

Educational Actions on the Frequent use of Psychotropic Drugs in Older Adults

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Research Article

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Abstract

Introduction: Older adults are the population group that consumes most medications and the most susceptible to adverse reactions from psychotropic drugs.

Objective: To assess the effectiveness of a system of educational actions aimed to the frequent use of psychotropic drugs in older adults

Methodological design: A community intervention study was carried out aimed at older adults who belong to the Family Medical Office # 22.25 in “Mariana Grajales” community, in Cifuentes municipality within the years 2019 and 2020. Theoretical methods were used: historical-logical, analysis-synthesis, inductive-deductive and systemic-structural; Empirical: documentary analysis and to assess the proposal, the criteria of specialists. In addition, mathematical-statistical methods were used.

Results: The diagnosis made demonstrated the need for changes in the use of psychotropic drugs and information in the older adults studied, for which structured educational actions were designed in five themes: psychotropic drugs, risk factors and complications of psychoactive drug use, adverse reactions of psychotropic drugs, diet and healthy lifestyles and treatment of comorbidities. The proposal was valued by specialists as updated, contributing, transcendental and viable.

Conclusions: The educational actions were effective in reducing the use of psychotropic drugs in the investigated older adults, achieving an acquisition of knowledge in relation to this topic once implemented.

Key words: Psychoactive Drugs; Elderly; Associated Factors; Chronic Diseases; Self Medication.

Introduction

The aging of the population or demographic aging is the increase in the proportion of the elderly, particularly those aged 60 and over, with respect to the entire population to which they belong. It is an intrinsic process of the demographic transition and change in the age structure of the population, it is considered one of the most significant social transformations of the 21st century and one of the greatest achievements that humanity has achieved in contemporary times. (1)

According to Tejada, quoted by Sánchez (2), Latin America and the Caribbean pass successively, and in increasingly shorter periods, from youthful societies to aging societies, the population of 60 years in 15 more years will exceed 119 million and will represent 16.7% of the total population of the region. In Latin America, the countries with the highest number of elderly people in 2020 are: Cuba, Uruguay, Bolivia, Chile and Argentina. (3)

Today the elderly are more than 2 million and constitute 20.4%. It is estimated that between 2025 and 2030 this age group will exceed three million and will represent more than 30% of the Cuban population. (4)

The increase in the population of people over 60 years of age today constitutes a challenge for different societies by forcing governments to analyze and take this reality into account. For this reason, the impact generated from different spheres must be assessed, be it sociological, political, economic and within families, involving all social sectors in the change of mentality and in the formulation of policies that allow healthy and dignified aging.

The elderly are the population group that consumes the most medications and the most susceptible to adverse reactions from psychotropic drugs; There is evidence that this increased susceptibility is not due to aging and accompanying changes in

pharmacodynamics and pharmacokinetics, but rather to diseases and polypharmacy that are frequently present in the elderly, justified in many cases, but often out of proportion to their chronic problems. (5)

According to Carrera, cited by Zapata(6), studies about formulated psychoactive drugs and their self-medication in adult populations are a topic of interest to many researchers, due to the complications and interactions that can occur in people who consume them. Various investigations have also shown that antidepressant, antipsychotic, anxiolytic and sedative drugs are frequently used outside the indications for which they were approved and there is an indiscriminate use of them.

Older adults are at risk of misusing psychoactive drugs because they generally consume more than other people and because their body's reaction changes as they age. Therefore, their use can have dangerous consequences, even leading to death.

For this reason, the control of clinical, epidemiological and social factors associated with the use of psychotropic drugs in older adults can lead to a notable improvement in their lives. Consequently, it is essential to design, project and apply intervention techniques that allow the elderly to adopt healthy lifestyles and reduce the consumption of psychotropic drugs.

In this sense, the authors proposed the objective of the research: to assess the effectiveness of a system of educational actions aimed to the frequent use of psychotropic drugs in older adults.

