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Effect of Expressive Therapies on Sleep Disorders in Hyperfrequent elderly of Primary Health Care

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Abstract— *The study aimed to verify the efficacy of expressive therapies (ET) in sleep disorders in* hyperfrequent *elderly (HE) of Primary Health Care (PHC). Quasi-experimental study, with 69 elderly people assisted at PHC in a metropolitan region of the Midwest, divided into two groups: intervention (elderly with high attendance) and control (low-frequency elderly). Sleep questionnaires were used: Pittsburgh Sleep Quality Index (PSQI), Epworth Sleepiness Scale (ESS), Insomnia Severity Index (ISI) and STOP-bang (SB), in addition to the investigation of sociodemographic variables, anthropometric and health service-related. For data analysis, chi-square tests, multivariate analysis of variance and Wilks' Lambda test were used, considering* $p \leq 0.05$*. The intervention group (IG) showed a decrease in PSQI scores (*$p = 0.003$*), ESE (*$p = 0.006$*), IGI (*$p < 0.001$*), SB (*$p = 0.002$*) with significant differences between groups.* ET were effective in the female and male IG, attenuating sleep disorders. Thus, by reducing sleep disorders in the group of HE people with the use of non-pharmacological intervention in PHC, it is possible to improve sleep quality and, consequently, reduce the use of health services, reducing financial costs for the health system public.

***Keywords*— Complementary therapies, Elderly, Motor Activity, Primary Health Care, Sleep.**

I. INTRODUCTION

Sleep disorders have an impact on sleep quality during senescence, due to changes in structure and an increase in the duration of the more superficial stages of sleep. Thus, it is necessary to know the changes associated with aging, in order to define the clinical conditions of sleep in the elderly person as normal or pathological [1, 2, 3].

With population aging, there is likely to be an increase in the prevalence of sleep disorders. However, even with the incidence, prevalence and intensity of sleep disorders increasing with age, chronological age is not an independent predictor of future disorders [4, 5, 6], however, the literature points to sex as a major impact factor for the development of sleep disorders as age advances, with greater vulnerability in female, due to the influence of the physiological and cyclical hormonal variability of the female organism [7, 8].

Sleep disorders have multifactorial causes affecting 25 to 30% of the adult population, which can consist of primary or secondary conditions, representing a serious risk to public health. They are risk factors for the elderly population, estimating that 50% of this age group have symptoms related to sleep [6, 9, 10]. A systematic review study, point out that among the elderly, sleep duration is associated with an increased risk of mortality from all causes, and long-term sleep is correlated with cardiovascular mortality [10].

In Primary Health Care (PHC), the gateway to elderly care [11, 12], sleep assessment is incipient. Studies related to sleep in PHC in the elderly population is of great

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relevance, as it will provide subsidies for early diagnosis and treatment through non-pharmacological measures, minimizing consequences on poor quality sleep and serious repercussions on the global health of the elderly.

The hypothesis of the current research is that expressive therapies minimize sleep disorders in elderly hyperfrequent of PHC. To guide the research, the following question was asked: are expressive therapies effective in decreasing sleep disorders in elderly hyperfrequent of PHC?

The aim of the current study is to verify the efficacy of expressive therapies in reducing sleep disorders in PHC hyperfrequent elderly, stratified by sex.

II. MATERIALS AND METHODS

This is a quasi-experimental study, carried out from January 2018 to January 2020, at the Basic Health Unit (BHU) belonging to the metropolitan area of the Federal District.

For the initial screening of the study, 160 elderly people who had medical care in 2017, at the BHU, were included as participants in the research. The sample was divided into two groups: intervention group, with hyperfrequent individuals; and control group, with non-hyperfrequent individuals. Hyperfrequent individuals were considered, the 10% who had the highest number of medical consultations in the last 12 months, the definition most used in national and international studies [13, 14, 15, 16], and non- hyperfrequent, those 10% less frequently in medical consultations in the same period.

The inclusion criteria in the sample were: age 60 years or older, being registered at the BHU of Granja do Torto, medical care in 2017 at the same BHU, availability to answer the questionnaires applied and to participate in expressive therapy sessions and signature of the informed consent form. Exclusion criteria were: visual, auditory or language deficits, which hindered communication, medical diagnosis of stroke, depression (in treatment) or dementia, 25% or more absences in expressive therapy sessions, and cognitive deficit, measured in the Mini Mental State Examination (MMSE).

