

Psychological Distress among Family Caregivers of Patients with Mental Disorders in Federal Neuropsychiatric Hospitals in Nigeria

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Received : December 8, 2021

Published : January 05, 2022

ABSTRACT

Objective: The aim of this study was to assess the psychological distress and the associated factors among family caregivers of mentally ill patients in two selected hospitals in South East Nigeria. **Method:** Descriptive Cross-sectional design was used for this study. Data were collected using standard instrument, Kessler psychological distress scale (K10) which was administered to the sample size of 103 selected through systematic random sampling technique. Descriptive statistical method was used to analyze data on socio-demographic variables and the prevalence of the psychological distress while Kruskal Wallis test was used to test the hypotheses at the confidence interval of 95%. **Result:** Overall prevalence of psychological distress among the respondents was 58.3% comprising of mild (4.2%), moderate (29.1%) and severe distress (25%). Gender of a family caregiver and psychiatric diagnosis of a patient relative were found not to be correlated to psychological distress. However, the age of family caregivers, education, relationship, occupation and their marital status were found to be positively correlated ($p < 0.05$) to psychological distress. **Conclusion:** Care related psychological distress is common amongst the respondents and calls for policy adjustment by the management of the psychiatric hospitals assessed in order to promote psychological wellbeing of the family caregivers. Socio-demographic variables such as age, gender and marital status are correlated with development of distress among the respondents.

Keywords: Psychological distress, family caregivers, mental disorders.

INTRODUCTION

Globally, over 450 million individuals suffer from mental

disorders with projected increase by 2030 mostly in developing countries (Whiteford, 2013). There are increasing cases of mental disorders across all works of life and age range with depression being the most common with 300 million cases (WHO, 2017). Systematic and meta-analysis involving studies from 59 countries of the world reported a pooled lifetime prevalence of mental disorders among young adults at 29.2% with more in developing than developed countries (Steel et al., 2014; Leng, Xu, Nicholas, Nicholas, & Wang, 2019). About 40% of the countries in the world do not have any mental health policy nor do their yearly program for health include mental health issues (WHO, 2001). In most developing countries, the conditions of living are far below standard, sources of psychological trauma and emotional upset are on the increase resulting in overwhelming rate of mental disorders across countries (Njaka and Ezeruigbo, 2021). In Nigeria for instance, about 20-30% of her population suffer from mental disorders with about one in four persons having mental disorders (WHO, 2006). Nigeria was ranked 5th in the world among countries with suicide (WHO, 2006). There is no policy on mental health in the country, implementation of deinstitutionalization policy of world health organization is yet to be taken seriously, this is a serious problem that must be handled seriously (Onyemalukwe, 2016). This therefore makes it necessary for this study to assess the psychological wellbeing of the informal caregivers as to generate evidence for policy advocacy.

Mental disorders are threats to the psychological, behavioural, functional and sociological wellbeing of individuals often resulting in visible changes (Chang, Zhang, Jeyagurunathan, Lau, & Sagayadevan, 2016). These changes often demand prolonged period of care and support from both the experts and the relatives to bring about return to normalcy. Caring for others with mental disorders could be physically, emotionally, psychologically, and financially demanding resulting in serious effect on the caregivers (Seid, Demilew, Yimer, & Mihretu, 2018; Chang et al., 2016). With current efforts to implement the deinstitutionalization of mental health care as recommended by WHO (2001) in order to ensure rehabilitation and community acceptance of their own in developing countries, more responsibility of care is being placed on the family caregivers (Chan & O'Brien 2011; Sherilyn et al., 2016). Family caregivers are individuals who are involved in the daily care for relatives that have mental disorders (Leng et al., 2019). Caregiving is a very broad based concept with enormous responsibility such as emotional support and assistance with the day to day activities of living (Kumar & Varghese, 2019).

It is often emotionally, and financially challenging (Seid et al., 2018). These family caregivers of relatives with mental disorders could encounter numerous psychological problems like depression, anxiety; feeling of helpless and hopeless, and feeling of excess burden (Cuijpers, 2005; Cucciare, 2010; Fonareva & Oken, 2014; Seid et al., 2018; Leng, Xu, Nicholas, Nicholas, & Wang, 2019).

