



The Effect of Education Using Booklet Media on Knowledge of Fall Prevention in the Elderly

Wahyu Widagdo¹, Mutarobin², Mumpuni³, Susmadi⁴

^{1,2,3} Department of Nursing, Health Polytechnic of Jakarta I, Indonesia

⁴ Department of Nursing, Health Polytechnic of Bandung, Indonesia

ABSTRACT

Published Online: March 27, 2024

A fall is an event that causes a person to suddenly lie down accidentally on the ground or floor or lower level. This condition is often experienced by 1 in 3 elderly people every year. Falls can be caused by behavioral, biological, environmental and socio-economic risk factors. Nurses can make efforts to reduce the risk of falls in the elderly through education for the elderly and their families. This study aims to determine the extent of the influence of fall prevention education for the elderly using booklets on the knowledge of the elderly in the family context. This study used a quasi-experiment, two group pretest posttest, education was carried out using a fall prevention booklet for the elderly in the intervention group and without a booklet in the control group. Through the purposive sampling method using inclusion criteria, 60 respondents were obtained, consisting of 30 respondents in the intervention group and 30 respondents in the control group, with 6 interactions carried out. The results of research using the independent sample t test showed that there was a difference in the average posttest value of fall prevention knowledge between the group that received education using booklets and the group that received education without using booklets with a p-value of 0.000. The conclusion of the research is that educational interventions in nursing practice using booklet media in preventing falls in the elderly can increase client and family understanding compared to without using booklet media. The suggestion is to create an attractive media booklet containing concise information and attractive images to obtain optimal client understanding.

KEYWORDS:

GVHD, Health education, booklet, fall prevention, elderly

INTRODUCTION

Falls can occur at any age and are an inevitable part of bipedal gait and physical activity (Montero-odasso et al. 2022). Falls can occur in elderly people over the age of 65 years with an incidence rate of around 28-35% every year. The frequency of falls will increase to 32-42% for those aged over 70 years as age and weakness increase (Kalache, Alexandre. Ku et al. 2007). Basically, the definition of a fall is an event that causes a person to suddenly lie down accidentally on the ground or floor or other lower level (World Health Organization 2007). Falls can harm a person causing fractures to the legs or hips and shoulders, or cause head & brain injuries (Falls 2009).

Corresponding Author: Wahyu Widagdo

**Cite this Article: Wahyu Widagdo, Mutarobin, Mumpuni, Susmadi (2024). The Effect of Education Using Booklet Media on Knowledge of Fall Prevention in the Elderly. International Journal of Clinical Science and Medical Research, 4(3), 103-109*

Feelings of worry about falls in community-dwelling elderly people based on reported prevalence range from 21% to 85% (Scheffer et al. 2008). The existence of significant physical and psychological consequences such as those that have occurred in the elderly is associated with decreased function, depression, social isolation, and decreased quality of life (Welmer et al. 2023). The emergence of a response of worry about falling in the elderly will be aware of their vulnerability (Ellmers et al. 2022). This condition is a reflection of an emotional response to a perceived threat, which may occur adaptively or maladaptively, related to the risk of falling (Allali et al. 2017). Concern about falling may reflect adaptation of a normal response to reduced functional ability and increased risk of falls as it relates to objectively measured gait and balance (Delbaere et al. 2010). Excessive worry about falling can be maladaptive, causing mental disorders and unnecessary restrictions on physical and social activities (Soh et al. 2021).

Wahyu Widagdo et al, The Effect of Education Using Booklet Media on Knowledge of Fall Prevention in the Elderly

Falls are one of the most expensive medical conditions to treat. For this reason, the implementation of fall prevention tools, such as fall risk screening and fall prevention education, is becoming increasingly important in reducing fall incidents. Nurses have a greater role and responsibility in caring for the elderly population, especially in efforts to prevent falls (Chidume 2021). Awareness in fall risk assessment and education is very necessary to improve health service outcomes in the elderly population, optimally to increase safety and reduce falls (Drootin 2011). The importance of clinical practice guidelines for preventing falls in the elderly is needed to increase understanding that fall risk assessment is an important element in reducing falls in the elderly population (Grealish et al. 2019).

