

Implementation of a Fall Prevention Protocol in a Community with Older Adults in Bogotá, Colombia

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Abstract

Falls are a highly prevalent geriatric syndrome in older adults, generating a secondary increase in morbidity and mortality; that is why, in geriatric homes, the implementation of a fall prevention protocol is important. For the present study, a participatory intervention was carried out within a community of older adults in the city of Bogotá, Colombia, in a period of 4 months; In this way, the high prevalence of falls in the community and the lack of knowledge of the caregiver regarding the subject were identified, after which the individual risk of falls of the residents was classified, and against that, a plan was created of work whose objective was to train the health personnel of the geriatric home, in front of the primary prevention depending on the individual risk and the acute management of falls, by means of the creation of a protocol. The intervention showed a high prevalence of high risk of falls in the community, an improvement in the acquisition and application of the knowledge acquired during the trainings by the staff and an awareness of the entire community about the relevance of the subject. This participatory intervention shows the importance of having an individualized protocol on the prevention and acute management of falls in geriatric residences, as well as the need to have health personnel properly trained on the subject.

Falls constitute a highly prevalent geriatric syndrome in older adults, generating an increase in morbidity and mortality in them. Several prevention programs have been designed to reduce the number of falls, focusing on hospital environments and the extrinsic and intrinsic factors that influence them. However, studies show that a lifestyle change involving the elderly's home result in better effects (Kane et al. 2017). Likewise, better results are generated when individualized multidisciplinary programs are carried out, taking into account the characteristics, problems and specific preferences of the population (Cockayne et al. 2018). For these reasons, an investigation of action research seeking to reduce the risk of falls of the inhabitants of a geriatric home was carried out in the city of Bogotá, Colombia in 2018. The study included the inhabitants of the home and their caregivers, including doctors, physiotherapists and nurses.

In the first phase of the study, the needs of the population and community were determined through recreational activities, surveys of the staff who worked in the home, and a review of the medical records of the inhabitants. Using the Hanlon Method (Choi et al. 2019), the high prevalence of falls in the community was identified as the most relevant

and feasible issue requiring intervention. A bibliographic review regarding falls in the elderly was also conducted to optimize the approach to the problem.

In the second phase of the study, the information collected was evaluated. With an objective for the personnel in charge of the care of the elderly in the community to apply knowledge in the prevention and acute management of falls, a survey was conducted to determine the experience of the caregivers with respect to falls at home and their perceptions of a falls protocol. Of the caregivers surveyed, 55.5 percent of them acknowledged not being well trained in regard to falls and 66 percent of them identified the improvement of the quality of life, hand in hand with avoiding the functional deterioration of the inhabitants, as the main benefits of a falls protocol.

Three objectives were identified. The first objective sought to have caregivers gain and apply knowledge in the primary prevention of falls based on the risk of falls of each elderly adult in the community. Risk was classified as "low, medium and high," allowing for prevention strategies specific to each classification, and was assessed through the MORSE scale, which is widely used in hospital settings with high sensitivity. The MORSE scale consists of the following six items: history of fall, secondary diagnoses, help to walk, walking, presence of intravenous route, and awareness of health status. For each item, a score is given to identify the risk of falls (Baek et al. 2013). The scale was adapted to the context of the intervened community, removing the "intravenous route" item due to its irrelevance in the context of a geriatric home. Of the 35 community residents who were evaluated, 57.1 percent were at high risk of falls, 31.4 percent were at moderate risk, and 8.5 percent were at low risk.

Two interactive workshops were held with the multidisciplinary team of caregivers on the application of the MORSE scale and its interpretation and the preventive measures to be taken according to risk levels. High-risk residents require surveillance rounds every two hours, assistance from personnel for displacement and assistive equipment such as canes and walkers. Those of intermediate risk require rounds every four hours and help from assistive equipment and those of low risk require rounds every six hours and have greater freedom to move on their own.

The second objective focused on training in acute fall management, for which face-to-face classes were held on risk factors for intrinsic and extrinsic falls, how to avoid them, and what to do in case of evidence of a fall. Additionally, to ensure adequate acute management of falls by the staff, the location and conditions of first aid kits, rigid tables and stretchers were improved in the geriatric home so that they were more accessible and useful at the time of a fall.

The third objective sought to enhance the knowledge acquired on falls through the creation of flow diagrams for daily use, which summarized all of the information learned throughout the intervention. These were developed together with the staff and positioned so that they were visible, thus facilitating easy recall.

Although there are several publications regarding the implementation of fall protocols in hospital settings, a similar project carried out in a geriatric home was not found through a review of the literature, which makes this project novel. Its replication in geriatric homes is necessary to improve the quality of life of older adults in their daily lives and avoid the complications of falls. This intervention resulted in awareness and motivation of the multidisciplinary team in charge of caring for the elderly in the home in regard to the primary and secondary prevention of falls that reduce morbidity and mortality in the elderly. Similarly, this intervention allowed staff to apply knowledge about prevention and acute management of falls within the community and to optimize care by better managing their time and paying greater attention to high-risk patients. However, it is important to highlight that these intervention require continuity in order to show positive long-term effects in the community. Therefore, follow up over time, frequent training, and periodic reclassification of the risk of falls for each inhabitant are necessary.

For the effective implementation of a fall protocol, considerable time and disposition is required by all members of an institution, where all possible risk factors for falls are addressed. Although there are various standardized protocols, an individualized adaptation must be made to each institution, taking into account its specific difficulties and the tools available. Likewise, directors of geriatric homes must understand the crucial role that care staff have in the quality of life and health of the elderly. They must allocate resources and provided frequent and mandatory training, which not only encourages the prevention of falls, but also the integral management of the elderly, ensuring the satisfaction of their needs.

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