



Depression, psychoticism, somatization and fear of ageing in a sample of 128 caregivers (who cared for the elderly) during the Covid-19 pandemic

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Abstract. The present work aims to highlight the existing relationships between depression, somatisation and psychoticism and between fear of death and depression at the level of relatives who cared for older people during the Covid-19 pandemic. The sample consists of 128 people, belonging to some older people, and is determined by convenience. The method used in the present research is a psychological survey based on a questionnaire. The research hypotheses: two on the shoulder aimed at a correlation between depression and somatisation and depression and psychoticism in relatives, and a correlation between fear of ageing and depression in the same relatives. The findings showed that hypothesis 1 is verified on the analysed sample, between depression and somatisation, respectively depression and psychoticism, there being a positive correlation. Hypothesis 2 is verified on the analysed sample, between depression and fear of ageing, there is a positive correlation, thus that the more the fear of ageing increases, the higher the probability of depressive states in the relatives, and vice versa (the more depressed they are, the more the fear of ageing increases).

Keywords: Depression, psychoticism, somatization, fear of ageing, caregivers.

Introduction

Older adults are considered more vulnerable during emergency crises (Hutton, 2008). Their vulnerability is related to age-related compromised physical conditions, increased prevalence of chronic health conditions and other disabilities, a decline in cognitive abilities, and the potential presence of adverse psychosocial conditions (Kar, 2016).

According to researchers, the COVID-19 pandemic has induced worry (Gerhold, L., 2020), fear (Harper et al., 2021), anxiety and depressive symptoms (Parlapani et al., 2020), as well as insomnia (Wang, 2020).



Similarly, the Covid-19 pandemic has affected older people in many ways (Parlapani et al., 2020). Fear of contracting the virus and fear of death has affected the elderly, as advanced age is a risk factor for severe disease due to compromised immune system function and higher prevalence of risk conditions for severe COVID-19, such as arterial hypertension, diabetes, cardiovascular and respiratory diseases (Yang et al., 2020); it has been shown that approximately 66% of people over the age of 70 suffer from at least one chronic condition (Clark et al., 2020).

According to specialised studies, the mortality rate was estimated at 1.4% for people under 60 and 4.5% for people over 60, reaching 13.4% for people over 80 years old (Verity et al., 2020).

Various studies show that elderly dependency increases with age – older adults often require financial assistance and instrumental and essential activities of daily living. Increasing life expectancy also means that older adults live more years with disability and dependency. Studies of cognitive function and ageing in the UK suggest that older men spend 36.5% and older women 52.7% of their lives living with addictive needs (Kingston et al., 2017).

In this context, the caregivers of the elderly were subjected to additional stress during the pandemic - namely, not contacting and transmitting the disease to the elderly they care for. Thus, considering the additional pressures to which they were subjected, the present work aimed to highlight the effects of the pandemic period on them from the point of view of the relationship between depression, psychoticism, somatisation and fear of ageing in relatives of some older people with different problems and conditions.

1. Theoretical approaches to depression, psychoticism, somatisation and fear of ageing

1.1. Theoretical approaches to depression

According to the World Health Organization, depression is a common disease, affecting approximately 3.8% of the population, 5.0% among adults and 5.7% of adults over 60. Approximately 280 million people worldwide suffer from depression (Institute of Health Metrics and Evaluation, 2019).

As the World Health Organization points out, depression differs from ordinary mood swings and short-lived dynamic responses to challenges in daily life. When it is recurrent, and of moderate or intense intensity, depression can evolve into a severe health state. It can push the affected individual to suffer significantly and perform inadequately at work, school, and family. In the worst circumstance, depression can conduct in suicide. More than 700,000 people die by suicide, the fourth most significant cause of death among youthful people (aged 15-29) (WHO, 2021).

Although there are known and effective treatments for mental disorders, more than 75% of people in low- and middle-income countries do not receive any treatment (Evans-Lacko S, Aguilar-Gaxiola Set al., 2018).

Barriers to effective care include a lack of resources, skilled healthcare providers, and social stigma associated with mental disorders. In countries of all income levels, people with depression are often misdiagnosed, and others who do not have the disorder are too often misdiagnosed and prescribed antidepressants (WHO, 2021).

As the American Psychiatric Association states, depression (also known as major depressive disorder) represents a "common and serious medical illness that negatively affects the way a person feels, thinks, and acts" (American Psychiatric Association, 2013). Fortunately,



it is likewise treatable. Depression induces unhappiness and/or loss of interest in past appreciated actions. It can conduct to various emotional and physical issues and decrease the ability to perform at work and home (American Psychiatric Association, 2013).

