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RISK AND FEAR OF FALL IN ELDERLY: ASSOCIATED FACTORS

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ABSTRACT

The objective of this study is to evaluate the association between the risk of falls and the fear of falling in the elderly. This is an analytical study. The research was carried out in Basic Health Units in São Luís, Maranhão. The study population consisted of 406 elderly people. Three instruments were used: an identification form and social profile of the elderly, a Downton risk assessment form, and the international fall effectiveness scale (FES - I - BRAZIL).The Chi-square test of association was applied to evaluate the relationship between the qualitative variables: risk of falling and fear of falling, and their relationship with the variables of the chips. It has been noted that the risk of falling depends on the fear of falling. The characteristics of age, schooling, diagnosis of osteoporosis, not practicing physical activity and presenting underlying disease influence the risk of falling and fear of falling, just as the fact of living alone also influences the fear of falling. It is concluded that the risk of falls is associated with the fear of falling, and that, when determining the presence of fear of falling in an elderly person, it is assumed a high risk of falling.

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INTRODUCTION

Aging is a gradual, uncontrollable and irreversible process of decline in physiological functions, it does not necessarily result in disability, but as the individual ages, the chances of suffering injuries from accidents increase (Almeida, 2011). Among the accidents, we observed the falls as a highlight. It is noticeable that the rate of falls increases with age. Falls from one's height, for example, are a serious and frequent accident occurring with the elderly, as well as being the main etiology of accidental death among people 60 years of age or older (Pereira *et al.,* 2013). It is characterized as falling as an unintentional displacement of the body to a level lower than the initial position with inability to correct in a timely manner, determined by multifactorial circumstances, compromising the postural stability (Pereira *et al.,* 2013).

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Before et al. (2013) indicate that by 2050, one in three elderly people will suffer one or more falls per year, and about half will result in injuries, so the need to use health services will increase, especially at the secondary and tertiary levels.Fear of falling also appears as an aggravating factor, characterized by anxiety in walking or worry in excess of falling, the elderly become less confident and more dependent, consequently may appear depression, negative feelings and behavioral changes such as social isolation (Monteiro, 2014). In this context, the research problem arose: What is the association between the risk of falls and the fear of falling in the elderly served by the Family Health Strategy? Therefore, the objective of this study is to evaluate the association between the risk of falls and the fear of falling in the elderly served in the Family Health Strategy.

MATERIALS AND METHODS

This is an analytical, cross-sectional study with a quantitative approach.

The research was carried out at the Basic Health Units (BHU) of São Luís, Maranhão, Brazil, with Family Health Strategies (FHS) installed between September and November 2015.In order to obtain a better result in the research, with the acquisition of reliable data and that represent the reality of that city, were selected for the research, by lot, Basic Health Units of the municipality of São Luís. The BHU were drawn until more were counted of 20 times the number of visits to the elderly in 2014. The study population consisted of the elderly attending the BHU selected for the research. As inclusion criteria, the following requirements were adopted: age equal to or greater than 60 years and attended to in one of the participating units of the study. Elderly people who were not able to answer the questions were excluded from the study.

For the determination of the sample, the total number of visits to the elderly in the UBS surveyed during the year 2014 was considered, which made up a total of 7,960 elderly. When using a confidence level of 95% and a margin of error of 5%, we reached a sample of 367 elderly people. In order to better meet the objectives of the study, three instruments were used: the first one is an identification form and social profile of the elderly, the second was the Downton risk assessment form and finally the Efficacy scale of falls - international (fes-i-brazil). An identification card and social profile of the elderly were used in order to get to know the population studied. Thus, the following variables were questioned: identification, age, sex, marital status, schooling, whether alone, if you have a diagnosis of osteoporosis, if you practice physical activity and if you have ever received fall prevention guidelines. The downton risk score was selected for the study because of its proven practicality. In the research carried out by Schiaveto[5], the Downton, STRATIFY, Tinetti Fall Risk and Tullamore scales were compared, and it was found that the Downton scale had sensitivity of 81%, specificity of 24.7% and mean time of application of 6.34 minutes . This scale evaluates the risk of falls from five criteria: presence of previous falls, use of medication (s), presence of sensory deficit, mental state and walking characteristic (Pinho *et al.,* 2017). Therefore, it is natural to have a feeling of fear of its recurrences, so the use of the International fall effectiveness scale (fes-i-brazil), which was used in this study to measure the existence of this fear and its possible relevance in the continuity of the life of this elderly person (Camargos *et al.,* 2017). During the collection period, visits were made between Mondays and Fridays on selected units during alternating shifts in order to reach the expected number of samples. Participants were approached by the researcher and questioned about their age and interest in research participation, explaining the objectives and method of participation of the same.