METHODS

A community intervention study was carried out aimed at older adults belonging to the Family Medical Office # 22.25 located in the "Mariana Grajales" community belonging to the rural area of "Juan Bruno Zayas" University Polyclinic, in Cifuentes municipality, within the years 2019 and 2020. The population was made up of the 145 older adults dispensed in said health area; of which a non-probabilistic sample of 30 older adults who met the following criteria was selected:

Inclusion criteria: older adults identified as psychoactive drug users who gave their consent to participate in the study.

Exclusion criteria: older adults with cognitive impairment, sensory, auditory or visual deprivation or mental illnesses that prevented their participation in the research.

Exit criteria: older adults who drop out of the study for any reason.

Theoretical methods

Historical-logical: it allowed the study to know the background of the investigation and the determination of the particularities of the object

Analytical-synthetic: it was used in the study of the theoretical and methodological foundations for the treatment of the subject and the presentation of the scientific result.

Inductive-deductive: to establish a close link between theory and practice in relation to the consumption of psychotropic drugs in the elderly, where generalizing conclusions are reached.

Systemic-structural: contributed to the establishment of relationships between the theoretical information and empirical data, as well as the foundation and development of the proposal.

Empirical methods

Documentary review of medical histories of the people in the study: a data collection form was applied specifying: age, sex, comorbidities, drugs regularly consumed and whether they are indicated or self-administered, reasons for consumption and adverse reactions.

Questionnaire for the people under study: with the aim of investigating their level of information about the use of psychotropic drugs and related topics such as physical exercise and diet.

It was structured in 20 questions. Qualitative rating, depending on the answers offered, adequate or not adequate.

Assessment by criteria of 15 specialists: 6 doctors (MGI, Geriatrics, Cardiology, Internal Medicine, Psychiatry and Endocrinology), 4 Psychologists, 4 social communicators and 1 specialist in the mass media. The design was evaluated in writing and anonymously, attending to the following aspects: topicality, viability, pertinence, transcendence and contribution.

The study was carried out in three stages:

- I. Diagnosis
- II. Design and evaluation of the system of educational actions
- III. Application of the system of educational actions

RESULTS AND DISCUSSION

Table 1 shows the distribution of the elderly consumers of psychotropic drugs under study according to age and sex. (Table 1)

Table 1: Distribution of older adults according to age and sex. CMF # 22.25. "Juan Bruno Zayas" Polyclinic. Cifuentes. 2019 - 2020.

Group of Age (years)	Sex				Total	
	Male		Female			
	No.	%	No.	%	No.	%
60 - 69	7	53,8	8	47,1	15	50,0
70 - 79	4	30,8	6	35,3	10	33,3
80 y más	2	15,4	3	17,6	5	16,7
Total	13	43,3	14	56,7	30	100,0
Statisticians						
mínimum	60		62		60	
Máximum	81		90		90	
media ± Standard deviation	70,28 ± 7,560		73,43 ± 8,216		71,66 ± 7,885	

Source: Data Model ; p = 0,0079

Among the older adults studied, it was found that the age presented a minimum value of 60 years and a maximum of 90, which shows a journey of 30 years in this stage of life. By sex, it turned out that for women the mean age was 73.43 years and for men 70.28; It should be noted that the maximum age in men was 81 and in women 90.

In general, 25 older adults between the ages of 60 and 80 were found, with a relative frequency of 83.3% of the total studied, with 56.7% being female with statistical significance.

For their part, the answers in each of the items of the evaluation instrument for the level of information that the older adults studied have about the use of psychotropic drugs allowed us to arrive at the results that are expressed in Table 2.

Table 2: Level of information of elderly according to the dimensions of knowledge evaluated. CMF # 22.25. "Juan Bruno Zayas" Polyclinic. Cifuentes. 2019 – 2020.

