

# GENDER BASED DIFFERENCES IN DEPRESSION AND SOCIAL SUPPORT AMONG PATIENTS OF HIV, GONADAL CANCER, HEPATITIS B AND HEPATITIS C

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## ABSTRACT

**OBJECTIVE:** To examine the gender based differences in depression and social support among patients of HIV, gonadal cancer and hepatitis B & C in tertiary care public hospitals and different organization at Karachi.

**METHODOLOGY:** A cross sectional study was conducted on 300 patients (100 HIV, 100 gonadal cancer, 100 hepatitis B & C) , at Jinnah Postgraduate Medical College, Civil hospital, Sindh Government hospital, Pakistan Society for HIV patients & Sindh AIDS control program at Karachi, from July 2009 to October 2009. Urdu translated version of Siddiqui and Shah Depression scale and Indigenous Social Support Scale were administered. Purposive and snowball sampling methods were used for data collection.

**RESULTS:** Out of 300 patients, 198 (66%) were males and 102 (34%) females with a mean age of  $29.95 \pm 5.25$  years. The difference between social support and depression among the patients of HIV, Gonadal cancer and hepatitis B & C between genders ( $t = -4.043, p < .05$ ) & ( $t = 4.916, p < .05$ ) was significant. There was a significant mean differences on the variable of social support (male  $65.46 \pm 48.22$ , females  $88.48 \pm 43.65$ ) and depression (male  $62.49 \pm 24.81$ , females  $48.48 \pm 20.35$ ). The frequency of depression among all groups was (25% mild, 18.7% moderate, & 55.7% high) whereas the frequency of social support was (25.3% mild, 49.7% moderate, & 25% high).

**CONCLUSION:** There was a significant difference between male and female depression and social support in the patients of HIV, Gonadal Cancer and Hepatitis B & C patients.

**KEY WORDS:** Depression, Social Support, HIV, Gonadal Cancer, Hepatitis B, Hepatitis C

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## INTRODUCTION

Gender gap and existing inequalities have been found in South Asia due to differences in socialization and different gender roles one can suppose adverse gender differences in health and so-

cial support. When we talk about health, females face different health problems, but females seem to be in advantages as compared to males in receiving social support. Females are experiencing higher levels of social support<sup>1</sup> and the females are more likely to seek help<sup>2</sup>, and spend

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more time with peers as compared to males. On the other hand, life stressors are more likely to increase the likelihood of depression in women<sup>3</sup>.

Piko<sup>4</sup> found that girls receive more emotional, informational and practical support, while boys received material support. Males are protected by social support from family<sup>5</sup>. Females' depressive symptoms are influenced by their levels of social support but this is not in the case for males. According to Real<sup>6</sup>, men who experience depression carry two stigmas, one is the mental illness that is depression and the other is feminine emotionality. Depressed women seek help from their roommates and other professionals and they express their emotions in-front of others. On the other hand, if men experience the same they become socially isolated<sup>7</sup>.

Social support is the most important factor for individual's mental and physical health. Social support makes significant contribution in lower the psychological distress<sup>8</sup>. Social and family support plays a major role in lowering depression level of women. According to the findings of Dyer TP, et al<sup>9</sup>, depression increased in HIV diagnosed women is a result of low family and social support. The availability of support seemed to be beneficial in lowering down depression in cancer patients<sup>10</sup>. Different psychosocial variables including social support, high stress level, low level of religious faith and less ability to work are responsible for higher level of depression in hepatitis patients<sup>11</sup>.

HIV, Cancer and Hepatitis are chronic illnesses and dealing with chronic illnesses has shown to reduce immune effective-

ness. Positive attitude towards illness increases ability of the immune system to fight pathogens. Patients having strong social support have strong immune abilities. It is clear that psychosocial environment has a very powerful effect on the immune system.<sup>12</sup>

There is a misconception about the disease in Pakistani population that it only spreads through sexual contact and ignores other important factors such as blood transfusion, exchange of syringe needles involved in the spread of HIV.<sup>13</sup> In Pakistani population, lack of knowledge regarding illness is common. There is inadequate knowledge regarding the presentations, risk factors and screening of cancers. Dogar et al<sup>14</sup> study shows high prevalence rates of depression and anxiety in cancer patients in Pakistan. The reason might be lack of appropriate knowledge and other risk factors.

Hepatitis patients also face social problems, social isolation as well stigmatization like HIV positive in the country like Pakistan. Hepatitis B and C is transmitted through sexual intercourse and unsafe injections and in developing countries these mode of transmission are already stigmatized.<sup>15</sup>

The present study is an attempt to observe the gender based differences in depression and social support among patients of HIV, gonadal cancer, and hepatitis B & C. The exploration made by this study would help the policy maker to highlight the important role played by psychologist as a counselor to the patients and giving guidance to their family and friends regarding their illness and mental health and specifying the importance of social support for the improvement of the patients.