Manifestations of depression can vary from soft to intense. They may retain (American Psychiatric Association, 2013): "sadness or a mood characterised by sadness, loss of interest or pleasure in activities that once brought joy, changes in appetite" — weight failure or gain inapplicable to diet, problem sleeping - too much or too little, losing of energy or grown tiredness, boosted physical activity without a purpose, slurred movement or speech (actions severe enough to be noticed by others), feeling valueless or remorse, difficulty judging, focusing or making decisions, thoughts of death or suicide. Symptoms must last at least two weeks and illustrate a transformation from the previous level of acting for a diagnosis of depression.

In establishing the differential diagnosis, it is necessary to consider that medical conditions (thyroid problems, a brain tumour or vitamin deficiency) can mimic the symptoms of depression, so it is essential to rule out general medical causes.

According to the American Psychiatric Association, depression can occur at any time, but on average, it mostly starts in the late teens to mid-20s. Women are more likely than men to suffer from depression. Some studies show that one-third of women will experience a major depressive episode in their lifetime and that there is a high degree of heritability in its transmission (about 40%) when first-degree relatives (parents/children/siblings) have depression (American Psychiatric Association, 2013).

According to a European Commission report, depression is widespread in Romania. Data from 2014 indicates that 1.5% of the population aged 15 and over reported symptoms of depression in the previous 12 months (European Commission, 2022).

The COVID-19 pandemic has exacerbated this (Marica I., 2022).

According to The Health Policy Partnership, 2021, regional inequalities in access to mental health care are a significant problem, affecting the ability of people with depression to access appropriate care. There is a wide regional disparity in the distribution of mental health hospital beds and the mental health workforce, compounded by widespread gaps in the availability of outpatient mental health services.

Mental health services in Romania often fail to recognise the critical role of involving people with depression in decisions about their care (National Center for Family Medicine Studies, 2009; Ministry of Health, 2010).

Stigmatisation and lack of awareness of depression in the community present additional barriers, preventing people from seeking and continuing care (Popescu C.A. et al., 2017; Paziuc A., 2020).

1.2. Theoretical approaches to psychoticism

Psychoticism is the third personality trait in Eysenck's personality model (Per Beck, 2018). The psychoticism scale was incorporated into the EPQ (Eysenck & Eysenck, 1975), but Eysenck and Eysenck provided the most significant justification for including this personality trait in their 1976 paper (Eysenck & Eysenck, 1976). The EPQ's psychoticism scale contained 25 items, while the revised version (EPQ-R) included 32 items (Eysenck et al., 1985).

According to Eysenck, this dimension included: aggressiveness, manipulation, tough-mindedness, risk-taking, irresponsibility and impulsiveness towards their opposites. He suggested that high levels of psychoticism are associated with criminal behaviour, various mental illnesses (including manic-depressive and schizophrenia), and even creativity.



Regarding the biological basis of the Psychoticism dimension, Eysenck suggested that people high in Psychoticism tend to have high levels of a hormone called testosterone and low levels of a substance called monoamine oxidase, which influences neurotransmitter levels.

His description of psychoticism states that a person will exhibit some qualities commonly found among psychotics and may be more susceptible, given specific environments, to becoming psychotic. Examples of such psychotic tendencies include recklessness, disregard for common sense, and inappropriate emotional expression, to name a few (Boeree, 1998). As Heath and Martin (1990) stated, "it is conceptualised as a continuum of liability to psychosis (mainly schizophrenia and bipolar affective disorder) with 'psychopathy' (i.e., antisocial behaviour) defined as a midway stage to psychosis".

The psychoticism scale was also correlated significantly with other scales and traits of hostility and harshness, such as non-acceptance of cultural norms, immaturity, and anti-authoritarian attitudes. Higher psychoticism scores have also been reported among psychopaths and criminals (Howarth, 1986). It reinforces the idea described by Eysenck with his psychoticism scale.

1.3. Theoretical approaches to somatisation

According to Lipowski ZJ (1988), somatisation, an inclination to encounter and transmit somatic distress in response to psychosocial pressure and pursue medical support, is a prominent medical, social, and economic concern. It is associated in most circumstances with depressive and anxiety conditions and includes the core of somatoform disorders. Its continuous form is highly costly and challenging to contain and control.

Somatisation is mostly an unresolved, widespread problem at the border between psychiatry and medicine (Lipowski Z.J., 1987). Somatising patients, those who often complain of physical symptoms that either lack verifiable organic grounds or are regarded far beyond what we would expect established on factual medical determinations, are omnipresent in healthcare environments worldwide. They frequently pose diagnostic and managing problems, may or may not suffer from psychiatric disorders, and overlook to be high healthcare users, thus contributing to the increased cost of healthcare (Lipowski Z.J., 1987).

