

## **Perceived barriers to accessing sexual and reproductive health services among educated young women in Egypt**

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### **ABSTRACT**

**Background:** Youth have higher risk of sexual and reproductive health (SRH) problems, and consequently have a higher need for SRH counselling. In Egypt, reproductive health (RH) awareness is generally poor especially among young women attending high institutions that requires further attentions and research to explore the different barriers to access the RH services.

**Aim:** The aim of this study is to investigate the barriers to access SRH services among young educated Egyptians.

**Materials and Methods:** A cross-sectional, community-based survey was conducted in Minia Governorate, Egypt through a self-funded research project during the period from January 2019 till September 2019. The invited sample were 750 female university students. Approval by ethical committee of the Department of Obstetrics and Gynecology, Minia University Hospital was obtained. Descriptive and a cross-tabular descriptive statistical analysis of frequencies and percentages were performed. Comparing means with a significance level of 0.05 was performed to investigate the association between the different variables.

**Results:** A total of 48.1% of participants reported an unmet need of sexual and reproductive health counselling. Ten different barriers were described by the participants. The first four barriers in the order of importance were health service provider's attitudes (88.5%), misinformation in the communities (86.5%), cultural norms (86.5%) and health system barriers (73.1%) while the logistics and the distance was rated on the bottom.

**Conclusion:** It is imperative to ensure efficient and adequate SRH counselling among the vulnerable groups. Improving the access to SRH can be achieved by correction of the community misconceptions with adequate training of the health service providers.

**Key Words:** Awareness, barriers, educated young Egyptians, sexual and reproductive health problems

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### **INTRODUCTION**

The energy of healthy youth represents the main pillar for development of any country. The definition of health including the reproductive aspects refers not only to the absence of disease, but also to physical, mental, and social wellbeing<sup>[1]</sup>. According to a United Nations reports (UNs), over 1.2 billion of the total world population are represented by youths<sup>[2]</sup> and most of them (90%) live in low-income countries<sup>[3]</sup>. In Egypt, it was highlighted that reproductive health (RH) awareness is generally poor especially among young women attending female university students<sup>[4]</sup> and this requires further attention from those concerned about youths<sup>[3]</sup>.

Youth have a higher risk of sexual and reproductive health (SRH) problems, and consequently have a higher need for SRH counselling<sup>[5,6]</sup>. The current health programs neglect the youths health needs in comparison to adults and children<sup>[7]</sup>.

A study by Narevic found that unmet health care needs are correlated with poor self-rated health status<sup>[8]</sup>.

In many nations, there is an absence of a youth health program with dependence on other health programs e.g. children and adults, thus making such programs to be not a youth friendly<sup>[9]</sup>.

Despite the major efforts that have been undertaken to improve SRH counselling for youths, in some developed nations e.g. US, Canada and Australia inequalities still persist. The situation in the UK is different as the country is still lacking specialized youth health programs<sup>[10]</sup>.

It was suggested in a study by Hesketh and other colleagues that barriers are the same throughout the world in seeking SRH counselling<sup>[11]</sup>.

There were different studies in several countries that highlighted the barriers among their populations. In Pakistan, long waiting times, high cost and negative health

service providers attitudes were the main barriers among youth<sup>[12]</sup>. In the US, the major barriers were the high cost, transportation facilities to the health centers, lack of respect and providers' attitudes<sup>[13]</sup> whilst in Sri Lanka, the problems related the weak availability, poor access to the available health services and a lack of confidentiality<sup>[14]</sup>.

The spectrum of the problems in low resource settings as in African countries is more complicated and very challenging. The main barriers facing Ethiopian youths were the gender type, friendliness of the provider, and the embarrassment on seeking help for a SRH problem<sup>[15]</sup>, while in Tanzania the government takes no responsibility into the non-Governmental organizations (NGOs) who have failed to make SRH services available and acceptable<sup>[16]</sup>.

There were many studies that have focused on the barriers to access SRH in African countries and others concerned with studying such problems among female university students as in Egypt<sup>[4]</sup> and Uganda<sup>[17]</sup>. However, no study has investigated the barriers faced by Egyptian youth in seeking SRH care.