After confirmation of age equal to or greater than 60 years and demonstration of interest of participation by the subjects, these were presented to the Informed Consent Term (ICT). For proper participation, the elderly completed the ICT properly, thus initiating the collection with the use of the aforementioned instruments. Initially, the descriptive analysis was performed by means of absolute and relative frequencies. The chi-square test ($\chi 2$) was used to evaluate the relationship between the qualitative variables: risk of fall (Downton scale) and fear of falling, and the relation of these, with sociodemographic characteristics, the fact of living alone, the diagnosis of osteoporosis, the prevention of falls orientation and the practice of physical activity (Callegari-Jacques, 2003).

For significant 2x2 associations, logistic regressions were calculated in order to obtain odds ratios (ORs), also known as odds ratio (OR), considering the 95% confidence interval. All tests were performed at 5% significance. The data collected was stored in a specific database created in the Microsoft Excel version 2016 spreadsheet. After checking for errors and inconsistencies, statistical analysis of the data was performed in the IBM SPSS program (IBM, 2003). The research is part of the project "Chronic Conditions in the Elderly Served in the Family Health Strategy in São Luís-MA", funded by the Fund for the Support of Scientific Research and Development of Maranhão (FAPEMA), in order to take into account the aspects recommended in resolution 466/12, on research involving human beings, respecting ethical principles, confidentiality and anonymity, was submitted to the Research Ethics Committee and approved with the opinion number 949.100 (Instituto Brasileiro de Geografia e Estatística, 2010).

RESULTS

Before beginning the analysis of the results of the risk of falling, the fear of falling and verifying the association of one with the other, it is necessary that the participant of this study be known, with regard to social and life characteristics. This information is fundamental for the interpretation of the social representations of these participants about aging and its influences on the risk of falling and on the fear of falling. The sample of the elderly studied was made up of 406 people, the majority female, which represents 56%. The minimum age of the studied elderly was 60 years and the maximum was 93 years, with a mean of 70.84, median age of 69 years. Of the 406 elderly surveyed, 216 are between 60 and 69 years old, this represents 53% of the sample and shows that the majority of the elderly attended at the FHT and who go to the health units are people still in the beginning of the elderly phase. Most of the elderly, 46%, are married. With regard to schooling, it is noticed that only 44.8% of the interviewees finished high school. Among those who finished high school 57% are female. Most of the interviewees do not live alone, representing 85% of the sample. Of the 15% who live alone, 53% are men, of whom 44% are 70 or older. The guidelines for falls prevention reached a large part of the sample, 292 elderly people said they were oriented about the situation, and how to avoid it, but a worrying factor is that of the 114 elderly people who said they had not received guidance on this condition, 52 already present the diagnosis of osteoporosis. Of the total number of individuals surveyed, 234 presented diagnoses of underlying diseases, such as hypertension, diabetes, cataracts, osteoporosis, sequelae of stroke, among others, representing 58% of the sample. Of these, 63% are women, most of them (55%) between 60 and 69 years, while of the 37% male, 55% are also in the same age group. Most of the interviewees presented a high risk of falls and extreme fear of falling. From the Chi-Square test, a highly significant p-value (<0.001) was reached, demonstrating that the risk of falling depends on the fear of falling.Analyzing the absolute and relative values it is observable that individuals who presented extreme fear of falling, have a high risk of falling in 86% of cases, elderly people with great fear of falling have a high risk of fall in 61.4%, can also be visualized , which decreases the fear of falling, automatically reduces the risk of falling, elderly people with a low fear of falling, for example, have a high risk of falling in only 38.5% of the interviewees, which demonstrates once again the association of one to the other.