In the MMSE, cutoff points were used according to schooling: 17 for illiterate, 22 for one and four years, 24 for five to eight years, and 26 for nine or more years of schooling [17]. The elderly who scored below the cut-off point were excluded from the survey.

The selected elderly people were invited, by telephone, to attend the BHU of Granja do Torto, and a meeting was scheduled to explain the objectives of the study. After the clarifications, the participants signed the Free and Informed Consent Form and the research was conducted according to the ethical principles contained in the Declaration of Helsinki and Resolutions 466/12 and 510/2016.

Data collection was performed through questionnaires that addressed: demographic variables (sex and age), anthropometric variables: body mass index (BMI) based on measurements measured by weight and height, and cervical circumference calculated at the base of the neck at the height of the cricothyroid cartilage (in men with prominence it was measured below it), according to the criteria Ben-Noun [18], and sleep variables.

The questionnaires on sleep disorders applied were:

- Pittsburgh Sleep Quality Index (PSQI), created by Buysse et al [19], in the version translated and validated in Portuguese by Bertolazi et al [20], who assesses the quality and sleep disorders related to the last 30 days. The sum of the scores of seven components generates global PSQI scores, which indicate: 0 to 4 points, good sleep quality, 5 to 10 points, poor sleep quality and above 10 points indicate the presence of some sleep disorder. Good sleepers comprise patients who obtain final scores between 0 and 4 points and bad sleepers correspond to those with a final score equal to or greater than 5 points.

- Epworth Sleepiness Scale, developed by Johns [21], translated and validated for use in Portuguese by Bertolazi et al [22], used to assess excessive daytime sleepiness. The global score ranges from zero to 24 points, with scores above 10 suggesting the diagnosis of excessive daytime sleepiness.

- Insomnia Severity Index, developed by Bastien et al [23], with cross-cultural adaptation for use in Brazil and validation performed by Castro [24], assesses the degree of severity of insomnia with the following score: from 0 to 7, did not reach criteria for insomnia; from 8 to 14, mild insomnia; from 15 to 21, moderate insomnia; and from 22 to 28, severe insomnia.

- Stop Bang was developed by Chung et al [25], validated in Brazil by Duarte et al [26], and the final score of this instrument varies from zero to eight points. The sum between zero and two points indicates low risk of obstructive sleep apnea (OSA), while three to four points indicate intermediate risk and five to eight points high risk.

After applying the instruments for sleep assessment, the presence or absence of sleep disorders was quantified.

The hyperfrequent elderly were submitted to expressive therapy (ET) sessions, twice a week, with an average duration of two hours, for 24 weeks. The exercises proposed in the ET sessions were adapted from biodance, a

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system of integration and human development oriented towards the expression of human potential through dance, communication exercises and integrative experiences induced by music [27].

The following lines of experience of biodance were used: vitality / identity, affectivity, creativity and transcendence [28]. The exercises of the vitality line were synergistic, melodic and celebratory walks; vitality games; looking games; fluidity exercises; progressive activation wheel and rhythmic dances [27, 28, 29]. In the exercises to stimulate creativity, seed dance, yang dance, yin dance were performed, in addition to creative games that will seek to rescue joy such as the playful dance in pairs or looking games. In the line of affection we had: the wheel of lull, the wheel of communion, affective meetings in feedback, lap, fraternal hugs, walking with confidence and walking with affective motivation; and in the line of transcendence, a circle of reverence and baptism of light were performed [27, 28, 30].

In the ET sessions, music from the time of the youth of the hyperfrequent elderly was used, taking into account their sound preferences and trying, whenever possible, to use sung songs (in Portuguese), in addition to the popular songs chosen by the elderly participants, erudite songs were used in the sessions, with the aim of producing emotions of love, affection and happiness, dancing with these songs.

The control group (non-hyperfrequent elderly) did not perform any type of scheduled regular activity during the 24 weeks in which the ET intervention was performed. After this period, both groups were reevaluated with the instruments to verify sleep variables.

