

The relationship between expressed emotion and sociodemographic variables, early stress and stress symptoms in informal caregivers of people with mental disorders¹

Angélica da Silva Araujo^a , Tássia Ghissoni Pedroso^b 

^aUniversidade Federal de São Carlos – UFSCar, São Carlos, SP, Brasil.

^bUniversidade de São Paulo – USP, Ribeirão Preto, SP, Brasil.

Abstract: Introduction: Changes resulting in Brazilian psychiatric reform brought people with mental disorders closer to their families, who became responsible for the offer of care. Objective: The aim of this study was to investigate the expressed emotion, the early stress, and the stress symptoms among informal caregivers of people with mental disorders at the time of psychiatric hospitalization. Method: 112 caregivers participated. Four instruments were used to collect data: socio-demographic questionnaire, Family Questionnaire – Brazilian Portuguese Version (FQ-BPV), Childhood Trauma Questionnaire (CTQ) and Lipp Adult Stress Symptom Inventory (ISLL). Descriptive, bivariate and logistic regression analyses were performed. Caregivers were assessed with high emotion expressed both in the emotional over-involvement component and in the critical comments component. Results: The emotional over-involvement component of expressed emotion was significantly associated with early stress and stage of stress symptoms. Early stress, age, and the education level of caregivers were identified as predictive variables of high expressed emotion. Conclusion: These results confirm the relevance of these variables for the planning of care actions in the context of mental health.

Keywords: *Expressed Emotion, Caregivers, Stress, Psychological, Mental Health.*

A relação entre emoção expressa e variáveis sociodemográficas, estresse precoce e sintomas de estresse em cuidadores informais de pessoas com transtornos mentais

Resumo: Introdução: Mudanças geradas pela reforma psiquiátrica brasileira reaproximaram as pessoas com transtornos mentais de suas famílias, que passaram a ser responsáveis pela oferta de cuidados. Objetivo: O objetivo deste estudo foi investigar a emoção expressa, o estresse precoce e os sintomas de estresse entre cuidadores informais de pessoas com transtornos mentais no momento da internação psiquiátrica. Método: Participaram 112 cuidadores. Para coleta de dados foram utilizados quatro instrumentos: questionário sociodemográfico, *Family Questionnaire – Versão Português do Brasil*, Questionário sobre Traumas na Infância e Inventário de Sintomas de Estresse para adultos de Lipp. Foram realizadas análises estatísticas descritivas, bivariadas e de regressão logística. Os cuidadores foram avaliados com alta emoção expressa tanto no componente superenvolvimento emocional quanto no componente comentários críticos. Resultados: O componente superenvolvimento emocional da emoção expressa foi significativamente associado com o estresse precoce e com a fase dos sintomas de estresse. O estresse precoce, a idade e a escolaridade dos cuidadores foram identificadas como variáveis preditoras de alta emoção expressa. Conclusão: Esses resultados confirmam a relevância dessas variáveis para o planejamento de ações de assistência no contexto da saúde mental.

Palavras-chave: *Emoção Expressa, Cuidadores, Estresse Psicológico, Saúde Mental.*

Corresponding author: Angélica da Silva Araujo, Universidade Federal de São Carlos, Rodovia Washington Luis, Km 235, CEP 13565-905, São Carlos, SP, Brasil. e-mail: angelicadsaraujo@gmail.com

Received on Dec. 8, 2018; 1st Revision on Feb. 28, 2019; Accepted on Aug. 19, 2019.



1 Introduction

From the beginning of psychiatry as a science in the eighteenth century to the time of the psychiatric reform movements, psychiatric institutionalization was a resource used worldwide to deal with the social problem of madness. Generally far from urban centers, psychiatric institutions practiced isolation and exclusion, alienating the mentally ill from society and family justifying it as promoting therapeutic isolation and protecting the family from the behavior and disorder of the mentally ill person (GOMES; SILVA; BATISTA, 2018). The hospitalized person was deprived of any rights, for long years of deprivation of liberty.

Due to these practices often marked by abuse, the Brazilian psychiatric reform started in the late 1970s proposing significant and urgent changes in mental health care. The conceptions of the relationship between family and mental disorder began to be modified with the replacement of the hospital-centered model with a model composed of increasingly complex outpatient services, assigning the family a prominent role in the provision of care (GOMES; SILVA; BATISTA, 2018). Changes in Brazilian legislation have resulted in a significant decrease in long-term hospitalizations in psychiatric institutions, prioritizing treatment in community-based mental health services. Family members became the main caregivers and took responsibility for the physical, emotional, medical, and financial care of the mentally ill person, but often without the necessary preparation to deal with problem situations properly (SOUZA et al., 2017).

The difficulties in providing care to people with mental disorders by family members may be even greater during acute periods of the illness. The Psychosocial Care Network is currently composed of different services and equipment, especially the Psychosocial Care Centers (CAPS) (BRASIL, 2015). In this new scenario still under construction, one proposal is that cases of psychiatric crisis needing hospitalization are treated at CAPS III or in psychiatric beds in General Hospitals (BRASIL, 2015). CAPS III is opened 24 hours a day and offers night care to people in psychiatric crisis (BRASIL, 2015). In psychiatric beds in general hospitals, the proposal is to stabilize the psychiatric crisis with short-term hospitalizations. However, these two places have currently insufficient vacancies to meet the demands of the population, which makes psychiatric hospitals continue to coexist with the new services.

