

Prevalence of anxiety and depression among hirsute patients in Herat city

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Abstract

Hirsutism induces mental illnesses such as depression and anxiety, and it is important to know the prevalence of these disorders in societies. The aim of this study was to determine the prevalence of anxiety and depression in patients with hirsutism in Herat city. This cross-sectional study was conducted from August 1, 2018, to the end of July 2019 in Herat city of Afghanistan and were included 138 participants. The Ferriman-Gallwey scale for diagnosis and determining the severity of hirsutism, the Hospital Anxiety and Depression Scale (HADS) for diagnosis and severity assessment of depression and anxiety; and the IBM program SPSS Statistics for analyzing the data were used. This study has shown that anxiety (61.5%) was more prevalent than depression in study population (52.8%). Anxiety was present in (5.0%) of illiterate patients (29.7%) of school level, and (26.8%) with higher education levels. Depression was present in 5.0% of illiterate, 23.9% of patients with the school level, and 23.9% of patients with a high level of education. According finding of this study we concluded that depression and anxiety disorders are present in more than half of the patients with hirsutism in Herat city. The severity of depression and anxiety is not associated with the degree and severity of hirsutism. Anxiety was more prevalent among patients with higher education. This study builds on the current available literature on the high prevalence of mental disorders among hirsute patients and highlight the need to address this important public health issue in the community.

Keywords: Anxiety, Depression, Ferriman-Gallwey scale, Hirsutism

INTRODUCTION

Hirsutism is a condition in which a female develops excessive male-pattern hair growth. It is the abnormal growth of thick, long, dark, and terminal hair in women at androgen-dependent sites of the body such as the moustache, beard area, upper chest, buttocks, pubic region, and abdomen (Blondell et al., 2006; Rahnama et al., 2013).

Hirsutism is a common disorder that affects up to 10% of women aged 18-45 years; and is influenced by genetic and racial factors (Azziz et al., 2000; Ganguly et al., 2012). Excess hair is cosmetically unappealing to women and can have a significant impact on self-esteem. Mediterranean women typically have a medium amount of body and facial hair, whereas Asian women have very little (Himelein et al., 2006).

The etiology of hirsutism includes an increased androgen production due to ovarian tumors, polycystic ovaries syndrome (PCOS), obesity, congenital or delayed adrenal hyperplasia, hyperprolactinemia, adrenal gland tumors, hyperinsulinemia, Cushing's disease, specific medicines for instance phenytoin, androgenic oral contraceptives, danazol, levonorgestrel and abuse of

androgenic substances (Messanger et al., 2010). Idiopathic hirsutism refers to hirsutism that occurs in the presence of normal ovulation and menstruation (Hantash et al., 2009).

Hirsutism is a cosmetic issue for women and can have a significant impact on self-esteem (Hodeeb et al., 2015). Women with hirsutism experience social anxiety, insecurity in interpersonal relationships, shattered confidence, and profound psychological symptoms (Baig et al., 2014). It can lead to a variety of psychological issues. Affected women may experience anxiety and depression (Irak et al., 2016). Hirsutism is one of the most important predictors of poor quality of life in women with PCOS (Guyatt et al., 2004; Kiran et al., 2018). Unfortunately, many women with hirsutism, as well as some practitioners, still believe that this condition is primarily a cosmetic issue and prefer to seek assistance from a beautician or cosmetologist rather than a physician (Yildiz et al., 2010).

Although several studies around the world have evaluated the association between hirsutism with depression and anxiety, unfortunately there is no any research in this regard in Afghanistan, especially in Herat province. The aim

of this study is to assess the relationship between hirsutism with depression and anxiety.

MATERIAL AND METHODS

Study design and patients: This cross-sectional study was conducted between August 2018 and July 2019, in the Rose Hospital of Dermatology and Cosmetics, Department of Dermatology and Department of Public Health in the Faculty of Medicine, Herat University.