Prevention of falls in elderly patients includes monitoring factors that may contribute to fall prevention such as age, gender, marital status, number of medications taken, history of previous illnesses, previous fall experience, and physical strength (Barnett et al. 2003). Physical strength is one variable that can be controlled and if physical factors such as muscle strength, agility, balance, flexibility, endurance or athletic ability decrease it can cause falls (Brauer 2011). The most common methods of preventing falls in the elderly are exercise, reviewing the medications the elderly are taking, vision checks and creating safe living conditions at home (Luong 2008).

Health education in the form of exercise or sport in preventing falls will influence physiological variables such as flexibility, balance, endurance, coordination, gait, and reaction time, as well as psychological variables such as anxiety, depression, life satisfaction, and self-esteem (Chang, Huang, and Jung 2011).

Educators in the health sector are one of the roles and activities of nurses in the community and family, where through health education it is hoped that client knowledge can increase and they can make the right decisions regarding the problems they face (M. Nies and McEwen 2016) (Martin and Nahar 2017). The health education that is carried out must use appropriate methods and media in accordance with the targets in health education (Asniar, Kamil, and Mayasari 2020). Media selection in health education for the elderly needs to consider aspects of physical changes in the elderly who experience changes in the client's vision, hearing and cognitive abilities (Wold 2013). Booklets are one of the media that can be used in health education for the elderly so that the elderly can understand the prevention of falls in the elderly (Chidume 2021) (Manoj 2012).

METHOD

This research used a quasi-experimental design using two groups, pre-test and post-test. This research design involved an intervention group using booklets in fall prevention education for the elderly and a control group not using booklets in education.

This research activity began by identifying the number of elderly people based on data obtained from sub-district and sub-district health centers, as well as elderly posyandu. The research determined the sample size using purposive sampling with inclusion criteria, namely being over 65 years old, living with family, able to read and write and communicate fluently and living in the Pasar Minggu sub-district area, so the sample size was 27 respondents. To avoid respondents who withdrew during the research, the researcher added 10% so that the total research sample became 30 respondents for each group.

This research was conducted in the Pasar Minggu District area of South Jakarta, where the steps in carrying out the research started from submitting a research permit to the DKI Jakarta Provincial Health Service after obtaining approval from the research ethics review.

Researchers selected respondents for the intervention group and control group according to the inclusion criteria. To help with the research, researchers recruited 3 nurses who would be involved in carrying out interventions in this study. The research assistants who were involved shared their perceptions of the tasks they would be carrying out. The research instruments used for pre and post tests were developed by researchers referring to Fall Prevention (Brauer 2011). Meanwhile, the booklet was developed from a guide book for preventing and harm from falls in older people (Falls 2009).

The intervention procedure in the form of fall prevention education in the elderly was carried out in the intervention group and control group by first carrying out a pre-test before being given an explanation and asking for consent to become research respondents. Next, fall prevention education was carried out using booklets in the intervention group and education was carried out without using booklets. Education was carried out directly 2 times involving the family and continued with indirect education using the telephone to remind the elderly regarding the prevention that had been given during 2 interactions. At the last meeting the researchers conducted a post test on the intervention group and the control group. This research lasted for 6 weeks. The results of fall prevention education were in the form of pre-test and post-test scores in the intervention group and control group, then an independent sample t test was carried out to determine whether there was a difference in the average value of fall prevention knowledge between education that used booklets and those that did not use booklets.

RESULTS

The results of this study illustrate the difference in the average healthy behavior scores of adolescents in families that apply the resilience model and families that do not implement family resilience, as well as the spirituality domain in family resilience which influences increasing adolescent healthy behavior.