Table 1. Risk of falls (Downton Scale) in relation to the fear of falling in the elderly of São Luís-MA, 2016, (n = 406)

Fear of falling	Downside Risk (Downton Scale)		p-value*	*Odds Ratio* (IC 95%)	
	High	Low			
Extreme	184 (86,0%)	30 (14,0%)	<0,001	3,83	(1,65 – 8,92)
Large	70 (61,4%)	44 (38,6%)		2,14	(0,92 – 4,94)
Low	30 (38,5%)	48 (61,5%)		REF	1,00

* *Association Chi-Square Test*

Table 2. Downton Scale Risk in relation to gender, age, marital status, schooling and the fact of living alone in the elderly of São Luís-MA, 2016, (n = 406)

CHARACTERISTICS	Downside Risk (Downton Scale)		p-value*
	High	Low	
Gender			
Male	136 (76,4%)	42 (23,6%)	0,08
Female	148 (64,9%)	80 (35,1%)	
Age (years)			
60 a 69	112 (51,9%)	104 (48,1%)	<0,001
70 a 79	94 (83,9%)	18 (16,1%)	
80 a 89	64 (100,0%)	0 (0,0%)	
≥ 90	14 (100,0%)	0 (0,0%)	
Marital Status			
Single	60 (69,8%)	26 (30,2%)	0,59
Married	124 (66,0%)	64 (34,0%)	
Widowed	70 (74,5%)	24 (25,5%)	
Divorced	30 (78,9%)	8 (21,1%)	
Schooling			
Illiterate	58 (90,6%)	6 (9,4%)	<0,001
Literate	66 (78,6%)	18 (21,4%)	
Complete Fundamental	54 (71,1%)	22 (28,9%)	
High school	84 (70,0%)	36 (30,0%)	
Incomplete third degree	6 (30,0%)	14 (70,0%)	
Completed third degree	16 (38,1%)	26 (61,9%)	
Live alone			
Yes	40 (66,7%)	20 (33,3%)	0,67
No	244 (70,5%)	102 (29,5%)	

* Association Chi-Square Test

Table 3. Risk of falls (Downton Scale) in relation to the diagnosis of osteoporosis, prevention of falls, physical activity and basic diseases in the elderly in São Luís, Brazil, 2016, (n = 406)

CHARACTERISTICS	Downside Risk (Downton Scale)		p-value*	*Odds Ratio* (IC 95%)**	
	High	Low			
Osteoporosis					
Yes	108 (93,1%)	8 (6,9%)	<0,001	8,74	(3,00 – 25,5)
No	176 (60,7%)	114 (39,3%)		REF	1,00
Guidance ***					
Yes	160 (68,4%)	74 (31,6%)	0,57	-	-
No	124 (72,1%)	48 (27,9%)		-	-
Physical activity					
Yes	94 (51,6%)	88 (48,4%)	<0,001	REF	1,00
No	190 (84,8%)	34 (15,2%)		5,23	(2,70 – 10,12)
Basic diseases					
Yes	230 (78,8%)	62 (21,2%)	<0,001	4,12	(2,14 – 7,93)
No	54 (47,4%)	60 (52,6%)		REF	1,00

*Association Chi-Square test. ** Calculated only for significant 2x2 associations and no zero values. *** Received falls prevention guidance.

Table 4. Fear of falling in relation to the diagnosis of osteoporosis, prevention of falls orientation, practice of physical activity and basic diseases in the elderly of São Luís-MA, 2016, (n = 406)

CHARACTERISTICS	Fear of falling			p-value*
	Extreme	Large	Little	
Osteoporosis				
Yes	82 (70,7%)	26 (22,4%)	8 (6,9%)	0,002
No	132 (45,5%)	88 (30,3%)	70 (24,1%)	
Guidance **				
Yes	138 (59,0%)	58 (24,8%)	38 (16,2%)	0,11
No	76 (44,2%)	56 (32,6%)	40 (23,3%)	
Physical activity				
Yes	78 (42,9%)	60 (33,0%)	44 (24,2%)	0,04
No	136 (60,7%)	54 (24,1%)	34 (15,2%)	
Basic diseases				
Yes	172 (58,9%)	72 (24,7%)	48 (16,4%)	0,02
No	42 (36,8%)	42 (36,8%)	30 (26,3%)	

*Association Chi-Square test. ** Received falls prevention guidance.