Many informal caregivers of relatives with mental disorders have reportedly presented features of mental disorders on account of caring distress. The prevalence of psychological distress among family caregivers in developed countries ranged from 15% to 80% across studies with more cases found in females than males (Cuijpers, 2005; Cucciare et al., 2010; Fonareva & Oken, 2014). Studies have linked some factors to the increasing rates of psychological distress among informal caregivers of people with mental disorders. Such factors include lack of social support system for mental disorders, stigma in addition to the financial, spiritual and physical burden of caring for the people (Ae-ngibise et al., 2015; Johnson, 2015). Study has reported more cases of mental distress among female caregivers than males, age, employment status and others were associated with mental distress (Seid et al., 2018)

Despite the high rate of mental disorders in the developing countries and the reported evidence of psychological and other distress among family caregivers (Seid et al., 2018; Leng et al., 2019), there is paucity of research studies on the burdens of caregiving especially psychological distress among family caregivers in most developing countries like Nigeria as to ensure smooth implementation of mental health service deinstitutionalization. Given the peculiarity of different countries and their cultures, studies carried out in other countries may not be effectively applied in another country hence there is need for country-based assessment of the distress associated with mental health care as to develop strategies to curbing them. Findings from this study would add to the existing body of knowledge on the subject matter thereby providing a widely source empirical evidence on the distress of care across the world. This study aims to assess the psychological distress and the associated factors among family caregivers in mental health care hospitals in Nigeria.

MATERIALS AND METHOD

Study design

An institutional based cross-sectional descriptive survey

method was adopted in carrying out this study.

Study Population

The study population were all family caregivers of patients with mental disorders in the two neuropsychiatric hospitals in South-eastern Nigeria during the study period.

Inclusion and Exclusion Criteria

All family caregivers of patients with mental disorders in the two hospitals; caregiver between 18 years and above in age were included in the study.

All family relatives without direct care role for the patients; those with pre-existing mental disorders and those who could not hear nor speak were excluded from the study.

Sample Size and Sampling procedure

The sample size consisted of 103 caregivers estimated using formula for proportion at confidence interval of 95%. $n = p(1-p)(Z/E)^2$. P=proportion, n=sample size, Z= standard normal distribution, E= precision.

$$P = 0.271 \text{ (Seid et al., 2018)}$$

$$E = 0.09$$

$$Z = 1.96$$

$$N = 0.271(1-0.271)(1.96/0.09)^2$$

$$N = (0.271 \times 0.729)(21.8)^2 ; n = 94.$$

An attrition of 10% was added to cover for possible dropout making a sample size of 103 respondents.

Sampling procedure

The systematic random sampling was used to select the required sample size. The respondents were selected through randomly selected number (2) using SPSS software. Every second caregiver was selected to participate in the study.

Instrument for data collection

This study utilized structured questionnaire to collect data on the socio-demographic variables while standardized tool, Kessler psychological distress scale (K10) was used as the instrument for assessment of psychological distress. A K10 score of 10 or greater is optimal for screening purposes (sensitivity = 86%; specificity = 83%), while a score of 17 or greater (sensitivity = 53%; specificity = 97%) is optimal for prevalence estimation of clinically significant psychological distress, in that it resulted in equal numbers of false positives and false negatives which suggests that K10 scale has satisfactory psychometric properties for use as a measure of non-specific psychological distress in a population as shown by the work done by¹⁸. K10 has Cronbach's alpha value of 0.93 (Seid et al., 2018).

Data Analysis

The data were entered and analysed using SPSS version 26. Descriptive statistics was used to summarize and present in tables the socio-demographic characteristics of the respondents. The prevalence of psychological distress were categorized into well, mild, moderate and severe distress and presented in tables. Kruskal Wallis test was used to test the association between the socio-demographic variables and psychological distress among caregivers at significance level of 0.05.

Ethical consideration

Ethical approval for this study was obtained from the Ebonyi state University ethical committee and the ethical committee of the two neuropsychiatric hospitals. The approval letter was used to approach the respondents. Consent form was signed by the respondents following explanation of the purpose of the study. The respondents were not forced but were asked to decide voluntary participation. Confidentiality was kept by making ensure that personal identifying data were omitted from the questionnaire. Only the research team had access to the collected data.