Table 1. Frequency distribution of respondents' demographic characteristics

Respondent characteristics	Intervention Group	Control Group
Ages		
65-74 years	27 (70%)	27 (70%)
75-90 years	7 (23.3%)	8 (26.7%)
> 90 years	2 (6.7%)	1 (1.3%)
Education Level		
Elementary school	19 (63.3%)	19 (63.3%)
Junior school	3 (10%)	4 (13.3%)
High school	6 (20%)	5 (16.7%)
College	2 (6.7%)	2 (6.7%)
Gender		
Male	8 (26.7%)	6 (20%)
Female	22 (73.3%)	24 (80%)

Results of nursing intervention in the form of fall prevention education in the elderly using booklets for 30 respondents in the intervention group and 30 respondents in the control group who did not use booklets with the characteristics of the respondents, where the majority were female in the

intervention group 73.3% and the control group 80% with age mostly aged 65 years – 74 years for the intervention group and control group. Educational background in general was elementary school or below 63.3% in both groups.

Table 2. Respondents' knowledge before and after education in the intervention group and control group

Knowledge	N	Mean	SD	SE	p-value
Pretest intervention	30	10.93	1.574	0.287	0.000
Posttest intervention	30	12.60	1.192	0.218	
Pretest control	30	7.93	2.196	0.401	0.002
Posttest control	30	8.50	2.209	0.403	

Based on the results of education in the intervention group and control group, it was found that the mean value increased from 10.93 to 12.60 in the pre and post test results for the

intervention group, while for the control group the mean value was from 7.93 to 8.50.

Table 3. Comparison of respondents' knowledge after education using booklets in the intervention group & control group

Knowledge	N	Mean	SD	SE	p-value
Posttest intervention	30	12.60	1.192	0.218	0.000
Posttest control	30	8.50	2.209	0.403	

The results of the independent sample T test showed that there was a difference in the average (mean) post test educational results in the intervention group of 12.60 and the control group of 8.85 with a p-value of 0.000.

DISCUSSION

The results of the study showed that knowledge of falls prevention in the elderly increased in the intervention group before and after educational intervention using booklets from 10.93 to 12.60. Knowledge of fall prevention is very important for the elderly and their families considering that one in three adults over 65 years falls every year (Reznik 2013) and those over 70 years old experienced an increase of up to 32 – 42% (Skalska et al. 2013). Apart from that, falls

can cause hip fractures, bone injuries and head trauma (Chidume 2021).

Knowledge about preventing falls in the elderly and their families that the elderly and their families should know includes: what a fall is, how often the elderly fall and the risk factors that cause falls in the elderly, fall prevention strategies, how to organize a safe environment for the elderly and what to do after a fall (Montero-odasso et al. 2022)(Scheffer et al. 2008). The knowledge that the elderly have about fall prevention really helps the elderly in making efforts to prevent and control the risk factors for falls that exist in the elderly, including behavioral, biological, environmental and socio-economic risk factors (Moncada and Mire 2017). Fall prevention strategies for elderly people who have been seeking treatment and health control at health

Wahyu Widagdo et al, The Effect of Education Using Booklet Media on Knowledge of Fall Prevention in the Elderly

service facilities can be done by discussing with doctors and other health workers who have been caring for them regarding fall prevention plans (Jamaluddin, Chuan, and Taher 2015). Doctors or health workers can evaluate older people's concerns about medications they have been taking, history of falls and the contribution of health conditions (Olij et al. 2017).

Elderly people also need to carry out exercise or body movement programs that can be done independently and regularly (Albert and King 2017). This exercise is an important part, especially of the lower legs, to make them strong and help the elderly to feel better (Ni et al. 2014). Exercise can improve balance and coordination, such as Tai Chi (Furtado et al. 2016). Lack of exercise can cause weakness and increase seniors' chances of falling (van Diest et al. 2016).

Elderly knowledge regarding the importance of elderly vision checks, where elderly people need to have their eyes checked by a doctor at least once a year (Li et al. 2023). The elderly usually use the wrong glasses or the elderly have glaucoma or cataracts which will limit their vision. Poor vision can pose a risk of falls (Rudi and Setyanto 2019).