The objective of this study is to investigate the barriers to access SRH services among young educated Egyptians. The authors believe that identifying such barriers and unmet needs must be investigated in each country and across different age groups.

## PATIENTS AND METHODS

Data were derived from a large cross-sectional, community based survey conducted in Minia, which is upper Egyptian governorate, located 200 kilometers to the south of Cairo. Through a self-funded research project during the period from January 2019 till September 2019 done by research team working in Minia university faculty of medicine.

Minia University was established in 1976 and is located in the city of El Minia in upper Egypt serving 5.5 million people.

The data was drafted by the research teams and modified after discussions with student representatives then subsequently translated and coded into English by a professional translation service in Minia University. Written informed consent was collected from the participants after clarification of the purpose of the questionnaire, guidelines to fill in, ensuring confidentiality of the responses and the right to withdraw the results at any time for no reason. Contact details of the principal investigator and a research assistant were provided in case a participant had questions or concerns that arose due to the questionnaire.

The research project was approved by ethical committee of the Department of Obstetrics and Gynecology,

Minia University Hospital on (Registration number: MUH 11197).

The studied variables included sociodemographic factors (e.g. age, residence, mother's education, father's education, family income), self-rated reproductive and sexual health (SR-RSH) (was rated on a five-level response scale (very good, good, fair, bad, or very bad), unmet SRH (sexual and reproductive health) counselling needs, and barriers encountered by the participants in terms of availability, accessibility, and acceptability of services.

Barriers referred to reasons given by participants who failed to obtain SRH counselling when they needed it. The studied barriers included barriers to access treatment, professional help or equipment, economic constraints facing participants to access RH services, lack of transportations, attitudes of the health care providers, integration of specific youth service into the health system, community and cultural issues to access the RSH.

The statistical analyses were done with SPSS version 16. Both descriptive analysis and a cross-tabular descriptive statistical analysis of frequencies and percentages were performed to describe the population and the factors related to the research question and to analyze the association between predictor and outcome variables respectively. Pearson's chi square test with a significance level of 0.05 was performed to investigate the association between the different variables.

The authors noted from their daily clinical practices the poor level of RH especially among the female university students attendee, that enforce the design of study question to investigate the reasons behind that poor knowledge and barriers to access the SRH.

The participants were randomly invited. The initial sample were 750 female university students with a response rate of 69.3% (520 students). The students in Minia university were representative of Egyptian students as they originally came from the 26 governorates of Egypt. Data were collected through a self-administered survey in Arabic. The participants were promised to have a copy of the results after being finally analyzed .

## STATISTICAL ANALYSIS:

The datasets generated and/or analysed during the current study are not publicly available due to its containing of information that could compromise research participant privacy/consent.

## RESULTS

The data presented in table 1 describes the socio-demographic factors among 520 Minia students. The mean age was 20.7 (S.D. 1.85). The majority of the participants (67.9%) were singles, while 23.1 % were

married; 220 (42.3 %) of the students came from rural areas, 100 (19.2 %) from peri-urban areas and the rest 200 (38.5 %) came from urban areas.

Most participants (62.5 % and 53.9 %) came from families with a father and mother who had attained higher educational levels (university and postgraduate studies), respectively.

Family income was classified according to the Central Agency for Public Mobilization and Statistics into six economic categories (households that earn less than LE10,000 a year, households that earn between LE10,000 to less than LE15,000, households that earn between LE15,000 and LE20,000, households that earn between LE20,00030,000-, households that earn between LE30,00050,000- a year and households that earn more than LE50,000). The average annual Egyptian household income during 20102011- was LE25,353.

Data represented in table 2 described the Self-rated sexual and reproductive health (SR-SRH) and the Unmet sexual and reproductive health (UMN-SRH) counselling as mentioned by the participants. Approximately half of the participants reported UMN-SRH (48.1 %).

