ORIGINALES

Depression in patients diagnosed with cancer in an IV level institution in Montería, Colombia

Depresión en pacientes diagnosticados con cáncer en una institución de IV nivel en Montería, Colombia

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ABSTRACT:
Objective: To determine the level of depression in patients diagnosed with cancer in an IV level institution in Monteria, Colombia.
Methodology: Descriptive, cross-sectional study, with a quantitative approach. The Zung scale instrument for depression and a sociodemographic data card were applied in patients diagnosed with cancer, attending a specialized institution of IV level of complexity in the city of Monteria.
Results: The most common cancers were: breast cancer 22.2%; and colon and uterus equal representation 18.2%. Regarding depression, 49.5% were slightly depressed; moderately depressed 15.7%; severely depressed 1% and normal range 33.8%. Cases of depression in their different categories according to the Zung scale were found in patients with colon and breast cancer.
Conclusions: It was found that in total 65.2% of the patients had some degree of depression. Depression in patients with cancer is a common phenomenon in people with this condition and incidence is similar in men and women, in turn this depends on factors such as the type and severity of cancer, age and access to support networks both for the person and the family.

Key words: Cancer; depression; diagnosis

RESUMEN:
Objetivo: Determinar el nivel de depresión en pacientes diagnosticados con cáncer en una institución de IV nivel en Montería, Colombia.
Metodología: Estudio descriptivo, transversal, con enfoque cuantitativo. Se aplicó el instrumento escala de Zung para depresión y una cedula de datos sociodemográficos en pacientes diagnosticados con cáncer, asistentes a una Institución especializada de IV nivel de complejidad de la ciudad de Montería.
Resultados: Los tipos de cáncer más comunes fueron: el de mama 22,2%; y colon y útero igual representación 18,2%. En cuanto a la depresión se encontró ligeramente deprimido 49,5%; moderadamente deprimido 15,7%; severamente deprimido 1% y rango normal 33,8%. Los casos de

depresión en sus diferentes categorías según la escala de Zung fueron encontrados en pacientes con cáncer de colon y mama.

Conclusiones: Se encontró que en total 65,2% de los pacientes presentaban algún grado de depresión. La depresión en pacientes con cáncer es un fenómeno común en las personas con este padecimiento e incidencia es similar en hombres y mujeres, a su vez esta depende de factores tales como el tipo y severidad del cáncer, la edad y el acceso a redes de apoyo tanto para la persona como a la familia.

Palabras claves: Cáncer; depresión; diagnóstico.

INTRODUCTION

Cancer constitutes a pathology of interest in public health, which can occur regardless of sex, age, race, socioeconomic level, education level, among others. It is one of the leading causes of death worldwide, above all in developing countries, and in the course or presentation of this event the social determinant can have an impact.

According to the World Health Organization(WHO), cancer is the second cause of death globally ; in the year 2015, it caused 8,8 millions of deaths, almost one out of six deaths in the world are caused by this disease and nearly 70% of cancer death occur in middle and lower income countries. [1]

A third of death cancer is attributable to the five main behavioral and dietary risk factors which can be intervened from primary care, specifically with primary prevention: high body mass index, lower intake of fruits and vegetables, lack of physical activity, tobacco and alcohol consumption. Smoking is the main risk factor and causes approximately the 22% of cancer death. [1] Given the problems raised by cancer, in 2013, the WHO launched the Comprehensive Plan of Action for the Prevention and Control of Non-communicable Diseases 2013-2020 which aims to reduce the premature mortality to 25% of cancer, cardiovascular diseases, diabetes and chronic respiratory diseases. Some of the goals of voluntary implementation are particularly important for cancer prevention, as the one that is intended to reduce tobacco consumption to 30% between 2014 and 2025. [2]

In response to the above-mentioned plan, the Plan of Action for Prevention and Control of Non-Communicable Diseases in the Americas 2013-2019 was created. This plan focuses its actions on the diseases with the highest burden [3] for the individual, family, community and health system, on the basis that they constitute high impact events on the population health.