RESULTS**Table 1:** Socio-demographic variables of family caregivers

Factors	Frequency	Percentage	N=96
Age (Year)			
18-24	20	20.8	
25-34	32	33.3	
35-44	4	4.2	
45 & above	40	41.7	
Gender			
Female	84	87.5	
Male	12	12.5	
Marital Status			
Single	36	37.5	
Married	36	37.5	
Widowed	24	25	
Religion			
Traditional	44	45.8	
Christian	52	54.2	
Education			
Non-formal	16	16.6	
Primary	36	37.5	
Secondary	24	25	
Tertiary	20	20.8	
Occupation			
Employed	4	4.2	
Business	16	16.6	
Farmer	32	33.3	
House Wife	4	4.2	
Unemployed	4	4.2	
Trader	16	16.6	
Student	20	20.8	

Residence

Urban	48	50
Rural	44	45.8
Semi-urban	4	4.2

Admission

First	64	66.7
Multiple times	32	33.3

Duration of care

1 week	36	37.5
2 week	24	25
3 week	12	12.5
4 week	4	4.2
1 year	12	12.5
4 years	8	8.3

Relationship

Spouse	8	8.3
Parent	40	41.6
Sibling	32	33.3
Others	16	16.7

From the above table 87.5% were females while 12.5% were males. Majority of the caregivers were above 45 years of age followed by those between 25-34 years of age. Equal numbers (37.5%) were married and single while educationally, majority had primary (37.5%) and secondary education followed by tertiary education (20.8%) while 16% had no form of

education. Occupationally, majority of the respondents were farmers (33.3%) and students (20.8%), 16.6% were traders and employed respectively while 8.4% were house wife and unemployed. About 50% reside in the urban area while 45.8% and 4.2 lived in the rural and semi-urban respectively.

Table 2: Prevalence of psychological distress among family caregivers

Level of distress	Mean Score	Frequency	Percentage N=96
Well Psychological State	0-19	40	41.7
Mild Mental Distress	20-24	4	4.2
Moderate Mental Distress	25-29	28	29.2
Severe Mental Distress	30-50	24	25

From the above table, the overall prevalence of psychological distress among family caregivers of patients with mental illness was 58.4% (n = 56). Out of the 58.4% family caregivers, 4.2% (n = 4), 29.2% (n = 28) and 25% (n = 24) had mild, moderate and severe types of psychological distress respectively.

Table 3: Distribution of psychological distress according to study variables

Variable	well	Mild distress	Moderate Distress	Severe Distress	Total: N=96
Age Range					
18-24 years	8(8.33%)	0(0%)	4(4.2%)	8(8.33%)	20(20.8%)
25-34 years	8(8.33%)	4(4.2%)	12(12.5%)	8(8.33%)	32(33.3%)
35-44 years	0(0%)	0(0%)	0(0%)	4(4.2%)	4(4.2%)
>44years	24(25%)	0(0%)	12(12.5%)	4(4.2%)	40(41.7%)
Diagnosis					
Depression	8(8.33%)	4(4.2%)	4(4.2%)	0(0%)	16(16.7%)
BAD	8(8.33%)	0(0%)	4(4.2%)	8(8.33%)	20(20.8%)
Schizophrenia	12(12.5%)	0(0%)	8(8.33%)	8(8.33%)	28(29.2%)
Substance Use Disorders	8(8.33%)	0(0%)	12(12.5%)	4(4.2%)	24(25%)
Others	4(4.2%)	0(0%)	0(0%)	4(4.2%)	8(8.33%)
Marital Status					
Single	12(12.5%)	4(4.2%)	16(16.7%)	4(4.2%)	36(37.5%)
Married	12(12.5%)	0(0%)	8(8.33%)	16(16.7%)	36(37.5%)
Widow	16(16.7%)	0(0%)	4(4.2%)	4(4.2%)	24(25%)

Education

Uneducated	16(16.7%)	0(0%)	0(0%)	0(0%)	16(16.7%)
Primary	12(12.5%)	4(4.2%)	8(8.33%)	12(12.5%)	36(37.5%)
Secondary	8(8.33)	0(0%)	12(12.5%)	4(4.2%)	24(25%)
Tertiary	4(4.2%)	0(0%)	8(8.33%)	8(8.33%)	20(20.5%)

