



Research



## Determinants of Personal Hygiene Behavior in the Elderly at the Tresna Werdha Social Service Technical Implementing Unit Jember

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### A B S T R A C T

**Background:** There was an increase in the number of elderly people by 8.1% in 2019 compared to 2018 (Indonesian Ministry of Health, 2019). The increasing number of elderly people in Indonesia will cause health and welfare problems, especially related to personal hygiene

**Purpose:** This study aims to analyze the determinants of personal hygiene behavior in the elderly at UPT PSTW Jember by utilizing the ABCD concept (Asset Based Community Development which is also reviewed from the behavior of the elderly and assets owned by UPT Tresna Werdha Jember Social Services

**Method:** The design of this study was analytic observational with a population of 140 elderly people and a sample size of 58 elderly people taken using systematic sampling techniques

**Result:** The results showed that knowledge, attitudes, social assets, facilities and infrastructure and health information / training had an influence on personal hygiene behavior in the elderly at UPT PSTW Jember. The Odds Ratio value of 13.074 means that social assets have the opportunity to influence personal hygiene behavior 13.074 times compared to the variables of knowledge and infrastructure

**Conclusion:** The dominant factor that has the most influence on the personal hygiene behavior of the elderly at UPT PSTW Jember is social assets.

## INTRODUCTION

The greatest success of the public health policy sector is the ever-increasing human life expectancy. In 2025, it is estimated that there will be 1.2 billion people with elderly status, 500 million of whom are aged 60 years and others in the age range above 60 years. In 2019 the number of elderly people increased by 8.1% compared to 2018. Indonesia is one of the parts of Asia that experienced an increase in the number of elderly people by 0.089% in 2019.<sup>1</sup>Increasing number of people Elderly people in Indonesia will cause problems related to health and well-being in the elderly, such as decreased ability physical and mental, limited social interaction and decreased work productivity. Problems related to the elderly, especially in the maintenance of personal hygiene which includes the cleanliness of hair, nails, mouth, and other body organs so that it has an impact or cause to increase trust in the elderly and experience a decline in their social role and cause internal disturbances that cover their life needs, especially their needs. personal hygiene.<sup>2</sup>

Population behavior is a risk factor that plays a role in the occurrence of disease. According to Lawrence W. Green, there are three determinants of behavior for a person, namely: predisposing factor (predisposing factors), enabling factor (supporting factors) and reinforcing factor (driving factor). In the case of disease, behavioral factors are usually associated with aspects of personal hygiene, so that people with poor personal hygiene conditions will have the potential to cause and spread disease.<sup>3</sup> Personal hygiene is influenced by personal, social and cultural factors. Hygiene problems are less considered in the elderly, occurs because the elderly consider hygiene problems to be an unimportant problem, even though a disease can occur and affect health. In addition, related to personal hygiene are disorders of comfort needs, needs to be loved, self-esteem needs, self-actualization and social interaction disorders<sup>4</sup>.

The concept of ABCD (Asset Based Community Development) is one of the strategies in community empowerment. This ABCD concept is an alternative to community empowerment by using assets. Asset in this context means the potential owned by the community itself. This potential can be in the form of internal wealth such as intelligence, care, mutual cooperation, togetherness and others. The most powerful and currently most influential group in promoting asset-based thinking is Asset Based Community Development (ABCD) which was first introduced at the School of Education and Social Policy at Northwestern University, Illinois, USA<sup>5</sup>. The term asset can be misunderstood and sometimes it is better to prepare a number of terms that communities can use to understand the various strengths they already have including social assets (care, values, norms), personal assets (skills that a person has), natural assets (things that come from nature such as land, lakes), physical assets (things that are provided as a means to be used such as health care facilities) and financial assets (a person's ability to earn income)<sup>6</sup>.

