



The Effects of Family Knowledge Level About Fall Risk Prevention to The Act of Equipping Safe Environment for Oldage in Mekar Jaya, Kedung Waringin Subdistrict Bekasi Regency in Year 2018

Iin Ira Kartika¹

¹Nursing Academy Bhakti Husada Bekasi, Jalan RE Martadinata (BY Pass) Cikarang

* Corresponding author: iinbhaktihusada@gmail.com

Abstract, **Background :** According to 2014 national census data, where the number of oldage household was 16.08 million household or 24.50 percent from while the household in Indonesia. The risk of oldage is falling down, where a fall is not normal part from aging process, however about 30% oldage who live in the family experiences a fall every year. A fall incident among oldage who live in the household increase from 25% at the age of seventy to become 35% after the age of more then seventy five. To objective of the research is to analyze the effect of a family knowledge level about fall risk prevention to the act of equipping safe environment for oldage.

Methods: The research uses *cross sectional*, with the population and sample are all family who have oldage in Karang Mekar village, Kedung Waringin subdistrict, Bekasi Regency, the correspondents is 100. Sampling technique used is using *accidental sampling*. Statistic test uses *Chi Square* test.

Results: The result of research was there was no effect at a family knowledge level; to the act of equipping safe environment for oldage, with p value 0.54 ($p \geq \alpha : 0,05$), CI 95% (0.630 – 3.050) with odds ratio value 1.387.

Conclusion: Recommendation was health officer in this case, a nurses should carry out illumination to the family and create safe environment.

Introduction

The proportion of oldage population is getting bigger and needs attention and special treatment in the implementation of development. The age of more than 60 is final step from aging process which has effects to three aspects namely biology, economy, and social. Biologically, oldage will experience aging process continually marked by the decrease of physical endurance and susceptible to illness. Economically, in general oldage is considered as a burden to the resource. Socially, the life of oldage is often perceived negatively, or does not provide benefit to the family and society.

The family is a place to protect which is preserved by oldage. Support from the family is an important element in assisting oldage to solve the problem. When there is a support, so a self confidence will add so that they have motivation to face the problem which will take place and will increase oldage motivation. The family as a part of society which has very important role to form healthy

individuals so that it create a good society arrangement particularly in the case of treating oldage.

Based on the 2014 national census data, the number of oldage household was 16.08 million household or 24.505 from all household in Indonesia. Oldage household is minimal, one of the number of the family is more than 60. The number of oldage in Indonesia achieves 20.24 million inhabitant, equal to 8.03 percent from all Indonesian population in year 2014. The number of women oldage is bigger than men namely 10.77 million women oldage compared to 9.47 million oldage. Oldage who live in the village is 10.77 million inhabitant, it is more than oldage who live in the urban area is 9.37 inhabitant. Most of the oldage live with their family. 42.32% oldage live together three generations in one household, namely live together with son/son in law and grandchild or together with son or daughter in law and parent/parent in law. 16.80 percent oldage lives with core family, whereas who live with their couple is 17.48 percent. Attention is paid to those who live

culture. From the family, it starts the education to prevent oldage live alone and they must meet their needs, meals, health and social autonomy.

In the health aspect known gradually older than age, so oldage experience health complaint will gradually bigger. 37.11 percent population pra oldage (45-59 year) has experienced health complaint in latest month, whereas young oldage (60-69 year) is 48.39%, middle oldage (70-79 year) in 57.65% and old oldage (80-89 year) is 64.01 percent complain their health condition. Then, id it observed from morbidity rate oldage is disturbed daily activities as result of health complaint suffered. The rate of morbidity oldage year 2014 was 20-25 percent, it meant taht about one from four oldage have experenced ill in the latest month. Health oldage condition gradually worsen because of fall.

Fall is regarded as natural consequences to become old. Fall is not normal part aging process, however about 30% oldage who live in the family experience fall every year. Fall incident among oldage who live in the family invrease from 25% at the age of 70 year become 35% after age of more than 75 year. (Stanley & Beare, 2006).

Fall in oldage is influenced by many factors. There is classified to become mobility, the behavior of risk taking, and physical environment. There is also classification to become internal factor from oldage themselves and external from oldage themselves. External factor related to home hazard (CDC 2005 in Sabatini at ll, 2015).

According to 2014 national cencus data, economic status of oldage is 46.33 percent oldage live in household with low economic status and 16.13 percent oldage with high economic status household. 5.51 percent oldage live at is not suitable occupied house, whereas oldage who live not suitable occupied house is 11.98 percent. The proper of the house is determined through seven housing indicators agreed by Ministry of People Housing. Almost of all oldage live in their own house or owned by a member of household who live together, exactly it is 92.40 percent oldage, the problem of environmental facilities whisch is not enough can hinder welfare achievement of community. Dirty environment or minimal facilities can cause social problem and health particularly the rush of fall. Home care program carried out by social officer who visit oldagein their house. The purpose of homecare is to assist oldage and their family to meet the needs of social welfare and solve oldage problems at the same time to procide the opportunity to oldage to remain stay in their family. The program has several function among others, prevention, promotion, rehabilitation, protection and maintenance.

alone in one house or single household oldage. 9.66

The family who own oldage is increased family skill in providing services, treatment and proper acknowledgment of oldage particularly to create safe enviroentment to prevent a fall. And to increase welfare of oldage family through empowerment acticity and potential development for oldage.