One in three of the students did not know how to rate their SRH and the same percentage reported that they do not know what the unmet need of their SRH is. Nearly half of them reported poor SR-SRH (bad and very bad).

The data of table 3 showed the study of Crosstabs and correlations of different characteristics among the participants. It demonstrated significant and strong positive correlations between fathers' and mothers' educational levels and family income, while there were significant and negative correlations between age, SR-SRH and UMN-SRH.

Data in tables 4 described cross-tabular associations of different participants' characteristics and SR-SRH and the UMN-SRH counselling needs. About half of the participants who came from urban and peri-urban areas reported unmet needs of SRH counselling, while 60% of participants with university-graduated fathers stated their unmet needs. Only one in three participants who came from urban areas stated their SRH as very good. Two-thirds of participants coming from families with high economic income stated very good SRH.

Different barriers faced as expressed by the participants. Both the health service providers and community barriers were rated as the major barrier experienced in accessing the SRH, while the logistics and the distance were rated lowest.

The different barriers as described by the participants were shown in Figure 1. The list includes ten barriers. The first four barriers in order were health service providers, misinformation in the communities, cultural norms and health system barriers.

**Table 1:** Socio-demographic factors of 520 Minia university students

	Frequency	Percent
<b>Age:</b>		
18	81	15.6
19	69	13.3
20	53	10.2
21	157	30.2
22	94	18.1
23	26	5.00
24	21	4.00
25	13	2.5
26	6	1.2
<b>Marital status</b>		
Single	-377	- 72.5
Married	-143	- 27.5
<b>Residence</b>		
Rural	203	39.00

Peri-urban	113		21.7	
Urban	204		39.2	
Father's education level				
Illiterate	-43		8.3	
Reads and writes	-82		15.8	
Secondary	-61		11.7	
University	-239		46.00	
Postgraduate	-95		18.3	
Mother's education level				
Illiterate	63		12.1	
Reads and writes	102		19.6	
Secondary	79		15.2	
University	210		40.4	
Postgraduate	66		12.7	
Family income:				
earn less than LE10,000 a year.	9		1.7	
earn between LE10,000 to less than LE15,000	11		2.1	
earn between LE15,000 and LE20,000 a year	14		2.7	
earn between LE20,000-30,000 a year	56		10.8	
earn LE30,000-50,000 a year	350		67.3	
earn more than LE50,000 a year	80		15.4	

**Table 2:** Self-rated SRH \* Unmet SRH counselling needs Crosstabulation as mentioned by the participants

	Unmet SRH counselling needs				Total	Sig. (2 tailed)
	There is UM-SRHCNs (no. & %)	There is No UM- SRHCNs (no. & %)	DO not know (no. & %)	Missing (no. & %)		
Self-rated SRH	very good	0 (0%)	65 (12.5%)	0 (0%)	0 (0%)	65 (12.5%)
	Good	0 (0%)	15 (2.9%)	10 (1.9%)	5 (0.9%)	30 (5.8%)
	Fair	0 (0%)	0 (0%)	45 (8.7%)	0 (0%)	45 (8.7%)
	Bad	30 (5.8%)	0 (0%)	60 (60%)	10 (1.9%)	100(19.2%)
	very bad	73 (14%)	0 (0%)	55 (11.5%)	5 (0.9%)	133 (25.6%)
	Do not know	147 (28.3%)	0 (0%)	0 (0%)	0 (0%)	147(28.3%)
Total	250 (48.1%)	80 (15.4%)	170(32.7%)	20 (3.8%)	520 (100%)	.000