In the current context of paradigmatic changes in the provision of mental health care, many issues

still need to be explored, so the proposed work in out-of-hospital services is planned effectively, and especially the family and services are aligned to deal with the complexity of the issues involved. The provision of care by family members to people with mental disorders during periods of psychiatric crisis or acute mental disorder is one of the issues to be better explored.

The concept of Express Emotion (EE) is one of the ways to investigate the impact of mental disorders on the family, developed from the 1950s at the London Institute of Psychiatry (BROWN et al., 1962). EE is the quality of social interaction between family members, that is, the feelings that family members express about the person with a mental disorder (ZANETTI et al., 2018a). It is a qualitative measure of the emotions expressed daily in the family environment, by the family or by the caregivers (ZANETTI et al., 2018a). EE consists of critical comments (CC), emotional overdevelopment (EOD), and hostility. The CS component is the negative evaluations of family members about the behavior of the person with mental disorder; the EOD component is the feelings and attitudes of self-sacrifice, overprotection and hopelessness of family members for the person with mental disorder; and the hostility component, usually associated with CC, is the negative evaluations or contempt as a human being of the mentally ill person (BROWN; BIRLEY; WING, 1972; ZANETTI et al., 2018a).

EE is a relevant measure because several studies showed that people with mental disorders from families with high EE have a worse prognosis of the disease and more episodes of psychiatric acute than those from families with low EE (AHMAD et al., 2017; ZANETTI et al., 2018b).

Caring for a person with a mental disorder generates conflicting feelings and emotions and can be a stressful task, especially if the caregiver does not have adequate preparation or support. Selye (1950) defined stress as a set of reactions in an organism when it is subjected to the adaptation effort. In this author's stress theory, called "General Adaptation Syndrome" and reviewed by Lipp (2000), the stress has four phases: alarm, resistance, near-exhaustion, and exhaustion. According to Selye (1950) and Lipp (2000), if the source of stress is not removed or coping strategies are not adequately employed, a disease process begins, with symptoms that may be physical or psychological, such as diarrhea, blood hypertension, irritability, and distress, among others. National and international research indicated that caregivers are more susceptible to stressful events due to the interaction and activities that care

requires, especially in the case of chronic diseases (MARONESI et al., 2014; LITZELMAN; KENT; ROWLAND, 2016; TREASURE; NAZAR, 2016; RIGONI et al., 2016).

The experiencing stressful situations during childhood and adolescence as important periods of development could be one of the factors that might increase susceptibility to stress in adulthood. The concept of early stress involves several traumatic experiences during childhood and adolescence, such as violence, abuse (physical, emotional, and sexual) and neglect (physical and emotional) (MARTINS-MONTEVERDE; PADOVAN; JURUENA, 2017). International studies showed that early stress could negatively impact the development of brain structures and lead to permanent neurobiological and neuroendocrine changes that considerably increase the risk of both physical and psychiatric illness in adulthood (KRUGERS et al., 2017; NOLL; SHALEV, 2018).

Thus, the expressed emotion, the early stress, and the stress symptoms are important variables to consider in the care for family caregivers in the context of mental health. In Brazil, studies on EE are still scarce (ZANETTI et al., 2018a; MARTINS; LEMOS; BEBBINGTON, 1992), and no studies were identified investigating these variables in an articulated way in caregivers of people with mental disorders. Investigating how caregivers deal with the periods before a psychiatric crisis to be stabilized requiring hospitalization may provide important insights to plan new strategies to support this population, especially in outpatient services. Interventions based on the quality of the relationship between caregiver and the patient and the aspects that have an impact on this relationship can provide caregivers with tools to cope more effectively with crisis periods and may even prevent hospitalizations in some cases.

In this sense, this study aimed to investigate the expressed emotion, the early stress, and the stress symptoms among informal caregivers of people with mental disorders at the time of psychiatric hospitalization. We investigated the hypothesis that socio-demographic variables, the presence of early stress and the presence of stress symptoms in caregivers could be predictive of high EE in the CC and EOD components.

2 Method

2.1 Study type

This is a descriptive study with a quantitative approach and a cross-sectional design.

2.2 Participants

The participants were informal caregivers of people with mental disorders admitted in a state public psychiatric hospital located in the interior of the State of São Paulo/Brazil.

According to the Brazilian Classification of Occupations (BRASIL, 2019), caregivers are people who care for the well-being, health, food, personal hygiene, education, culture, recreation, and leisure of the assisted person. These caregivers may be formal and/or informal. Formal caregivers are the professionals trained or prepared in an educational institution to provide care through remuneration. The informal caregivers addressed in this study are the family members or friends who provide any assistance to the patient, without formal training to perform this task and generally without receiving any payment. In both cases, the provision of care involves the provision of assistance in different daily activities, from the simplest to the most complex.

In this study, all caregivers of people with mental disorders admitted from May to September 2015 were invited to participate.

The inclusion criteria were being the primary caregiver, be 18 years old or older, and agree to participate in the study within the first 15 days of admission.

Throughout data collection, 172 caregivers were candidates to participate. Forty-one of them were excluded for not meeting the inclusion criteria, and nine refused to participate. Another ten caregivers were excluded because they were unable to choose one of the answers to the questions asked at the time of collection, apparently not understanding the questions, hindering data collection. There was a final sample of 112 caregivers. Only one caregiver of each person admitted for hospitalization was included.