The data were processed and analyzed using the SPSS software, version 22.0, duly registered for the research. Initially, descriptive statistics were performed, with measures of central tendency and dispersion (mean and standard deviation) and qualitative measures by relative and absolute frequencies. Then, the Shapiro Wilk test was applied in order to verify the normality of the data. Pearson's chi-square test was used to analyze the association between groups (intervention and control) and sociodemographic characteristics. For comparison between the pre and post intervention moments, multivariate analysis of variance was used for repeated MANOVA measurements (two groups x two moments) and the Wilk Lambda test was applied. For all tests, the significance level of $p \leq 0.05$ (5%) was considered as a positive indicator of statistical significance.

The research was submitted to the Research Ethics Committee of the Catholic University of Brasilia (REC / CUB) under CAAE: 57587516.9.3001.5553 and approved according to opinion No. 1,861,003 on December 12, 2016, being a subproject of the integrated project called “Hyperfrequent elderly people in Primary Health Care: influence of expressive therapies on the frequency of consultations and sleep disorders."

III. RESULTS

160 elderly people who had medical care in 2017 at the PHC of Granja do Torto were admitted to the study. However, only 70 elderly people met the eligibility criteria, with 33 distributed in the intervention group (elderly with high attendance) and 37 in the control group (low-frequency elderly). Fig. 1 represents the flowchart of the sample selection used in the study.

The 69 elderly people were divided, according to sex, into four groups: in group one, 22 elderly women (31.9%) hyperfrequent female (HF), group two, 10 elderly people (14.5%) hyperfrequent sex male (HM), group three, 28 elderly (40.6%) non-hyperfrequent female (NHF); and in group four, 9 (13.0%) non-hyperfrequent male (NHM).

The predominant age group in the female and male hyperfrequent elderly and in the female non-hyperfrequent elderly was 70 to 79 years, while in the non-hyperfrequent elderly, in the male sex, the age group from 60 to 69 years and 70 to 79 predominated. years. No significant differences were found in the age variable between the groups (Table 1).

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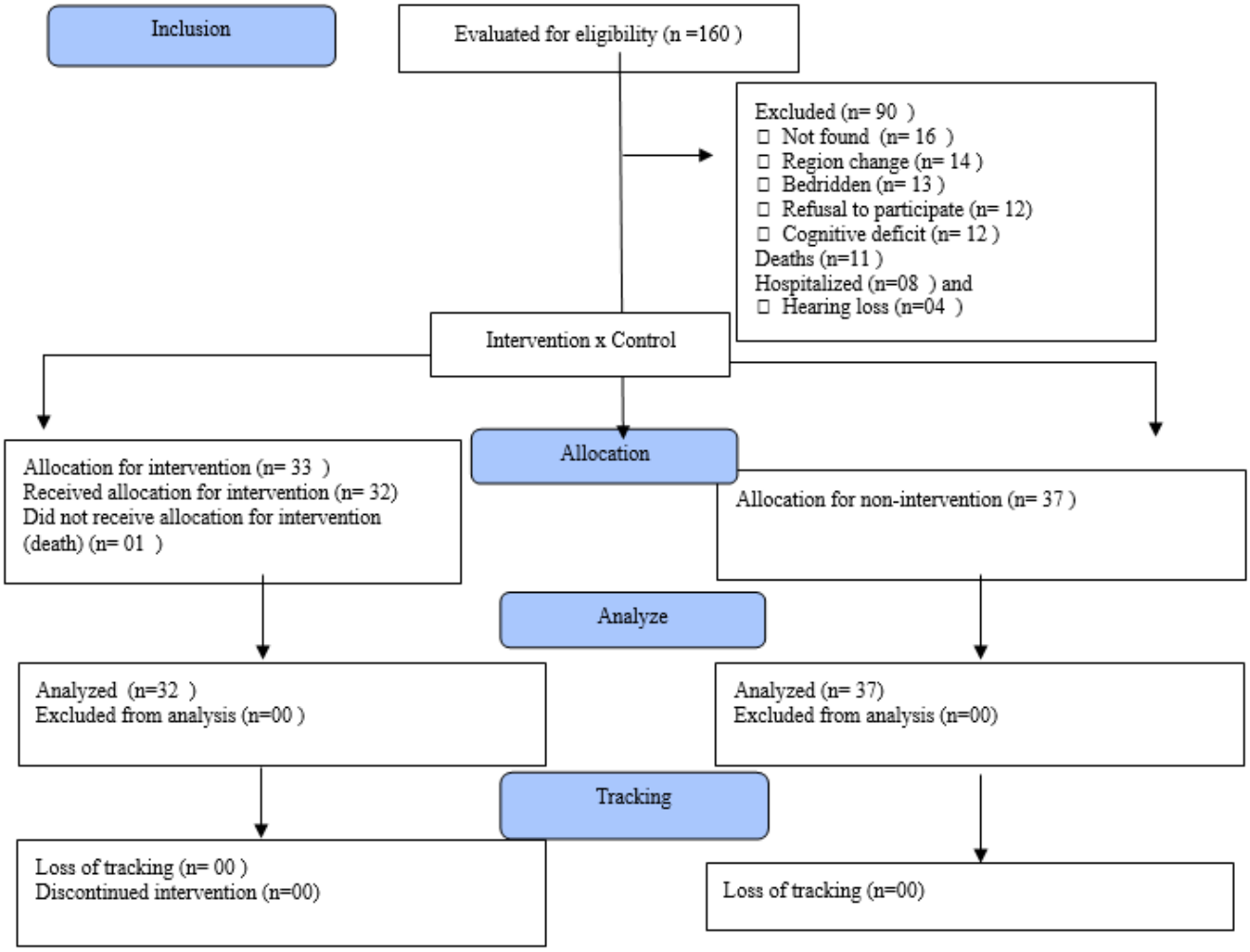

