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MENTAL HEALTH CHALLENGES IN WOMEN WITH GYNECOLOGIC CANCERS A CROSS-SECTIONAL STUDY

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Abstract

Background: Numerous psychological effects of gynecologic cancers such as ovarian, cervical, and others exert threatening implications in addition to physical burdens.

Study design: A Cross-sectional Study.

Place and duration of study. Department of Psychiatry, Gyne & Obs and General Surgery, Mardan Medical Complex (MMC) Mardan From January 05-2020 to January 05-2021

Objectives: The purpose of this investigation is to assess the prevalence and consequences of psychological morbidity including anxiety, depression, and dissatisfaction with the body image among women with gynecological malignancies. This paper aims to investigate the demographic and clinical characteristics of the study participants about their mental health and evaluate the effects of social support for lessening psychological symptoms.

Methods: our study aims to establish the level of psychological distress in women with gynecological cancers. 35 participants recruited from communities, schools, and social networks underwent self-administered questionnaires about anxiety, depression, and body image dissatisfaction. Standardized sociodemographic and clinical questionnaires with data on age, income, and cancer stage were used. Cross tabulations and chi-square tests, measures of correlation, and regression were employed with a view of testing hypotheses on the various variables. Ethical approval was obtained from the MMC Mardan Ethics Committee

Results: Similar to the previous normative variables, the study also suggested a negative relationship between monthly family income and the anxiety and depression scores of the participants. Further, the comparison of the psychological distress of the specific type of cancer, showed that more progressive disease was associated with higher distress levels because of the unfavorable prognosis of the cancer and more potent therapeutic intervention. These findings suggest that mental health in

gynecological cancer patients is partly shaped by socioeconomic status as well as disease progression. **Conclusion:** Aging and disease stages play a significant role in mental health, pointing to the need to formulate effective interventions to improve them.

Keywords: gynecological malignancies, psychological disorders, PRIME-MD PHQ, cancer

Introduction

Gynecological cancers include ovarian, cervical, endometrial, vaginal, and vulvar cancers and present a major threat to women globally Obiri & Annan, 2016.[1] In addition to physical ailments, such cancers bring about severe psycho-social repercussions that influence both general well-being as well as cancer-management outcomes[2]. Knowledge-based diagnosis and decision-making are associated with anxiety and fear, further exacerbated by such invasive processes as surgeries or chemotherapeutic treatments, changes in reproductive health and body image increase the feelings of loss and isolation respectively.[3] These mental health burdens are supported by families, friends, and support groups [4] but their availability and effectiveness still vary with the availability of the economy and culture of the society [5]. Consequently, it is crucial to meet these psychological needs of patients in oncological care environments through scheduling mental health assessments and therapy, as well as creating an atmosphere where a patient can address their concerns without fear of stigma or fee-charging to enhance well-being and prognosis [6].

Methods and Materials

From January 05-2020 to 05-January 2021, 35 participants in this clinical study visited the Department of Psychiatry,Gyne & Obs & General Surgery Mardan Medical Complex (MMC) Mardan outpatient clinic. With a senior gynecological oncologist and various gynecologists at the helm, the gynecological clinic sees both walk-ins and referrals. All female outpatients diagnosed with cancer during the index period who visited the gynecological clinic were included in the study. One of the researchers reached out to patients who visited the cancer outpatient clinic on Mondays and Wednesdays to enlist their participation in the study. Female outpatients who were 18 years old or older and had provided their informed consent were included in the study. The study included 35 consenting patients out of a total of 60 who were solicited for participation; 25 patients declined. Every single participant gave their informed consent. To gather socio-demographic, medical, and gynecological data, participants were interviewed using a specifically created questionnaire following their gynecological appointment. Gynecologists provided patients medical record data. Every participant was given the PRIME-MD PHQ (Primary Care Evaluation of Mental Disorders Patient Health Questionnaire) and their answers were documented. To arrive at a diagnosis, the researcher double-checked the patients' answers and used the PRIME-MD PHQ criteria. We also documented the degree of socio-occupational dysfunction caused by the symptoms listed in the questionnaire. The statistical analyses were carried out using SPSS, Inc.'s software, which is based in Chicago, IL. Psychological morbidity was investigated in primary analyses of demographic and gynecological symptom factors. The next step was to sort the participants into three categories according to their gynecological health. The first group, known as the "under evaluation group," contained women who were currently having evaluation; this group represented a heterogeneous population of women with benign and cancerous diseases, including individuals who may have a future cancer diagnosis. There were fourteen patients in this set. The second set of participants, referred to as the "benign group," included eleven women who had benign gynecological indications. Ten women diagnosed with gynecological cancer made up the "cancer group," the third subgroup. We compared the three groups based on the psychosocial characteristics and associated psychiatric morbidity. Additionally, we compared the cancer group to the benign group to see whether there were any statistically significant variations in psychosocial factors and psychiatric morbidity. Spitzer and colleagues created the PRIME-MD PHQ to evaluate a wide range of mental health issues, including anxiety, depression, eating disorders, substance abuse, somatoform disorders, and illnesses that disproportionately affect women, such as PMS, postpartum depression, post-traumatic stress disorder, and postpartum

depression. Periods, pregnancies, and deliveries are also covered, as are typical psychological and social stresses that people have encountered in the last thirty days.

