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ORIGINAL ARTICLE

Family functioning of elderly with depressive symptoms*

FUNCIONALIDADE FAMILIAR DE IDOSOS COM SINTOMAS DEPRESSIVOS

FUNCIONALIDAD FAMILIAR DE ADULTOS MAYORES CON SÍNTOMAS DEPRESIVOS

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ABSTRACT

Objective: To classify families of elderly with depressive symptoms regarding their functioning and to ascertain the presence of an association between these symptoms, family functioning and the characteristics of the elderly. **Method:** This was an observational, analytical, cross-sectional study performed with 33 teams of the Family Health Strategy in Dourados, MS. The sample consisted of 374 elderly divided into two groups (with and without depressive symptoms). The instruments for data collection were a sociodemographic instrument, the *Geriatric Depression Scale* (15 items) and the *Family Apgar*. **Results:** An association was observed between depressive symptoms and family dysfunction, female gender, four or more people living together, and physical inactivity. **Conclusion:** The functional family may represent effective support for the elderly with depressive symptoms, because it offers a comfortable environment that ensures the well-being of its members. The dysfunctional family can barely provide necessary care for the elderly, which can exacerbate depressive symptoms.

DESCRIPTORS

Aged
Depression
Family
Family relations

RESUMO

Objetivo: Classificar famílias de idosos com sintomas depressivos quanto à funcionalidade e verificar a presença de associação entre tais sintomas, a funcionalidade familiar e as características dos idosos. **Método:** Estudo analítico, observacional, transversal, realizado em 33 equipes da Estratégia Saúde da Família de Dourados, MS. A amostra foi composta por 374 idosos divididos em dois grupos (com e sem sintomas depressivos). Os instrumentos para coleta de dados foram um formulário para caracterização sociodemográfica, a Escala de Depressão Geriátrica (15 itens) e o Apgar de Família. **Resultados:** Observou-se a associação entre sintomas depressivos e disfunção familiar, sexo feminino, quatro e mais pessoas residindo no domicílio e inatividade física. **Conclusão:** A família funcional pode representar apoio efetivo para idosos com sintomas depressivos, pois oferece um ambiente de conforto que assegura o bem-estar de seus membros. Já a família disfuncional dificilmente consegue prover a atenção necessária ao idoso, o que pode agravar os sintomas depressivos.

DESCRITORES

Idoso
Depressão
Família
Relações familiares

RESUMEN

Objetivo: Clasificar familias de adultos mayores con síntomas depresivos según funcionalidad y verificar la presencia de la asociación entre tales síntomas, la funcionalidad familiar y la características de los adultos mayores. **Método:** Estudio analítico, observacional, transversal, realizado con 33 equipos de la Estrategia de Salud de la Familia de Dourados, MS, Brasil. La muestra estuvo compuesta por 374 pacientes adultos mayores divididos en dos grupos (con y sin síntomas depresivos). Los instrumentos para la recolección de datos fueron un cuestionario para la caracterización sociodemográfica, la Escala de Depresión Geriátrica de 15 ítems y el Apgar Familiar. **Resultados:** Se observó una asociación entre los síntomas depresivos y la disfunción familiar, el sexo femenino, cuatro y más personas viviendo en el hogar y el sedentarismo. **Conclusión:** Una familia funcional puede representar un apoyo efectivo para los adultos mayores con síntomas depresivos, puesto que ofrece un ambiente de confort que garantiza el bienestar de sus miembros. Una familia disfuncional dificilmente puede brindar la atención necesaria a las personas mayores, lo que puede agravar los síntomas depresivos.

DESCRIPTORES

Anciano
Depresión
Familia
Relaciones familiares

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INTRODUCTION

Depression in the elderly is of concern, given its association with increased morbidity and mortality, loss of autonomy, and worsening of preexisting morbid conditions. In general, it leads to increased use of health services, self-care neglect and reduced adherence to the therapeutic project⁽¹⁾. It is, however, a common condition in the elderly. A study performed with elderly in the city of João Pessoa, Paraíba (Brazil), found a 52% prevalence of depression⁽²⁾. In a study conducted in Jequié, Bahia (Brazil), the prevalence was even higher, 88.8%⁽³⁾.

