynecological information from female university students and to evaluate the efficacy of these methods in identifying hidden problems experienced by this issue among this population group, the current study attempted to evaluate the effect of utilization of an electronic mail to reveal the hidden of reproductive health problems among female students at Fayoum university.

Current study revealed that more than two third of the participants complained from medical problems, the most

prevalent one is anemia represent more than two third and followed by obesity represent more than quarter of the sample. Whoever the least one was hypertension. These findings were in line with results of [16] that showed that iron deficiency was more prevalent among subjects with higher body mass index (BMI) values. Adolescent girls, almost, suffer silently from the many health problems this due to lack of knowledge about reproductive health and right ways of seeking care to obtain health services.

As regards to menstrual cycle characteristics, problem and treatment seeking behavior present study revealed that Mean \pm SD age of menarche of participants were 13.8 ± 1.6 , slightly less than two thirds of them had menstrual disturbances and the most common reported types of these disturbances were dysmenorrhea and polymenorrhea; which represent the most of the sample. On the same time the majority of the studied sample who had menstrual disturbance were couldn't discuss these issues with anyone. This may be due to cultural consideration as because adolescent girls are still shy and afraid to discuss these issues so do not seek any care.

In line with these findings study by [17] who stated in their study that the mean age at menarche was 13.7 ± 1.68 years. Menstrual bleeding lasted an average of 5.2 ± 1.6 days. Approximately slightly less than three fourth of respondents reported dysmenorrhea. After adjusting for confounding, age at menarche, menstrual cycle length, duration of menstrual bleeding and use of contraceptive pills remained significant predictors of dysmenorrhea.

Also the previous results in similar with [15] who studied menstrual problems in university students by using electronic mail survey and reported that the mean age of menarche was 12.6 years. Also reported that the majority of women had regular menstrual cycles with normal limits for number of days of bleeding and length of cycle. However, a small percentage of female had irregular cycle lengths of >90 days. The subjective score of menstrual blood loss was slightly biased towards menorrhagia (mean score 3.62, with 1 being light and 5 being heavy). This may be explained by the fact that females with morbidity were more likely to answer the questionnaire. Over one third of the responders felt that their periods were heavy and, while menorrhagia is known to be a common complaint, this is an unexpectedly high proportion. Another study done in Nigerian by [18] found that menorrhagia in about quarter of teenage girls; however, A high number had sought medical assistance for their menstrual problems. The Royal College of General Practitioners [19] reported that 5% of women between 30 and 49 years visited their doctor for menorrhagia. Unfortunately, there are no equivalent data on younger age groups. Those women with heavy periods were more likely to have seen a doctor about their bleeding that may be due to socio cultural factor.

Moreover [20] conducted a study on 124 adolescent girls attending Gynecological outpatient department to assess adolescent gynecological problems and concluded that menstrual disorders were the commonest gynecological problem and represent more than half of the sample. They varied from amenorrhea which represent more than quarter

of the sample to menorrhagia. Dysfunctional uterine bleeding was the commonest etiology of menstrual dysfunction (32/46) in the group under study.

The main explanation for this previous variance in results can be due to the use of selected groups of women and the lack of a universally accepted criterion for identifying these problems, which was likely as highly responsible for the difference as data collection methods, and the sample populations themselves.

Also the current study revealed that a high percentage of studied participants presented with more than two thirds in current study were experienced symptoms of RTIs and the highest percentage of these reported symptoms were abnormal vaginal discharge 100% accompanied with itching or irritation over vulva represent about three fourth of the sample. This explanation as leucorrhoea is a frequent and embarrassing problem, especially in low socio-economic population. Leucorrhoea can be physiological or pathological. Increased levels of endogenous estrogen lead to marked overgrowth of the endocervical epithelium, which may encroach outward and produce recto cervical erosion leading to excess discharge.

The previous result in line with recent study by [21] who observed that more than one third of students suffer from candidiasis signs and only (3.7%) suffer from bacterial vaginosis. Also the previous result in similar with [22] who studied gynecological morbidities in female of reproductive age group in urban slums in Bhavnagar city and cleared up that the most common symptoms encountered among participants were RTI & menstrual problems which represent about quarter of the sample.

Moreover, [23] contrast to the resent study result and mentioned that leucorrhoea was found lowest percentage 8 out of 75 girls. On the other hand study by [24] regarding the effectiveness of planned educational program on vaginitis and its preventive measures on adolescent female reported that student's had poor score of knowledge regarding the anatomy of the female reproductive system, and predisposing factors, types, symptoms, and complications of RTI (vaginitis).

The present study stated that participant students had unhealthy practices regarding items in reproductive health as menstrual and perineal hygiene represent about the majority of the sample, this may explained by the great majority of participants consult their mother in their queries regarding reproductive health also their mother may have low level of awareness as well as they can't read and write.

Regarding sexual violence and treatment seeking behavior among the studied participant in the present study pointed to that only 6% of total 350 participants have a history of sexual harassment this lowest percentage although it seem to be small but it alarm for many hidden factor behind this percentage as afraid from stigma or personal characteristics. Also the current result revealed that no one from the participants express this exposure with anyone.

This result in line with [25], who reported that sexual assault, was seen in 2.6% of adolescent girls in the study. Sexual assault may lead to lower self-esteem, depression, unwanted pregnancies and criminal abortions amongst adolescents. The prevalence of child sexual abuse in the USA was 10%–12%. On the other hand the current study demonstrated that the participants' mother and sister (100% & 33.3%) were the main person's consultant adopted by the studied participants in case of present reproductive health problems.

The previous results was in agree with [21] who reported that more than half of the female students' the mother was as a source of information about infection, followed by friends and relatives also, represent half of the sample.

CONCLUSION

The majority of the female students at Fayoum University didn't reveal her reproductive health problem for any one. While by electronic mail more than half of the female students who had reproductive health problem prefer to express their problem with the researchers, in addition about quarter of female students who had reproductive health problem agree to referral to health care services by the researchers. So the results of the present study accepted the hypothesis of the current study by mean " the electronic mail in confidential way enhance the female university students at Fayoum university reveal their hidden reproductive health problem".

RECOMMENDATIONS

- Setting up separate specialized "Adolescent Gynecological Clinics in university setting for efficient management.
- Periodic health assessment & health education needs assessment for female university students.
- Use of appropriate educational strategies to increase female students' health awareness regarding the reproductive health and its health services especially in rural area.
- Further researches are needed to develop and evaluate strategies to overcome the factors facing adolescent students to express the reproductive health problem and use reproductive health services.

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