Fig. 1: Flow diagram of the study selection process.

Table. 1: Classification of the age group of elderly users of PHC in Granja do Torto, according to sex, Brasília, DF, Brazil, 2018-2020.

VARIABLE	Hyperfrequent		Non-hyperfrequent		
	HF n (%)	HM n (%)	NHF n (%)	NHM n (%)	p-value
Age (years)					0.23
60-69	3 (13.6)	4 (40.0)	15 (53.6)	4 (44.4)	
70-79	14 (63.6)	6 (60.0)	10 (35.7)	4 (44.4)	
80-89	4 (18.2)	0 (0.0)	3 (10.7)	1 (11.1)	
90 or more	1 (4.5)	0 (0.0)	0 (0.0)	0 (0.0)	
Mean (± standard deviation)	75.1±6.8	71.3±5.7	69.2±6.82	71.3±6.8	
Total	22 (100.0)	10 (100.0)	28 (100.0)	9 (100.0)	

Abbreviations: HF = Female hyperfrequent; HM = Male hyperfrequent; NHF = non-hyperfrequent female; NHM = non-hyperfrequent male. ** Significant association ($p \leq 0.05$) - Chi-square test.

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As for the assessment of sleep disorders, there was a significant difference in sleep quality (p = 0.02) and in excessive daytime sleepiness (p = 0.02) between groups. Hyperfrequent had a higher prevalence of poor sleepers, both in female (90.9%) and in male (90.0%), with a significant difference (p = 0.03) (Table 2).

As for insomnia, among the 32 hyperfrequent, 11 (15.9%) presented, being in the feminine and masculine sexes, respectively, 5 (22.7%) and 2 (20.0%) with light intensity and 3 (13, 6%) and 1 (10.0%) with moderate intensity. Of the 37 non-hyperfrequent elderly, 9 (13.0%) had insomnia, 4 (14.3%) and 1 (11.1) with mild degree, and 2 (7.1%) and 1 (11.1) of the moderate type, in the feminine and masculine sexes, respectively. No significant difference was found between the degrees of insomnia between the groups (Table 2).

As for the risk of obstructive sleep apnea (OSA), the prevalence of high risk for OSA was 27.3% in HF, 20.0% HM and 17.9% in NHF, with no significant difference between groups (Table 2).

Regarding the presence of sleep disorders, 19 (86.4%) and 10 (100.0%) of the elderly who were hyperfrequent and 18 (64.3%) and 8 (88.9%) of the non-hyperfrequent elderly, of the sexes male and female respectively, had some sleep disorder (Insomnia and / or Sleep Apnea Syndrome) with significant difference between groups (p = 0.05) (Table 2).

Table. 2: Sleep changes, according to sex, in the 69 elderly people from the Basic Health Unit of Granja do Torto, Distrito Federal, 2018-2020.