Occupation

Employed	0(0%)	0(0%)	0(0%)	4(4.2%)	4(4.2%)
Own Business	12(12.5%)	4(4.2%)	0(0%)	0(0%)	16(16.7%)
Farmer	16(16.7%)	0(0%)	4(4.2%)	12(12.5%)	32(33.33%)
Housewife	0(0%)	0(0%)	4(4.2%)	0(0%)	4(4.2%)
Unemployed	0(0%)	0(0%)	0(0%)	4(4.2%)	4(4.2%)
Trader	8(8.33%)	0(0%)	4(4.2%)	4(4.2%)	16(16.7%)
Student	4(4.2%)	0(0%)	16(16.7)	0(0%)	20(20.5%)

Residence

Urban	20(20.5%)	4(4.2%)	16(16.7%)	8(8.33%)	48(50%)
Rural	20(20.5%)	0(0%)	12(12.5%)	12(12.5%)	44(45.8%)
Semi-urban	0(0%)	0(0%)	0(0%)	4(4.2%)	4(4.2%)

Relationship

Spouse	0(0%)	0(0%)	4(4.2%)	4(4.2%)	8(8.33%)
Parent	24(25%)	4(4.2%)	0(0%)	12(12.5%)	40(41.7%)
Sibling	8(8.33%)	0(0%)	16(16.7%)	8(8.33%)	32(33.33%)
Others	8(8.33%)	0(0%)	8(8.33%)	0(0%)	16(16.7%)

Gender

Female	36(37.5%)	4(4.2%)	24(25%)	20(20.5%)	84(87.5%)
Male	4(4.2%)	0(0%)	4(4.2%)	4(4.2%)	12(12.5%)

Referring to the table above, more females than males had psychological distress among family caregivers 50% (n = 48) and 8.3% (n = 8) respectively. The rate of the distress was also found to vary across age range with more cases in individual between the age range 25-34 (25%) followed by individual above 44 years of age (16.7%). Caregivers of people with

schizophrenia had the highest rate of the distress. Similarly, the prevalence of psychological distress among family caregivers of patients who were married and single were highest at 25% (n = 24) compared to family caregivers of patients who were widowed at 8.3% (n = 8). More distress was found among urban dwellers than rural and semi-urban dwellers.

Table 4: Post- Hoc kruskal Wallis Test for the Socio-demographic Variables

Variables	N	Mean	X ² (df)	P- value
Age:				
18-24 years	20	24.90	0.366(1)	0.545
25-34 years	32	27.50		
18-24 years	20	24.90	9.815(2)	0.007*
35- 44 years	4	52.50		
18-24 years	20	51.30	16.131(3)	0.001*
>44 years	40	38.30		
25-34 years	32	16.75	8.107(1)	0.004*
35-44 Years	4	32.50		
25-34 Years	32	43.25	14.021(2)	0.001*
>44 Years	40	31.50		
35-44Years	4	40.50	8.828(1)	0.003*
>44 Years	40	20.70		
Marital Status:				
Single	36	31.61	3.961(1)	0.05
Married	36	41.39		
Single	36	44.50	6.455(2)	0.040*
Widow	24	40.83		
Married	36	34.72	5.340(1)	0.021*
Widow	24	24.17		
Education:				
Uneducated	16	11.50	23.085(1)	0.000*
Primary	36	33.17		
Uneducated	16	13.50	26.216(2)	0.000*
Secondary	24	44.50		
Uneducated	16	14.00	32.148(3)	0.000*
Tertiary	20	63.70		
Primary	36	30.94	0.059(1)	0.808
Secondary	24	29.83		
Primary	36	38.94	3.044(2)	0.218
Tertiary	20	48.10		
Secondary	24	19.17	3.633(1)	0.057
Tertiary	20	26.50		
Occupation				
Employed	4	18.50	9.500(1)	0.002*
Business	16	8.50		
Employed	4	46.50	8.904(2)	0.012*
Farmer	32	26.50		
Employed	4	50.50	10.963(3)	0.012*
Housewife	4	34.50		