As it has been described, cancer is a disease that affects any population group worldwide, and Colombia is no stranger to such situation, for it extends along Colombian territory, in which it is worth noticing that some inhabitants of the Department of Córdoba also suffer from this disease. Taking into account the Plan for the Americas, it can be remarked that in Colombia a gradual decrease in the incidence and mortality rates in cervical cancer over the last 40 years has been reported. The rates have changed from 14 cervical cancer deaths for every 100.0000 in 1987 to 7,08 deaths for every 100.000 women in 2013, achieving ahead of time, the established goal for the year 2015 and contributing to the goal achievement of 5,5 for 100.000 women for the year 2021 [4-6] and reaching survival level within 5 years of a 45% [7], compatible with international data [8].

Most of 45% of cancer deaths in 2008 were accounted for by lung and prostate cancer in men, and lung and breast cancer in women [9]. On February 6th,2015 in an interview with the Newspaper El Universal, the Secretary to Public Health in Córdoba, Edwin Preciado, pointed out that there are no statistics related to breast cancer in this section of the country, and besides breast cancer or prostrate, the situation applies to gastric, skin and cervical cancers. [10]

In the Department of Córdoba for the period 2000-2006, 2036 death in men occurred and 2002 cases in women were presented. In men, the 58.8% of total of deaths are caused by stomach cancer, lungs, prostate, colon, rectum and leukemia, while for women the 52.8% of deaths are caused by cervical cancer, stomach, breast, lung, colon [6].

On the other hand, it is taken for granted that suffering from cancer can generate repercussions on individual, family and community levels. In the individual, it can affect bio-psycho-social dimension as this is a disease which alters or deteriorates the body system, for the fact of suffering from this disease generates some uncertainty regarding treatment, prognosis, cure or death, in which other pathologies derived from the same pathologic process can appear as it is the case of depression, that is conceived of as a mental and emotional disorder causing sadness and grief to the subject and making it difficult for him/her to relate to others and to the environment which surrounds him/her, that is to say, it can alter his/her daily life.

Also, we need to consider within the family, the burden that one has to face as informal caretaker or primary caretaker and in the society, the impact that is generated when someone is suffering from a public health event of interest, with high cost in terms of attention and treatment.

The individuals that face cancer are confronted to a series of negative emotional answers; in most of the cases they can live the grieving stages: denial, negotiation, depression, anger and finally acceptance of the health condition. " Facing a cancer prognosis is one of the most stressing situations in current society, few diseases cause so many psychological issues" [11], as the sick person has the face prognosis and adjusts to various changes in all his/her spheres , and must make decisions in pursuit of his/her health condition improvement and maintaining of quality of life".

According to the above, suffering from some chronic diseases as cancer can alter the mental health of an individual, as it affects his/her role and generates physical, psychological changes, among others, and probably changes in style of living that can be influenced by social determinants.

When talking about mental health, it is clear that the WHO, launched the Comprehensive Action Plan for Mental Health 2013-2020 [12], which aims to make a complete assessment, strengthening and reinforcement of mental health for both the individual and the collectivity, that is to say, it aims to boost the prevention for mental disorders, and if these arise, such strengthening allows the individual to recover in his/her social, family and personal domains.

The WHO links the fact of suffering from mental disorders to the idea of aggravating or having an influence on the development of some diseases as cancer, heart diseases and infectious diseases as HIV/AIDS [12], similarly, it also stresses out that risk factors can be common in both mental disorders and in non-communicable diseases.

Furthermore, the WHO makes it clear that depression is a public health issue because of the high burden of sickness that it generates and reports that in the world, there are 350 million of people that are being affected by depression; being suicide the worst outcome. It is estimated that every year 800.000 people commit suicide worldwide and the most affected age group is the one corresponding to people between 15 and 29 years [13]. Bearing this in mind, Colombia tracks down the behavior of mental health events and issued a press release produced by the Comprehensive Social Protection Information System, which reports that attention to depression cases has increased since the year 2009 and the prognosis of moderate depression was conducted in 36.584 cases in 2015[14].

