

# Prevalence of Hirsutism in The Islamia University Bahawalpur, Pakistan

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### Author's Contribution

All the authors contributed significantly to the research that resulted in the submitted manuscripts

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## ABSTRACT

**Objective:** Population based studies on hirsutism, variability with age and distribution, their associated symptoms are limited in Pakistan. Knowledge on the awareness about hirsutism, variability and their associated symptoms and treatment option is necessary for the patient education and evaluation of underlying causative factor.

**Study design:** A cross sectional study was conducted February 2017 to April 2017 to determine the prevalence of hirsutism, and their associated symptoms as well as dissemination among students of Islamia University Bahawalpur. Questionnaires were developed and distributed among the consenting participants. Thirteen hundred and sixty five females were included in the study.

**Results:** Ferriman-Gallwey score was used to determine the distribution of hairs. Results revealed the prevalence of hirsutism is n=388(28%) while distribution was following n=56(14%) having hair distribution on chin, n=328 (84%) on upper lip, n=52(13%) on lower abdomen, n=28(7%) on upper abdomen, n=212(54%) on arms, n=220(56%) on legs, n=24(6%) on middle of chest, and n=12(3%) hairs on upper back. n=36(9%) participants were belonging to upper class, n=342(88%) from middle class, n=12(3%) from lower class.

**Conclusion:** It is concluded from present work that n=89(22%) were presented with mild=187(48%) had moderate and n=112(28%) were having severe hirsutism. Associated symptoms were also note down current study suggested that n=88(24%) participants were with ailment of irregular mences, n=76(19%) with weight gain, n=20(5%) presented with infertility, n=12(3%) from the complaint of deep sound and in n=192(49%) with no other specific symptoms. it is concluded that n=89(22%) females were having mild=187(48%) having moderate and n=112(28%) were having severe hirsutism.

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## INTRODUCTION

Hirsutism is a social stigma. It is defined as excessive presence of unwanted hair/male pattern hair where usually do not exist in females i.e. chin, cheeks, upper lips, abdomen, legs, neck, shoulder etc. It is a sign of underlying endocrine dysfunction. it affect cognitive as well social and behavioral of an individual more than

dermatological [1,2]. It usually affects 5-15% of females in reproductive age [3-7]. In 80% of females it is due to excess of androgen .while in 15% of females it is idiopathic. it is a distressing sign several etiological factors are responsible for hirsutism i.e. Endocrine dysfunction, polycystic ovarian disease (PCO), obesity, Cushing

syndrome and several medication i.e. steroids. It affects the quality of life [8-10]. The prevalence of Hirsutism is 36.1% in Semnan University of Medical Sciences. A study was conducted in Abbottabad to estimate the prevalence it is documented prevalence were 38% and laded as idiopathic while 4% were due to drug reaction [11]. Present study was conducted to estimate the prevalence of Hirsutism in females' students of "the Islamia University of Bahawalpur.

## RESEARCH METHODOLOGY

The cross sectional study was carried out from February 2017 to April 2017, after approval from ethical committee of The Islamia University of Bahawalpur. Standard questioner was developed and distribute in consenting females total 1365 participants were chosen for study. The female participants were guaranteed that there data will remain confidential and will used only for research purpose. Participants were guided to complete the questioner carefully. Questioner was developed with reference to previous study.

1<sup>st</sup> part of questioner contain personal information i.e.name, father/ husband name, age, sex, date, CNIC, contact number, patient ID, address and marital status. While 2<sup>nd</sup> part contains characteristics of hirsutism and distribution of hair i.e. chin, upper lip, lower abdomen, upper abdomen, arms, legs, middle of chest and upper back. The Ferriman-Gallwey score system considered as gold standard. 3<sup>rd</sup> part contains associated symptoms of hirsutism i.e. menstrual irregularity, weight gain, infertility, deep voice and those who don't reported any other symptoms were noted.

While third part contain the magnitude of hirsutism and general physical examination of the candidates.