Seniors also need to review the medications they receive or take by asking the health service to do it (Denham 2016). The doctor or pharmacist will review all the medicines the elderly receive and the over-the-counter medicines they consume (Cooper and Burfield 2009). As an elderly person, the effects of medications on the body may change. Some medications or combinations of medications can cause an elderly person to become drowsy or dizzy and may cause an elderly person to fall (Miller 2002).

Knowledge of the elderly and their families about the importance of creating a safe elderly home is also an important part because half of all falls in the elderly occur in the home environment (Van Haastgret et al. 2000). Several things that the elderly and their families need to do to create a safe home environment include arranging goods and furniture, non-slip floors, using items that are easily accessible to the elderly, using handrails on stairs, toilets and bathrooms, adequate home lighting and using comfortable and safe footwear (Gallagher et al. 2001).

Health education or education in this study had a very big influence where the results of fall prevention education in the elderly in the intervention group and control group showed an increase in the mean value from 10.93 to 12.60 in the intervention group while the control group had a mean value of 7.93 to 8.50. As is known, health education is an integral part of the role of nurses in society to improve health, prevent disease, and maintain optimal health (M. A. Nies and McEwen 2015) (Stanhope 2012). The focus of health education is changing individual and group behavior towards healthy behavior (Notoatmodjo 2010). Providing health education is a cornerstone of nursing practice (Watson and Lloyd 2014). Nurses can provide health education to the

elderly and their families in an effort to prevent falls in the elderly (Chidume 2021). For this reason, knowledge of education and teaching theory can help nurses to convey health messages as well as possible so that they have the opportunity and impact of success (BNPB 2021).

The results of this research are in accordance with research conducted by Nurhanah et al, where health education can have an impact on aspects of family knowledge and skills in preventing falls in the elderly (Nurhasanah and Nurdahlia 2020). In adult learning theory and learning theory for the elderly, it is worth considering the development of educational materials for the elderly. Andragogy is the science of learning in adults by building adult learning models. Andragogy has received much attention in the literature. Based on different assumptions about adult learning (Rigdon 2010).

The education provided will encourage the elderly and their families to participate and empower clients to enable them to overcome the situation independently. Education becomes very relevant in the elderly because of the chronic diseases faced with increasing age and multi-morbidity, loss of independence and weakness which will worsen the therapy program in the elderly (Strupeit, Buss, and Dassen 2016).

This study shows the difference in the results of the average post test score in the intervention group which used booklet media with the average post test score in the control group which did not use booklets with post test score results of 12.60 in the intervention group and 8.85 in the control group. with a P-value of 0.000. Thus, it shows that booklet media really helps the elderly and their families understand the problem of preventing falls through educational interventions (Ndapaole, Tahu, and Gerontini 2020). A booklet or small book is a book full of informative messages that clients hope can be used in making the right decisions regarding the health problems they face (Bolejko and Hagell 2021).

Booklets are information and educational media that will be given to clients as the target of an activity. Booklet media is an offline promotional or educational media, where this media is very practical and can be used in client health education, so that important message information will be easily understood by clients (Andrews and Sharma 2018). Booklet media is expected to be very attractive, especially in the digital era, people's attention has decreased so providing small books with concise information and interesting pictures like booklets can be an effective promotional/educational media (Bhamani et al. 2023). In making a booklet there are several things that need to be considered, namely who will be the target, binding, choosing interesting pictures and illustrations, and preparing the outline (Wijayanti and Mulyadi 2019).

CONCLUSIONS

The conclusion of the research is that educational interventions in nursing practice using booklet media in

Wahyu Widagdo et al, The Effect of Education Using Booklet Media on Knowledge of Fall Prevention in the Elderly

preventing falls in the elderly can increase client and family understanding compared to education without using booklet media. The advice given is to create an attractive media booklet containing concise information and attractive images to gain optimal understanding.