In the same way, in Colombia, the National Mental Health Survey of 2015, conducted to people from 12 to 17 years of age,18 to 44 and 45 over showed the behavior of certain events of mental health , in which depression is related, which was found with the highest prevalence in teenagers, represented in a 15,8% mby regions, the most affected areas were the Central ,with a prevalence of 20,9% and the Oriental Region with 16,2%;the population between 18 to 44 had the lowest prevalence of depression symptoms and women were the most affected [15] and the Department of Córdoba had 113 cases of diagnosed people with moderate depression. [14] On the other hand, Colombia in an attempt to strengthen the Mental Health of individuals , included as priority dimension the social coexistence and mental health in the Ten-Year Public Health Plan 2012-2021, in which it is aimed to obtain comprehensive care for all population and improvement in quality of life, in which the individual can enjoy of his daily life, dimension which is also supported by the Law 1616 from 2013, which aims to guarantee the fostering of mental health within the national territory.

Taking into account the current situation of Colombia and the one for the Department of Córdoba in terms of cancer and depression as non-communicable diseases the following research question arises, which is the level of depression in patients diagnosed with cancer in a level IV institution in Montería, Colombia?

Identifying the level of depression in patients with cancer can help the various regulatory bodies –as it is the case of the Department Health Secretariat - to make decisions in the public health scenario, in the sense that programs intended to improve the quality of life of patients can be fostered, programs which aim to generate more confidence and trust in the prognosis and proper treatment, and reducing therefore, fatal outcomes; similarly, it will allow them to assess and improve public health policies in terms of non-communicable diseases, as both events generate high disability and lead to death.

The study was carried out in a IV level Health Care Provider in the city of Montería-Córdoba, in which updated statistics and the Scale of Zung were used, such scale indicates the presence and severity of depressive, somatic and cognitive symptoms as well as the existence and intensity of state of depression on the patient, what points out the need to intervene these people with the aid of an interdisciplinary team , aiming to improve or maintaining their quality of life along all the disease process. This research also provides tools that can be used on both social and political levels, in which the main beneficiaries of the implementation of new policies will be the individual, the family and the community.

OBJECTIVES

General

To determine the level of depression in patients diagnosed with cancer in a IV level institution in Montería, Colombia.

Specific

- To characterize the population according to variables of interest: sex, age, origin, marital status and education level.
- To identify the types of cancer in the population under study.
- To identify the level of depression in the population under study.
- To relate the level of depression to the sex, age and types of cancer variables.

MATERIAL AND METHOD

Type of study

This research is classified as being descriptive, cross-sectional , whose aim was to describe the level of anxiety of patients diagnosed with any type of cancer, attending a IV level of complexity specialized institution in the city of Montería ; taking into the account the level of measuring used this study corresponds to a quantitative approach design.

Unit of analysis

The unit of analysis corresponded to the level of anxiety found in the patients who participated in this study, as well as the socio-demographic variables selected to characterize the sample under study.

Simple and sampling

The simple was made up by 198 subjects, it was estimated departing from a general population of 200 patients, attending the institution and accessible to the researcher, with a level of confidence desired of 99% and maximum acceptable error of 1%.

The sampling was non-probabilistic or intentional. People within the 18-50 age frame were included in the study, without any type of cognitive or verbal impairment that would hindered them to answer the questions from the selected tool, in the same way, it was necessary that they openly manifested their desire to take part in the research.

The instrument selected to know the level of anxiety was the Scale of Zung for depression; this has been validated in the Colombian context by Campo et al, [16] who found a Cronbach´s Alpha of 0,85, sensitivity of 94,7% and correlation test retest of   0,848 (p <0,01), which make it an instrument with reliable psychometric properties.

RESULTS

The participants in the study were men and women in equal percentages, with an age rank between 41 and 50.They come from urban areas of Montería, most of them are in civil partnership and as for their education level, they have finished their high school.