The data was statistical analyzed by Microsoft excel 2007. Data was expressed in mean standard error of mean. The data of females was

compared through T test, chi square test. AP value of less than or equal to 0.05 considered significant.

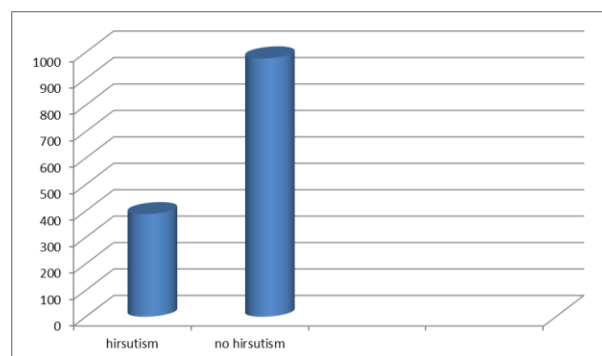
## RESULTS

### Hiruitism

In our study n=388(28%) of female presented with hirsutism and in n=977(71%) there is no presence of hirsutism.

**Table 1:** Prevalence of Hirsutism

Prevalence	No. Of patients	Percentage
Hirsutism	388	28%
Not presence	977	71%



**Figure 1 :** Prevalence of hirsutism

### Age limit

In our study n= 26(6%) are in age of 15-20 years, n=158(41%) are in age of 20-25 years, while n=204(53%) are in age of 25-30years.

**Table 2:** Age limit of the participants

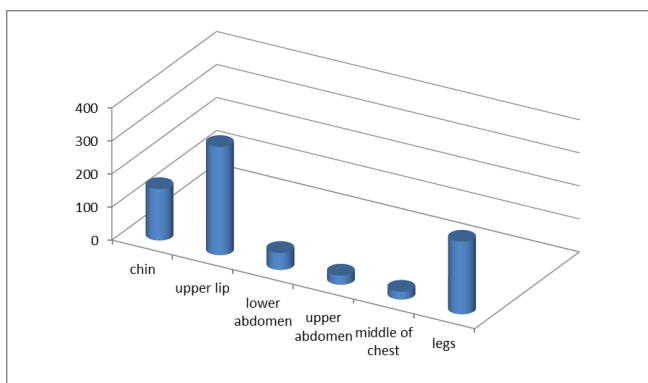
Age years	No. Of patients	Percentage
15-20	26	6%
20-25	158	41%
25-30	204	53%

## Hair distribution

In our study participants are n=56(14%) having hair distribution on chin, n=328 (84%) have on upper lip, n=52(13%) have on lower abdomen, n=28(7%) have on upper abdomen, n=212(54%) have on arms, n=220(56%) on legs, n=24(6%) have on middle of chest and n=12 (3%) have hairs on upper back.

**Table 3:** Hair distribution of the participants

Parts	No. Of patients	Percentage
Chin	56	14%
Upper lip	328	84%
Lower abdomen	52	13%
Upper abdomen	28	7%
Arms	212	54%
Legs	220	56%
Middle of chest	24	6%
Upper back	12	3%



**Figure 2:** Distribution of the hair

## Marital status

In our study n=104(26%) were married and n=284(74%) were unmarried.

**Table 4:** Marital status of the participants

Status	No. Of patients	Percentage
Married	104	26%
Unmarried	284	74%

## Social status

In our study n=36(9%) participants were belonging to upper class, n=342(88%) from middle class, n=12(3%) from lower class.

**Table 5:** Social status of the participants

Status	No. Of patients	Percentage
Upper class	36	9%
Middle class	340	88%
Lower class	12	3%

## Associated symptoms

In our study n=88(24%) participants were with ailment of irregular menses, n=76(19%) with weight gain, n=20(5%) presented with infertility, n=12(3%) from the complaint of deep sound and in n=192(49%) with no other specific symptoms.