VARIABLES	**Hyperfrequent**		**Non-hyperfrequent**		
	HF n (%)	HM n (%)	NHF n (%)	NHM n (%)	p-value
Sleep quality					**0.02***
Good sleep quality	2 (9.1)	1 (10.0)	11 (39.3)	1 (11.1)	
Poor sleep quality	10 (45.5)	7 (70.0)	9 (32.1)	7 (77.8)	
Sleep disturbance present	10 (45.5)	2 (20.0)	8 (28.6)	1 (11.1)	
PSQI					**0.03***
Good sleeper	2 (9.1)	1 (10.0)	11 (39.3)	1 (21.7)	
Bad sleeper	20 (90.9)	9 (90.0)	17 (60.7)	8 (88.9)	
Insomnia Severity Index					0.98
Absence of insomnia	14 (63.6)	7 (70.0)	21 (75.0)	7 (77.8)	
Mild insomnia	5 (22.7)	2 (20.0)	4 (14.3)	1 (11.1)	
Moderate insomnia	3 (13.6)	1 (10.0)	2 (7.1)	1 (11.1)	
Severe insomnia	0 (0.0)	0 (0.0)	1 (3.6)	0 (0.0)	
Epworth Sleepiness Scale					**0.02***
Normal	12 (54.5)	5 (50.0)	23 (82.1)	3 (33.3)	
Abnormal (Excessive daytime sleepiness)	10 (45.5)	5 (50.0)	5 (50.0)	6 (66.7)	
Risk of Obstructive Sleep Apnea (OSA)					0.34
Low risk of OSA	5 (22.7)	1 (10.0)	11 (39.3)	4 (44.4)	
Intermediate risk of OSA	11 (50.0)	7 (70.0)	12 (42.9)	5 (55.6)	
High risk of OSA	6 (27.3)	2 (20.0)	5 (17.9)	0 (0.0)	
Present Sleep Disorder (Insomnia and / or OSA).					**0.05**

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No	3 (13.6)	0 (0.0)	10 (35.7)	1 (11.1)	14 (20.3)
Yes	20 (86.4)	10 (100.0)	18 (64.3)	8 (88.9)	55 (79.7)
Total	22 (31.9)	10 (14.5)	28 (40.6)	9 (13.0)	69 (100.0)

Abbreviations: HF = Female hyperfrequent; HM = Male hyperfrequent; NHF = non-hyperfrequent female; NHM = non-hyperfrequent male. PSQI = Pittsburgh Sleep Quality Index. ** Significant association ($p \leq 0.05$) - Chi-square test.

Table 3 shows the average values of measures of sleep disorders in the two assessment periods, before and after the intervention, expressive therapies, with their respective means and standard deviation. The ET intervention significantly reduced the PSQI scores (pre-intervention: 9.8 ± 4.1; post-intervention: 7.7 ± 4.7), indicating a significant improvement in sleep quality (p = 0.003). In addition, it was effective in mitigating excessive daytime sleepiness (p = 0.006). The IGI scores decreased after the intervention, which indicates a lower severity of insomnia in the intervention group (hyperfrequent elderly), with a significant difference (p <0.001). Significant changes were also observed in the SB scores (Pre-intervention: 3.5 ± 1.1; Post-intervention: 3.1 ± 1.0), with a significant difference ((p = 0.002). A significant decrease in the scores of the PSQI, ESS, ISI and SB was observed in the male and female sex of the elderly with high frequency after intervention (Table 3).

Table.3: Multivariate analysis of sleep disorders, before and after application of the Expressive Therapies intervention, in the 69 elderly people at the Basic Health Unit of Granja do Torto, Distrito Federal, 2018-2020.

Variables	**Hyperfrequent (Intervention group)**		**Non-hyperfrequent (Group control)**		
	Pre intervention	Post intervention	Pre control	Post control	
	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD	p-value
PSQI	9.84±4.10	7.75±4.73	7.51±4.88	9.05±4.28	**0.003**
ESS	9.81±5.28	7.75±5.29	7.86±4.94	9.46±5.28	**0.006**
ISI	6.25±5.48	5.25±4.85	5.84±6.04	10.0±6.22	**<0.001**
SB	3.59±1.18	3.16±0.92	3.16±1.32	3.84±1.65	**0.002**

	Female hyperfrequent (Intervention group)		**Non-hyperfrequent female (Group control)**		
	Pre intervention	Post intervention	Pre control	Post control	
	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD	p-value
PSQI	10.5±4.31	8.68±5.09	7.32±5.01	8.79±4.45	**0.03**
ESS	9.55±5.48	7.55±5.44	6.86±4.60	8.68±5.59	**0.01**
ISI	6.27±5.95	5.82±5.50	5.71±6.46	9.64±6.24	**0.007**
SB	3.45±1.22	2.95±0.89	3.29±1.43	3.57±1.64	0.06