Dimensions (evaluated aspects)	Level of information			
	Adecuate		Non Adecuate	
	No.	%	No.	%
Psychopharmacs	15	50,0	15	50,0
Risks Factors for consumption	9	30,0	21	70,0
Adverse Reactions and complications due to psicofármacs	13	43,3	17	56,7
Food and lifestyle	13	43,3	17	56,7
Pharmacologic treatment for comorbidities	8	26,7	22	73,3
In general	7	23,3	23	76,7

Source: Data Model $p = 0,0000$

General objective: Provide the necessary information to older adults about the characteristics of this stage of life, the use of psychotropic drugs, the damage it causes and the appropriate methods or behaviors for its control.

Specific objectives: Improve the quality of life by acting directly on the health status of older adults in this health area. Instruct the elderly about the importance of controlling the factors susceptible to change associated with the consumption of psychotropic drugs that facilitate the lives of elderly people.

Promote in the community, the practice of physical exercises and educational actions that lead to change in unhealthy lifestyles.

Contents:

Session 1: The interview. Presentation of the elderly

Session 2: Older adults and psychotropic drugs

Session 3: Risk factors and complications of psychoactive drug use

Session 4: Comprehensive general culture on the established dietary guidelines

Session 5: Pharmacological treatment for comorbidities

Session 6: Guidance for a more active life

Session 7: What are we going to do now?

In general, it was verified that the level of information that these adults possess was evaluated as inadequate in 76.7% of the cases, all the aspects evaluated showed an inadequate level of information in at least 50% with less frequency in knowledge. About the definition of psychoactive drugs and the elderly, as well as the adverse reactions and complications of psychoactive drugs; and diet and lifestyles with statistical significance.

Educational actions were designed depending on the insufficiencies found, being established in the form of workshops. The application time of the proposal was seven weeks with a weekly frequency of one hour. The actions were aimed at the educational treatment of the elderly to respond correctly to the limitations that age and deterioration impose on them.

The results of the specialists' assessment of the designed educational actions are shown in Table 3.

Table 3: Assessment of educational actions by specialists. CMF # 22.25. "Juan Bruno Zayas" Polyclinic. Cifuentes. 2019 - 2020

Evaluated Indicators	Frequency by categories					Total, line
	1	2	3	4	5	
Topicality	1	1	1	5	7	15
Viability	3	1	2	5	4	15
Pertinence	2	2	2	5	1	15
Transcendence	2	1	2	8	2	15
Contribution	1	2	2	4	6	15

Source: Data Model

It can be seen that in each indicator evaluated, all the specialists issued their criteria, in all cases the accumulated frequencies in categories three, four and five were greater than half (13 currently, 11 in viability, eight in relevance and 12 in significance and contribution) regardless of the fact that the viability, relevance and significance indicators showed the discrepancies of opinion of the specialists based on:

- the possibility of educational resources such as materials for the preparation of the media to be used
- access to audiovisual materials
- the possibility of replicating it in similar groups
- The acceptance or not of people to be grouped and discuss their attitude towards taking medication.

The group of specialists considered the educational program designed as up-to-date, contributing, transcendent and viable but moderately relevant, confirming that the application of educational actions would bring benefits to older adults willing to control the use of psychotropic drugs and their health condition.

Aging produces changes in body physiology that will condition drug therapy in elderly patients. This process results, among other phenomena, in a decrease in the number of receptors and changes in their functioning that will modify the action of drugs in the different systems of the organism. This makes the elderly more sensitive to its effects. In this sense, research shows that those people who say they consume antidepressants and tranquilizers psychotropic drugs report a lower quality of life than non-consumers. (7)

Téllez et al. (8) carried out a cross-sectional study in 1,161 non-institutionalized subjects over 65 years of age with sufficient capacity to carry out a personal interview and found a prevalence of referred use of anxiolytics and hypnotics. The use of anxiolytics and hypnotics was independently associated with consuming other non-psychotropic drugs, presenting established depression, presenting four or more health problems, being dependent for basic activities of daily living, and being a woman.