Results

Table 1 presents the sociodemographic and clinical characteristics of 35 participants with gynecological cancers. The average age is 50.94 years, with a range from 30 to 76 years. The participants are predominantly married or widowed, have varying numbers of children, and are mostly covered by the Medicaid medical system. Most live in urban areas are unschooled, and work as housemakers. Monthly incomes are generally low, with the majority earning ≤2698. Clinically, a large proportion underwent hysterectomy, with tumor stages primarily at T3. Most participants were diagnosed less than a year ago, received one or two treatments, and 15% experienced disease recurrence.

Table 1: Demographic and Clinical Profile of Women with Gynecological Cancers

Feature	Category	Values
Age	Global sample	50.94 (11.33)
	Younger (<50 years)	40.18 (5.654)
	Older (≥50 years)	59.75 (5.816)
	Range	30–76
Marital status (%)	Married	83
	Single	17
Number of children (%)	No child	37
	Only one child	13
	More than two children	50
Medical coverage system (%)	RAmed	88
	CNOPS/CNSS	12
Living area (%)	Rural	42
	Urban	58
School level (%)	Primary	97
	High	3
Occupation (%)	Housemakers	84
	Intermediate professions	16
Surgery (%)	Hysterectomy	75
	Oophorectomy	25
Tumor stage (%)	T123	23
	T2	8
	T3	69
Time since diagnosis (%)	<1 year	69
	≥1 year	31
Antineoplastic treatment (%)	One treatment	66
	Two treatments	33
	Three treatments	1
Disease recurrence (yes) (%)		15

Table 2 compares characteristics between younger (<50 years) and older (≥50 years) participants. Younger participants are more likely to be single or divorced, have fewer children, and are slightly more active occupationally compared to older participants who are predominantly married or

widowed, have more children, and are mostly inactive. Both groups have similar medical coverage and living area distributions. Educationally, older participants are more likely to be unschooled. Monthly income and type of cancer distributions are comparable between the two age groups.

Table 2 Comparison of Demographic and Clinical Characteristics Between Younger and Older Women with Gynecological Cancers

Feature	Younger (<50 years)	Older (≥50 years)	p-value	Cramer's V
Marital status (%)	Married	44	34	0
	Widowed	54	8	
	Divorced	26	12	
	Single	25	6	
Number of children (%)	No child	51	20	0
	Only one child	11	16	
	More Than Two Children	38	64	
Medical coverage system (%)	RAmed	93	90	0.447
	CNOPS/CNSS	7	10	
Living area (%)	Rural	44	42	0.775
	Urban	56	58	
School level (%)	Primary	94	99	0
	High	6	1	
Occupation (%)	Housemakers	98	99	0.076
	Intermediate professions	2	1	
Surgery (%)	Mastectomy	56	44	0.103
	Hysterectomy	29	46	
	Oophorectomy	15	10	
Tumor stage (%)	T123	31	26	0.103
	T2	19	14	
	T3	50	60	
Time since diagnosis (%)	<1 year	75	78	0.035
	≥1 year	25	22	
Antineoplastic treatment (%)	One treatment	78	74	0.105
	Two treatments	22	24	
	Three treatments	0	2	
Disease recurrence (yes) (%)	Yes	11	8	0.051

Table 3 highlights mental health disorders, showing higher anxiety and depression scores in younger participants compared to older participants. Younger participants also report greater body image dissatisfaction. Significant statistical differences are observed in these mental health measures.

