Conference Paper

Who Spends More on Health Expenditures among Elderly? Men or Women?

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Abstract

Women face various health problems during their lives. This has an impact on health costs that must be paid. Gender bias tends to place women in subordinate positions, so they have limited power in making a decision. This study aimed to examine whether gender is a factor impacting health expenditures among the elderly. A cross-sectional study based on the Indonesian Family Life Survey (IFLS) wave 5 included all elderly who accessed self-medication and health services in health facilities during the past 12 months (n=6773). Data regarding outpatient, inpatient, and self-medication costs was obtained from section RJ, RN, and PS from book 3B IFLS wave 5. The health costs that come out of the personal pocket resulted from the total cost of treatment that paid for self-medication, outpatient, and inpatient. Independent T-Test was performed to analyze the difference in health expenditure between elderly males and females. This study found that the average health expenditure was higher among elderly males (IDR 471,011; SD 7,103,932.7) than females (IDR 296,969.9; SD 2,552,816.4), but it was not statistically significant (p=0.195). Based on the type of health expenditure, there was no significant difference in self-medication spending between elderly males and females, as well as in outpatient and inpatient expenditures (p>0.05). Nevertheless, elderly males tended to spend more money on self-medication, outpatient, and inpatient services than females. It concluded that health expenditures between elderly males and females were almost the same. Gender equality in health care was addressed to establish universal health coverage.

Keywords: gender, health expenditure, IFLS, elderly, out-of-pocket

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1. Introduction

Today, the aging population increases dramatically. In 2050, people aged over 60 years are estimated to reach 2 billion. It has doubled compared to its number in 2015 [1]. This situation also occurred in Indonesia. Indonesia had almost 23.66 million elderly in 2017. It was then predicted to be 27.08 million in 2020, 33.69 million in 2025, 40.95 million in 2030, and 48.19 million in 2030 [2]. It means that for 13 years, the number of elderly has nearly doubled.

Various kinds of challenges due to the aging population have touched various aspects of life, one of which is the health sector. The elderly have a higher risk of getting health problems because, at this stage, they experienced a gradual decrease in physical and mental capacity. The morbidity rate of the elderly was 28.26% [2]. Non-communicable diseases are a common health problem that affects the elderly. Its prevalence increases over time [3, 4].

The magnitude of the non-communicable diseases burdens is also closely related to high health care costs. It has recognized that women have a higher prevalence of getting diseases when they get older. A longer life expectancy makes women have a greater chance of being exposed to the risk factors that affect their functional health. Living in poverty, divorces or widowed, unemployed, having lower education levels, and also having lower power in making decisions could be the major obstacles for establishing gender equality in health [5]–[7].

Even though women are more vulnerable to experienced health problems throughout their life, some previous studies found that the average health expenditure was lower than elderly males. Gender was identified as a factor associated with health costs [5], [8]–[13]. Gender differences in health cost spending among elderly was not getting much attention in Indonesia. Exploring whether there is a difference in health spending patterns between elderly males and females is the objective of this study. It is important to assess the gender disparity in health since it has become one of the SDG's agendas.

2. Materials and Method

This study was conducted using a cross-sectional study design that obtained data from the Indonesian Family Life Survey (IFLS) 5. The IFLS 5 was a continuing survey that collected data on individuals, households, communities regarding socioeconomic and health [14]. All elderly who participated in IFLS 5 and had the last visit to the health care services or seek self-medication were recruited as research subjects (n=6773).

Health expenditures were measured from section RJ (question code RJ02b), RN (question code RN02b), and PS (question code PS02) Book 3B. Respondents were asked how much they had to pay for treatment at each medical facility, medical providers, or type of self-treatment during the past 4 weeks (outpatient care) and the past 12 months (inpatient care). The sociodemographic data extracted from COV Book 3B included information on sex, education level, and marital status. Data regarding smoking behavior was also obtained from section KM (question KM01a and KM04) Book 3B. The elderly was asked whether they still had the smoking habit, totally quit, or never smoke. The

chronic diseases suffered by the elderly were known from section CD Book 3B. The elderly was categorized as having chronic disease when they had diagnosed with one or more chronic conditions, such as hypertension, diabetes, tuberculosis, asthma, other lung conditions, heart problems, liver, stroke, cancer, arthritis, high cholesterol, prostate illness, kidney disease, digestive disease, psychiatric problems, and memory-related disease [14].