This last aspect corresponds to what was found in the present investigation, since there were more women than men who frequently used psychotropic drugs, finding a statistical significance. The same result was found in an exploratory investigation in older adults who attend the training workshops carried out by the Sedronar Directorate of Training in Drug Matters in retirement centers in the Metropolitan Area of Argentina where they obtain a predominance of women under 75 years of age. (9) Studies carried out in Chile show that this behavior has possibly been associated with women presenting more symptoms than men, due to their physiological characteristics, metabolic endocrine changes verified during menopause, their social role and greater sensitivity to these. (10)

In a study carried out in Cuba, it was found that age and social factors —such as a low educational level or living in rural areas where there are not as many means and facilities as in the city— are strong components that act to prevent the patient from following a correct drug treatment. (11) This result is similar to that of the present investigation since the older adults belong to a rural area and the age variable also obtained statistical significance.

On the other side, the data obtained from the Spanish

National Health Survey indicate an increase in the reported use of tranquilizers, relaxants and sleeping pills in older adults residing in the community, which was 17% in 2003, from 24.9% in 2009, and reached 28.7% in the 2012 survey. (12)

In the present investigation, the older adults who participated in the study presented difficulties in pointing out the adverse reactions related to the frequent consumption of psychotropic drugs. In an investigation carried out in a polyclinic in Guantánamo, it was found that the most frequent adverse reactions in the sample studied were daytime sleepiness, weakness, and anticholinergic symptoms such as dry mouth, urinary retention, and constipation. (13)

The system of educational actions was specifically designed taking into account the deficiencies in the information of the study participants, such as the one mentioned above. Regarding educational interventions for health care and given the concern as to whether they should be carried out or not, Menor et al. (14) summarize, the influence and impact of educational programs on lifestyles and particularly on health constitute a adequate resource to achieve changes in lifestyles, particularly at an early age, in the same way it is highlighted that those interventions that have the family bond are highly effective.

Conclusions

A system of educational actions aimed at elderly consumers of psychotropic drugs was applied; valued by the criteria of specialists, which showed effectiveness by producing a decrease in the use of psychotropic drugs in older adults and increasing their knowledge in relation to the subject.

Declaration of interests

The authors declare no conflict of interest

References:

1. Salazar Luna Y, Duany Machado C, Valdéz Rodríguez K. El envejecimiento poblacional, un reto para la sociedad y el Sistema de salud en Cuba. *Panorama Cuba y Salud [en línea]*. 2018 [citado 10 de Sep 2022]; 13(S1): 156-159. Disponible en: <https://www.medigraphic.com/pdfs/cubaysalud/pcs-2018/pcss181l.pdf>
2. Sánchez Barrera O, Martínez Abreu J, Florit Serrate PC, Gispert Abreu EdIÁ, Vila Viera M. Envejecimiento poblacional: algunas valoraciones desde la antropología. *Rev.Med.Electrón. [en línea]*. 2019 [citado 10 de Sep 2022]; 41(3): 708-24. Disponible en: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1684-18242019000300708&lng=es.
3. Vila Pérez OL, Moya Padilla NE. Las políticas públicas: una nueva mirada del envejecimiento poblacional en las condiciones actuales de Cuba. *Revista Universidad y Sociedad [en línea]*. 2021 [citado 10 de Sep 2022]; 13(3): 512-24. Disponible en: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2218-36202021000300512&lng=es&tIng=es.
4. Ministerio de Salud Pública [en línea]. La Habana: MINSAP; 2022 [actualizado 4 Dic 2019; citado 10 Sep 2022]; Noticias: Envejecimiento poblacional en Cuba: triunfo y desafío.