2.3 Procedures and data collection

The caregivers were invited at the time of hospitalization of the person with a mental disorder or after by telephone contact. The caregivers were informed about the objectives and procedures of the study and those who agreed to participate signed the Informed Consent Form.

Data collection was performed at the time of admission or after the caregiver visited the hospitalized person in a private hospital room to

ensure a private, welcoming, and interference-free environment.

The researchers read the instrument questions for all the participants who chose the answers on a previously prepared response card. The average time each participant took to answer all instruments was 30 minutes.

2.4 Instruments

2.4.1 Socio-demographic questionnaire

A socio-demographic questionnaire with 24 closed questions and prepared by the researchers was used to access general information from the caregiver, such as gender, age, educational level, and marital status, among others.

2.4.2 Express emotion

We used the Family Questionnaire - Portuguese Version of Brazil (FQ-VPB) to evaluate the expressed emotion translated and validated in Brazil by Zanetti, Giacon and Galera (2012) from the original instrument called Family Questionnaire (FQ), developed in Germany by Wiedemann et al. (2002).

The FQ-VPB contains 20 closed questions, subdivided into two components: critical comments (10 items) and emotional overdevelopment (10 items). The answers ranged from 1 (very rarely) to 4 (always), with a possible range of 10 to 40 points in each component. Caregivers are evaluated with high EE if they score 23 or higher in the CC component, or 27 or more in the EOD component (WIEDEMANN et al., 2002; ZANETTI et al., 2012).

2.4.3 Early stress

We used the *Questionário de Trauma na Infância* (QUESI) to assess early stress, translated and validated in Brazil by Grassi-Oliveira, Stein and Pezzi (2006) from the original instrument called Childhood Trauma Questionnaire (CTQ), developed in the United States by Bernstein et al. (1994).

This questionnaire accesses the occurrence of 5 subtypes of trauma retrospectively that occurred during childhood or adolescence. It consists of 28 closed questions, divided into 5 subcategories: emotional abuse (questions 3, 8, 14, 18, 25), physical abuse (questions 9, 11, 12, 15, 17), sexual abuse (questions 20, 21, 23, 24, 27), emotional

neglect (7, 13, 19, 28) and physical neglect (questions 1, 2, 4, 6, 26). Questions 10, 16, and 22 are related to the experience of minimization/denial of abuse. The answers range from 1 (never) to 5 (always), with a possible range of 5 to 25 in each trauma subtype. Early stress is classified as none to minimal, low to moderate, moderate to high, or high to extreme in each of the subtypes (BERNSTEIN et al., 1994).

2.4.4 Stress symptoms

The Adult Stress Symptom Inventory (ISSL) by Lipp evaluated the stress symptoms, developed and validated by Lipp and Guevara (1994), and standardized by Lipp (2000) for Portuguese.

Based on the principles of stress theory by Selye's (1950), it is used by young people and adults and assesses: a) whether the individual has symptoms of stress; b) what phase of stress he is in; c) what type of predominant symptoms (physical or psychological). It has 53 closed questions, divided into 3 tables for the four phases of stress: alert (chart 1, referring to the last 24 hours, with 15 questions); resistance and near-exhaustion (chart 2, last week, with 15 questions); exhaustion (chart 3 for the last month with 23 questions). The answers are yes/no, the affirmative answer is 1 point, and each negative answer is 0. The score result is the summing of the answers obtained in each of the charts. Charts 1 and 2 have a possible range of 0 to 15 points and chart 3 has a possible range of 0 to 23 points. The individual is evaluated with symptoms of stress if he has at least one of the following scores: 7 or more in chart 1; 4 or more in chart 2; 9 or more in chart 3. Lipp (2000) predefined a percentage identifying the phase in which the individuals with stress are and the type of predominant symptoms.

2.5 Statistical analysis

We used the Statistical Package for the Social Sciences (SPSS), version 22.0, for statistical analyses.

First, Cronbach's alpha coefficient was calculated to assess the reliability and internal consistency of the FQ-VPB, QUESI, and ISSL instruments. All instruments had Cronbach's alpha coefficients above 0.70, characterizing them as reliable for application in caregivers of people with mental disorders.

Then, descriptive analyses were performed for all study variables - percentages or averages and standard deviations, depending on the nature of the variables. Categorical variables (socio-demographic, EE in the CC and EOD components, early stress and stress symptoms) were analyzed by simple frequency.

To analyze the association between dependent (EE in the CC and EOD) and independent categorical variables (early stress and stress symptoms), Fisher's exact test was used. The Shapiro-Wilk test assessed the assumption of normality.

To investigate the dependent variables of predictors of CC components EOD and/or EE, stepwise logistic regression tests were performed in which the level of EE (high or low) was treated as the outcome variable.

For all analyses, the cutoff of statistical significance was $\alpha \leq 0.05$.

2.6 Ethical considerations

The study followed the determinations of Resolution N° 466, which regulates research with human beings in Brazil (BRASIL, 2012). The Research Ethics Committee of the University of São Paulo at Ribeirão Preto College of Nursing (protocol 052/2015) approved the study.