The result of research Ashar (2016) was the precentation of oldage fall risk based on variety of factors among others problem of heart 71.1%, movement disturbances 50%, nerve disturbances 68.4%, sight disturbances 63.2%, earing disturbances 50%, oldage use walk aid equipment 18.4%. oldage who evaluate is not safe environment 81.6%, oldage who do not carry out activity 73.7%, owned history decease 50%.

The result of research Rusdi and Otaviana (2012) are family knowledge about prevention of fall in good category 60.6%, positive attitude about prevention 100%. Other research result according to Sabatini at all (2015) that "majority of study corncerning fall risk in oldage only discuss internal factor. External factor in fall risk can be group into element related to fall risk: slip of, trip up and fall because of losing balance; and not direct related to the ease of sight and safety equipment. Further, element form external factor is group based on permanent element or not, to see the role from building design to the fall risk to oldage.

The knowledge is the result from know take place after someone carried out existing to particular object (Notoatmodjo, 2003). When someone's knowledge is gradually better so their attitude will gradually be better. However a good knowledge without attitude so they knowledge it is notsignificant. (Notoatmodjo, 2003)

Methods

Research design is research which is composed in such way so that the research can obtain the answers to the research questions. Research design refers to kind or sort of research choosen to achieve the objective of research, and as role of equipment and guidance to achieve the objective. Design in this research is using Cross Sectional. In the reserach cross population and sectional samples, cause variable or risk and consequence or cases happen to the object of the research is measured and collected simultaneously, at the moment or once in once time (at the same time) and there is no following up. Cross sectional can be used in descriptive research or analytic. Population in this research is all the family who own the oldage in Kkarang Mekar village, Kedung Waringin subdistrict, Bekasi Regency. Sample of the research is using total population all family who own oldage in

Karang Mekar village, Kedung Waringin subdistrict, Bekasi Regency. Inclusive Criteria: is a family who own oldage, live in a house, literate family. Exelsive Criteria: is a family who does not want to be respondent, oldage who has not acompany in daily activities.

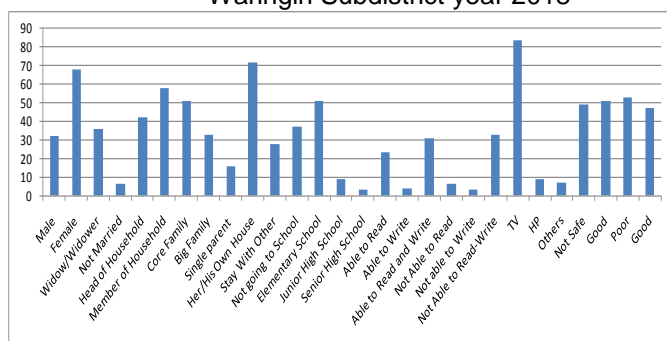
Sampling technique used is using accidental sampling it means where is met/met inclusive criteria who become respondent. collective data is using primary data with data collection method namely, interview and observation.

The research uses collecting /measurment data equipment using questionnaires which on developed through validity test and realibility. Initial questionnaire before doing validity test and reliability which cover demographic question, knowledge question, consist of 38 question, and question about the act of equipping a comfortable physical environment consist of several question. Questionnaire consist of question and statements for observation guide.

Result

Univariate result illustrates about oldage characteristic, knowledge level and family environmental condition in oldage. The following is conveyed in the form of table:

Tabel 1. Frequency Distribution of Oldage Characteristic in Mekar Jaya Village Kedung Waringin Subdistrict year 2018



Based on above table, that from the number of 100 oldage people and their family can be obtained the result that the number of oldage which is substansial is women 68%. The largest marital status is married 58% whereas the smallest is not married is 6%.the role of oldage in the family which is largest is as member of family 58%. The type of family which is the largest is core family 51% and the smallest is single parent 16%. Residential status of oldage whisch is the largest is their own house 72%. The education level which is the largest is final education not going to school is 37% and the smallest education level is senior hihg school 3 %. The ability to read of oldage which is the largest is not able to read-write 33%, the smallest is not able to

write 3%. Source of information it can be obtained by oldage the largest through TV 84%. The condition of house is seen from safety to prevent fall for oldage is good the largest (safe) 51%, and the knowledge level of family or oldage about creating safe environment for oldage to prevent fall is the largest lack knowledge 53%.