**METHODOLOGY**

The present study was conducted at Jinnah Postgraduate Medical College, Civil hospital, Sindh Government hospital, Pakistan Society for HIV patients & Sindh AIDS control program at Karachi, from July 2009 to March 2010. The sample comprised of 300 diagnosed patients (100 patients of HIV, 100 gonadal cancer

and 100 hepatitis B & C) aged between 20 to 35 years with the mean age of 29.95 ± 5.25 years and at least secondary school education. Purposive and snowball sampling methods were used for data collection.

**Measures**

**Semi Structure Interview Form**

The participants had to complete the semi structure interview Performa in which the demographic information regarding their gender, age, education, marital status, socio- economic class, birth order, number of siblings, family structure, nature of illness, duration of illness, hospital/organization and any other illness, were included.

**Siddiqui Shah Depression Scale (SSDS)**

Siddiqui Shah Depression Scale with test re-test reliability of 0.85 was translated in Urdu and validated by Siddiqui & Shah<sup>16</sup> for Pakistani population. A 36 items scale, which provides measures of depression was used. It is a 4 point scale, where “0” denoted no sadness, “1” normal sadness, “2” mild depression, and “3” severe depression. Taking

a score of 26 as the lower and a score of 36 as the upper limit indicative of “mild depression”, scores ranging from 37-49, interpretable as “moderate depression”, whereas a score of 50 and above denoted the presence of “severe depression. For the present study Cronbach Alpha obtained is 0.96 indicating good internal consistency.

**Social Support Scale (SSS)**

Variable of social support was measured by Social Support Scale, with split half reliability of r = 0.79 along with Urdu translated and validated by Malik & Ismail.<sup>17</sup> A 52 items scale which provides measures of social support in five different areas i.e., informational support, tangible aid, emotional support, esteem support, and social network support. It is a 4 point scale, where “3” denotes the high level of social support, “2” moderate social support, “1” mild social support, and “0” no social support. For the present study Cronbach Alpha obtained is 0.98 indicating good internal consistency.

**RESULTS**

Over all mean age was 29 .95+5.25 years while mean age of males was

**TABLE I: FREQUENCIES AND PERCENTAGES OF ENTIRE SAMPLE**

Groups	Frequency	Percentage
Male	198	66
Female	102	34
Gonadal Cancer Non Hospitalized	70	23.3
Gonadal Cancer Hospitalized	30	10.0
Hepatitis B	44	14.7
Hepatitis C	56	18.7
HIV Positive	100	33.3
Total	300	100

**TABLE II: PERCENTAGES OF HIV, GONADAL CANCER AND HEPATITIS B & C PATIENTS IN THE LEVEL OF DEPRESSION**

	Level of Depression		
	Mild	Moderate	Severe
Patients of HIV		8	91
Gonadal Cancer	52	29	19
Hepatitis B	50	31	18
Hepatitis C	3.6	8.9	87.5
Total	25	18.7	55.7

**TABLE III: PERCENTAGES OF HIV, GONADAL CANCER AND HEPATITIS B & C PATIENTS ON THE LEVEL OF SOCIAL SUPPORT**

	Level of Depression		
	Low	Moderate	High
Patients of HIV	62	34	4
Gonadal Cancer	0	46	54
Hepatitis B	0	65.9	34.1
Hepatitis C	25	71.4	3.6
Total	25.3	49.7	25

**TABLE IV: COMPARISON OF GENDER DIFFERENCES FOR DEPRESSION AMONG PATIENTS OF HIV, GONADAL CANCER AND HEPATITIS B & C**

	Male Depression		Female Depression	
	Mean	SD	Mean	SD
Patients of HIV	8	16	84	10
Gonadal Cancer	41	13	39	13
Hepatitis B	35	16	40	19
Hepatitis C	70	17	65	15
Total	62	25	48	20

**TABLE V: COMPARISON OF GENDER DIFFERENCES IN SOCIAL SUPPORT AMONG PATIENTS OF HIV, GONADAL CANCER AND HEPATITIS B & C**

	Male Social Support		Female Social Support	
	Mean	SD	Mean	SD
Patients of HIV	31	30	18	12
Gonadal Cancer	114	24	114	32
Hepatitis B	117	23	96	26
Hepatitis C	48	31	48	25
Total	65	48	88	44