Diagnosis and treatment of depression in the elderly are complex, since signs and symptoms of depression are undervalued or even confused with manifestations of other diseases, which can aggravate the condition. A study seeking to identify depressive symptoms in the elderly in the general outpatient setting of the *Hospital das Clínicas*, in São Paulo (Brazil), concluded that the presence of comorbidities may decrease the sensitivity of physicians to specific symptoms of depression, causing them to consider the symptoms as psychological reactions resulting from other diseases⁽⁴⁾.

The family represents the central unit for healthcare and plays a very important role in care, since it is responsible for its members. It is highly relevant in the care of people with depression, especially the elderly. It needs to reorganize itself to face this situation, which is always complex, because it involves daily commitment, listening, watching and even economic support. It is also observed that the feelings of the depressed elderly may extend to family members, causing some family comorbidity⁽⁵⁾.

Family is a social construct influenced by culture, historical context and relationships and, in general, is a synonym of affection, companionship and solidarity. It works internally through three components: structure, development and adaptation⁽⁶⁾.

Structure is understood as the assignments, standards and rules constructed through social and cultural patterns that determine the behavior of all members. Development comprises the stages through which families pass in the course of its existence, alternating moments of balance, imbalance and adaptation. These phases are addressed differently in each family. There may be crises and resistance as part of this process. In the adaptation process, families have to adapt to changes while preserving their internal structure⁽⁶⁾.

Demographic changes have strongly impacted Brazilian families, both economically and emotionally, and these changes may influence how they care for the elderly⁽⁷⁾. Moreover, due to increased life expectancy, several generations live together and generational differences

can interfere in family dynamics⁽⁸⁾. The younger individuals may have little idea about the aging process and often do not consider that they will also get old. In situations of conflict, the elderly often suffer the most, because they are more resistant to changes and find it more difficult to adapt, which can lead to isolation from other family members⁽⁹⁾.

The family context is permeated by affective relationships, and the quality of these relationships will reflect the care provided to its members. For the elderly to be able to enjoy better living conditions, there must be affection, respect and care in family life. Affection, mutual help and understanding are crucial to the elderly person's quality of life^(9,10).

Family functioning is understood as a harmonic relationship and balance between the relationships of the family members, i.e., the way its members act together and with others. Everything that affects one of the family members can impact others⁽¹¹⁾.

From the perspective of family functioning, families can be classified as functional or dysfunctional. They are considered functional or mature when they respond with emotional stability when faced with conflict and criticism, and its members are able to live in harmony, maintaining independence, however being committed to each other. Governed by bonds of affection and responsibility, such families are flexible but firm, and their relationships are based on respect, knowledge and understanding. These families play a key role in care of the elderly⁽¹¹⁾.

In dysfunctional or immature family systems, the members prioritize their individual interests to the detriment of the family group. They do not assume their roles, and blame their own family in crisis situations. The bonds are superficial; aggression and hostility are common. Dysfunctional families can be different types: a clan (organized around one member), abandoning (worried about their own interests), distant (members always have a rational explanation to justify their absence at family obligations), or overprotective (protective to the extreme, which undermines the freedom and privacy of members)⁽¹²⁾.

The fact that the elderly person belongs to a certain family system affects his ability to resolve difficulties associated with aging. Immature and dysfunctional families cannot provide the necessary care for their elderly relatives. When it comes to depression, such families cannot provide the care and attention required, which can aggravate the clinical picture in the elderly⁽¹²⁾.

In depression treatment, social relationships with family members and friends are very important. Having a person at home with depression requires the family to adapt and organize itself to address the attitudes of the

patient. Financial support is important, but care for the elderly with depressive symptoms also includes listening, observation, care and support whenever needed. Understanding the functioning of the elderly with depression can subsidize planning of care in order to meet their social and health needs^(4,13).