Psychiatrists had little awareness of these patients, excluding those suffering from what was called hysteria, until recently. Nevertheless, several psychiatric investigations and different books and studies have been published on subjects suitable for somatisation in the past few years.

The term "somatisation" was presented by Stekel at the beginning of this century to direct to a hypothetical process by which a "profound" neurosis might generate a physical disturbance. It was therefore related, if not identical, to the concept of conversion (Hinsie L.E., Campbell R.I., 1960).

Somatisation is defined as a broad and prolonged functional disorder of psychological cause, having reversible physical (somatic) manifestations or as a heterogeneous group of somatic manifestations that are not based on physical ailments. These physical manifestations are considered to be a somatic-style manifestation of a psychic conflict and include the following general lines of diagnosis: expected results in clinical and paraclinical examinations; multiple unexplained symptoms; increased use of health services; the presence of a specific behavioural pattern (care or permanent concern for the state of health) in the individual or family history. The psychological factors involved in somatisation are a repressive coping style, the persistence of adverse effects, neuroticism as a personality trait, and psycho-traumatic events (present or past).



The somatisation of anxiety (its conversion into somatic symptoms) can take on an acute or chronic appearance. Acute somatisation of anxiety will manifest itself in functional disorders; chronic somatisation will lead to burnout and depression.

Menninger defined "somatisation reactions" as "the visceral expression of anxiety which is thereby prevented from being conscious" (Menninger W.C., 1947).

Somatisation disorder is a polysymptomatic disorder that begins before age 30, extends over years, and is characterised by a combination of pain, gastrointestinal, sexual, and pseudo-neurological symptoms. There is no single cause for this disorder because, in most psychiatric conditions, the disorder results from the interaction between genetic factors and various events in the individual's antecedent life history. Various psychological, social, pathophysiological, familial, and genetic mechanisms have been proposed to explain the origin of somatisation disorder. Substantial evidence supports an increased risk of somatisation disorder in first-degree relatives, indicating a familial or genetic effect. A concrete diagnosis needs the company of all of the following requirements: (a) At least two years of numerous and inconsistent physical signs for which no good physical reason has been found; (b) Constant denial to take the guidance or confirmation of numerous physicians that there is no biological basis for the symptoms; (c) Some degree of impairment in social and family functioning attributable to the essence of the symptoms and consequent behaviour (Çolak, 2014).

According to this author, the variety of such responses included a variety of disruptions, from hypertension to frigidity. Psychoanalysts use the term "somatisation" to signify an unconscious protection mechanism and to refer to the hypothetical psychogenesis of detailed corporal conditions as a theoretical notion. By difference, the subsequent characterisation is illustrative, does not mean a putative defence mechanism, and should not be mistaken with the theoretical one. Somatisation is a movement to participate in and disseminate somatic distress and manifestation not clarified by pathological determinations, attribute them to physical sicknesses and pursue medical assistance. It is usually presumed that this trend becomes axiomatic in reaction to psychosocial pressure induced by life circumstances and conditions that are personally stressful for the person. This understanding designates an inference from external observers, as somatised people usually do not identify and may explicitly create a causal relationship between their distress and its supposed origin. They react mainly in a somatic, sooner than psychological, way and tend to consider their manifestation as displaying a physical illness and, thus, in lack of medical attention. Somatisation does not contain all physical symptoms not illustrated by a provable physical sickness. Such general symptoms do not necessarily indicate that the person encountering them is under tension or decodes them as implying a physical illness and seeks medical help (Menninger WC, 1947).

1.4. Fear of ageing

Fear of ageing can be experienced by people of all age groups and negatively affects health and well-being.

Fear of ageing has been defined as the irrational and persistent fear of ageing. It negatively affects the health of younger and older adults. Based on the gerontological literature, the fear of ageing is a multifactorial phenomenon. It is rooted in several psychosocial theories, such as social identity theory, terror management theory, social clock theory, double standard ageing theory, and stereotype embodiment theory (Momtaz et al., 2021).

Fear of ageing has been defined as "people's concerns about ageing, such as worries about declining health and physical functioning, financial problems, cognitive decline and



changes in physical appearance, and social losses." It is also called gerascophobia, ageing anxiety and fear of ageing (Martens, A. et al., (2004).

According to MedicineNet, the fear of ageing, called gerascophobia, has been defined as an abnormal and persistent fear of ageing. Gerascophobia is derived from the Greek "geras" (old age) and "pho-bos" (fear). People with gerascophobia feel severe anxiety about ageing, even though they may be healthy (MedicineNet, 2018).

Lasher and Faulkender defined anxiety (fear) of ageing as the concern and anticipation of adverse physical, mental, and personal losses during the ageing process (Lasher, & Faulkender, 1993).