3 Results

All of the 112 participating caregivers were family members of patients admitted to the hospital, with a predominance of females (82%), mothers (54%), married (59%), with incomplete primary education (57%), and following a religion (84%). The average age was 49 years old (SD = 12.8).

In the CC component, 83% of caregivers were evaluated with high EE. The average score was 29.25 points (standard deviation = 7 points), with 13 being the lowest and 40 the highest score found.

In the EOD component, 87.5% of caregivers were evaluated with high EE. The average score was 33.38 points (standard deviation of 5 points), with 20 being the lowest and 40 the highest score found.

In the bivariate analyses, the results showed that there was a statistically significant association ($p \leq 0.05$) between the EOD component of EE and early stress, as well as between the EOD component of EE and the phase of stress symptoms (Table 1).

In the logistic regression analyses that verified what the variables investigated in this study could be predictors of EE, the results showed that the variables elementary school (complete or incomplete) and age were predictors of high EE in the CC component, while the early stress variable was predictor of high EE in the EOD component (Table 2).

Table 1. Association between EE, early stress, and stress symptoms in the caregivers.

Variable	CC component of EE		p ^a -value	EOD component of EE		p ^a -value
	high n (%)	low n (%)		high n (%)	low n (%)	
Early stress			0.99			0.00*
With early stress	48 (43.6)	10 (9.1)		56 (50.9)	2 (1.8)	
Without early stress	43 (39.1)	9 (8.2)		41 (37.3)	11 (10.0)	
Stress Symptoms			0.88			0.07
with symptoms	74 (66.7)	15 (13.5)		81 (73.0)	8 (7.2)	
without symptoms	18 (16.2)	4 (3.6)		17 (15.3)	5 (4.5)	
Stress Symptoms Phase			0.87			0.05*
none/alert	19 (17.1)	4 (3.6)		17 (15.3)	6 (5.4)	
resistance	49 (44.1)	10 (9.0)		51 (46.0)	8 (7.2)	
Near-exhaustion	14 (12.6)	4 (3.6)		18 (16.2)	0 (0.0)	
exhaustion	9 (8.1)	1 (0.9)		10 (9.0)	0 (0.0)	
Symptomatology of Stress Symptoms			0.14			0.11
None	19 (17.7)	4 (3.7)		17 (15.9)	6 (5.6)	
physical	6 (5.6)	4 (3.7)		9 (8.4)	1 (0.9)	
Psychological	63 (58.8)	11 (10.3)		67 (62.6)	7 (6.5)	

EE Express emotion, CC critical comments, EOD emotional overdevelopment. Bold values indicate that the cutoff significance level was $\alpha \leq 0.05$. *Fisher's exact test.

Table 2. Logistic regression between EE (CC and EOD components), early stress, and stress symptoms.

Parameters	Beta	EP	z	p ^a -value	OR	CI 95% for OR
High EE on CC component	-1.3819	1.2487	1.1070	0.2684	-	-
Incomplete and complete elementary school	-1.7061	0.8520	2.0020	0.0453*	0.1816	0.0291-0.8604
Age	0.1099	0.0349	3.1450	0.0017*	1.1162	1.0484-1.2049
High EE in SEE component	0.4645	0.4418	1.0510	0.2931	-	-
With early stress	1.9060	0.8139	2.3420	0.0192*	6.7261	1.6164-46.1180

EE Emotion Express, CC Critical Comments, OED Emotional Overdevelopment, OR odds ratio/odds ratio, CI confidence interval. Bold values indicate that the cutoff significance level was $\alpha \leq 0.05$. *logistic regression.

Elementary school (complete or incomplete) was the protective factor for high EE in the CC component since the caregivers with this education were 0.18 times more likely to have high EE in the CC component (OR: 0.1816; 95% confidence; CI 0.0291-0.8604).

Their age was a risk factor for high EE in the CC component since, for each year over the caregiver age, there was a 1.11 times greater chance of high EE in the CC component (OR: 1.1162; 99% confidence; CI 1.0484-1.2049).

The presence of early stress was a risk factor for high EE in the EOD domain. Caregivers with early stress were 6.72 times more likely to have a high level of EE in the EOD domain (OR: 6.7261; 95% confidence; CI 1.6164-46.1180).

4 Discussion

This study was the first to investigate how EE is associated with socio-demographic variables, early stress, and stress symptoms in caregivers of people with mental disorders at the time of psychiatric hospitalization. The results indicated that the EOD component of EE was significantly associated with early stress and the phase of stress symptoms. Early stress, age and the education level of caregivers were predictive variables of high EE. These results confirmed the relevance of these variables to the planning of care actions in the context of mental health.

The profile of the caregivers were predominantly women, mothers, with low education level and married, similar to other studies conducted with caregivers of people with mental disorders (ARAÚJO; KEBBE, 2014; LIMA; BANDEIRA; SANTOS-OLIVEIRA, 2016; ELOIA et al., 2018), confirming that women are still mainly responsible for providing care to sick family members, having to reconcile this task with other daily activities.

The high EE in the CC (83%) and EOD (87.5%) components confirmed that the days before hospitalization have a decreased quality in family relationships. No Brazilian studies were found that investigated caregivers' EE in moments of patient psychiatric crisis. However, Zanetti et al. (2018b), in a recent study conducted in Brazil with 89 relatives of people with schizophrenia found a high EE of 49% and 52% in the CC and EOD components, respectively.