**TABLE VI: COMPARISON OF DEPRESSION AND SOCIAL SUPPORT IN MALE AND FEMALE PATIENTS (N=300)**

Variable	Groups	N	Mean	SD	SEM	df	Sig	T
Depressive Symptoms	Male patients	198	62.49	24.807	1.763	298	.000	4.916
	Female patients	102	48.48	20.352	2.015			
Social Support	Male patients	198	65.46	48.218	3.427	2980	.000	-4.043
	Female patients	102	88.48	43.654	4.322			

29.52±5.44 years and females was 30.78±4.79 years. Demographic Information of entire data is presented for their gender and diseases (Table I). Table

2 showed percentages of different level of depression in which patients of HIV and hepatitis C are severely depressed. Table 3 showed percentages of different

level of social support in which patients of HIV and hepatitis C received low level of social support whereas gonadal cancer and hepatitis B received high level of social support.

Table 4 & figure 1 showed over all gender differences mean and standard deviation on the variable of depression which is significant (males 62 ± 25, females 48 ± 20). Patients of HIV had significant differences (males 8± 16.00, females 84.00 ± 10.30).

Table 5 & figure 2 showed over all gender differences mean and standard deviation on the variable of social support which is significant (males 65 ± 48, females 88 ± 44) patients of HIV (males 31±30, females 18±12) and Hepatitis B (males 117± 23, females 96± 26) have significant differences.

As given in table 6, there are statistically significant differences in the level of social support and level of depression among male and female patients.

## DISCUSSION

Number of studies has examined the importance of social support and its influences on physical and mental health of the individual. When talking about gender differences on the variable of depression, women are found to be more depressed as compared to men. The reasons might be the effects of estrogen on the stress hormones, cortisol<sup>18</sup> the prevalence of the victimization of women<sup>19</sup> and the tendency of women to ruminate over their problems<sup>20</sup>. General differences in life time prevalence of depression were found to be significant, with 21.3% of women and 12.7% of men having experienced depression in their life time<sup>21</sup>. But the present research showed that men are more depressed as compared to women as there are mean differences of gender in the level of depression (males 62.49 & females 48.48). Social support plays a major role in overcoming

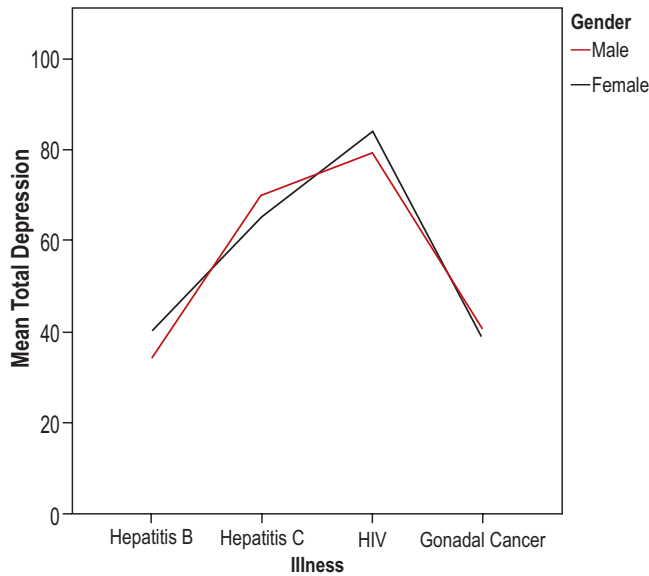


Figure 1: Gender differences on the Variable of Depression

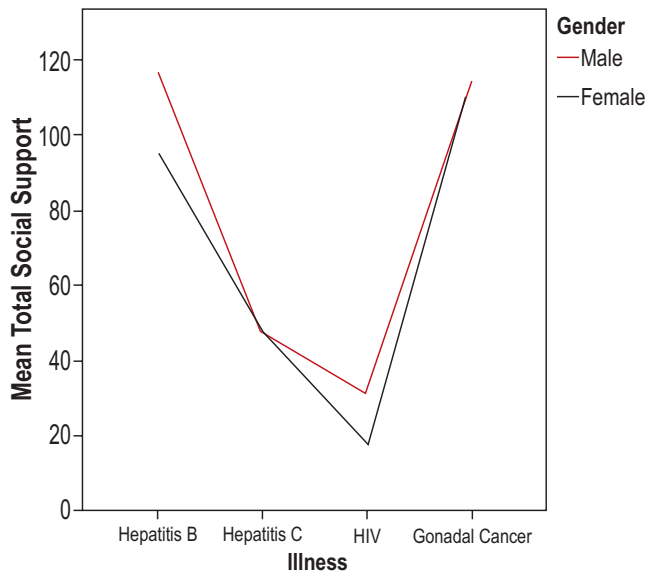


Figure 2: Gender Differences on the variable of social support

the level of depression in women like present research indicated that mean differences in the level of social support in (males 65.46 & females 88.48), which showed that women received high social support as compared to men. Almost all human behavior is role related and all men and women have their own roles in which they are involved, and they derive different satisfactions from their roles<sup>22</sup> According to Kessler & McLeod<sup>23</sup> women are more emotionally involved in the lives of others and thus received more social support as compared to men.