Employed	4	54.50		
Unemployed	4	42.50	14.138(4)	0.007*
Employed	4	70.50		
Trader	16	32.50	15.032(5)	0.010*
Employed	4	90.50		
student	20	49.70	20.331(6)	0.002*
Own Business	16	21.50		
Farmer	32	26.00	1.121(1)	0.290
Own Business	16	21.50		
Housewife	4	34.50	3.214(2)	0.200
Own Business	16	21.50		
Unemployed	4	42.50	6.632(3)	0.085
Own Business	16	29.00		
Trader	16	32.50	6.539(4)	0.162
Own Business	16	31.50		
Students	20	49.70	11.579(5)	0.041*
Farmer	32	18.50		
Housewife	4	18.50	0.000(1)	1.000
Farmer	32	20.00		
Unemployed	4	18.50	1.248(2)	0.536
Farmer	32	29.75		
Trader	16	24.00	2.997(3)	0.392
Farmer	32	40.00		
Student	20	35.70	4.990(4)	0.297
House wife	4	2.50		
Unemployed	4	6.50	7.000(1)	0.008*
Housewife	4	10.50		
Trader	16	11.50	3.614(2)	0.164
Housewife	4	26.50		
Student	20	20.10	7.775(3)	0.051
Unemployed	4	14.50		
Trader	16	9.50	2.375(1)	0.123
Unemployed	4	34.50		
Student	20	19.30	6.516(2)	0.038*
Trader	16	17.50		
Student	20	19.30	0.265(1)	0.607
Residence:				
Urban	48	46.67		
Rural	44	46.32	0.004(1)	0.950
Urban	44	47.00		
Semi-urban	4	82.50	6.261(2)	0.044*
Rural	44	23.23		
Semi-urban	4	38.50	4.423(1)	0.035*
Relationship:				
Spouse	8	32.50		
Parent	40	22.90	3.211(1)	0.073
Spouse	8	54.50		
Sibling	32	47.00	10.241(2)	0.006*
Parent	40	30.10		
Sibling	32	44.50	8.520(1)	0.004*
Parents	40	35.70		
Others	16	42.00	12.364(2)	0.002*
Sibling	32	28.75		
Others	16	16.00	9.031(1)	0.003*

From the table above Kruskal wallis test revealed significant association between study variables and the development of psychological distress among family caregivers of patients with mental disorders. Age (0.001), marital status (0.040), education (0.000), occupation (0.002), residence (0.044) and relationship (0.001) were significantly correlated with psychological distress among family caregivers of people with mental disorders while gender ($p=0.477$) and diagnosis ($p=0.053$) had no significant association with psychological distress.

DISCUSSION

The overall prevalence of psychological distress among family caregivers of patients with mental illness was 58.3% ($n = 56$) with 54% having moderate to severe psychological distress. This result means that more risk for mental disorders exist among family caregivers or increasing cases of mental disorders are being produced by the use of family members as caregivers of mentally ill people. This implies that in choosing a family caregiver, one must be guided to choose an age appropriate family member and provide strong social supports for them and the hospital should adjust their policy and make use of trained personnel in caring for the mentally ill. This has the tendency to increase the mental disorders across most developing countries where efforts are being made to implement community based mental health care which entails more caregiving responsibility on the family members. This agrees with cross-sectional studies done on psychological distress and its correlates by (Hui, Norhayati & Suzaily 2016; Sintayehu et al., 2015; Nuhu et al., 2010). This also agrees with a report by (Sintayehu et al., 2015) on prevalence of mental distress and associated factors among 423 family caregivers of patients with severe mental illness in the outpatient unit of Ammanuel hospital Addis Ababa, Ethiopia showed the overall prevalence of mental distress to be 221 (56.7%) of the study population although higher prevalence in Nigeria. The result above is higher than that of a similar study in china which revealed the prevalence of mental distress to be 53% among family caregivers of people with severe mental disorders (Sun, Ge, Meng, Chen, & Liu, 2019); 42.31% reported in similar study in India (Kuchhal, Kuchhal, Arya, & Pardal, 2019) and 27.1% prevalence found in Ethiopia (Seid et al., 2018) and 24% rate of moderate to severe depression among family caregivers (Kumar & Varghese, 2019). However the findings of this study is lower than that of a study of mental distress among family caregivers in Hong Kong in which 78.0%, 49.8% and 45.8% of caregivers experienced anxiety, reduced socialising and insomnia, respectively (Wan & Wong, 2019). This difference

may be accounted for by differences in social support and level of stigma against mental health care and disorders.