Fear of ageing can negatively affect the health of younger and older people. For example, one case, reported by Perales-Blum, Juarez-Trevino et al., of a 14-year-old boy with an excessive fear of ageing, in which he did not eat much and tried measures to stop or hide growth (Perales-Blum et al., 2014).

Studies have found that fear of ageing is associated with harmful health outcomes such as the increased risk of chronic disease, increased addiction, and reduced recovery from illness. Other studies have shown that fear of ageing is associated with loss of utility, loss of opportunity, psychological distress and depression, cardiovascular problems, negative impact on health and well-being, globally disturbed eating, and poor life satisfaction. Regarding the adverse effects of the fear of ageing on health, it is imperative to identify the factors contributing to the fear of ageing (Momtaz et al., 2021).

According to Momtaz et al., 2021, "fear of ageing may continue to grow until societies reduce the boundaries between young and old and view ageing as a normal process."

Ageing anxiety, or fears and worries about the ageing process, have been associated with various adverse psychological outcomes, including future appraisals, loneliness, and depressive symptoms (Ayalon, 2018; Bergman et al., 2018).

Interestingly, most research on ageing anxiety has focused primarily on younger and/or older adults, and the psychological consequences of anxiety among middle-aged adults are relatively understudied (Bergman, Segel-Karpas, 2021).

This relative scarcity of research is interesting because, according to Lynch (2000), anxiety in older people tends to decrease throughout life, with the notable exception of people aged 50–64.

Lynch (2000) suggests that while the decline in ageing anxiety in older adults may be the consequence of their gradual adjustment to age-related limitations, the higher rates of ageing anxiety in middle adulthood may be the result of their experience of changes related to age, which can lead to increased anxiety about ageing and the future. In this regard, empirical evidence points to the importance of this concept among middle-aged adults and its negative psychological consequences. For example, among middle-aged adults, ageing anxiety has been associated with an increase in death and death anxiety, as well as the feeling that life is coming to an end (Bergman et al., 2018). Furthermore, perceived losses attributed to one's age have been associated with depressive symptoms in middle and late adulthood (Dutt et al., 2018).

2. Research methodology

2.1. Objectives and assumptions

The objective. This paper aims to highlight the existing relationships between depression, somatisation and psychoticism and between fear of death and depression at the level of relatives who cared for older people during the Covid-19 pandemic.



The hypothesis. We set out to test the hypotheses:

I₁: "It was assumed that there is a correlation between depression and somatisation, respectively depression and psychoticism in relatives."

I₂: "It was assumed that there is a correlation between the fear of ageing and depression in relatives."

2.2. Sample description

The questionnaire-based study was applied to 128 relatives of the elderly, who take care of them, aged between 26 and 80, belonging to the elderly, being determined by convenience.

The minimum age was 26 years, with a maximum of 80 years, a mean of 48.08 years, a median of 47 years, and a mode of 46 years, with a standard deviation of 8.285.

From the point of view of the age of the members, there is a wide range (amplitude=58), the members being included in ages from 26 to 80 years old, which constitutes a possible limitation of the study. We find that 31.3% of the study group members are male, and 68.8% are female.

From the perspective of marital status, the present study's sample included 84.4% of the members married, 4.7% unmarried, 2.3% widowed and 8.6% divorced.

From the perspective of the home environment, we identify the following distribution in the structure of the members: 72.7% from the urban environment and 27.3% from the rural environment. From the perspective of completed studies, people with high school education predominate - with a weight of 48.4%, followed as a percentage by those with university education - 39.8%, those with postgraduate education 7% and secondary school 3.1%, and primary and post-high school by 0.8%.

Out of the 128 members, 89.8% have children, and 10.2% have not.

From the perspective of religious beliefs, the highest percentage of people, 28.9%, declared that they fall into a degree of religious beliefs of 5 out of 7.

Of the 128 relatives, 10.2% have different diseases or conditions that could affect the relationship with the elderly in care. 77.3% of the participants are vaccinated at the time of application of the questionnaire.

2.3. Ethical aspects

The design of the questionnaires – The applied questionnaires are established instruments already applied, tested and validated on the population of Romania. The research questions we wanted to answer are straightforward and objectively addressed.

Informed consent – participants were informed of the nature and purpose of the research and any anticipated disadvantages of participation. In addition, explanations were provided in language appropriate to the audience. Participants were also allowed to ask questions and, if they chose, to withdraw from the study.

Confidentiality - The confidentiality of survey respondents is ensured and protected, as it is not possible to identify them because only a code is used that ensures correspondence between the relative and the elderly. Also, the application by multiple people of the questionnaires to relatives and the elderly makes the possibility of identifying the respondents unlikely.