Social support has a direct or indirect effect on physical condition and social support influence physical condition in spite of having relentless stressors. Other researchers explained several ways in which different types of social support may protect the health of an individual.<sup>24</sup> Some contradictory researchers also found levels of social support between genders, like Brugh<sup>25</sup> found that low social support leads to relapse in depressive symptoms, but levels of social support do not seem to contribute to gender differences in depression. Females are

generally considered to have a strong warmth style than males, and require social support for their psychological health and they get effected by their emotional ties more which leads to depression. But still there is no evidence for the high level of depression among females being caused by reduced social support. Research on the association between social support and depression in males and females has provided controversial findings, with some studies reporting that social support is equally important in males and females as a predictor of recovery from depression, and others showing greater beneficial effects in both genders Bebbington.<sup>26</sup>

Gupta<sup>27</sup> also suggested in the study that counseling which is one form of social support also reduced depressive tendencies in females as compared to males. People living with Hepatitis B and C and some cases of HIV and Cancer as well fail to take proper treatment in developing countries like Pakistan. These factors might be the major reasons in developing depression. Nolen-Hoeksema and Keita<sup>28</sup> indicated in their study that HIV positive men and women had equal scores on depression. HIV/AIDS patients received less social support due to stigma attached to the disease and this leads to depression. Therefore it was concluded that high social support leads to low level of depression in HIV patients.

Depression is common in cancer patients which often impairs the patient's quality of life, comfort level and treatment compliance, which in other words effect the patient's survival found by Aass N, et al.<sup>29</sup> Hann et al<sup>30</sup> found that there were no significant differences by gender or age in the relationship of the social support variables to depressive symptoms in cancer patients.

Hepatitis patients experience physical symptoms and the underline reasons for the relationship between poor social support and physical functioning are un-

clear as reported by Shaw and Janevic.<sup>31</sup> One reason might be that worse physical functioning limits their ability to meet expectations of family or friends. Some researchers found that lack of social support and personal coping can effect the mood and trigger depression in hepatitis patients Wattanakit et al.<sup>32</sup> Bisschop MI, et al<sup>33</sup> study also showed that there is a significant association between social support and depression in hepatitis patients. Specific gender differences on the variable of depression and social support was not found in hepatitis patients.

Men rely on their spouses and less on friends and family for social support as compared to women.<sup>34</sup> This fact reflects that men have low social support network which includes interpersonal relationship that provide emotional support, tangible assistance and help in time of needs.<sup>35</sup> This fact was also supported by a study carried out by Turner<sup>36</sup> displaying that males receive less negative social interaction than females. However this negative effect of such interactions over the depression appears to be suppressed or obscured by the positive aspect of social support. Similarly, in another study<sup>37</sup> it was revealed that the nature of female's social relationships reflects more emotional involvement and empathy than males do. Thus, the evidence on the differential impact of social support on the depression has been studied in equal ratio. Lisa et al.<sup>38</sup> studied sex differences in coping and found that women were more likely to engage in most coping strategies than men. The strongest reason was found that women are more likely to express verbally.

Pakistani research done by Riaz Z, et al<sup>39</sup> reflected that self-esteem and social support as significant predictors of depression. According to Bisschop et al,<sup>33</sup> social support is found to be associated with reduced depressive symptoms. They also supported that social support improves psychological well-being by

reducing the loneliness and depressive symptoms in people. Specifically in individuals diagnosed with chronic illnesses like cancer Hepatitis and HIV positive social, support plays a significant and interdependent role in determining depression.

## CONCLUSION

In the light of the findings of the present research it can be safely concluded that there are differences in the level of depression and social support in male and female patients. Social support plays a major role in reducing depression, in general and specifically previous researches have also concluded as mentioned above that women are more depressed as compared to men due to multiple reasons but through the findings of present research, the highlighted fact is that men are more depressed as compared to women, the reason might be women received high social support than men while suffering from chronic illnesses. The present research findings highlighted the important role of social support in both men and women.

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### AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

- TY:** Study design, acquisition of data, drafting the manuscript, final approval of the version to be published
- ZFZ:** critical revision, final approval of the version to be published
- SI:** acquisition and analysis of data, drafting the manuscript, final approval of the version to be published
- MMK:** analysis of data, final approval of the version to be published

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

#### CONFLICT OF INTEREST

Authors declare no conflict of interest

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