- [aprox. 4 pant.]. Disponible en: <https://salud.msp.gob.cu/envejecimiento-poblacional-en-cuba-triunfo-y-desafio>.
5. Rocabruno MJC, Prieto RO. Uso de fármacos en la vejez. En: Gerontología y Geriátría. La Habana: Editorial Ciencias Médicas; 2012. 155-64.
 6. Fajardo Zapata, ÁL. Consumo de psicofármacos en la ciudad de Bogotá DC (Colombia): una nueva realidad. Archivos de Medicina [en línea]. 2018 [citado 10 de Sep 2022]; 18(2): 404-412. Disponible en: <https://www.redalyc.org/journal/2738/273857650013/273857650013.pdf>
 7. Aroca A, Ordoñana J R, González F. Comunicaciones Orales. Relación entre calidad de vida y edad, sexo, nivel de estudios, consumo de psicofármacos antidepresivos y tranquilizantes. En: II Jornadas Doctorales; Murcia 2020. Región de Murcia: Universidad de Murcia; 2020. Disponible en: <https://digitum.um.es/digitum/bitstream/10201/92670/1/Relaci%C3%B3n%20entre%20calidad%20de%20vida%20y%20edad%20sexo%2C%20nivel%20de%20estudios%2C%20>
 8. Téllez Lapeira JM, López Torres Hidalgo J, Gálvez Alcaraz L, Párraga Martínez I, Boix Gras C, García Ruiz A. Consumo de ansiolíticos e hipnóticos y factores asociados en las personas mayores. Rev Esp Geriatr Gerontol [en línea]. 2017 [citado 12 sep 2022]; 52(1): 31-34. Disponible en: <https://www.elsevier.es/es-revista-revista-espanola-geriatria-gerontologia-124-pdf-S0211139X16000445>
 9. Secretaría de Políticas Integrales sobre Drogas de la Nación Argentina. Estudio exploratorio sobre consumo de sustancias psicoactivas en adultos mayores en Área Metropolitana. Año 2018. Argentina: SEDRONAR; Febrero 2019 [consultado 10 Sep 2022]. Disponible en: https://www.argentina.gob.ar/sites/default/files/2020/10/oad_2019._estudio_exploratorio_sobre_consumo_de_sustancias_psicoactivas_en_adultos_mayores_en_area_metropolitana_ano_2018.pdf
 10. Droguett N, Vidal C, Medina B, Hoffmeister L. Factores asociados al consumo de psicofármacos sin receta en Chile: estudio descriptivo basado en la Encuesta Nacional de Consumo de Drogas en Población General. Medwave [en línea]. 2019 [citado 10 Sep 2022];19(6):7670 doi:10.5867/medwave.2019.06.7670
 11. Acosta Martínez I, Casanova Moreno MC, Casanova Moreno D, González Casanova JM, Machado Reyes F. Caracterización de la prescripción de ansiolíticos en adultos mayores institucionalizados en un hogar de ancianos. International Journal of Medical and Surgical Sciences [en línea]. 2021 [citado 10 Sep 2022]; 8(1): 1-12. Disponible en: <https://revistas.uautonoma.cl/index.php/ijmss/article/download/633/1067>
 12. Instituto Nacional de Estadística. Encuesta Nacional de Salud 2011 – 2012. España: INE; 2013. Disponible en: <https://www.ine.es/prensa/np770.pdf>
 13. Sánchez Figueredo A M, Cardosa Aguilar E, Rodríguez Mariño Y. Uso de psicofármacos en adultos mayores del Policlínico Mártires del 4 de agosto [en línea]. En: Primera Jornada de Residentes y Profesionales de la APS Policlínico Cristobal Labra; 30 Jun 2022; La Habana: Universidad de Ciencias Médicas de La Habana, Facultad Finlay-Albarrán [citado 10 Sep 2022]. Disponible en: <https://jorcienciapdcl.sld.cu/index.php/jorcienciapdcl22/2022/paper/view/159/138>
 14. Menor Rodríguez MJ, Aguilar Cordero MJ, Mur Villar N, Santana Mur C. Efectividad de las intervenciones educativas para la atención de la salud. Revisión sistemática. Medisur [en línea]. 2017 [citado 22 Sep 2022]; 15(1): 71- 84. Disponible en: <https://www.medigraphic.com/cgi in/new/resumen.cgi?IDARTICULO=70684>