Disclosure - While questionnaire-based research does not typically involve the same psychological or physical risks to participants as experimental research, disclosure is essential where participation may harm a respondent. As such, compliance with research ethics is



required in the present situation, an information session to answer participant questions prompted by the questionnaire and to provide support to anyone affected (potentially negatively) by participation.

2.4. Methods and tools

The method used in the present research is a psychological survey based on a questionnaire. The questionnaire survey has a "standardised character because the questions are formulated clearly in advance, as well as their number and order. The number of people with certain characteristics (gender, age, background) to whom the questions are addressed is also established, without being able to intervene or deviate from this scheme of the organisation of the investigation" (Sălceanu C., 2021).

In carrying out the research, a series of questionnaires were applied to relatives of the elderly in order to determine the effects of the pandemic on their lives. The applied questionnaires included "Case SF" and "Maslach".

Because the objective of this paper focuses on the members, we will focus on the presentation of the tools applied to them through the prism of the hypotheses formulated.

Maslach Burnout Inventory – Assesses burnout (Maslach C., Jackson S.E., 1981) on the three dimensions of the scale labelled as emotional exhaustion, depersonalisation and efficacy and achievement cognitions. A high level of burnout implies that subjects obtain high scores on the exhaustion and depersonalisation subscales.

The questionnaire contains 25 items and is structured on three dimensions: emotional exhaustion (9 items), depersonalisation (6 items), and reduction of personal achievements (10 items). A 5-step Likert scale was used as an answer, as follows: 1 – very rarely, 2 – rarely, 3 – sometimes, 4 – frequently, 5 – very frequently, which has the advantage of allowing a greater variety of answers and in this way the risk of getting the same answer from most of the subjects is reduced. In order to counteract the effects of a possible monotony in the giving of answers, reverse-scored items were interspersed in the questionnaire, the subjects being "obliged" to pay attention to their wording (the individual's need for consistency). For the interpretation of the data, the sum of the points for each dimension is calculated, obtaining a score related to the benchmark.

The CASE-SF questionnaires are shortened versions of the CASE scales and include ten clinical scales and two of the three validity scales. The Rarity(R) Scale does not appear in CASE-SF. On another note, however, the clinical and validity scales are found in all four versions of the CASE, even if the items that make up the scales vary to some extent from one instrument to another. The ten clinical scales were created to assist in the differential diagnosis of primary Axis I clinical disorders in individuals over 55. Except for the R scale, items do not overlap. Three validity scales are provided alongside the full paper-and-pencil rating scale versions, a Lying or Social Desirability (M) scale, a Response Rarity (R) scale, and a Validity (V) scale composed of absurd statements designed to detect random or insincere responses (Costache et al., 2016).

2.5. Result

Testing and verification of hypothesis 1: It is assumed that there is a correlation between depression and somatisation, respectively depression and psychoticism, in the relatives of the elderly surveyed.

Descriptive statistics on the values recorded on the 128 respondents on the "Depression" scale reveal a minimum value of 1, a maximum of 61, an amplitude of 60, a mean of 22.52, a



median of 21, and a standard deviation of 12.715. In the assessment of depression, the distribution obtained from the collection of data related to the "Depression" scale is non-normal, an aspect revealed by the sig coefficient. 0.004, which is less than 0.05.

Regarding psychoticism, the descriptive statistics on the values recorded by the 128 respondents on the "Psychoticism" scale reveal a minimum value of 1, a maximum of 61, with an amplitude of 60, a mean of 17.06, a median of 12, and a deviation standard of 13.612.

The distribution obtained after collecting the data related to the "Psychoticism" scale is non-normal, an aspect revealed by the sig coefficient. 0.000, less than 0.05.

Regarding somatisation, the descriptive statistics on the values recorded by the 128 respondents on the "Somatization" scale reveal a minimum value of 2, a maximum of 63, an amplitude of 61, an average of 20.33, a median of 18, and a standard deviation of 11,531.

The distribution obtained after collecting the data related to the "Somatization" scale is non-normal, an aspect revealed by the sig coefficient. 0.001, less than 0.05. To determine which correlation coefficients will be calculated in testing the announced statistical hypothesis, we apply the Kolmogorov-Smirnov test, which determines whether or not the condition of normality of the distribution is met, as can be seen in Table 1.

Table 1. Normality test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistical	df	Sig.	Statistical	df	Sig.
Depression	.098	128	.004	.957	128	.000
Psychoticism	.209	128	.000	.818	128	.000
Somatisation	.111	128	.001	.905	128	.000

a. Lilliefors Significance Correction

As a result of applying the Kolmogorov-Smirnov normality test, Sig. value obtained between 0.000 and 0.004 shows a non-normal distribution of the values for depression, psychoticism and somatisation. The point cloud related to the distribution of the three-value series is included in figure 1. a, b, c.