The high EE found in this study influenced the moment of data collection. The questions answered by the caregivers for the evaluation of EE were 30 days before the hospitalization, that is, the period in which the person with mental disorder already had - or began to present - acute symptoms of mental disorder that required hospitalization, certainly requiring more care. However, as the high EE is marked by high criticism and high EOD, significantly reducing the quality of the relationship between the caregiver and the patient, its evaluation is important to support the planning and implementation of effective interventions in moments of crisis, which often become common among people with mental disorders.

In a literature review on the contribution of occupational therapy to families of people with mental disorders, Squarisi, Ferreira and Martins-Monteverde (2018) identified that these families still have little information about mental disorders, which hinders the daily supply of care. Kebbe et al. (2014) pointed out that caregivers of people with mental disorders feel overwhelmed because they do not receive help from other family members to share care functions, and they feel insecure and unprepared to perform the task of caring. The lack of information and the feeling of overload, insecurity, and unpreparedness pointed out in these studies can contribute to caregivers becoming more critical and over-involved with

their families, especially in periods of symptomatic manifestation.

The significant association found between the EOD component of SE and the stress phase, with the predominance of the resistance phase, shows that caregivers were mobilizing physical and psychic energies to cope with stressful situations, related to attitudes marked by an exaggerated concern with the person with mental disorder, excessive self-sacrifice, hopelessness, and overprotection. Other studies have found significant associations between EE and stress (GOMEZ-DE-REGIL; KWAPIL; BARRANTES-VIDAL, 2014; DOMÍNGUEZ-MARTÍNEZ et al., 2017). The predominance of the stress resistance phase in caregivers corroborated the findings of Santos and Cardoso (2015) and Souza et al. (2015), who found a predominance of the resistance phase in 74.1% and 44.4% of caregivers, respectively.

If the resistance phase is not overcome can lead the caregiver to the exhaustion phase, in which the resources are insufficient to cope with the source of stress, adaptive reserves are depleted due to repeated or prolonged stressor exposure, and a serious illness may develop (LIPP, 2000). This shows the need for interventions to help the caregiver cope with stressful situations.

The only variable identified as a protective factor for high EE in the CC component was the low education level of the caregivers. Caregivers with less education may ask less from the person with mental disorder to achieve independence and autonomy, reducing their criticism. No studies with similar results were found in national or international literature, which indicates the need for further studies. However, in another Brazilian study on EE, Martins, Lemos and Bebbington (1992) hypothesized that in Brazil, as a developing country, expectations about individuals may be lower than in developed countries, which causes that difficulties from mental disorders are better tolerated by the family.

The age of the caregiver was a risk factor for high EE in the CC component. This may be due to the burden of care. In a study of 75 caregivers of people with intellectual disabilities, Silva and Fedosse (2018) found that 23% of them were older adults. These authors emphasized the fact that older people perform the role of caregivers is alarming, as this is a phase in which they should be receiving care, not offering care.

The results also showed that caregivers who experienced early stress were more likely to have high EE in the EOD component. Thus, among

caregivers, experiencing adverse situations such as neglect and/or abandonment during childhood, a crucial period of physical, psychological, and emotional development makes them overly protective and concerned about the person they take care, negatively affecting the relationship between them.

International research warns that due to persistent sensitization of central nervous system circuits involved in regulating tension and emotion, early stress increases future vulnerability to stress and predisposes the individuals to develop physical and psychiatric illness (KRUGERS et al., 2017; CATALAN et al., 2017). The study by Martins-Monte Verde et al. (2019) conducted in the interior of São Paulo State - Brazil with patients with mental disorders followed in a day hospital found a significant association between early stress and the onset of psychopathology in adults.

The results confirmed the importance of investigating early stress in informal mental health caregivers. No studies assessing early stress in caregivers were found in the national and international scientific literature.

In this study, data collection regarding early stress was a delicate moment, in which caregivers were often moved by the sensitive questions asked. Researchers must investigate this topic carefully and warmly, respecting the suffering that can be triggered.

The results here showed that caring for a family member in a psychiatric crisis destabilizes the daily life of these caregivers since it generates high criticism and high emotional involvement in the relationship between the caregiver and the patient.

Ferigato, Campos and Ballarin (2007) pointed out that the mental health crisis has been historically characterized by acute psychiatric symptoms, such as delusions, visual and auditory hallucinations, aggression and psychomotor agitation, and understood as a bad situation that must be blocked and controlled as soon as possible. These authors proposed to expand the concept of crisis to be understood as something inherent in life and explored, assumed and accepted as a way to enrich new life forms, mainly because even the individual is in crisis, he is capable of expressing affection, creativity, expression, and desires.

Thus, knowing how caregivers experience the crisis period of their family members with mental disorders can help health professionals involved in mental health care to develop more effective interventions with this population, mainly seeking to instruct caregivers to deal with these periods

of a mental health crisis, in some cases avoiding hospitalization.

On the care focused on caregivers of people with mental disorders, psycho-education and support groups appear to be effective interventions. International studies on conducting psycho-education groups with family caregivers of people diagnosed with a first psychotic episode (ÖKSÜZ et al., 2017) and family caregivers of people diagnosed with bipolar disorder (SAZVAR, 2017) showed that this intervention decreased EE levels. Another study, after implementing a psycho-educational intervention program with family caregivers of people with schizophrenia found its effectiveness in reducing both overload and emotion expressed in the CC component, as well as increasing positive attitudes in the experimental group. Differences were not observed in the pre and post-test in the non-control group (PINHO; PEREIRA, 2015).