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

ETHICAL CLEARANCE

This research has received ethical approval from the Research Ethics Committee, Health Polytechnic of Tanjungkarang No.454/KEPK-TJK/VIII/2023

REFERENCES

1. Albert, S. M., and J. King. 2017. "Effectiveness of Statewide Falls Prevention Efforts with and without Group Exercise." *Preventive Medicine* 105(July): 5–9.
2. Allali, Gilles, Emmeline I. Ayers, Roe Holtzer, and Joe Verghese. 2017. "The Role of Postural Instability/Gait Difficulty and Fear of Falling in Predicting Falls in Non-Demented Older Adults." *Archives of Gerontology and Geriatrics* 69: 15–20. <http://dx.doi.org/10.1016/j.archger.2016.09.008>.
3. Andrews, Gaddam Rachel, and Asha Sharma. 2018. "Impact of in Effect of Instructional Booklet on the Knowledge, Attitude, Problems Faced and Coping Strategies Adopted by Colostomy Patients in Selected Hospitals of Delhi." *Current Medicine Research and Practice* 8(3): 92–95. <https://doi.org/10.1016/j.cmrp.2018.05.003>.
4. Asniar, Hajjul Kamil, and Putri Mayasari. 2020. *Pendidikan Dan Promosi Kesehatan*. Banda Aceh: Syiah Kuala University.
5. Barnett, Anne et al. 2003. "Community-Based Group Exercise Improves Balance and Reduces Falls in at-Risk Older People: A Randomised Controlled Trial." *Age and Ageing* 32(4): 407–14.
6. Bhamani, Aryn et al. 2023. "The SUMMIT Study: Utilising a Written 'Next Steps' Information Booklet to Prepare Participants for Potential Lung Cancer Screening Results and Follow-Up." *Lung Cancer* 176(June 2022): 75–81.
7. BNPB. 2021. "Community / Public Health Nursing : Promoting the Health of Populations 5th Edition Chapter 5 Epidemiology." *iNews.id*.
8. Bolejko, A., and P. Hagell. 2021. "Effects of an Information Booklet on Patient Anxiety and Satisfaction with Information in Magnetic Resonance Imaging: A Randomized, Single-Blind, Placebo-Controlled Trial." *Radiography* 27(1): 162–67. <https://doi.org/10.1016/j.radi.2020.07.011>.
9. Brauer, Sandra. 2011. "Falls Prevention." *Journal of Physiotherapy* 57(2): 130.
10. Chang, Moonyoung, Yan Hua Huang, and Heyyoung Jung. 2011. "The Effectiveness of the Exercise Education Programme on Fall Prevention of the Community-Dwelling Elderly: A Preliminary Study." *Hong Kong Journal of Occupational Therapy* 21(2): 56–63. <http://dx.doi.org/10.1016/j.hkjot.2011.10.002>.
11. Chidume, Tiffani. 2021. "Promoting Older Adult Fall Prevention Education and Awareness in a Community Setting: A Nurse-Led Intervention." *Applied Nursing Research* 57(November 2020): 151392. <https://doi.org/10.1016/j.apnr.2020.151392>.
12. Cooper, James W., and Allison H. Burfield. 2009. "Medication Interventions for Fall Prevention in the Older Adult." *Journal of the American Pharmacists Association* 49(3): e70–84. <http://dx.doi.org/10.1331/JAPhA.2009.09044>.
13. Delbaere, Kim et al. 2010. "Determinants of Disparities between Perceived and Physiological Risk of Falling among Elderly People: Cohort Study." *BMJ (Online)* 341(7770).
14. Denham, Sharon. 2016. *Family-Focused Nursing Care*. Philadelphia: F.A. Davis.
15. van Diest, M. et al. 2016. "Exergames for Unsupervised Balance Training at Home: A Pilot Study in Healthy Older Adults." *Gait and Posture* 44: 161–67.
16. Drootin, Marianna. 2011. "Summary of the Updated American Geriatrics Society/British Geriatrics Society Clinical Practice Guideline for Prevention of Falls in Older Persons." *Journal of the American Geriatrics Society* 59(1): 148–57.
17. Ellmers, Toby J., Mark R. Wilson, Meriel Norris, and William R. Young. 2022. "Protective or Harmful? A Qualitative Exploration of Older People's Perceptions of Worries about Falling." *Age and Ageing* 51(4): 1–10.
18. Falls, Preventing. 2009. "Guidebook for Preventing Falls and Harm From Falls in Older People : Australian Residential Aged Care Facilities."
19. Furtado, G. E. et al. 2016. "Effects of a Chair-Yoga Exercises on Stress Hormone Levels, Daily Life Activities, Falls and Physical Fitness in Institutionalized Older Adults." *Complementary Therapies in Clinical Practice* 24: 123–29. <http://dx.doi.org/10.1016/j.ctcp.2016.05.012>.
20. Gallagher, Bridget et al. 2001. "Bridget Gallagher, GNP, MSN, Ellen Corbett, PT, Lewis Freeman, RN, Alison Riddoch-Kennedy, RN, Stacy Miller, RN, Cathy Smith, RN, Laura Radensky, MSW, and Amy Zarrow, RN." (October 2001): 157–63.
21. Grealish, Laurie et al. 2019. "Implementing