Taking the Odds Ratio as the low fear of falling, it is verified that elderly people with a great fear of falling are 2.14 times more likely to be at high risk of falls compared to the elderly with low fear of falling, while the elderly with extreme fear of falling are 3.83 times more likely to be at high risk of falls compared to the elderly with low fear of falling (Table 1). Of the male respondents, 136 (76.4%) had a high risk of falls, regardless of the marital status, the high risk percentages for falls were all over 66%, reaching 78.9% in the divorced 70, 5% of those who did not live alone were at high risk for falls. When looking at table 2, it was verified that only the characteristics of age and schooling influence the risk of falling, since both have p-value with high significance (<0.001).As for age, it is observed that with the advancement of the same, the greater the risk of falls, for example, elderly people aged between 70 and 79 years presented a high number of falls in more than 80% of the interviewees, and it worsens when it reaches 80 years or more, as the risk of falling is as high as 100%.As far as education is concerned, the lower the schooling level, the greater the risk of falling, we arrive at this conclusion if we compare, for example, the elderly with complete and illiterate fundamental education, both presented similar absolute values in relation to the high laughter of however, while those who finished elementary school presented a risk of a high drop in 71.1% of the cases, illiterate individuals presented it in 90.6%, so the risk of drop is inversely proportional to schooling.

Among the characteristics raised in table 3, only the orientation regarding the prevention of falls was not significant. When the elderly had access to counseling, they had a high risk of falls in 68.2% of the cases, when they did not receive guidance they had a high risk of falls in 72.1%.The other characteristics presented a p-value of <0.001, as for the diagnosis of osteoporosis, it is observed that the elderly who present it are 8.74 times more likely to have a high risk for falls, of those interviewed, for example, those who presented this diagnosis had high risk for falls in 90.3% of cases, while those who did not had high risk in 60.7%.Regarding physical activity, the elderly who do not practice this type of activity are 5.23 times more likely to be at high risk for falls.Of those interviewed, 84.8% of those who did not practice physical activity had a high risk for falls, while 51.6% of those who practiced physical activity had a high risk for falls. As for basic diseases, it was verified that if the elderly present any of them, it will be 4.2 times more likely to be at high risk for falls.Of those with underlying diseases, 230 elderly (78.8%) were at high risk for falls, while those who did not have closed diagnoses for any underlying disease, only 54 (47.4%) were at high risk for falls. The fact of being male or female does not influence the fear of falling, during the research 53.9% of the men presented extreme fear of falling, 27% were very scared to fall and 19.1% presented little fear. Women who had extreme fear of falling were 51.8%, 28.9% were very fearful of falling and 19.3% had litte fear.Another feature that does not influence the fear of falling is the marital status, most had extreme fear of falling regardless of marital status, only the divorced were above 20% with the low fear of falling.Regarding age, a high significance (<0.001) was observed, and the higher the age the greater the fear of falling, reaching 71.4% of individuals with extreme fear in the elderly with 90 years or more. Just as age, schooling and living alone influence the fear of falling, both have p-value <0.05. Guidance on preventing the risk of falls was not significant, the elderly who were not oriented were mostly fearful of falling (44.2%), those who had guidance were also extremely fearful of falling (59%).The other characteristics of Table 4 are significant in relation to the fear of falling. Of those diagnosed with osteoporosis, 70.7% are extremely fearful of falling.As well as the diagnosis of osteoporosis, physical activity and underlying diseases also influence the fear of falling, of the 224 elderly people who do not practice any physical activity, 60.7% presented extreme fear of falling, 24.1% are very fearful of fall and 15.2% have little fear of falling. Of those with underlying diseases, 58.9% were extremely fearful of falling, 24.7% were very fearful of falling, and another 16.4% had low fear of falling.