**Table 3:** Study of Crosstabs and correlations of different characteristics of the participants

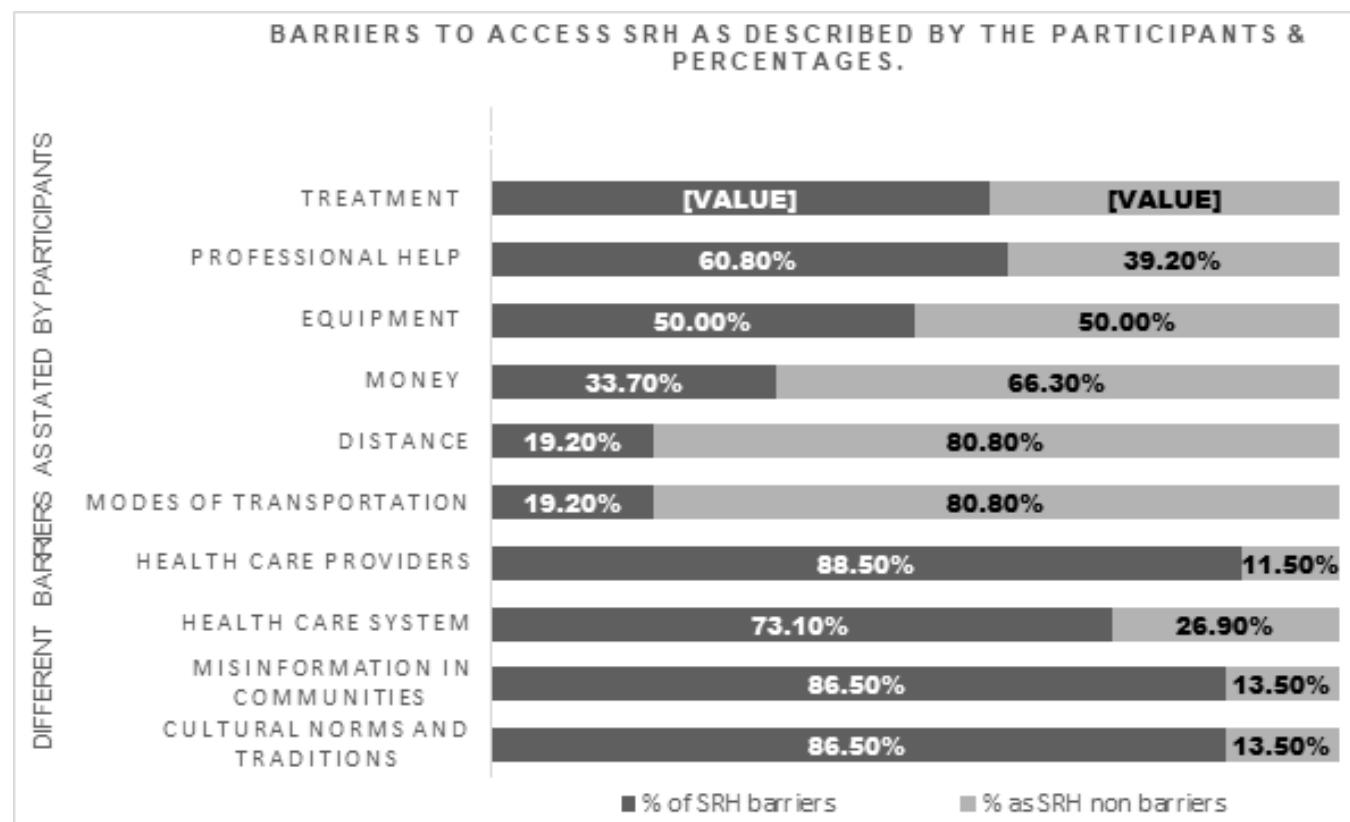
Number = 520 participants		Age	Residence	Father's education level	Mother's education level	Family income	Self-rated SRH	Unmet SRH counselling needs
Age	Pearson Correlation		.036	.488**	.452**	.470**	-.367**	.269**
	Sig.(2-tailed)		.416	.000	.000	.000	.000	.000
Residence	Pearson Correlation	.036		.492**	.402**	.342**	-.319**	-.058
	Sig. (2-tailed)	.416		.000	.000	.000	.000	.283
Father's education level	Pearson Correlation	.488**	.492**		.886**	.635**	-.507**	.158**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
Mother's education level	Pearson Correlation	.452**	.402**	.886**		.608**	-.502**	.103*
	Sig.(2-tailed)	.000	.000	.000		.000	.000	.015
Family income	Pearson Correlation	.470**	.342**	.635**	.608**		-.495**	.249**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
Self-rated SRH	Pearson Correlation	-.367**	-.319**	-.507**	-.502**	-.495**		-.449**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
Unmet SRH counselling needs	Pearson Correlation	.269**	-.058	.158**	.103*	.249**	-.446**	
	Sig. (2-tailed)	.000	.189	.000	.015	.000	.000	