Nursing homes are one of the residential places for the elderly to enjoy their old age with physical and spiritual services, enjoy their old age by getting physical and spiritual services<sup>7</sup>. Jember has social services including the orphanage system, namely the Technical Implementation Unit for Tresna Werdha Social Services (UPT PSTW). The Technical Implementation Unit for Tresna Werdha Social Services (UPT PSTW) is an agency under the East Java Provincial Social Service that specifically deals with the problems of the elderly, especially neglected elderly. Elderly people in the nursing home environment are a population that is vulnerable to low personal hygiene behavior<sup>8</sup>. Based on preliminary studies conducted by researchers on 10 elderly people, data obtained as many as 75% of elderly people have received health information about personal hygiene from health workers and as many as 25% of elderly people do not get health information about personal hygiene. Based on the results of observations, researchers saw that some of the elderly who lived at UPT PSTW Jember had a less neat appearance, dirty and sticky hair, body odor, dirty nails, had many items placed out of place, and kept some garbage in their rooms. Most of the elderly experience itching, diarrhea and other health problems caused by personal hygiene behavior. Based on the description above, the authors are interested in conducting research and analyzing the determinants of personal hygiene behavior in the elderly in terms of the assets owned by UPT PSTW Jember.

## METHOD

This study is a type of observational analytic research with a cross-sectional approach. This research was conducted at UPT PSTW Jember. The population in this study were 140 elderly people who settled and lived in UPT PSTW Jember with a sample size of 58 elderly people taken by systematic sampling according to the exclusion and inclusion criteria. This study has received a research ethics permit from the Research Ethics Commission of the Faculty of Medicine, University of Jember with certificate number 1192/UN25.8/KEPK/DL/2022. The independent variables in this study are predisposing factors (knowledge, attitudes, social assets and personal assets), enabling factors (facilities and infrastructure), reinforcing factors (health information / training). The dependent variable in this study is personal hygiene. For data collection, respondents were given a questionnaire which had previously been tested for validity to support the research. Data

were processed using SPSS. Univariate data analysis using frequency distribution. Bivariate analysis using chi-square and multivariate analysis using logistic regression to determine the most influen.

**RESULT DAN DISCUSSION**

The following are the results of research that has been conducted on the elderly at UPT PSTW Jember. The variables observed in this study were predisposing factors, enabling factors and reinforcing factors. Table 1 describes the frequency distribution of predisposing factors.

Table 1. Frequency Distribution *Predisposing Factors*

A	Knowledge	N	Percentage %
1	Good	21	36,2
2	Not Good	37	63,8
B	Attitude		
1	Good	33	56,9
2	Not Good	25	43,1
C	Social Asset		
1	Good	36	62,1
2	Not Good	22	37,9
D	Personal Asset		
1	Have	22	27,6
2	Don't Have	42	72,4

The table above illustrates that the elderly at UPT PSTW Jember mostly have poor knowledge and attitudes towards personal hygiene. most of the elderly also do not have social assets. The tabulation results from table 2 show that the facilities and infrastructure for the elderly at UPT PSTW Jember are good with a percentage of 67.2%.

Table 2. Frequency Distribution *Enabling Factors*

No	Facilities and infrastructure	Total	Percentage %
1	Not God	19	32,8
2	Good	39	67,2
	Total	58	100

Providing health information / training is one of the efforts to improve good personal hygiene behavior. The following presents the results of the frequency distribution analysis of reinforcing factors at UPT PSTW Jember in table 3

Table 3. Frequency Distribution Reinforcing Factors

No	Information / Training	Total	Percentage %
1	Never	30	51,7
2	Ever	28	48,3
	Total	58	100

From the table above, it can be seen that Most of the elderly at UPT PSTW Jember did not receive health information/training about personal hygienenamely as many as 30 elderly people (51.7%). Table 4 shows that most of the elderly at UPT PSTW Jember have poor personal hygiene behavior.