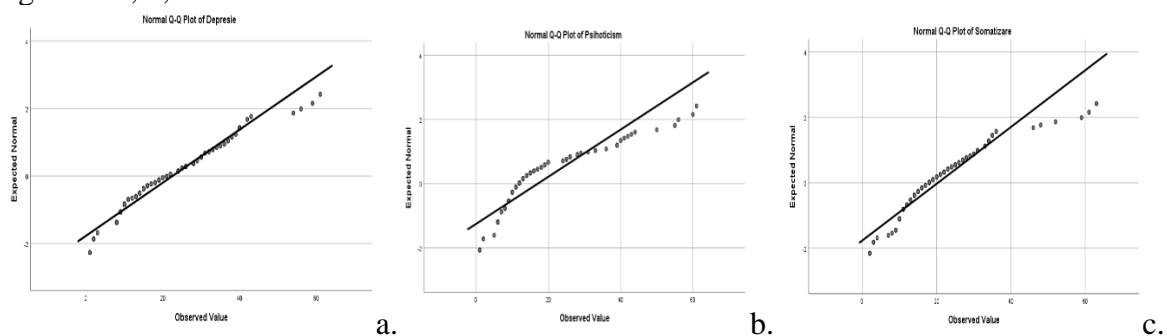


Figure 1. The cloud of points related to the values obtained for the three tested constructs

As it is easy to see, there is a shift to the upper right of all points for all three sizes tested. When testing the correlations, we will consider that it is a non-normal distribution, so the hypothesis will be tested using a non-parametric method; so, we apply a non-parametric test, calculating Spearman's correlation coefficient. The correlation coefficients obtained by applying the test are presented according to table 2.

As can be seen, the obtained correlation is a significant positive one at 0.01, existing between depression and psychoticism and between depression and somatisation among the elderly caregivers in the study group.

These correlations are also demonstrated by the high values of the obtained coefficients, ranging between 0.706 (depression - psychoticism) and 0.825 (depression - somatisation). In



addition, a third correlation can also be identified – between depression and somatisation (the Spearman coefficient is 0.720).

Table 2. Correlation table (calculation of the Spearman coefficient for depression- psychoticism-somatisation)

		Depression	Psychoticism	Somatisation	
Spearman's rho	Depression	Correlation Coefficient	1,000	.706 **	.825 **
		Sig. (2-tailed)	.	.000	.000
		N	128	128	128
	Psychoticism	Correlation Coefficient	.706 **	1,000	.720 **
		Sig. (2-tailed)	.000	.	.000
		N	128	128	128
	Somatisation	Correlation Coefficient	.825 **	.720 **	1,000
		Sig. (2-tailed)	.000	.000	.
		N	128	128	128

** . Correlation is significant at 0.01 level (2-tailed).

In this context, the formulated hypothesis (hypothesis 1) is verified on the analysed sample, between depression and somatisation, respectively depression and psychoticism, with a positive correlation.

Testing and verifying hypothesis 2: "It was assumed that there is a correlation between fear of ageing and depression in relatives."

In testing the second hypothesis, we started with the analysis of the descriptive statistics, as well as the verification of the normality of the distribution, according to table 3.

Regarding the descriptive statistics, we have already done the description of depression in the testing of hypothesis 1. However, at the level of fear of ageing, we find a minimum value score of 1, a maximum of 73, with an average of 18.84, a standard deviation of 13.605 and a median of 16.

Table 3. Test of normality for depression and fear of ageing

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistical	df	Sig.	Statistical	df	Sig.
Depression	.098	128	.004	.957	128	.000
Fear of ageing	.169	128	.000	.849	128	.000

a. Lilliefors Significance Correction

As a result of applying the Kolmogorov-Smirnov normality test, Sig. value obtained, between 0.000 and 0.004 shows a non-normal distribution of the values obtained for depression and fear of ageing.