In addition to these studies, a systematic review of 24 studies and meta-analysis of 20 studies conducted in different countries by Yesufu-Udechuku et al. (2015) analyzed the effectiveness of psycho-educational and supportive interventions provided to family caregivers of people with mental disorders, showing that both intervention modalities reduced psychological distress of the caregivers and improved the care experience. Participation in an education and support program designed to help family members improve coping skills, better understand relatives' experiences, and their emotional reactions and conflicts have significantly increased the positive assessment of caregivers' experience compared to the control group (TOOHEY et al., 2016).

Squarisi, Ferreira and Martins-Monteverde (2018) emphasized the need for professionals to develop family insertion strategies in the context of mental health, valuing family participation and intervening in their needs through the provision of listening and welcoming spaces. In a survey of 10 family caregivers in a Brazilian day hospital, Martins and Guanaes-Lorenzi (2017) identified that the proximity of the service made family members feel supported and cared by professionals and learned about mental disorders, both with the professionals as with other families. Another Brazilian study conducted with relatives of people with schizophrenia showed that caregivers valued a group intervention as a space to contact the experiences of others in a similar situation,

which allowed them to clarify doubts about the disease and the care offered and reflected on the importance of taking care of themselves (ARAUJO; KEBBE, 2014).

Thus, the planning of both psycho-educational and supportive interventions directed at caregivers and carried out by an interdisciplinary team is fundamental in the context of a paradigmatic change in care for people with mental disorders. In the psychosocial paradigm, interdisciplinarity is one of the essential aspects of teamwork. According to Cézár and Melo (2018), it is an advanced level of coordination and cooperation in which all knowledge is valued so that professional relationships are established horizontally and there is a reciprocal exchange between different disciplines, aspects that favor the creation of new fields of knowledge essential in the field of mental health.

Regarding specific occupational therapy interventions, Machado, Dahdah and Kebbe (2018) state that caregivers' perceptions of their role with the person under their care can interfere with the performance of meaningful occupations and life projects. In a study on occupational performance in daily activities of people with mental disorders, Motizuki and Mariotti (2014) identified that getting sick decreases the performance of important and pleasurable daily activities, such as work, study, and leisure activities. These authors highlighted the contributions of occupational therapists in care focused on these issues since these professionals partner with the individual and his family to help them become active agents in dealing with daily difficulties.

5 Final Considerations

Emotion is an intrinsic component of human nature that is expressed naturally. However, the expression of emotions can negatively impact interpersonal relationships.

In the context of mental health, the quality of interpersonal relationships and the family environment is extremely relevant. By investigating the socio-demographic profile, expressed emotion, early stress, and stress symptoms, this study considered important aspects that may influence the interpersonal relationship between the caregiver and the person with mental disorder.

The results showed the need to provide caregivers with guidelines and interventions that help them to deal less harmfully with crisis episodes of

people with mental disorders under their care. Psycho-educational and supportive interventions can be an important tool in this process.