**Table 6:** Associated symptoms of the participants

Symptom	No. Of patients	Percentage
Irregular menses	88	24%
Weight gain	76	19%
Infertility	20	5%
Deep sound	12	3%
No specific symptoms	192	49%

## Height of patient

In our study n=20(6%) participants had height of 4 feet, n=364(93%) had height of 5 feet and n=4(1%) had height of 6 feet.

**Table 7:** Height of the participants

Height	No. Of patients	Percentage
4 feet	20	6%
5 feet	364	93%
6 feet	4	1%

### History of hirsutism

In our study n= 292(75%) participants were that which suffered from hirsutism since many years, n= 80(21%) since few months and n=(16)4% since few days.

**Table 8:** History of hirsutism of the participants

History	No. Of patients	Percentage
Since many years	292	75%
Since few months	80	21%
Since few days	16	4%

### Rural/urban participants

In our study n= 124(31%) participants were from rural area and n=264(69%) from urban areas.

**Table 9:** Residence of the participants

Area	No. Of patients	Percentage
Rural	124	31%
Urban	264	69%

### Menstrual character

In our study n=28(7%) participants had heavy menstrual flow, n=20(5%) had scanty flow, n=299(77%) had regular flow and n=41(11%) had irregular flow of menses.

**Table 10:** Menstrual character of the participants

Character	No. Of patients	Percentage%
Heavy flow	28	7%
Scanty	20	5%
Regular	299	77%
Irregular	41	11%

### Magnitude of hirsutism

In our study n=89(22%) females were having mild=187(48%) having moderate and n=112(28%) were having severe hirsutism.

**Table 11:** Magnitude of hirsutism

Hirsutism	No. Of patients	Percentage%
Mild	89	22%
Moderate	187	48%
Severe	112	28%

## DISCUSSION

Hirsutism is the social stigma of female life .it affect the quality of life(Rahnama, Sohbaty et al. 2016) .1365 females ranged from 15-30 years whose ranged 15-30years were analyzed. Hirsutism 28% were found in this study.The mean age of the candidates was 22±5 years and mean height was5 feet.104 (26%) females were married and n=284(74%) were unmarried and n=124(31%) were from rural area, n=264(69%) were belongs to urban area population. Ferriman-Gallwey score was used to determine the distribution of hairs. Results revealed the prevalence of hirsutism is n=388(28%) while distribution was following n=56(14%) having hair distribution on chin, n=328 (84% ) have on upper lip, n=52(13%)have on lower abdomen, n=28(7%) have on upper abdomen, n=212(54%)have on arms, n=220(56%) on legs, n=24(6%) have on middle of chest and n=12(3% )have hairs on upper back. n=36(9%)

participants were belonging to upper class, n=342(88%) from middle class, n=12(3%) from lower class.it is concluded from present work that n=89(22%) were presented with mild=187(48%)had moderate and n=112(28%)were having severe hirsutism. Associated symptoms were also note down current study suggested that n=88(24%) participants were with ailment of irregular mences, n=76(19%) with weight gain, n=20(5%) presented with infertility, n=12(3%) from the complaint of deep sound and in n=192(49%) with no other specific symptoms.it is concluded that n=89(22%) females were having mild=187(48%) having moderate and n=112(28%) were having severe hirsutism.

It is necessary to educate the females and to give awareness about their treatment option. Due to poor knowledge misconception present among females. Some perceive it as bad, worse while others think of it embarrassing experience in females it is a cause of distress ,anxiety and embarrassment [12 & 13].

The proper education will eradicate some mistaken belief about hirsutism and make sure that some unfounded deems are not passed on generation to generation. Girls should be properly educated so that they don't feel embarrassment. Females should move on treatment option like threading, waxing, plucking and epilation.

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## CONCLUSION

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Population based and institutional based studies on hirsutism, variability, magnitude and their associated symptoms are limited in Pakistan. Knowledge about their presence and how to cope up and improve quality of life by using treatment option waxing, threading and plucking. The prevalence is significant so treatment option should be explained and educate the women to improve quality of life.

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