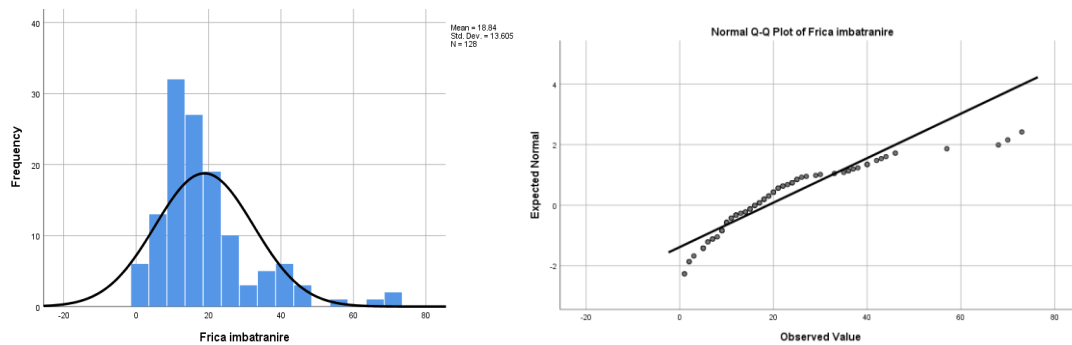


Figure 2. Histogram and point cloud of the “Fear of Aging” dimension

As it is easy to see, there is a shift to the lower left of all the points in the case of the fear of ageing. Furthermore, in this situation, as in the first hypothesis, when testing the correlation between the two sets of data, we will consider that it is a non-normal distribution, so hypothesis testing will be performed using a non-parametric method, calculating the Spearman correlation coefficient. The correlation coefficient obtained by applying the Spearman test is presented according to table 4.

Table 4. Correlation table (calculation of the Spearman coefficient for depression – fear of ageing)

		Fear of ageing	Depression
Spearman's rho	Fear of ageing	Correlation Coefficient 1,000	.764 **
		Sig. (2-tailed) .	.000
		N 128	128
Depression		Correlation Coefficient .764 **	1,000
		Sig. (2-tailed) .000	.
		N 128	128

** . Correlation is significant at the 0.01 level (2-tailed).

As can be seen, the obtained correlation is a significant positive one at 0.01, so the fear of ageing and depression correlate in the elderly belonging to the study group. This correlation is also demonstrated by the high value of the obtained coefficient - 0.764.

In this context, the formulated hypothesis (hypothesis 2) is verified on the analysed sample. There is a positive correlation between depression and the fear of ageing, so the more the fear of ageing increases, the higher the probability of depressive states in the relatives, and vice versa (the more depressed, the greater the fear of ageing).

2.5. Discussions

Regarding the first hypothesis, namely the presumption that there is a correlation between depression and somatisation, respectively depression and psychoticism in the surveyed older people, specialist studies show that:

2.5.1. Depression and somatisation

A frequently encountered problem in the medical context is the somatic expression of psychological conflicts. Any symptomatic treatment administered to the patient in this situation will not improve the patient's condition. On the contrary, over time, it forms an amplifying



coping style or develops other psychiatric symptoms from the anxiety-depression category, inducing an evolution with a worse prognosis.

According to Lipowski (1990), somatisation, an unresolved and costly phenomenon at the border between medicine and psychiatry, often associated with depressive disorders, is ubiquitous in primary practice worldwide and results in diagnostic errors, costly investigations and frequent failure to treat patients appropriately. Evidence suggests that thorough interviewing of depressed patients who somatise will reveal a substantial proportion of individuals reporting dysphoria and psychosocial distress (Lipowski, Z.J., 1990).

A body of research investigates how the maintenance of heightened physiological activation characteristic of somatises (somatisation considered as a consequence of an amplifying coping style) relates to the course and complications of patients with major depressive disorder. Given the high comorbidity between somatisation and major depression, it often proves difficult to determine which of the two conditions manifests first (Lipowski, Z.J., 1990).

Some authors consider functional somatic syndromes as risk factors for other psychiatric conditions by association with chronic fatigue syndrome and mutually reinforcing each other (Creed, F.H., 2013).

According to Katon et al. (1982), major depressive syndrome, in addition to its social significance, has cognitive, affective and somatic components. The authors above show that depressed patients have characteristic cognitive schemas described and validated by profile studies in which they recurrently interpret themselves, their experiences, and the future in an idiosyncratic manner. For example, a person with depression tends to see himself as flawed, inadequate, sick, or disadvantaged—attributing his unpleasant experiences to his psychological, moral, or physical flaws. He believes himself undesirable and worthless because of these supposed flaws and underestimates and criticises himself. The affective state of depression is similar to sadness, but it is more lasting and widespread (Katon et al., 1982).

A study by Licciardone et al. (2012) showed the association between depression, somatisation and back pain: in this study. They are consistent with the findings of previous studies. These associations, the findings that MZDI and MSPQ scores are correlated with somatic dysfunction, may have important implications for osteopathic manual therapy in patients with chronic low back pain (Licciardone et al., 2012).

Wood, Goepfert, and Edwards (1991) found that somatisation and associated depression presuppose a diagnosis of chronic fatigue syndrome in the patient's history.