DISCUSSION

The mean age of the population reached by this research was 70.74 years, data that resemble the average age of the Brazilian elderly population that is 69 years old[11].In this research, a large concentration of elderly people between 60 and 69 years old who attended the Family Health Strategy was registered, accounting for 53% of the sample, which demonstrates a greater ease of access of this niche of the elderly population to the health services in relation to the others[12].Álvares, Lima and Silva[12] confirm this possibility when they affirm that muscle strength decreases with age, since there is a gradual loss of 10% of it in each decade lived from the age of 50, which would make it difficult for the individuals to move. Other information consistent with the literature was the "feminization" of aging, a situation already corroborated by the literature (Nascimento, 2016; Reis, 2015), which consists of the faster growth of the female population in comparison to the male population with the advancing age. This is likely to happen because the female population has a longer life expectancy than the male population and seek more health services (Almeida *et al.,* 2015). Because we are part of Brazil, a patriarchal society, still very traditional and even surrounded by recent changes in social standards, we still expect common sense, marriage-stricken patterns of marriage, with people who reach the elderly stage of their lives, married.Even though the data from this research show that yes, the elderly are mostly married (46%), 30% were unmarried, whether single or divorced.Of the 30% who are unmarried, 21% are single, and the majority (69.77%) are women, probably because the state of Maranhão has a larger female population than the male population, data that is observable on IBGE's website as projection for the year 2017 a concentration of 50.59% of women in this state.

Other studies showed similar results regarding marital status. Pinho et al. (2014) Found 54.7% of married women, but with differences related to the present study, presented in their results a low amount of divorced elderly (0.7%). Of the group of widowers, 53% are female, which is explained again by the fact that female longevity is already confirmed as higher than male in the literature, either because of the male exposure to inherent occupational risks still dominated by this gender, or because of the fact the highest self-care in the female gender was also observed in the bibliography.As in this research, Almeida et al[15]. Also found a high percentage of widows and explained this fact by the differentiated longevity between the genders, however, found a larger number of married men in relation to the women, and affirmed that this was due to the fact that when a man was widowed, it was easier for him to marry again, but this fact was not observed in the current research.

Women are the majority of the sample studied, and despite all difficulties, they present interesting results regarding schooling.There was a greater difficulty for the woman to become literate. Of the illiterates reached by the research, 53% are women, a fact observed by Belon, Lima and Barros[16], who attributed this fact to the difficulties of access to schooling, once greater than today, but still present and especially for women. 85% of the participants live with a companion, with no degree of kinship specified, but this is seen as positive, since the fact of not having an in-home company has been associated with a decline in quality of life, worsening of morbidity and even an indicator of mortality risk.Studies[6, 17] also verify this large contingent of elderly people with this support network, inserted in domiciliary environments with different arrangements, such as households with other elderly people, or living with their children or grandchildren.

As previously seen, in the present study the risk of falls was assessed through the Scale Risk of Downton Falls.However, it was necessary to identify which sociodemographic and health factors could influence the results of this scale. The risk of falls in relation to the characteristics: age, sex, marital status, schooling, living alone, having a diagnosis of osteoporosis, having a diagnosis of any underlying disease, practicing physical activity and having received guidance on fall prevention. Among the aforementioned characteristics, five had high significance and therefore were considered as factors that influence the risk of falls: age, schooling, presence of osteoporosis diagnosis, presence of basic diseases diagnosis and physical activity practice. Age is perhaps the easiest to observe the relationship, available literature emphasizes that advancing age is a predisposing factor for increased risk of falls and is mainly related to physiological changes already expected for the aging process, which even when happens in a healthy way, presents changes such as: decreased visual acuity, decreased balance, decreased muscle strength (Pinho *et al.,* 2016; Ferreira *et al.,* 2010). In this study it was verified a high significance of schooling for the risk of falls (p-value <0.001), so that the higher the schooling, the lower would be the fall-rich and vice-versa. Other studies that assessed the risk of falls from other perspectives and instruments such as the study by Santos et al. (2017) in 2015 found no similar or significant significance between schooling and the risk of falls.However, it is understood that the greater the schooling, the easier it would be to understand and adhere to the guidelines[19] and measures to reduce the risk of falls.