Bivariate analysis namely is doing analysis to two variables, wether there is relation or no relation between the two variables. Bivariate analysis is as follows

Table 2. Relation Between Knowledge and The Act of Equipping Safe Environment for Oldage in Mekar Jaya Village Kedung Waringin Subdistrict year 2018

No	Know ledge	Safe Environment For Oldage						95 % / C		
		Poor		Good		Total	P.Va	OR	Lower	Upper
		n	%	n	%	N	%			
1	Poor	28	52.8	25	47.2	53	100			
2	Good	21	44.7	26	55.3	47	100	0.54	1.387	0.630
Total		49.0	49	51	51.0	100	100			

Based on the above table in obtained data from 100 respondent people in poor education group is 28 families (52.8%) compared to good environment group for oldage is 25 families (47.2%) whereas a good knowledge group, there is lack safe environment group for oldage is 26 families (55.3%). The result of chi square obtained p is 0.54 ($p \geq \alpha : 0,05$), CI 95% (0.630 – 3.050) it means there was no effect knowledge family level to the act of equipping safe environment for oldage, the value of ods ratio is 1.387, means that the group who own good knowledge will create good environment to 1.387 times compared to the poor knowledge group.

Discussion

The research result that the number of women is greater namely 68%, married status greater namely 58%, a family type is core family 57% who live in their own house 72%, dafe environment for oldage greater namely is 51%, in occurance with Darmojo (1999) opinion where women has risk depression signs smallest compared to men (men 7.3% and women 3.7%) and women irritable (men 17.2% and women 7.1%) so that women is more ready to face problem compared to men,in this case it is

enable to support research result in the number of women and the role of women to create safe environment more possible more over living in their own house so oldage has freedom to manage their own house comfortable for them.

Other opinion which is in accordance with is according to Stuart and Sundeen (1995) in Tamher and Noorkasiani (2011) that support from family is the most important element in assisting individual to solve the problem. When there is support, a self confidence will add and motivation to face the problem happen will increase.

The result research of education level of oldage greater which is not going to school 37%, unable to read-write 33%, source of information obtained from TV, family knowledge is greater 53%, safe environment for oldage is good 51%. The result is supported by Notoatmojo opinion (2012), the knowledge is the result from know happened after someone carried out sensing to particular object. Sensing takes place through human five senses, namely sight sense, earing sense, smelling sense, taste and touch. According to Notoatmojo (2012) that the change or new behavior adoption is a process which is complex and need to relatively long time. Someone adopted new behavior if someone known the purpose and the benefit for himself or the other. According to Rogers (1974) that someone adopted new behavior in someone's self took place several process among others Awareness of someone realize it means to know stimulus. Interest, namely someone starts interested in stimulus, Evaluation, consideration good or bad stimulus for himself, Trial, try new behavior, adoption, someone has behaved new in accordance with knowledge, awareness, and his behavior. When new behavior receive through process based on the knowledge, awareness from positive behavior so the behavior will be long lasting.

The result of research that it was obtained from data of 100 respondent people in poor education group there is poor environment 28 families (52.8%) compared to good environment for oldage 25 families (47.2%). Whereas a good knowledge group there is poor safe environment 21 families (44.7%) compared to good environment group for oldage 26 families (55.3%). The result of chi square is obtained p value 0.54 ($p \geq \alpha : 0,05$), CI 95% (0.630 – 3.050) it means that there is no effects family knowledge level to the act of equipping safe environment for oldage, Ods Ratio value 1.387 it means that a group who own a good knowledge will create good environment 1.387 times compared to poor knowledge group.

This is _ with Notoatmojo opinion (2012) the knowledge is the result from know, takes

place after someone carried out sensing to a particular object.

According to Hughes K at all (2008) that to prevent fall in oldage, it is more effective by providing health education and information in standing alone oldage, beside to do physical exercises for oldage who can be done in the family and society. The role of family is very important in creating safe environment for oldage for particularly in carrying out health treatment function namely the function to defend health condition of family member remain who has high productivity.

According to Stanley (2006), fall can cause various kinds of injured and physical damage and psychology. The consequence which is the most fearing from the face incident is broken hip. Fracture which is often taken place because of fall is risk fracture, above arm and pelvis.

According to Zhang et al (2012) Knowledge, Attitude and Practice Model (KAP) questionnaires were used at the pre- and post-intervention phase for fall induced injury prevention in the community. Knowledge, Attitude and Practice Model (KAP) that knowledge is the base, belief is a motivator, while the forming and changing of behaviors is the ultimate goal . Knowledge, attitude and practice are closely associated with behavior modification and are crucial for risk reduction of fall among elderly .

Cumming *et al* (2008) The lack of effect was evident in both acute and rehabilitation wards and occurred despite the planned nursing and physiotherapy interventions being successfully implemented and the alarm for selected patients being used appropriately.

According Yektiningsih et al (2012) Family knowledge about efforts to prevent injury risk to the elderly is very important for families who have elderly to be able to provide appropriate care to the elderly especially in preventing falls. But family knowledge is not merely an absolute factor affecting the incidence of falls in the elderly. Because there are many other factors such as experience, environment, etc.

Conclusion

Recommendation was health officer in this case, a nurses should carry out illumination to the family and create safe environment.

Competing Interest

The authors of this paper have no competing interest to report.

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