The data obtained regarding the type of cancer diagnosed in the selected simple are presented as follows:

Table 1. Distribution by type of cancer

Type of Cancer	Frequency	Percentage
Colon	36	18,2
Leukemia	12	6,1
Breast	44	22,2
Stomach	6	3,0
Uterine	36	18,2
Prostrate	19	9,6
Brain	5	2,5
Multiple Myeloma	5	2,5
Spine	4	2,0
Non-Hodgkin's lymphoma	4	2,0
Lung	12	6,1
Larynx	9	4,5
Kidney	2	1,0
Chondrosarcoma	1	0,5
Skin	2	1,0
Liver	1	0,5
TOTAL	198	100,0

Source: demographic and clinic data cards

It is observed that the most common cancer was breast cancer with 22,2%, followed by colon and cervical cancer, which shared equal percentage of 18,2%, in less proportion liver cancer and chondrosarcoma with 0,5 % respectively.

Table 2. Level of Depression

Level of Depression	N°	%
Normal Rank	67	33,8
Slightly depressed	98	49,5
Moderately depressed	31	15,7
Severely depressed	2	1,0
TOTAL	198	100

Source: Scale of Zung

As relevant datum, 49,5% of the sample were slightly depressed;15,7% were moderately depressed and 1% severely depressed, which means that in total 65,2% of the patients presented some degree of depression. In contrast to that, 33,8% presented a normal rank or without depression.

Tabla 3. Level of Depression by Gender

LEVEL OF DEPRESSION AND GENDER

Level of Depression	Female	%	Male	%
Normal Rank	25	25,3	42	42,4
Slightly depressed	66	66,7	32	32,3
Slightly depressed	6	6,1	25	25,3
Severely depressed	2	2,0	0	0,0
TOTAL	99	100	99	100

Source: Scale of Zung

Most of the depression cases occurred in the female gender, in which 66,7% of women were slightly depressed, 6,1% were moderately depressed , in the same way, this group constituted the only one to present severe cases of depression, 74,8% of the total sample of women presented depression; in contrast, the male gender presented 32,3% as slightly depressed and 25,3% as moderately depressed, that is to say that only 57,6% of males presented depression.

Table 4. Depression by age group

	LEVEL OF DEPRESSION					
Level of depression	20-30 years (n=8)	%	31-40 years(n=55)	%	41-50 years (n=135)	%
Normal rank	3	37,5	22	40	42	31,1
Slightly depressed	3	37,5	27	49,1	68	50,4
Moderately depressed	2	25	6	10,9	23	17,0
Severely depressed	0	0	0	0,0	2	1,5
TOTAL	8	100	55	100	135	100

Source: Scale of Zung and data card

It was found that the age rank that presented depression the most, was the 41-50 rank with a total percentage of 68,9%, being the most prevalent depression level found the one corresponding to slightly depressed with 50,4%, and it was precisely in this rank were the two cases of severe depression occurred. The 20-30 age rank the one with lowest number of depression cases.

Table 5. Level of Depression by type of

LEVEL OF DEPRESSION vs TYPE OF CANCER									
TYPE OF CANCER	Normal rank	%	Slightly depressed.	%	Moderately depressed	%	Severely depressed	%	Total
Colon	9	13,4	18	18,4	9	29,0	0	0,0	36
Leukemia	8	11,9	2	2,0	2	6,5	0	0,0	12
Breast	15	22,4	16	16,3	12	38,7	1	50,0	44
Stomach	1	1,5	4	4,1	1	3,2	0	0,0	6
Uterine	8	11,9	28	28,6	0	0,0	0	0,0	36
Prostrate	10	14,9	9	9,2	0	0,0	0	0,0	19
Brain	2	3,0	2	2,0	1	3,2	0	0,0	5
Multiple myeloma	3	4,5	2	2,0	0	0,0	0	0,0	5
Spine	2	3,0	2	2,0	0	0,0	0	0,0	4
Non-Hodgkin's lymphoma	2	3,0	0	0,0	2	6,5	0	0,0	4
Lung	3	4,5	6	6,1	3	9,7	0	0,0	12
Larynx	3	4,5	5	5,1	1	3,2	0	0,0	9
Lung	0	0,0	2	2,0	0	0,0	0	0,0	2
Chondrosarcoma	0	0,0	1	1,0	0	0,0	0	0,0	1
Skin	1	1,5	0	0,0	0	0,0	1	50,0	2
Liver	0	0,0	1	1,0	0	0,0	0	0,0	1
N°	67	100	98	100	31	100	2	100	198