Another aspect that influenced the risk of falls was physical activity, which when not performed by the elderly, it is 5.23 times more likely to present a high risk of falls and the literature confirms this finding.Studies such as that of Pinheiro, Vilaça and Carvalho (Pinheiro, 2014) present relationships between physical activity and improvements in quality of life and rehabilitation of the elderly affected by chronic conditions, when practiced regularly. It was already expected that the presence of diagnosed osteoporosis and pre-installed basic diseases would characterize as motivating factors for the increased risk of falls, both diagnoses presented p-value <0.001 demonstrating high significance.Brazil (Santos *et al.,* 2017), in the Basic Attention book number 19 raises the presence of these diagnoses as predisposing factors for the increased risk of falls. In addition to the diagnosis of osteoporosis and underlying diseases that are already confirmed by the literature as factors that are related to the increased risk of falls, they are related to polypharmacy, which presents the use of several medications to control diseases and maintain the health of the elderly, but is related to an increased risk of falls (Fhon *et al.,* 2012; Ribeiro *et al.,* 2008; Abreu *et al.,* 2012). It is noteworthy that with all these changes and skills decline, the risk of falls is increased especially if they are associated in one person.The increase in the number of falls becomes a public health problem by increasing health costs in the treatment of the elderly and becomes a social problem by accelerating the process of social disengagement of this elderly person, facts such as falls and the fear of falling influence directly in the interaction of the elderly, because they reduce the interaction with the fear of being injured (Lopes *et al.,* 2017). Authors relate the fear of falling to the elderly's loss of confidence in their balance, or even their knowledge of their inability to avoid falls because of their inherent limitations of their condition (Lopes *et al.,* 2009). The literature reports that fear of falling can occur between 12% and 65% of those aged 60 and over, with or without a history of falls. However, for the elderly over 60 and who have already fallen, the fear of falling ranges from 29% and 92%.It is also known that the fear of falling may or may not be associated with some fall, but it should be noted that a person who has already experienced a fall is more likely to manifest fear (Lopes *et al.,* 2009; Cumming, 1961). As in the assessment of the risk of falls, it was necessary to carry out the verification through the Scale of Downton Falls, the fear of falling necessitated a specific instrument for its analysis, the Efficiency Scale of Falls - International (FES-I-Brazil), and it is imperative to identify which sociodemographic and health factors could influence the results of this scale.

It was verified the fear of falling in relation to the same characteristics previously analyzed: age, sex, marital status, schooling, living alone, having a diagnosis of osteoporosis, diagnosing any underlying disease, practicing physical activity and having received guidance about prevention of falls. Among the characteristics adopted to verify influence, six presented significance and therefore they were configured as factors that influence the fear of falling: age, schooling, the presence of the diagnosis of osteoporosis, presence of the diagnosis of basic diseases, the practice of physical activities and the fact of living alone. The association of fear of falling evaluated by FES-I was observed and evaluated as high, presenting p-value <0.001, which is in agreement with the literature and was observed in other studies that used this scale for evaluation, as the study by Lopes and his colleagues[25], which evaluated 253 elderly people about the fear of falling and their correlation regarding mobility, dynamic balance, risk and history of falls. In the study of Lopes and his collaborators[25] a low correlation of age with the FES-I scale was found, and it was explained that as the age advances, functional reserve decline is expected, and that when the elderly person perceives this loss, the fear of falling. Cumming's and Henry's (Cumming, 1961) disengagement theory also conceives of this idea. In asserting the four postulate of his theory that the life cycle is punctuated by changes in the ego, based on skills and knowledge, and that aging decreases skills. They further affirm that success is directly proportional to the accumulation of skills and knowledge. Consequently, at the moment that the elderly person understands his limitations, nowadays given the advancing age, He is afraid, entering into a vicious cycle of social disengagement. The level of schooling influenced the fear of falling, it was observed that the higher the educational level, the greater the fear of falling.

This was probably due to the fact that when it presents higher education, it would be the understanding that this illness, the fall, could provide negative changes and health limitation (Santos *et al.,* 2015). The diagnosis of osteoporosis also influenced the fear of falling, with p-value <0.05, this is easy to understand, after all, it is understood that when having this diagnosis installed and know the changes that it will provide to the individual, the same already is assessed as limited in daily activities, influenced by the fear of falling as an intrinsic factor. The diagnosis of underlying diseases presented a p-value of 0.02 and influenced the fear of falling, when it was verified that elderly people with basic diseases, whatever they were, showed extreme fear of falling in 58.9% of the cases.In the study conducted by Antes, Schneider, Benedetti and D'orsi[3], patients with a diagnosis of systemic arterial hypertension (SAH) and diabetes mellitus were more concerned with falls, however, they were not able to establish a correlation between the pathology and the FES questionnaire-I.