References

- AHMAD, I. et al. Factors associated with psychotic relapse in patients with schizophrenia in a Pakistani cohort. *International Journal of Mental Health Nursing*, Sidney, v. 26, n. 4, p. 384-390, 2017.
- ARAÚJO, A. S.; KEBBE, L. M. Estudo sobre grupos de terapia ocupacional para cuidadores de familiares de pacientes com esquizofrenia. *Cadernos de Terapia Ocupacional da UFSCar*, São Carlos, v. 22, n. 1, p. 97-108, 2014.
- BERNSTEIN, D. P. et al. Initial reliability and validity of a new retrospective measure of child abuse and neglect. *American Journal of Psychiatry*, Arlington, v. 151, n. 8, p. 1132-1136, 1994.
- BRASIL. Resolução nº 466, de 12 de dezembro de 2012. *Diário Oficial [da] República Federativa do Brasil*, Poder Executivo, Brasília, DF, 12 dez. 2012. Disponível em: <http://bvms.saude.gov.br/bvs/saudelegis/cns/2013/res0466_12_12_2012.html>. Acesso em: 28 fev. 2019.
- BRASIL. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Especializada e Temática. *Centros de Atenção Psicossocial e Unidades de Acolhimento como lugares da atenção psicossocial nos territórios: orientações para elaboração de projetos de construção, reforma e ampliação de CAPS e de UA*. Brasília: Ministério da Saúde, 2015. Disponível em: <http://bvms.saude.gov.br/bvs/publicacoes/centros_atencao_psicossocial_unidades_acolhimento.pdf>. Acesso em: 28 fev. 2019.
- BRASIL. Ministério do Trabalho. Classificação Brasileira de Ocupações – CBO. Brasília. Disponível em: <<http://www.mteco.gov.br/cbsite/pages/pesquisas/BuscaPorTitulo.jsf>>. Acesso em: 28 fev. 2019.
- BROWN, G. W.; BIRLEY, J. L. T.; WING, J. K. Influence of family life on the course of schizophrenic disorders: a replication. *British Journal of Psychiatry*, London, v. 121, p. 241-258, 1972.
- BROWN, G. W. et al. Influence of family life on the course of schizophrenia disorders: a replication. *British Journal of Psychiatry*, London, v. 121, p. 55-68, 1962.
- CATALAN, A. et al. Relation between psychotic symptoms, parental care and childhood trauma in severe mental disorders. *Psychiatry Research*, Amsterdam, v. 251, n. 1, p. 78-84, 2017.
- CÉZAR, M. A.; MELO, W. Centro de Atenção Psicossocial e território: espaço humano, comunicação e interdisciplinaridade. *História, Ciências, Saúde – Manguinhos*, Rio de Janeiro, v. 25, n. 1, p. 127-142, 2018.
- DOMÍNGUEZ-MARTÍNEZ, T. et al. Relatives' expressed emotion, distress and attributions in clinical high-risk and recent onset of psychosis. *Psychiatry Research*, Amsterdam, v. 247, n. 1, p. 323-329, 2017.
- ELOIA, S. C. et al. Sobrecarga de cuidadores familiares de pessoas com transtornos mentais: análise dos serviços de saúde. *Ciência & Saúde Coletiva*, Rio de Janeiro, v. 23, n. 9, p. 3001-3011, 2018.
- FERIGATO, S.; CAMPOS, R. T. O.; BALLARIN, M. L. G. S. O atendimento à crise em saúde mental: ampliando conceitos. *Revista de Psicologia da UNESP*, Assis, v. 6, n. 1, p. 31-44, 2007.
- GOMES, M. L. P.; SILVA, J. C. B.; BATISTA, E. C. Escutando quem cuida: quando o cuidado afeta a saúde do cuidador em saúde mental. *Revista Psicologia e Saúde*, Campo Grande, v. 10, n. 1, p. 3-17, 2018.
- GÓMEZ-DE-REGIL, L.; KWAPIL, T. R.; BARRANTES-VIDAL, N. Predictors of expressed emotion, burden and quality of life in relatives of Mexican patients with psychosis. *Journal of Psychiatric and Mental Health Nursing*, Sidney, v. 21, p. 170-179, 2014.
- GRASSI-OLIVEIRA, R.; STEIN, L. M.; PEZZI, J. C. Tradução e validação de conteúdo da versão em português do Childhood Trauma Questionnaire. *Revista de Saúde Pública*, São Paulo, v. 40, n. 2, p. 249-55, 2006.
- KEBBE, L. M. et al. Cuidando do familiar com transtorno mental: desafios percebidos pelos cuidadores sobre as tarefas de cuidar. *Revista Saúde Debate*, Rio de Janeiro, v. 38, n. 102, p. 494-505, 2014.
- KRUGERS, H. J. et al. Early life adversity: Lasting consequences for emotional learning. *Neurobiology of Stress*, New York, v. 6, n. 1, p. 14-21, 2017.
- LIMA, D. C.; BANDEIRA, M.; SANTOS-OLIVEIRA, M. S. Fatores associados à assertividade de familiares cuidadores de pacientes psiquiátricos. *Estudos e Pesquisas em Psicologia*, Rio de Janeiro, v. 16, n. 2, p. 414-430, 2016.
- LIPP, M. E. N. *Manual do inventário de sintomas de stress para adultos de Lipp (ISSL)*. São Paulo: Casa do Psicólogo, 2000.
- LIPP, M. E. N.; GUEVARA, A. J. H. Validação empírica do Inventário de Sintomas de Stress. *Estudos de Psicologia*, Campinas, v. 11, n. 3, p. 43-49, 1994.
- LITZELMAN, K.; KENT, E. E.; ROWLAND, J. H. Social factors in informal cancer caregivers: The interrelationships among social stressors, relationship quality, and family functioning in the CanCORS data set. *Cancer*, New York, v. 122, n. 2, p. 278-86, 2016.
- MACHADO, B. M.; DAHDAH, D. F.; KEBBE, L. M. Cuidadores de familiares com doenças crônicas: estratégias de enfrentamento utilizadas no cotidiano. *Cadernos Brasileiros de Terapia Ocupacional*, São Carlos, v. 26, n. 2, p. 299-313, 2018.