In triggering somatisation, chronic fatigue syndrome, along with chronic psychogenic pain, in the long term can play a decisive role in the association with depression and anxiety (McBeth et al., 2015).

Chronic fatigue syndrome, having complex aetiology, can develop a specific somatisation pattern, activating other latent psychiatric conditions (Leone, S.S., 2010).

Somatisation syndromes are more frequently associated with major depressive episodes than other psychiatric disorders (Fu et al., 2019). The common element of the connection between the two psychopathological forms is represented by chronic fatigue syndrome. It, therefore, follows that somatisation is a mental condition frequently associated with other psychiatric conditions, especially anxiety and depression, noting that fatigue (without somatic support) can be considered the link in the comorbidity relationship between depression and somatisation (Henningsen, 2005).

2.5.2. Depression and psychoticism



A study by Pickering et al. 2003 concluded that people with high scores on the psychoticism scale are prone to personality traits associated with an excess of hostile and threatening life events, which can lead to the development of depression (Pickering et al., 2003).

Another study by Compton et al. (2008) highlighted a pattern in which psychoticism leads to critical psychological consequences. It is a pattern in which psychoticism substantially affects several essential characteristics: "perception of daily hassles, depression, and hostility". Depression "mediated the association between psychoticism and hopelessness" (Compton, M.T. et al. 2008). According to the cited study, like psychosis, psychoticism appeared to cause significant dysfunction even among non-psychiatric individuals in the general population (Compton, M.T. et al. 2008).

According to a study by Varghese et al. (2011), while psychotic experiences are usually associated with psychotic disorders, people with depression and anxiety are more likely to report these symptoms than those without such problems. According to the cited study, psychotic experiences are associated with common mental disorders.

The work by Wu Z et al. (2021) is the first to identify increases in adolescent psychotic experiences during the COVID-19 pandemic and to suggest a solid longitudinal association between psychotic experiences and anxiety and depression, respectively (Wu Z. et al., 2021).

Research undertaken by Gogas et al. (2017) prospectively studied the association of a history of depression on personality with disease risk and progression among patients diagnosed with melanoma. These associations were more pronounced only among female patients, especially finding a decrease in extraversion and psychoticism and an increase in depressive history (Gogas et al., 2017).

2.5.3. Depression and fear of ageing

In the specialised literature, we identified only one study that addresses young and mature adulthood, respectively, not that of senescence concerning the fear of ageing, a study that supports our findings.

Bergman YS, Segel-Karpas D. (2021) study results highlight the clinical importance of addressing fear of ageing and negative attitudes in middle-aged adults regarding loneliness and depression by examining whether ageing or negative attitudes toward older adults, which have been associated with increased ageing anxiety, loneliness, and depressive symptoms, moderate the connections between these variables. Thus, age discrimination can contribute to individuals' fear of ageing, with negative psychological consequences in the form of fear of ageing. In other words, those who fear their ageing and perceive older adults negatively may be more vulnerable to the consequences of their fear of ageing (Bergman YS&Segel-Karpas D., 2021).

In other identified studies, few in number, the subjects are older people, and the conclusions are similar to our study. In older people, a correlation was identified between the fear of ageing and depression.

According to the study conducted by Laks, J., & Engelhardt, E. (2010), awareness of the predictors and risk factors of depression in elderly subjects is important to plan possible preventive measures and treatment strategies for those who are diagnosed with it. Both cross-sectional and longitudinal studies show that higher scores on depression scales, cognitive decline, a shorter nursing home stay, and comorbid heart disease may be predictors of depression in the elderly.

Also, a recent longitudinal naturalistic study of the outcome of depressed outpatients showed that baseline depression, baseline anxiety, and a more significant increase in anxiety were the variables most related to poorer outcomes in treatment (Cohen M.A. et al., 2014).



Conclusions

The objective of this present work was to highlight the existing relationships between depression, somatisation and psychoticism and between fear of death and depression at the level of relatives who cared for older people during the Covid-19 pandemic.

The questionnaire-based study was applied to 128 relatives of older people who take care of them. The sample set by convenience was formed by 128 people, aged between 26 and 80 years, belonging to the elderly between the ages of 60 and 96.

I₁: "It was assumed that there is a correlation between depression and somatisation, respectively depression and psychoticism in relatives."

I₂: "It was assumed that there is a correlation between the fear of ageing and depression in relatives."

Both hypotheses were confirmed in our study group.

We consider as potential limitations – the structure of the sample (in terms of age and appearance does not respect the demographic structure identified at the level of the National Institute of Statistics).

As further study perspectives, because the database is very vast and allows this, we consider it opportune to carry out a correlational study between the two elderly-belonging databases, with the identification of the elements of the influence of the Maslach score on the quality of life of the elderly.

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