This study aimed to classify families of the elderly with depressive symptoms regarding their functioning, and to ascertain the presence of association between these symptoms, family functioning and the characteristics of the elderly.

METHOD

This was an observational, analytical, cross-sectional study. The population consisted of elderly aged ≥ 60 years, of both sexes, attended by 33 units of the Family Health Strategy (FHS) at Dourados, MS (Brazil). According to the 2010 census⁽¹⁴⁾, Dourados had 17,805 people >60 years of age: 8,211 men and 9,594 women, of whom 8,701 (48.87%) were registered by the FHS.

The sample consisted of elderly with and without depressive symptoms assessed by the Geriatric Depression Scale (GDS). In both cases, the exclusion criteria were: elderly who were not found to be at home after two visiting attempts, and elderly with cognitive impairment, Alzheimer's or severe mental illness, which hindered the response to the data collection instruments. These conditions were reported to the researchers by FHS nurses, who knew the elderly individuals.

The initial sample size was set at 186 elderly patients in each group. The calculation was performed using a two-tailed test to compare two populations. The proportion of elderly in the groups with and without depressive symptoms was similar regarding age. When the chi-square test was performed, $p=0.311$ was obtained, confirming the relationship between the two groups. The number of elderly in each group was calculated based on the prevalence of elderly patients with depressive symptoms found in a previous study⁽¹⁵⁾, and the sample was stratified to ensure a proportion of elderly by FHS team.

Data collection occurred between November of 2012 and March of 2013. Family Health Strategy units were initially contacted by telephone and, after scheduling, one of the researchers visited the Health Unit for submission of the study.

In order to characterize the profile of the elderly and their families, a form with questions about sex, age, marital status, living arrangements (whether accompanied or alone), education, number of people residing in the same household, income *per capita*, physical activity and social participation was used.

The presence of depressive symptoms was assessed using the *Geriatric Depression Scale*, short version, with 15 questions (GDS-15), culturally adapted and validated in Brazil and reported by the Ministry of Health. For this study, the cut point of 5/6 (not case/case) was used. The total score between zero and five indicates absence of depressive symptoms and scores greater than or equal to six indicate the presence of depressive symptoms⁽¹⁶⁾.

For the assessment of family functioning, the *Family Apgar* was used, validated and adapted to Brazilian culture⁽⁶⁾. The instrument consists of five questions and response options ranging from rarely (zero) to almost always (two). The total score is obtained by adding the points for each item, and it relates to the condition of family functioning. A total score of seven to ten suggests good functioning; six to five, moderate family dysfunction, and between zero and four, high family dysfunction. We chose to group the results into two categories: good functioning (total score of seven to ten) and moderate to high dysfunction (score of six to zero).

Data were entered into a database and analyzed using the *Predictive Analytics Software* (PASW), version 18.0. Descriptive analysis was performed for quantitative and qualitative variables. To test the association between two categorical variables, Pearson's chi-square (χ^2) test was used. Those that presented a p -value < 0.05 were included in a multivariate logistic regression analysis. For adjustments and investigation of the statistical significance, the Wald test was used. Statistically significant differences were considered as $p < 0.05$.

The study was approved by the Ethics in Research Committee at EEUSP (Protocol 74374, CAAE 02147012.1.0000.5392, 2012) and approved by the Municipal Health Secretary of Dourados. The elderly were informed about the study objectives and data confidentiality. The interviews were made only after reading and signing of the consent form. All ethical aspects were abided by, according to CNS Resolution 196 /96.

RESULTS

Three hundred seventy-four elderly were interviewed, of whom 255 (68.2%) were female. The average age of participants was 71.8 years ($SD=7.9$, median=72), ranging from 60 to 100 years. Most were ≥ 70 years, living without a partner, had studied up to two years, lived with relatives, usually with one to three people, *per capita* income was half of a minimum wage, they did not exercise and did not engage in social activities. The characteristics that were individually associated with the presence of depressive symptoms were: female gender, living without a partner, sharing the household with four or more people, and no physical activity. The other variables were not significantly associated with depression (Table 1).