- MARONESI, L. C. et al. Indicadores de estresse e sobrecarga em cuidadores formais e informais de pacientes oncológicos. *Estudos e Pesquisas em Psicologia*, Rio de Janeiro, v. 14, n. 3, p. 877-892, 2014.
- MARTINS, P. P. S.; GUANAES-LORENZI, C. Participação da família no tratamento em saúde mental como prática no cotidiano do serviço. *Psicologia: Teoria e Pesquisa*, Brasília, v. 32, n. 4, p. 1-9, 2017.
- MARTINS-MONTEVERDE, C. M. S. et al. Relationship between depression and subtypes of early life stress in adult psychiatric patients. *Frontiers in Psychiatry*, Switzerland, v. 10, n. 1, p. 1-8, 2019.
- MARTINS-MONTEVERDE, C. M. S.; PADOVAN, T.; JURUENA, M. F. Transtornos relacionados a traumas e a estressores. *Medicina*, São Paulo, v. 50, n. 1, p. 37-50, 2017.
- MARTINS, C.; LEMOS, A. I.; BEBBINGTON, P. E. A Portuguese/Brazilian study of Expressed Emotion. *Social Psychiatry and Psychiatric Epidemiology*, Berlin, v. 27, n. 1, p. 22-27, 1992.
- MOTIZUKI, C. S.; MARIOTTI, M. C. Percepções de indivíduos com transtornos mentais e familiares sobre o desempenho ocupacional: contribuições da terapia ocupacional. *Revista de Terapia Ocupacional da USP*, São Paulo, v. 25, n. 2, p. 101-110, 2014.
- NOLL, J. G.; SHALEV, I. *The biology of early life stress: understanding child maltreatment and trauma*. Suíça: Springer, 2018.
- ÖKSÜZ, E. et al. The effects of psychoeducation on the expressed emotion and family functioning of the family members in first-episode schizophrenia. *Community Mental Health Journal*, New York, v. 53, n. 1, p. 464-473, 2017.
- PINHO, L. M. G.; PEREIRA, A. M. S. Intervenção familiar na esquizofrenia: Redução da sobrecarga e emoção expressa. *Revista Portuguesa de Enfermagem de Saúde Mental*, Lisboa, n. 14, p. 15-23, 2015.
- RIGONI, L. et al. Quality of life impairment in patients with head and neck cancer and their caregivers: a comparative study. *Brazilian Journal of Otorhinolaryngology*, São Paulo, v. 82, n. 6, p. 680-686, 2016.
- SANTOS, A. F. O.; CARDOSO, C. L. Familiares de pessoa em sofrimento mental: estresse e estressores no cuidado. *Estudos de Psicologia*, Campinas, v. 32, n. 1, p. 87-95, 2015.
- SAZVAR, S. A. Impact of acceptance and commitment-based psychoeducation on the adjustment of expressed emotion in families of patients with bipolar disorder. *Journal of Kashan University of Medical Sciences*, Kashan, v. 21, n. 3, p. 265-271, 2017.
- SELYE, H. Stress and the general adaptation syndrome. *British Medical Journal*, London, v. 17, n. 1, p. 1383-1392, 1950.
- SILVA, R. S.; FEDOSSE, E. Perfil sociodemográfico e qualidade de vida de cuidadores de pessoas com deficiência intelectual. *Cadernos Brasileiros de Terapia Ocupacional*, São Carlos, v. 26, n. 2, p. 357-366, 2018.
- SOUZA, A. L. R. et al. Factors associated with the burden of family caregivers of patients with mental disorders: a cross-sectional study. *BMC Psychiatry*, London, v. 17, n. 1, p. 1-11, 2017.
- SOUZA, L. R. et al. Sobrecarga no cuidado, estresse e impacto na qualidade de vida de cuidadores domiciliares assistidos na atenção básica. *Cadernos de Saúde Coletiva*, Rio de Janeiro, v. 23, n. 2, p. 140-149, 2015.
- SQUARISI, L. S.; FERREIRA, P. N.; MARTINS-MONTEVERDE, C. M. S. A importância da família no tratamento de pacientes psiquiátricos e a contribuição da Terapia Ocupacional: uma revisão da literatura. *Linguagem Acadêmica*, São Paulo, v. 8, n. 4, p. 11-26, 2018.
- TOOHEY, M. J. et al. Caregiver positive and negative appraisals: effects of the national alliance on mental illness family-to-family intervention. *Journal of nervous and mental disease*, Baltimore, v. 204, n. 2, p. 156-159, 2016.
- TREASURE, J.; NAZAR, B. P. Interventions for the carers of patients with eating disorders. *Current Psychiatry Reports*, Philadelphia, v. 18, n. 16, p. 1-7, 2016.
- WIEDEMANN, G. et al. The Family Questionnaire: development and validation of a new self-report scale for assessing expressed emotion. *Psychiatry Research*, Shannon, v. 109, p. 265-279, 2002.
- YESUFU-UDECHUKU, A. et al. Interventions to improve the experience of caring for people with severe mental illness: systematic review and meta-analysis. *British Journal of Psychiatry*, London, v. 206, n. 4, p. 268-274, 2015.
- ZANETTI, A. C. G. et al. Expressed emotion and family burden in relatives of patients in first-episode psychosis. *Archives of Psychiatric Nursing*, Philadelphia, v. 32, n. 1, p. 390-395, 2018a.
- ZANETTI, A. C. G. et al. Emoção expressa de familiares e recaídas psiquiátricas de pacientes com diagnóstico de esquizofrenia. *Revista da Escola de Enfermagem da USP*, São Paulo, v. 52, n. 1, p. 1-7, 2018b.
- ZANETTI, A. C. G.; GIACON, B. C. C.; GALERA, S. A. F. Adaptação cultural do Family Questionnaire para avaliação da emoção expressada. *Revista de Enfermagem da UERJ*, Rio de Janeiro, v. 20, n. 1, p. 90-97, 2012.

Author's Contributions

Angélica da Silva Araújo worked on research design, data collection, and analysis, text writing and review, source organization, and/or analysis. Tássia Ghissoni Pedroso contributed to the research design, data collection, and analysis, text review, source organization and/or analysis. Both authors approved the final version of the text.

Funding Source

Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brasil (CAPES) - Funding code 001.

Notes

¹ Study from the master's research of the first author. The research involved human beings and all current ethical procedures were respected by Resolution N° 466 of December 12, 2012.