Table 4. Frequency Distribution Personal Hygiene Behavior

No	Personal Hygiene Behavior	Total	Percentage %
1	Not Good	31	53,4
2	Good	27	46,6
	Total	58	100

Table 5 is the result of the bivariate test. Bivariate analysis was conducted to determine the relationship between predisposing, enabling and reinforcing factors of health promotion with personal hygiene behavior in the elderly. This test uses the Chi-Square statistical test with a meaning level of 95% ( $\alpha = 0, 05$ ). By using the chi-square test, it can be seen which variables are eligible and ineligible for further analysis using multivariable analysis with a note that the P value  $<0.05$  then the variable has met the requirements to continue using multivariable analysis.

Table 5. Determinant of Personal Hygiene Behavior

Determinant Behavior	95%CI			
	value	OR	Lower	Upper
<b>Predisposing Factors</b>				
Knowledge	0,021*	3,692	1,192	11,439
Attitude	0,020*	3,556	1,94	10,588
Social Asset	0,004*	5,343	1,607	17,763
Personal Asset	0,133	0,408	0,125	1,334
<b>Enabling Factors</b>	0,001*	8,533	2,122	34,317
<b>Reinforcing Factors</b>	0,037*	3,091	1,057	9,039

The table above shows that knowledge, attitudes, social assets, enabling factors (facilities and infrastructure) and reinforcing factors (information / training) have  $p < 0,05$  which means that these variables affect the personal hygiene behavior of the elderly, while personal assets do not affect personal hygiene behavior. Multivariable analysis using logistic regression test to determine the factors that have the greatest risk of influencing personal hygiene behavior. The results of multivariate analysis are presented in the table 6

Table 6. Model Analysis between Independent Variables and Personal Hygiene Behavior

Variable Independent	P Value	Exp (B)	Personal Hygiene Behavior	
			Lower	Upper
Knowledge	0,070	4,451	0,887	22,334
Attitude	0,744	1,274	0,298	5,451
Social Asset	0,005	10,741	2,061	55,989
Personal Asset	0,226	0,360	0,69	1,880
Facilities and infrastructure	0,006	11,668	1,995	68,251
Information/ Training	0,254	2,137	0,514	8,878

\*sig  $\alpha = 5\%$

The results of the analysis showed that the six variables namely knowledge, attitudes, social assets, facilities and infrastructure, information / training had a p value  $<0.05$ , meaning that these variables did not become confounding factors in this study. These results indicate that the social asset variable is the most influential factor on personal hygiene behavior. This can be seen from the Odds Ratio value of 10.741, which means that good social assets have a chance to influence personal hygiene behavior 10.741 times compared to poor social assets.

The results of data analysis obtained that knowledge, attitudes and social assets affect personal hygiene behavior. While personal factors have no effect on personal hygiene behavior. Elderly people who have good knowledge also have good personal hygiene behavior and vice versa<sup>9</sup>. The low knowledge of the elderly regarding personal hygiene is the main cause of the elderly not having sufficient health and welfare status<sup>10</sup>. Elderly people who have a good attitude also have good personal hygiene behavior and vice versa. elderly attitudes can influence personal hygiene behavior in the elderly so that it can be said that the more positive the attitude of the elderly, the better the respondent's behavior in fulfilling personal hygiene<sup>11</sup>. Good social assets have a chance to influence personal hygiene by 5.343 than poor social assets. Social assets in this context are the elderly's concern

for fellow elderly friends in maintaining personal hygiene<sup>12</sup>. The support of people around is related to the independence of the elderly in doing personal hygiene<sup>13</sup>. Elderly people who have skills also have poor personal hygiene, this shows that elderly people who have skills do not necessarily have good personal hygiene<sup>14</sup>. Aging is not a disease; rather, it is a progressive process that causes cumulative changes and a decrease in the body's resistance to internal and external stimuli<sup>15</sup>.

Enabling factors are factors that enable or facilitate behavior or action. The existence of facilities and infrastructure at UPT PSTW Jember can support personal hygiene in the elderly. The results of the analysis using chi square showed the influence of facilities and infrastructure with personal hygiene behavior at UPT PSTW Jember. From the results of the analysis it was also found that health information / training had an effect on personal hygiene behavior<sup>16</sup>. One way to do this is to conduct health education, provide information, and conduct adequate training to the community so as to improve individual skills in health<sup>17</sup>. This is also done to reduce the high incidence of diseases due to lack of personal hygiene practices. In developing countries the occurrence of oral diseases such as toothache is usually often experienced by the elderly, one of which is due to the lack of personal hygiene<sup>18</sup>. Changes in knowledge can occur after the elderly receive counseling and information<sup>19</sup>.