Table 1 - Distribution and association between the presence and absence of depressive symptoms, according to demographic and socioeconomic variables of the elderly assisted by the Family Health Strategy - Dourados, MS (Brazil), 2013

Variables	Elderly				Total (%)	p-value
	With depressive symptoms		Without depressive symptoms			
	N	%	N	%		
Age group						
60-69 years	76	46.9	86	53.1	162 (100.0)	0.297
≥70 years	111	52.4	101	47.6	212 (100.0)	
Gender						
Male	47	39.5	72	60.5	119 (100.0)	
Female	140	54.9	115	45.1	255 (100.0)	0.006*
Marital status						
With partner	75	41.7	105	58.3	180 (100.0)	
Without partner	112	57.7	82	42.3	194 (100.0)	0.002*
Education						
0-2 years of study	99	49.0	103	51.0	202 (100.0)	0.678
≥3 years of study	88	51.2	84	48.8	172 (100.0)	
Family arrangement						
Accompanied	150	49.8	151	50.2	301 (100.0)	0.896
Alone	37	50.7	36	49.3	073 (100.0)	
Number of people living together						
1-3 people	132	46.2	154	53.8	286 (100.0)	
≥4 people	55	62.5	33	37.5	088 (100.0)	0.007*
Revenue per capita						
Less than half of one MW**	27	56.3	21	43.8	048 (100.0)	0.243
Half of one MW	112	51.9	104	48.1	216 (100.0)	
More than one MW	48	43.6	62	56.4	110 (100.0)	
Physical activity						
Yes	34	36.2	60	63.8	094 (100.0)	
No	153	54.6	127	45.4	280 (100.0)	0.020*
Social activity						
Yes	26	40.0	39	60.0	065 (100.0)	
No	161	52.1	148	47.9	309 (100.0)	0.076

* statistically significant difference (p<0.05).

** MW – minimum wage at the time of study (R\$ 622.00).

The analysis of family dynamics of the 374 elderly identified 89 (23.8%) families with family dysfunction (Table 2).

Table 2 - Distribution of family functioning of the elderly assisted by the Family Health Strategy - Dourados, MS (Brazil), 2013

Functioning	N	%
Good functioning	285	76.2
Moderate/high functioning	89	23.8
Total	374	100.0

The assessment scores of family functioning were associated with elderly with and without depression. The presence of family dysfunction was significantly higher in cases of elderly patients with depression (p<0.001).

Table 3 - Distribution and association of the elderly with and without depressive symptoms, according to the Family Apgar classification - Dourados, MS (Brazil), 2013

Funcionality	Elderly				Total	p-value
	With depressive symptoms		Without depressive symptoms			
	N	%	N	%	N (%)	
Good functioning	118	41.4	167	58.6	285 (100.0)	<0.001*
Moderate/high functioning	69	77.5	20	22.5	089 (100.0)	

* statistically significant difference (p<0.05).

Table 4 presents the results of the analysis of depressive symptoms in relation to all variables, which showed a significant association.

Table 4 - Results of the logistic regression model for the presence of depressive symptoms in relation to the studied variables – Dourados, MS (Brazil), 2013

Variable	Categories	Coef(B)	OR[CI95%]	p-value
Gender	Male	0.63	1	0.012
	Female		1.87 (1.15-3.04)	
Number of people that live in the household	1-3 people	0.82	1	0.002
	≥4 people		2.26 (1.34-3.82)	
Family Apgar	Good functioning	1.68	1	<0.001
	Moderate/high functioning		5.36 (3.03-9.50)	
Constant		-2.194	0.111	<0.001

Estimate: log likelihood ratio=458.526; Nagelkerke $R^2=0.148$. Model adjustment: $X^2_{(8)} = 0.197$; $p<0.001$. Percentage of overall correct classification = 65.5.

After application of a multivariate logistic regression model, the variables that remained significantly associated were: gender, number of people living in the household, and family functioning.