Sampling procedure: Sample size was determined by Raosoft sample size calculator method (http://www.raosoft.com/sample_size.html). According to National Statistics and Information Authority of Afghanistan, in 2019, 316,845 women lived in Herat city (NSIA, 2019). The World Health Organization reports that hirsutism affects up to 10% of women in all regions, so the study population was estimated at 31,685 women. Using a 5% margin of error, and a 95% confidence level, the study sample was calculated 138 women with hirsutism. A convenience sampling method was employed to select study participants.

Inclusion/exclusion criteria: Inclusion criteria involved 16-45 year old women with hirsutism, who had not received treatment for hirsutism in the last 6 months. Women with chronic and debilitating diseases such as cardiovascular, thyroid, mental illness, pregnant and lactating women, and women with hypertrichosis due to known local or systemic diseases were not included in this study.

Data collection: The Ferriman-Gallwey scoring system was used to determine the severity of hirsutism in 9 androgen-sensitive areas of skin (upper lip, groin, chest, upper back, lower back, upper abdomen, lower abdomen, arm, and thigh) (Lumezi et al., 2018). The Hospital Anxiety and Depression Scale (HADS) was used to assess patients' depression and anxiety (Zigmond & Snaith., 1983). Sociodemographic data was collected using a 11-item questionnaire.

Statistical analysis: Data was analyzed by the IBM SPSS Statistics program (version 25). The chi-square test was used to compare the association between categorical variables. When p-value was less than 0.05, it was considered significant.

Ethical consideration: Study protocol was reviewed and approved by the Human Research Committee of the Faculty of Medicine at Herat University. An informed consent was obtained from all patients before inclusion in the study process.

RESULTS

In this study, 138 women with hirsutism between the ages of 16 and 45 were included. The mean age of patients was 24.6 ± 5.0 years. The mean weight of patients was 12.6 ± 65.8 kg (range 40 – 112 kg). The mean duration of the disease was 6.2 ± 8.6 years (range 1 to 31 years).

Of 138 patients with hirsutism, 33 (23.9%) had mild, 40 (28.9%) moderate, and 65 (47.1%) had severe hirsutism.

Of all cases included in this study, 65 (47.1%) had no depression, while 53 (38.4%) had no anxiety. Table 1 demonstrates the prevalence and severity of depression and anxiety in study participants.

Table 1: Prevalence and severity of depression and anxiety in patients with hirsutism included in this study

Severity of symptoms	Depression	Anxiety
	No (%)	N (%)
No symptoms	65 (47.1)	53 (38.4)
Mild to moderate	39 (28.2)	33 (23.9)
Severe	34 (24.6)	52 (37.6)

Association of the severity of depression and anxiety with severity of hirsutism among study participants is shown in Table 2. Table 3 demonstrates the severity of depression and anxiety according to sociodemographic characteristics of study participants.

DISCUSSION

This study was performed to determine the prevalence of depression and anxiety in patients with hirsutism in Herat. Although the role of genetic and environmental factors in the mental health of patients cannot be denied, studies have shown that the presence of chronic and progressive diseases including hirsutism can cause mental illnesses such as depression and anxiety (Ekback et al., 2013; Khomami et al., 2015; Kiran et al., 2018; Yahya et al., 2015).

We found that more than half of the hirsute patients in this study had depression, and three-fifth had anxiety (52.8% and 61.5%, respectively). No significant association was found between hirsutism with depression and anxiety ($p > 0.05$). These findings are consistent with the results of several studies that have shown relationship between hirsutism with anxiety and depression was not significant (Hajheydari., 2007; Irak et al., 2016). But the findings of this study are different from the results of Drosdzol et al. (2010); Ekback et al. (2013); Giovani et al. (1989) and Sonino et al. (2003) which found a significant relationship ($p < 0.05$) between hirsutism with anxiety and depression. The reason behind an insignificant association between hirsutism and mental disorders in this study is the fact that women are under severe stress due to environmental factors and environmental problems. The patient's environment has caused beauty issues to be marginalized. Similarly, Faqiryar et al. (2021) reported that 54.8% and 58.6% of study participants in Herat had depression and anxiety respectively. Therefore, it can be said that depression and anxiety are very common among women in Herat city, regardless of the presence or absence of hirsutism.