The knowledge possessed by humans is the result of efforts made by humans in searching for the truth or problems faced in searching for the truth or the problem at hand<sup>20</sup>. Without knowledge a person has no basis for making decisions and determining actions on the problems faced<sup>21</sup>. Humans are social creatures which means they need each other<sup>22</sup>. This condition will allow a person to relate, interact and socialize with one another. Personal hygiene in the elderly in the orphanage is influenced by their fellow elderly. If someone does not have a sense of caring for others, they tend to become individualistic<sup>23</sup>. The results of observations and interviews, almost all elderly people at UPT PSTW Jember remind each other to maintain personal hygiene. Frequency distribution analysis of personal assets illustrates that most elderly people do not have personal assets. Personal assets in this case are skills, talents, abilities possessed by the elderly at UPT PSTW Jember. UPT PSTW Jember often holds training to produce unique works made from plastic waste and others to keep the orphanage clean. Ageing is a process and the final stage of human life. Along with age, tissues and organs experience a decline which causes the the elderly are susceptible to disease<sup>24</sup>. Productive age usually has a high level of productivity compared to old age so that the physical possessions become weak and limited<sup>25</sup>. Some types of cognitive skills tend to decline with age<sup>26</sup>.

Facilities, facilities and infrastructure that contribute to the behavior of a person or group<sup>27</sup>. Knowledge and attitudes alone are not enough to guarantee health behavior, therefore there is still a need for facilities and infrastructure that support this behavior. In order for the elderly to have clean living behavior, adequate facilities and infrastructure must be reached<sup>28</sup>. Counseling to convey health information is very important to be implemented at UPT PSTW Jember. Health counseling aims to increase, knowledge, willingness, awareness, renew attitudes and perceptions to behave better so that they can carry out better behavior or actions in daily life so that a person's behavior remains healthy that supports their health or to achieve healthy living goals by influencing community behavior either individually or in groups by conveying messages<sup>29</sup>. This can support the personal hygiene behavior of the elderly getting better including personal hygiene on nails and feet, skin, hair, teeth and others to avoid disease<sup>30</sup>.

The results of the analysis show that the three variables, namely knowledge, personal assets and facilities and infrastructure have a p value <0.05, meaning that these variables are not a confounding factor in this study. These results show that the social asset variable is the most influential factor on personal hygiene behavior. This can be seen from the Odds Ratio value of 13,074, meaning that social assets have the opportunity to influence personal hygiene behavior 13,074 times compared to the variables of knowledge and infrastructure. the elderly must get attention, especially in meeting the needs of personal hygiene. Therefore, it is necessary to have social support from the surrounding environment, namely nursing home officers and also other fellow nursing home friends. The availability of social support from around can make the elderly feel loved, valued and cared for so that the social support obtained by the elderly can make their lives more meaningful and motivated to live life

well, especially maintaining personal health. The existence of a sense of care and support between fellow elderly people is also an alternative so that health promotion is well conveyed<sup>31</sup>.

## CONCLUSION

The results showed that predisposing factors, namely knowledge, attitudes and social assets, had an effect on personal hygiene behavior while personal assets had no effect on personal hygiene behavior. Enabling factors, namely facilities and infrastructure, affect personal hygiene behavior. Reinforcing factors, namely health information / training, affect personal hygiene behavior. The dominant factor that can influence behavior in this study is social assets. Suggestions for UPT PSTW Jember and UPT PSTW Jember officers so that they can optimize existing services, so that the results obtained in efforts to maintain personal hygiene can run optimally. More optimal assistance is needed considering the many obstacles faced by the elderly in maintaining personal hygiene.

## ANNOUNCEMENTS

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