\*\*. Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 4:** Study of crosstabs of different characteristics and SR-SRH

		Self-rated SRH					Pearson Chi-Square	Likelihood Ratio
Age	18	very good	Good	Fair	Bad	very bad	Do not know	
	19				18.8%	43.8%	37.5%	
	20	10.0%	10.0%	10.0%	10.0%	30.0%	30.0%	
	21	18.8%	9.4%	3.1%	18.8%	21.9%	28.1%	
	22	27.8%		16.7%	22.2%	5.6%	27.8%	0.000 311.8
	23		16.7%	16.7%	50.0%	16.7%		
	24	25.0%				50.0%	25.0%	
	25		33.3%	66.7%				
	26			100.0%				
Total	520	12.5%	5.8%	8.7%	19.2%	25.0%	28.8%	
Marital status	Single	12.8%	4.5%	4.5%	18.8%	26.6%	32.8%	
	Married	11.7%	10.0%	22.5%	20.8%	19.2%	15.8%	0.000 45.3
Total	520	12.5%	5.8%	8.7%	19.3%	24.9%	28.9%	
Residence	Rural	2.3%	2.3%	11.4%	20.5%	34.1%	29.5%	
	Peri-urban			10.0%	25.0%	25.0%	40.0%	0.000 143.510
	Urban	30.0%	7.5%	10.0%	15.0%	15.0%	22.5%	
Total		12.5%	5.8%	8.7%	19.2%	25.0%	28.8%	
Father's education level	Illiterate				10.0%	40.0%	50.0%	
	Reads and writes				26.7%	40.0%	33.3%	
	Secondary	7.1%		7.1%	28.6%	42.9%	14.3%	0.000 365.678
	University	2.2%	6.7%	8.9%	20.0%	22.2%	40.0%	
	Postgraduate	55.0%	15.0%	20.0%	10.0%			
Total		12.5%	5.8%	8.7%	19.2%	25.0%	28.8%	
Mother's education level	Illiterate				28.6%	28.6%	42.9%	
	Reads and writes				15.8%	52.6%	31.6%	
	Secondary	6.7%	6.7%	13.3%	20.0%	40.0%	13.3%	0.000 435.952
	University	2.4%	4.8%	16.7%	23.8%	14.3%	38.1%	
	Postgraduate	78.6%	21.4%					
Total		12.5%	5.8%	8.7%	19.2%	25.0%	28.8%	
Family income	earn less than LE10,000 a year				50.0%		50.0%	
	earn between LE10,000 to less than LE15,000					50.0%	50.0%	
	between LE15,000 and LE20,000 a year					25.0%	75.0%	0.000 326.931
	earn between LE20,000-30,000 a year				10.0%	30.0%	60.0%	
	earn LE30,000-50,000 a year	4.3%	4.3%	10.0%	24.3%	30.0%	27.1%	
	earn more than LE50,000 a year	62.5%	18.8%	12.5%	6.2%			
	earn less than LE10,000 a year				50.0%		50.0%	
	earn between LE10,000 to less than LE15,000					50.0%	50.0%	
	between LE15,000 and LE20,000 a year					25.0%	75.0%	
	earn between LE20,000-30,000 a year				10.0%	30.0%	60.0%	
Family income	earn LE30,000-50,000 a year	4.3%	4.3%	10.0%	24.3%	30.0%	27.1%	
	earn more than LE50,000 a year	62.5%	18.8%	12.5%	6.2%			
	Total	12.5%	5.8%	8.7%	19.2%	25.0%	28.8%	

**Fig. 1:** Barriers to access SRH as described by the participants and percentages

## DISCUSSION

In this study, health care providers and their attitudes were the major barriers to access SRH as cited by the participants, while community' misinformation and cultural traditions were the second barrier. There were clear, significant correlations between the socio-demographic factors, Self-rated SRH and Unmet SRH counselling needs among young educated Egyptian women. It was found statistically significant weak correlations between the Self-rated SRH and Unmet SRH counselling needs among participants.