More case of mental distress associated with caring role was in females (50%) than males (8.3%) serving as family caregiver to the mentally ill patients, more in single and married than the widows, the farmers reported higher cases than every of occupation. The educated group of caregivers had the highest rate compared to the uneducated family caregivers who reported 0% cases of psychological distress. Career structure, personality and social network would also contribute to this socio-demographic difference in prevalence of mental distress among family caregivers of people with mental disorders. This agrees with the finding of the study on burden of mental health care on the family caregiver in which more females than males reported higher burden (Leng et al., 2019) and that of a study on quality of life and depression among family caregivers in which more cases were reported among the educated than the uneducated (Kumar & Varghese, 2019). This result however contradicts with the study by Hatice & Kizil (2017) which focused on primary caregivers of schizophrenia outpatients: burden and its correlates in India which found that more male caregivers suffered significantly more burden than the females.

Furthermore, the prevalence of psychological distress among family caregivers of patients with mental illness was highest with patients who were diagnosed with peculiar psychiatric disorders like schizophrenia and substance use disorder at 16.7% ($n = 16$) for each. This denotes that more severe mental disorders exert more impacts on the caregivers. This agrees with cross-sectional studies by (Sintayehu et al., 2015; Koujalgi & Patil, 2013; Hatice & Kizil, 2017) on the prevalence of psychological distress among family caregivers of patients with mental illness. It could also be attributed to the facts that some mental disorders definitely demands longer period of care and would not allow the carers explore other areas of life during the care period.

This study revealed statistically significant association between socio-demographic variables such as age ($p<0.001$), marital status ($P<0.040$), level of education ($P<0.000$), occupation ($P<0.002$), residence ($P<0.044$), relationship ($P<0.001$) and development of psychological distress among family caregivers of patients with mental disorders as shown in table 3 above but does not show any significant association between diagnosis ($P<0.053$), gender ($P<0.477$). These findings agreed with other studies in other countries (Kumar & Varghese, 2019;

Leng et al., 2019; Seid et al., 2018). Therefore, these variables should be put into consideration while assigning assistive roles to the family caregivers of patients with mental disorders.

CONCLUSION

There is high prevalence of psychological distress among family caregivers of relatives with mental illness in the southeastern Nigeria. Socio-demographic variables of age, education, marital status, residence, occupation, relationship were significantly associated with psychological distress among family caregivers. This implies that some key socio-demographic as above should be kept in mind by the psychiatrist in the choice of family members who would stay with relatives during the course of management.

CLINICAL RELEVANCE

In many developing countries, efforts are being made to implement the deinstitutionalization of mental health services as adopted by WHO 2001, this therefore entails more involvement of family members in the care of the mentally ill relatives. This study therefore calls on the mental health nurses and other mental health team to periodically assess family members involved in the active management of the patients to save them of this overwhelming distress so that efforts at caring for mentally ill would not result in more harm than good. The mental health team should apply wisdom in the choice of family caregivers with focus on the socio-demographic correlates of mental distress as implicated in this study.

While focusing attention on the patient being managed by the health care team, attention should periodically be given to the family caregivers in terms of psychological support, health education and other forms of encouragement that would help cushion the effect of the disorders on them.

Significant Outcome:

- Family member involvement in psychiatric care poses serious threat to the wellness of the individual family member mainly in developing countries where policy encourages family members' involvement.
- Socio-demographic variables correlated significantly with distress development in family caregivers, policy adjustment to be necessary to avoid multiplication of disorders.

Limitation:

- The readers should exercise caution in the application of the result of this study in other areas of health since it focused on psychiatry health care setting excluding other areas of health.
- The small number of participants also poses another limitation in the generalization of the findings across psychiatric settings.
- The quantitative approach employed in this study may not have allowed the respondents to truly express their feelings hence may have not revealed entire problems.

ACKNOWLEDGEMENTS

We wish to appreciate the management of the two Neuropsychiatric health systems for their permission to carry out the study and the ethical committee for their approval.

We sincerely appreciate the respondents for their time and willingness to grant us audience in the course of the data collection.

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Citation: Stanley N, et al. (2022). Psychological Distress among Family Caregivers of Patients with Mental Disorders in Federal Neuropsychiatric Hospitals in Nigeria. *Clin Res*. 3(1):03.

DOI: <https://doi.org/10.35702/clinres.10003>