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	Male hyperfrequent (Intervention group)		**Non-hyperfrequent male (Group control)**		
	Pre intervention	Post intervention	Pre control	Post control	
	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD	p-value
PSQI	8.4±3.34	5.7±3.16	8.11±4.64	9.89±3.85	**0.01**
ESS	10.4±5.06	8.2±5.18	11.0±4.87	11.89±3.37	0.24
ISI	6.20±4.56	4.0±2.82	6.22±4.79	11.11±6.37	**0.002**
SB	3.90±1.10	3.6±0.84	2.78±0.83	4.67±1.50	**0.002**

Abbreviations: SD = standard deviation; PSQI = Pittsburgh Sleep Quality Index; ESS = Epworth Sleepiness Scale; ISI = Insomnia Severity Index; SB = STOP-Bang.

IV. DISCUSSION

In the sample of 69 elderly people in the current study, in relation to sleep quality, assessed by questionnaires in a subjective way, among the 32 hyperfrequent elderly, 9.1% and 10% of female and male, respectively, had good quality sleep, being classified as good sleepers. A significant difference was observed in the subjective assessment of sleep quality between groups, according to sex, indicating higher levels of poor sleep quality in hyper and non-hyperfrequent in male. Studies by Vieira [31] and Costa et al [32] corroborated this finding, and in these surveys, 84.4% and 75% of elderly PHC users, respectively, presented scores indicating poor sleep quality. Silva et al [33] and Monteiro [34], analyzing 65 elderly people living in the community, found that 63% and 69.4%, respectively, showed poor quality sleep. In disagreement with the findings of the current research, Guimarães et al [35], studying urban elderly people, showed higher rates of altered sleep patterns in women. The poor quality of sleep interferes with the general health status of the elderly, causing an increase in morbidity and mortality rates and negative outcomes in cognitive functions [36, 37, 38]

There was an emphasis on insomnia in female hyperfrequent elderly (36.3%). According to Hara et al [39] and Lopes et al [40], insomnia occurs in the Brazilian population from 32.9% to 82.3% of the elderly, with prevalence in female. Sectional studies estimated a high prevalence of insomnia ranging from 10 to 50% of patients followed by PHC [41, 42, 43].

In the current study, excessive daytime sleepiness was higher in the elderly male (50.0% in hyperfrequent and 66.7% in non-hyperfrequent) with a significant difference. National studies showed 24.0% to 55.6% of the elderly with excessive daytime sleepiness, however, in the studied populations, female predominated, and in the current study the sexes were analyzed separately [44, 45, 46, 47]. Thus, the presence of excessive daytime sleepiness and poor sleep quality can have a negative impact on the health and quality of life of the elderly.

In the present study, a high risk of Obstructive Sleep Apnea was found in 27.3% of elderly female, with no significant difference between groups. In the study by Burgos and Carvalho [48], a higher prevalence of OSA was found in elderly male. A systematic review study, conducted by Senatrana et al [49], showed that the prevalence of OSA varies widely due to the methodological heterogeneity of the studies, increasing with advancing age and being prevalent in male.

In the current study, the presence of sleep disorders (SD) was high in hyperfrequent elderly (27.5% in female and 14.5%, male), these being more frequent in 53.6% of hyperfrequent female and not hyperfrequent, with significant difference between the groups. In the study by Moreno et al [50], 44.9% were found with SD in general, this being more frequent in female (51.5%), in line with the current study.

In the current study, expressive therapies provided a significant improvement in the quality of sleep, insomnia, excessive daytime sleepiness and sleep apnea of

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hyperfrequent elderly, pointing out its effectiveness when used for this purpose.

Expressive therapy works as a complementary therapeutic instrument, being characterized by group activity involving music and physical activity (dance / movement), as a comprehensive care strategy (care for the disease, health and life) and door to dialogue, working the body through choreographies created with music, performed in different areas and contexts such as health, education, institutions and the community, stimulating creative, creative, imaginative, reflective and prospective activity, covering all age groups, genders and at different stages of life [51, 52, 53].