It was found that older women were 1.87 times more likely to suffer from depressive symptoms than older men (95% CI = [1.15 to 3.04]). Among those who shared a household with four or more people, the chance was 2.26 higher (95% CI = [1.34 to 3.82]) when compared to those who lived with one to three people. In cases of family dysfunction, the chance of older people experiencing depressive symptoms was 5.36 times higher (95% CI = [3.03 to 9.50]), compared to those who had good family functioning.

DISCUSSION

Depression is considered a post-modern disease, associated with the characteristics of current life. However, it is often underdiagnosed in the elderly, in whom symptoms of depression are mistaken for normal features of aging.

A prospective study performed in two large primary care clinics that assisted needy American, Hispanic and African individuals identified 75.3% were depressed people, of whom only 31.0% had a diagnosis of depression. The study also showed that only self-reported suicidal thoughts or ideations, insomnia or hypersomnia were significantly associated with the diagnosis of depression. The sensitivity for the diagnosis only increased when there was a functional impairment associated with depression symptoms⁽¹⁷⁾.

In contrast, a study with individuals ≥50 years in Africa evidenced association of depression with chronic conditions, such as angina, asthma, arthritis, changes in sleep pattern, functional disability, and poor quality of life⁽¹⁸⁾.

An investigation conducted with 587 Japanese elderly ≥65 years found that symptoms of depression were strongly associated with an increased incidence of decline in Basic Activities of Daily Living (ADL), which means it could interfere with activities such as preparing meals, eating and bathing. Moreover, it could affect how the elderly managed their own money and reduced their participation in social activities⁽¹⁹⁾.

A previous study with a Chinese community showed that lack of basic health insurance significantly increased the risk of depression, because health expenditures were high and added to other household expenditures, such as education and livelihood, making them more vulnerable to illness⁽²⁰⁾.

In Brazil, despite having a universal free-access health care service, lack of information means that many users do not seek assistance. In depression, lack of care can negatively interfere with other aspects of life and increase the number of comorbidities, making the health situation even worse.

Professional Family Health teams play an important role in identifying, diagnosing and monitoring cases of depression in their coverage areas. One of the priorities for primary care is monitoring of mental illness through holistic care that considers both individual aspects and the family context to respond to the health needs of people with depressive disorders, especially elderly.

In the present study, the results showed that having an elderly individual at home with depressive symptoms required family participation in the care process. Elderly people with such symptoms might neglect self-care, which could compromise their health status and result in increased morbidity and dependence. This required that families reorganized themselves to face the disease⁽¹³⁾.

In the analysis of family functioning, highly functional families were identified from the elderly people's point of view, who proved satisfied with the relationship between their families, and which suggests that these families are prepared to respond to conflicts, manage problems and maintain the autonomy of their members. However, 23.8% of the families were considered to be moderately or highly dysfunctional.

In a study conducted in Fortaleza with 80 elderly people, 83% reported good family functioning, but 7.5% and 8% had moderate and high dysfunction, respectively. Among the elderly who lived alone, the percentage of family dysfunction increased to 20%⁽²¹⁾.

Similar results were observed in elderly patients with depressive symptoms who attended a clinic in Cali, Colom-

bia, where the percentage of families with mild dysfunction was 29.4 %, of which 7.3% had high dysfunction⁽²²⁾.

In Portugal, among 210 elderly, it was found that family support directly affected the quality of life of the elderly, i.e., the higher the family functioning, the better their quality of life⁽¹¹⁾.

This investigation found a significant association between family functioning and the presence of depressive symptoms. A literature review on the subject revealed higher prevalence of dysfunction in families of dependent elderly, and that compromising of family dynamics exerted a negative influence on the quality of life of older people⁽²³⁻²⁴⁾.

In a study conducted in the Northeast with elderly dependents, 73.5% reported compromised family dynamics, with moderate functioning being frequent, present in 46.1% of families⁽²³⁾. Another study with depressed and non-depressed elderly Chinese individuals also found an association between family functioning and depressive symptoms⁽²⁵⁾.