Source: Scale of Zung and data card

As a relevant piece of information, it was found that the depression cases in its various categories according to the Scale of Zung were presented in patients diagnosed with colon and breast cancers.; regarding the most frequent category of depression, in colon cancer the slightly depressed category represented the 18,4% and the breast cancer the moderately depressed category accounted for the 38,7 5.

DISCUSSION

In the report about the cancer situation in Colombia for the year 2015,[17] it was estimated that there were nearly 14 million of new cases of diagnosed cancer in the world for 2012; 71.442 of which occurred in Colombia, besides, these projections revealed a worsening of this issue as in the year 2015, it was expected a number of 79.660 people with cancer in the country, with a higher incidence in women under 65 years of age, equaling the data related to age, obtained in this research and in 20135 nearly the double of this cases (152.901) at the expense of men over 65, the feature of age in this projection differs from what it was found by researchers since the maximum age limit was 50 years, it is worth clarifying that age was not ranked by gender in sample studied.

In this sense and contrasting what was described with the results found in this research, it is evidenced a difference in terms of gender as the behavior of this disease in Colombia has increased over the last years and has affected in larger proportions to women.

Concerning the education level, authors have found that total rates of cancer mortality decrease more rapidly among people within the further education level, projection factor found in this research as finished high school level prevailed in the sample studied as level of education; however, the rate of people with further education was lower.

Alarcón et al, [18] through a descriptive, cross-sectional study that included 11.500 patients with cancer in 16 Colombian cities, during the years 2010 and 2013 , found that the most prevailing cancer types were respectively: breast (116,2), prostrate (79,4), skin (61,3), thyroid(56,8), cervix (50,3), colon-rectum (39,7), the data obtained during this research match with the data exposed by us in this research, since the types of more frequent cancers were according to the number of cases the following: breast , colon, uterine and prostrate, occupying the first place the breast cancer exactly as it happened in the research quoted here.

When making reference to depression behavior in patients diagnosed with cancer, it is evident that it is an extensively researched phenomenon [19] and available results in the revised literature, differ from author to author, likewise it depends greatly on the type of cancer, geographical location, access to treatment and the support the person who suffers from the disease receives.

In this sense, when comparing the results obtained with those in previous studies, it is found that depression is the most common disorder in patients with a prevalence from 22 to 29%, [20] situation which clearly agrees with the data obtained after having studied our sample, in which 65% of patients presented meaningful degrees of depression.

Similarly, Valencia [21] agrees with these figures associated to depression by cancer that allow revealing an increasing trend, moreover, this author points out that this disorder is more common in people with aggressive and disabling cancer. In our study, when depression is analyzed according to the type of cancer, it is evident that this disorder was more common in colon and breast cancers, which are recognized not only as aggressive and high-impact, but also as disabling and which causes deterioration in the body image, perpetuating the depression symptoms.

CONCLUSIONS

In the present study the simple studied was characterized for being made up by men and women in equal percentage, with an age rank between 41 to 50 years, patients who came from the urban areas of the city and did not complete their high school studies.

It was found that in total 65,2% of patients presented some degree of depression; most of the depression cases occurred in the female gender , in which the slightly depressed category represented 66,7%, moderately depressed a 6,1%. Besides, it was the only group in which severe cases of depression were found.

It can be said that depression in patients with cancer is a common phenomenon in people suffering from this disease and its incidence is similar in men and women. Depression depends on factors such as type and severity of cancer, age and access to support networks for both the person and for the family.

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