Music, since the beginning of humanity, has been part of the culture of all individuals, considered an avenue of self-expression and present in all times, being used as a health promotion factor and pointed out as a therapeutic means since ancient times [54, 55, 56, 57, 58]. It has recovered meaning in the lives of the elderly, being identified by Hays and Minichiello [59] by six categories: identity and self-understanding; connection with you and with others; well-being, therapy and health; emotions; stimulation, fantasy and motivation; and beauty, aesthetics and spirituality. These authors show that, through research conducted with Australian elderly people in a community, music contributed to positive aging and helped participants to maintain a sense of well-being, as their meaning was directly related to their life experiences.

In the current study, music was used as a therapeutic resource for hyperfrequent elderly, with significant improvement in sleep disorders. The repertoire used was composed primarily of songs that recalled the youth years of the elderly, in agreement with the studies by Moser [60] and Magno [61]. Activities performed with music for the elderly provide a rescue of experience between the past and the present, leading them to participate effectively in the social group. Research shows that music has a significant effect on the elderly, of a psycho-emotional, social and physical nature, providing this group with the power to listen, sing, speak, walk and dance. It is complementary therapy with a relevant degree in prevention, promotion and treatment until the rehabilitation of individuals [62, 63, 64].

In the study by Leão et al [65], music was used as a complementary intervention for pain relief, sleep disorder, loneliness, stress and social isolation. Musical sounds can calm, leaving the patient at ease, inducing him to sleep and providing tranquility [66]. In the study with elderly people from Amaral [67], music promoted pain relief and the musical experiences provided relaxation, relief, courage, joy, tranquility and drowsiness, resulting from the countless situations arising from the hospitalization process. A Meta-analysis study, showed that music can be effective in the treatment of acute and chronic sleep disorders, helping to improve the quality of sleep in diversity of populations, including the elderly living in the community and the elderly hospitalized with different age groups and cultural backgrounds [68]. These findings are in agreement with the data from the current study, in which the application of expressive therapies, using music, improved the quality of sleep and led to a decrease in sleep disorders.

Together with music, in the current study physical activity was used through dance, associating music and diverse movements. These activities enabled the elderly to establish new meanings for life, bonds of friendship, interaction, socialization and growth of relationships when meeting new people, strengthening the social support network. The participants of the present study reported that, after the intervention with expressive therapies, they were able to sleep in a few minutes, reducing insomnia, daytime sleepiness and improving the quality of sleep, reports confirmed through the application of the index of severity of insomnia and the scales of Pittsburgh and Epworth.

Within the scope of health promotion, dance is an expressive physical activity, with movements guided by music, being considered the most complete activity for the elderly, as it provides beneficial effects in maintaining muscle strength, balance, aerobic power, support, balance and body movements. It contributes to change in lifestyle, as dancing awakens positive emotions, pleasure and socialization, improving health and, thus, keeping the elderly motivated to develop such an activity, considered a promoter of quality of life [69, 70, 71].

Thus, non-pharmacological interventions, through physical activity, must be organized according to the needs and preferences of each individual, in order to be maintained regularly in all life cycles, so that he has gains in quality of life. and increased longevity [72]. Studies by Chen et al [73], Durcan et al [74] and Akbari Kamrani et al [75], corroborate by proving that physical activity as a resource for the prevention and treatment of chronic non-communicable and disabling diseases, with a positive effect to improve sleep quality and quality of life, keeping the elderly physically active, contributing to healthy aging.

Thus, as the prevalence of sleep disorders increases with aging and the widely used method is pharmacological intervention, which can have a negative impact on the sleep of the elderly, more appropriate forms of treatment

are necessary with the adoption of non-pharmacological measures, considering that the sleep is an essential factor for the elderly population, with benefits in physical and mental health, providing a better quality of life [6, 76].

One of the limitations of the study was the absence of national and international studies that assess the impact of expressive therapies on elderly people with sleep disorders, which are practically nonexistent, making it difficult to compare the results obtained related to the object of the current study.

V. CONCLUSION

Intervention program through expressive therapies in male and female hyperfrequent elderly, proved to be effective, as a complementary therapy in the therapeutic scope, minimizing sleep disorders, being of great relevance for the prevention, promotion and recovery of health of the elderly population assisted in PHC with interdisciplinary practices and a holistic approach, in addition to being a low-cost, non-invasive and non-pharmacological intervention with the possibility of implantation in primary care services.

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