Family dysfunction can be explained in the light of constant transformations of the Brazilian society, which has caused changes in the structure of families, both in relation to living with different generations due to increased life expectancy, and in relation to the different roles between its members⁽²⁶⁾. These changes have impacted families, both emotionally and financially, and influenced how they care for the elderly⁽⁷⁾. Families are getting smaller and women no longer stay home, because they are in the labor market, which reduces the possibility of performing care activities or offering to the elderly the support and attention they need⁽²⁷⁾.

The family is the main source of support and assistance to which its members turn when they are in need. It is expected that the family acts as a protective factor for its weakest members, such as children and the elderly, and that it will act to meet their needs⁽⁹⁾. In Brazil, however, there is a reversal of expectations: the poorest families rely on the retirement of the elderly, which often is the main family resource⁽²⁸⁾.

Family dysfunction results in difficulty solving problems of everyday life, which creates tension and disharmony. Poverty, for example, contributes to the breakdown of the family: a study of elderly living in different contexts of social vulnerability showed that the elderly living in environments of poverty had higher rates of family dysfunction. The struggle for survival influences family dynamics. Moreover, the family is exposed to social injustice and violation of rights. One possible consequence of these conditions is the distance between its members, whose capacity to love and respect has been compromised⁽²⁹⁾.

There are families that are little prepared to meet the needs of an elderly person and that, due to relationship

problems, do not provide him with affection and protection. There are those in which different obligations lead them to neglect the care of their elders. Others are concerned about the elder person and are interested in giving him attention and protection, but they do it in an extreme way, invading his privacy and compromising his autonomy, believing that they are protecting him⁽¹²⁾. Living in a dysfunctional family can cause psychological distress and lead the elderly to isolation, development of, or even worsening of, depressive symptoms⁽⁹⁾.

The association between depressive symptoms and family dysfunction in the present study leads to the inference that such symptoms may originate or worsen within the family. Whatever may be the cause of depressive symptoms, their presence changes family dynamics⁽⁵⁾.

CONCLUSION

Most elderly were female, with a mean of 71.8 years of age, married, Catholic, with low educational level, and were retired. Only 25.1% reported physical activity. The proportion of depressive symptoms found was 41.5%. Regarding family functioning, 77.5% of elderly with depressive symptoms were members of families with some degree of dysfunction. There was a significant association between family dysfunction and depressive symptoms.

In this elderly population, women were 1.87 times more likely to have depressive symptoms than men; those who lived in the same household with ≥ 4 people were 2.26 times more likely than those who shared the household with < 4 people. The elderly who lived in dysfunctional families were 5.36 times more likely to have depressive symptoms than those whose families were considered functional, which emphasizes the role of family functioning in the generation or maintenance of depressive symptoms in the elderly.

These findings can contribute to direct actions of health professionals in the FHS, so that they consider family dynamics in planning their actions, in order to avoid or mitigate worsening of depressive symptoms in the elderly. A functional family may represent an effective support for older people with depressive symptoms, because it is an environment of comfort that ensures the well-being of its members. A dysfunctional family can barely provide the necessary care for the elderly, which can exacerbate depressive symptoms, resulting in inadequate and difficult care.

A detailed knowledge of the environment and family dynamics of the elderly with depressive symptoms is required. From the point of view of care, these families are those who mostly need effective assistance. We stress the importance of use of the *Family Apgar* by FHS professionals in order to assess family relationships in the care of the elderly.

Study limitations

This study presents some limitations to be overcome in further investigations. These include: the cross-sectional method, the relatively small sample size, and a potential selection bias in favor of active elderly, who may not be representative of the elderly population. Another refers to the pairing of older people with and without depressive symptoms, in which the difficulties in identifying elderly patients

with such symptoms were an obstacle to the detailed pairing of some variables, such as gender and marital status.

Further research on variables that were not significant and others that were not the subject of this investigation is needed. It is also suggested that further studies on the topic include elderly of varied socioeconomic situations, taking into account the heterogeneity of the social conditions in Brazil.

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