- Evidence-Based Guidelines for Falls Prevention: Observations of Nursing Activities During the Care of Older People With Cognitive Impairment.” *Worldviews on Evidence-Based Nursing* 16(5): 335–43.
22. Van Haastgret, Jolanda C.M. et al. 2000. “Preventing Falls and Mobility Problems in Community-Dwelling Elders: The Process of Creating a New Intervention.” *Geriatric Nursing* 21(6): 309–14.
23. Jamaluddin, Siti Zaharah Binti, Gan Ching Chuan, and Mohammad Abu Taher. 2015. “Strategies in the Prevention or Reduction of Elder Abuse in Bangladesh and Malaysia.” *Procedia - Social and Behavioral Sciences* 172: 42–48. <http://dx.doi.org/10.1016/j.sbspro.2015.01.333>.
24. Kalache, Alexandre. Ku, Dongbo. et al. 2007. “There’s No Place like Phone Global Mobile Consumer Survey 2016: UK Cut.” *World Health Organisation* 5(3): 475–87. <http://psycnet.apa.org/psycinfo/2003-02630-007%5Cnhttp://www.ncbi.nlm.nih.gov/pubmed/10960937%5Cnhttp://www.ncbi.nlm.nih.gov/pubmed/1991946%5Cnhttp://www.ncbi.nlm.nih.gov/pmc/articles/PMC2769032/%5Cnhttp://www.nice.org.uk/guidance/ph6/resources/behaviour->
25. Li, Cong et al. 2023. “The Global Incidence and Disability of Eye Injury: An Analysis from the Global Burden of Disease Study 2019.” *eClinicalMedicine* 62: 102134. <https://doi.org/10.1016/j.eclinm.2023.102134>.
26. Luong, Le Thanh. 2008. *Good Practice Guide Prevention of Falls in the Elderly Living at Home*. France: Institut national de prévention et d’éducation pour la santé.
27. Manoj, Sharma. 2012. “Theoretical of Foundation of Health Education and Health Promotion.”
28. Martin, Brian, and Vinayak K Nahar. 2017. 137 Perspectives in Public Health *Book Review: Theoretical Foundations of Health Education and Health Promotion*.
29. Miller, Carol A. 2002. “The Connection between Drugs and Falls in Elders.” *Geriatric Nursing* 23(2): 109–10.
30. Moncada, Lainie Van Voast, and L. Glen Mire. 2017. “Preventing Falls in Older Persons.” *American family physician* 96(4): 240–47.
31. Montero-odasso, Manuel et al. 2022. “World Guidelines for Falls Prevention and Management for Older Adults : A Global Initiative.” : 1–36.
32. Ndapaole, Ariyance H., Sebastianus K. Tahu, and Rosiana Gerontini. 2020. “Pengaruh Pendidikan Kesehatan Dengan Media Booklet Terhadap Tingkat Kecemasan Pada Penderita Hipertensi Di Puskesmas Oepoi-Wilayah Kerja Kota Kupang.” *CHMK Nursing Scientific Journal* 4(1): 162–70.
33. Ni, Meng et al. 2014. “Comparative Impacts of Tai Chi, Balance Training, and a Specially-Designed Yoga Program on Balance in Older Fallers.” *Archives of Physical Medicine and Rehabilitation* 95(9). <http://dx.doi.org/10.1016/j.apmr.2014.04.022>.
34. Nies, Mary A., and Melanie McEwen. 2015. *Community/Public Health Nursing*. St Louis: Elsevier Health Sciences.