Table 2. Association between severity of hirsutism with severity of depression and anxiety among study participants

Variables	Depression			P-value	Anxiety			P-value	Both		P-value
	Mild and moderate (n= 39)	Severe (N= 34)	No (N= 65)		Mild and moderate (n= 33)	Severe (N= 52)	No (N= 53)		Yes (N=61)	No (N=41)	
Ferryman-Gallway score (hirsutism severity)											
Mild	7.2%	3.6%	13.0%	0.070	4.3%	8.6%	10.8%	0.589	8.6%	8.6%	0.578
Moderate	10.8%	4.3%	13.7%		9.4%	10.1%	9.4%		14.4%	8.6%	
Severe	10.1%	16.6%	20.2%		10.1%	18.8%	18.1%		21.0%	12.3%	

Table 3. Association of sociodemographic factors with severity of depression and anxiety among study participants

Variables	Depression			P-value	Anxiety			P-value	Both		P-value
	Mild and moderate (n= 39)	Severe (N= 34)	No (N= 65)		Mild and moderate (n= 33)	Severe (N= 52)	No (N= 53)		Yes (N=61)	No (N=41)	
Education level											
No School level	2.8%	2.1%	5.7%	0.141	1.4%	3.6%	5.7%	0.026	4.3%	5.0%	0.012
School level	10.1%	13.7%	13.7%		12.3%	17.3%	7.9%		21.7%	5.7%	
High level	15.2%	8.6%	27.5%		10.1%	16.6%	24.6%		18.1%	18.8%	
Economic state											
Low	5.7%	3.6%	3.6%	0.074	2.8%	6.5%	3.6%	0.259	8.6%	2.8%	0.393
Middle	21.7%	16.6%	32.6%		16.6%	28.2%	26.0%		32.6%	20.2%	
High	2.8%	2.1%	10.8%		4.3%	2.8%	8.6%		2.8%	6.5%	
Occupation											
Housewife	16.6%	19.5%	29.7%	0.148	17.3%	26.0%	22.4%	0.327	31.1%	17.3%	0.233
Employed	11.5%	5.0%	17.3%		6.5%	11.5%	15.9%		13.0%	12.3%	
Marital status											
Single	11.5%	11.5%	22.4%	0.579	10.1%	15.9%	19.5%	0.592	20.2%	16.6%	0.241
Married	15.9%	13.0%	24.6%		13.7%	21.7%	18.1%		23.9%	13.0%	
Widow	0.7%	0	0		0	0	0.7%				

This study revealed that anxiety is more common in patients with hirsutism than depression; which is consistent with findings of similar studies (Lepton et al., 2006; Sonino et al., 2003; Faqiryar et al., 2021).

This study found that the degree and severity of hirsutism were not associated with depression and anxiety ($p>0.05$). This is in line with the findings of Yahya et al. (2015) and Irak et al. (2016) that found a statistically insignificant association between depression and anxiety with severity of hirsutism.

In this study, anxiety was found in 5.0% of illiterate patients, 29.7% of students, and 26.8% of patients with higher education. This indicates that there was more anxiety in patients with higher education levels ($p<0.05$). Anxiety and depression were also reported in 5.0% of illiterate women, 5.7% of high school students, and 18.8% of women with higher education ($p<0.05$). The reason for this increase in anxiety and the combination of anxiety and depression in patients with hirsutism with higher education may be their greater contact with the community and its effects. Although depression was present in 5.0% of illiterate patients and 23.9% of high school students and those with higher education, these differences were not statistically significant ($p>0.05$). Yahya and colleagues (2015) found that the lowest average HADs were found in women with higher education and at the university level, while the highest average HADs were seen in those with primary education.

CONCLUSION

Depression and anxiety disorders are present in more than half of the patients with hirsutism in Herat city. The severity of depression and anxiety is not associated with the degree and severity of hirsutism. Anxiety was more prevalent among patients with higher education. This study builds on the current available literature on the high prevalence of mental disorders among hirsute patients and highlight the need to address this important public health issue in the community..

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