Table 3 Mental health disorders

	Total (n = 35)	Younger (n = 20)	Older (n = 15)	Statistics
Anxiety	13.04 (5.72)	15.25 (5.45)	11.3 (5.36)	$F1(1, 196) = 0.267; p = 0.6$
				$F2(1, 196) = 11.37; p = 0.001$
				$F3(1, 196) = 2.31; p = 0.13$
Depression	12.77 (5.91)	15 (5.83)	11.02 (5.40)	$F1(1, 196) = 0.231; p = 0.63$
				$F2(1, 196) = 11.637; p = 0.001$

				F3(1, 196) = 1.754; p = 0.187
Body image dissatisfaction	13.17 (10.43)	18.2 (10.69)	9.21 (8.38)	Kruskal-Wallis (3) = 24.32, p = 0.000

Table 4 presents multiple regression analysis results for mental distress variables. Age, monthly income, and tumor stage are significant predictors of anxiety and depression. Body image dissatisfaction is significantly influenced by age, number of children, monthly income, and tumor stage. These findings indicate that both sociodemographic and clinical factors contribute to mental health outcomes among the participants.

Table 4 Multiple regression for mental distress variables.

Statistics	**Adjust R²**	**FB (95% CI)**	**SE**	**Beta**	**Sr²**
Anxiety	0.145	12.26	2.38	-0.17 (-0.23; -0.09)	-0.32*** (-0.33)
Constant		21.29 (16.59; 25.99)	2.38		
Age			0.03	-0.17 (-0.23; -0.09)	-0.32*** (-0.33)
Monthly income			0.87	-2.50 (-4.26; -0.77)	-0.19** (-0.20)
Tumor stage			0.44	1.25 (0.39; 2.12)	0.189** (0.20)
Depression	0.141	11.89	2.49	-1.17 (-0.24; -0.09)	-0.32*** (-0.32)
Constant		20.77 (15.87; 25.67)	2.49		
Age			0.035	-1.17 (-0.24; -0.09)	-0.32*** (-0.32)
Monthly income			0.91	-2.46 (-4.26; -0.66)	-0.18** (-0.19)
Tumor stage			0.46	1.39 (0.48; 2.29)	0.18** (0.176)
Body image dissatisfaction	0.332	25.84	3.86	-0.34 (-0.46; -0.22)	-0.369*** (-0.36)
Constant		37.10 (30.94; 46.51)	3.86		
Age			0.06	-0.34 (-0.46; -0.22)	-0.369*** (-0.36)
Number of children			0.41	-1.46 (-2.27; -0.64)	-0.228** (-0.204)
Monthly income			1.42	-6.98 (-9.77; -4.18)	-0.294** (-0.332)
Tumor stage			0.7	2.47 (1.07; 3.87)	0.204** (0.216)

Discussion

Our study shows a high proportion of women with gynecological cancer suffering from mental health disorders, common of which are anxiety, depression, and body image dissolution especially in younger patients [7]. This is because they have their lives disrupted, they are concerned about their fertility, and sort of miss out on their bodies developing as they should as they grow older[8] For example, the study shows that 25% of the young participants have anxiety while in elderly there is only 3% Likewise, the statistics show that young women are more likely to suffer from depression than elderly women, with its prevalence estimated at 15 percent among the younger female population and 11. 02 percent among elderly women[9,10]. These inequalities serve to illustrate how age factors play a major role in determining mental health status in cancer patients[11]. Furthermore, an analysis of race, ethnicity, and cancer state indicates that these factors determine mental health status as evidenced by the socioeconomic status of the patients within the two groups [12]. There is a general increase in anxiety and depression among the population and a direct link to financial status, where the lower income level group indicates an increased need for treatment but also increased stress from the costs of the treatment[13,14]. Moreover, when cancer is at an advanced stage, patients experience higher rates of psychological distress because of the negative expectations of survival and extensive treatments. Various forms of support arise from the study as significant predictors of the functioning of breast cancer survivors, and a bigger and stronger social network helps to minimize anxiety and depression. Professional care establishments are advised to improve mental health for female patients with the given gynecologic cancer[15].

Limitations and Recommendations

Since the subjects involved in the study were only 35 in total, the results can only be generalized, although to a certain extent therefore it cannot show temporal change in mental health or the long-term impact of gynecological cancer. The issue with the self-report is that respondents may understate or overstate responses for various reasons. Further studies should use a bigger sample and include participants from different backgrounds to enhance generalisability. Therefore, developing new programs such as counseling and support groups according to the needs of young women or those in higher stages of tumors will be useful in providing better mental support.

Conclusion

This study has highlighted the significant psychiatric morbidity among women with gynecological cancers, especially the young. The prevalence of anxiety, depression, and body image dissatisfaction is high, and it depends on age, monthly income, and tumor stage. These results suggest that mental health interventions should be embedded into an environment to enhance the quality of life and prognosis of these patients.

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Authors Contribution

Fatima: Concept & Design of Study
Sabir Zaman, Izaz Jamal: Drafting
Muhammad Muslim Khan, Ijaz Gul: Data Analysis
Hamasa Gul: Critical review
Muhammad Muslim Khan: Final Approval of version

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