35. Nies, Mary, and Melanie McEwen. 2016. *Community/Public Health Nursing*. 6th Editio. St. Louis: Saunders.
36. Notoatmodjo, Soekidjo. 2010. *Promosi Kesehatan Teori Dan Aplikasi*. Edisi Revi. Jakarta: PT Rineka Cipta.
37. Nurhasanah, Aan, and Nurdahlia Nurdahlia. 2020. “Edukasi Kesehatan Meningkatkan Pengetahuan Dan Keterampilan Keluarga Dalam Pencegahan Jatuh Pada Lansia.” *Jkep* 5(1): 84–100.
38. Olij, Branko F. et al. 2017. “Falls Prevention Activities among Community-Dwelling Elderly in the Netherlands: A Delphi Study.” *Injury* 48(9): 2017–21. <http://dx.doi.org/10.1016/j.injury.2017.06.022>.
39. Reznik, David. 2013. “Fall Prevention.” *American Journal of Nursing* 113(7): 12.
40. Rigdon, Ann Shields. 2010. “Development of Patient Education for Older Adults Receiving Chemotherapy.” *Clinical Journal of Oncology Nursing* 14(4): 433–41.
41. Rudi, Abil, and Rinto Budhi Setyanto. 2019. “Analisis Faktor Yang Mempengaruhi Risiko Jatuh Pada Lansia.” *Jurnal Ilmiah Ilmu Kesehatan: Wawasan Kesehatan* 5(2): 162–66.
42. Scheffer, Alice C. et al. 2008. “Fear of Falling: Measurement Strategy, Prevalence, Risk Factors and Consequences among Older Persons.” *Age and Ageing* 37(1): 19–24.
43. Skalska, Anna et al. 2013. “The Prevalence of Falls and Their Relation to Visual and Hearing Impairments among a Nation-Wide Cohort of Older Poles.” *Experimental Gerontology* 48(2): 140–46.
44. Soh, Shawn Leng Hsien et al. 2021. “Falls Efficacy Instruments for Community-Dwelling Older Adults: A COSMIN-Based Systematic Review.” *BMC Geriatrics* 21(1): 1–10.
45. Stanhope, Marcia. 2012. *Public Health Nursing - E-Book: Population-Centered Health Care in the Community*. Maryland: Elsevier Health Sciences.
46. Strupeit, Steve, Arne Buss, and Theo Dassen. 2016. “Effectiveness of Nurse-Delivered Patient Education Interventions on Quality of Life in Elders

Wahyu Widagdo et al, The Effect of Education Using Booklet Media on Knowledge of Fall Prevention in the Elderly

- in the Hospital: A Systematic Review.” *Applied Nursing Research* 32: 217–21. <http://dx.doi.org/10.1016/j.apnr.2016.08.004>.
47. Watson, Michael C., and John Lloyd. 2014. “Promoting the Health of the Population.” *BMJ (Online)* 349.
48. Welmer, Anna Karin et al. 2023. “Association Between Concerns About Falling and Risk of Injurious Falls in Older Adults: The Role of Balance Impairment.” *Journal of the American Medical Directors Association*. <https://doi.org/10.1016/j.jamda.2023.07.015>.
49. Wijayanti, Wijayanti, and Budhi Mulyadi. 2019. “Pendidikan Kesehatan Menggunakan Booklet Terhadap Pemahaman Pasien Hipertensi Di Puskesmas.” *Jurnal Ilmiah Ilmu Keperawatan Indonesia* 8(01): 372–739.
50. Wold, Gloria Hoffman. 2013. *Basic Geriatric Nursing*. New York: Elsevier Health Sciences.
51. World Health Organization. 2007. *WHO Global Report on Falls Prevention in Older Age*. Geneva.