As far as physical activity was concerned, it was possible to verify its influence in the fear of falling when it was found that when the elderly did not practice physical activity the fear of falling became extreme in 60.7% of the cases with a p-value of 0.04 and this is probably due to the fact that when the elderly person identifies as an individual with limitations and unaware of their real possibilities, the same thing disengages from the activities of daily living.If the disengagement theory of Cumming and Henry[26] is taken into account, as the elderly disengages from social activities, as a practice of physical activities, the same declines in their quality of life, and all this can be triggered by the presence of the Fear of falling. The analysis of the fear of falling in relation to sociodemographic and health factors differed in the results in relation to the same analysis referring to the risk of falls only in relation to the fact that the elderly live alone or not, than in the evaluation made regarding fear of drop presented significance with p-value of 0.02. The literature refers to the fact of living alone as predisposing to the increase in the number of falls, as well as to the increased fear of falling[29, 30].The association between fear of falling and the fact of living alone is probably related to the support needs that the elderly present, especially when related to the fear of falling in elderly people with a history of previous falls. From the chi-square test performed in this study to verify the association of risk of falls with the fear of falling, a highly significant p-value (<0.001) was reached, demonstrating that the risk of falls depends on the fear of falling. Although the literature has already demonstrated a causal relationship between the risk of falls and the fear of falling, no studies were found to do so by analyzing in association with the risk of Dowton falls and the FES-I scale.
Rather, Schneider, Benedetti and D'orsi[3] argue that the fear of falling must be interpreted as a public health concern because it entails a greater propensity for the elderly to decline functionally and increases the risk of falls. As disengagement is an inevitable process some of the relationships existing between a person and the other members of society are broken and those that remain are modified qualitatively (dos Santos *et al.,* 2016), although inevitable is a gradual process that must be balanced between society and the individual. However, sometimes this balance is disturbed by accelerating the process of social disengagement of this elderly person, either by an act of violence against the same (extrinsic factor) or fear of falls (intrinsic factor) that this elderly person can presente (dos Santos *et al.,* 2016). From the verification of the existence of the association of risk of falls with the fear of falling, it is possible to infer that when an elderly person presents great or extreme fear of falling, besides being subject to an exacerbated social disengagement process, that if maintained can generate aggravation of chronic conditions and increase the morbidity of this elderly person, he is 2.14 times more likely to have a high risk of falls when he is very fearful of falling, while when he is extremely fearful of falling the same elderly develops 3,83 times more likely to have a high risk of falls.

Conclusion

It is concluded that the risk of falling is associated with fear of falling, during this study, there was extreme significance in the association between the two, which means that when the fear of falling is present, this elderly person is more susceptible to falls and so we must represent it with an elderly person who must be evaluated and followed up. Both the risk of falls and the fear of falling were influenced by characteristics such as age, schooling, diagnoses of underlying diseases or osteoporosis and sedentary lifestyle, and these changes should be observed as influencers of this aggravation and thus necessary to react to them as needed of the elderly. It was also observed that the fact of living alone increases the fear of falling from the elderly and if it is verified that all these data analyzed it is perceived that this may be a factor that could provide better results if it could guarantee companionship to the elderly in their housing all the time. As the fear of falling influences the risk of falls, ensuring a decrease in fear reduces the risk of falls. As the other aspects become unlikely, some even impossible to get around, securing company to the elderly would reduce the risk of falls.This decreases the incidence of this disease, even in the presence of characteristics such as age, schooling, underlying diseases or diagnosis of osteoporosis or even the sedentary lifestyle. Thus, we see the need to guarantee care for this population, greater vigilance to reduce the risks they are suffering, not even if this surveillance is done by non-relatives, but simply as a guaranteed decrease in the fear of falling. This would be a care for the elderly who already present themselves in this situation of fear installed, with increased risk for falls, but what is perceived with the help of the literature is that many injuries, including the fall, is diminished as self-care becomes present in the person's life as a young person. Therefore, it is necessary to continue investing in Primary Care, in an attempt to ensure a healthy, quality and risk-reducing aging for the population, since aging is a reality, gradual and without limitation for the life.

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