Most the urban residents described their SRH as very good, while most of the rural residents described it as very bad and reflecting the poor accessibility and availability of SRH services in the rural areas and highlighting the association between area of origin and perceived barriers to seeking SRH care.

One-third of the participants were in the age group of 21 years. One in four of this age category described their SRH as good and very good, while more than one-third of them rated their SRH as bad or very bad. Also, nearly half of them claiming UMN-SRH counselling needs.

In this study, UMN-SRH counselling needs were reported to be more prevalent among virgins than married participants, just as in previous studies in Canada<sup>[18]</sup>, the US<sup>[19]</sup> and Nigeria<sup>[20]</sup>. The explanation is that most efforts to improve SRH may be directed toward the married female population.

Availability of money, equipment and/or professional help not always leads to accessibility and/or acceptability of the SRH services as stated by Sibley and Glazier<sup>[21]</sup>, as proved in this study by analysis of different barriers faced by our participants who cited the health service provider attitudes, misinformation in the community, traditional norms and health system structures as top four barriers compared to the availability of the above resources. The results were in agreement with Andualem *et. al*<sup>[22]</sup>.

The above listed top barriers reflect the lack of training of health service providers and non-preparedness of their insinuations to deal with SRH services, especially the counselling needs, community misinformation and cultural taboos. Therefore, attempts to reduce Unmet SRH counselling needs would increase awareness among health service providers, boost confidence in health care services,

encourage young women to seek early treatment, and promote awareness of their SRH.

The study demonstrated a statistically significant difference (*p*-value 0.000) between residence of the participants and father's educational level, mother's educational level, family income and self-rated SRH but not with Unmet SRH counselling needs. Also, a statistically significant difference (*p*-value 0.000) was found between residence of the participants and some cited barriers including misinformation in the communities, cultural norms and traditions, but not with health care provider and health systems. This stands in strong agreement or in contrast to Chen and Hou's 2002 study<sup>[23]</sup> in seeking medical care. The majority of rural, peri-urban and urban residents agree to the concept that there is UMN-SRH.

In this study, self-rated SRH and Unmet SRH counselling needs showed statistically significant differences between the different family income categories. So, it is imperative that financial barriers that widen the rural-urban gap in UMN-SRH should be removed.

In agreement with Boltena *et al.* in 2012 and<sup>[8]</sup>, it was found that participants who rated their SRH as poor and very poor were correlated with barriers to access the SRH and to the Unmet SRH counselling needs in comparison to those who rated their SRH as good and very good. These results highlight the urgent need to increase the accessibility and availability of SRH services, especially to the deprived groups and to ensure the health equity to the target population.

In this study, the high response rate (69.3 %) and the similarities of the findings in comparison to other studies in the same field<sup>[8,18,19,21]</sup> might suggest a possibility to generalize the results.

To the best of our knowledge, this is the first study to address the barriers to access the SRH among young, female Egyptians studying at universities with special focus on the Self-rated SRH and its relation with the Unmet SRH counselling needs.

The reported limitations of this study including the lack of heterogeneity of the participants in relation to the diverse geographic distribution among Egyptians, the possibility of bias caused by interviewing, reporting and selection by multiple co-authors. The design of the survey also showed lack of follow-up and is restricted to a limited period of time. Another limitation is the potential confounders which cannot be adjusted and properly analyzed in the current study.

## CONCLUSION

From the findings of our study, it is recommended to ensure equal and adequate SRH counselling among the vulnerable groups, increasing awareness of SRH by improving and correcting the community misconceptions with adequate training of the health service providers.

## CONFLICT OF INTEREST

There are no conflicts of interests.

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