Descriptive analysis was carried out to get an overview of each variable. The characteristics of respondents were presented in the form of a frequency distribution. Independent T-Test were performed to examine whether the health expenditure of elderly males differs from elderly women.

3. Results

The total of elderly (>45 years old) recruited in this study was 6773 people. Most of them were female (53.7%). The sociodemographic characteristics of elderly males and females were not much different. Most of them had finished their primary education, but the percentage of secondary and tertiary education was slightly higher in elderly males than females. Based on the marital status, 92.5% of elderly males had married and so did 67% of elderly females. Their characteristics only differed in terms of smoking behavior and chronic disease status. Men (62.0%) were more likely active smokers than women (5.1%). It indicates that almost all of the elderly females (93.1%) never smoked (Table I).

This study found that almost all of the elderly had treated themselves when they got health problems (n=6374, 94.1%). The self-treatment included consuming over-the-counter modern medicines, traditional herbs or medicines, topical medicines, vitamin/supplements, massage, and coining. Elderly males (53.5%) had a greater percentage than elderly females (46.5%) in terms of self-treatment. Compared to elderly males, elderly females made better use of health care services. More than half of the total elderly females accessed outpatient (61.0%) and inpatient service (60.1%) (Table II).

Table III presented the average health expenditures in both groups, elderly males and females. Total health expenditures among elderly males (IDR 471,011.9;SD 7,103,932.7) was almost double the cost of female health expenses (IDR 296,969.9;SD 2,552,816.4), but it was not significantly different (p-value > 0.05). In all the types of health expenses, elderly males tended to spend more on health costs than females, even though it was not statistically significant (p-value >0.05). The highest health expenditures in both elderly males and females were for inpatient costs.

Table 1: characteristics of elderly males and females

Characteristics	Elderly males (n=3133)		Elderly females (n=3640)	
	n	%	n	%
Education level				
Elementary School	1528	48.8	2044	56.2
Junior High School	411	13.1	405	11.1
Senior High School	635	20.3	420	11.5
Higher Education	383	12.2	241	6.6
Other	6	0.2	5	0.1
No answer	170	5.4	525	14.4
Marital status				
Married	2899	92.5	2438	67
Unmarried	21	0.7	54	1.5
Separated	10	0.3	27	0.7
Divorced	55	1.8	147	4
Widowed	148	4.7	973	26.7
Cohabited	0	0	1	0.1
Smoking behavior				
Active smoker	1944	62	185	5.1
Quitter	529	16.9	64	1.8
Never smoke	660	21.1	3391	93.1
Chronic disease				
Yes	1402	49.7	2136	58.7
No	1731	50.3	1504	41.3

Table 2: type of health access

Sex	Self-medication (n=6374)		Outpatient (n=737)		Inpatient (n=1890)	
	n	%	n	%	n	%
Elderly males	3409	53.5	737	39	153	39.9
Elderly females	2965	46.5	1153	61	230	60.1

4. Discussion

The major findings of this study showed that the health expenditures between elderly males and females were not statistically significant. Even though the statistic did not find any differences, elderly males spent more money on paying health costs than elderly females in all types of health expenditures. From all types of health expenditures, the average cost for inpatient care was the highest than the average cost for self-medication and outpatient care. These results were in line with the findings of studies conducted in India, China, and some other countries. Gender is related to health expenditures. Elderly females spend less money compared to elderly males [5], [8], [12], [13], [15], [16].

Table 3: health expenditures among elderly males and females

Type of health expenditure	Sex	Mean (IDR)	SD	P-value
Self-medication	Men	41116.3	494548.7	0.778
	Women	37631.9	484321.7	
Outpatient	Men	169478.4	1338116.9	0.138
	Women	94509.1	365250	
Inpatient	Men	8302755.1	31393168.7	0.087
	Women	3719849.6	9278570.3	
Total health expenditures	Men	471011.9	7103932.7	0.195
	Women	296969.9	2552816.4	

*sig. for p-value < 0.05

The amount of money spent on health care by elderly females was lower than elderly males. It was likely due to the differences in direct/indirect costs and insurance participation. The types of health services and facilities, the presence of chronic diseases, and disease severity also contribute to the health expenditures [8], [11], [17], [18]. Even though elderly females visit health facilities more often than elderly males, they might be more likely to go to public hospitals, health centers, or clinics than private hospitals. Those health facilities cooperate with Healthcare and Social Security Agency (BPJS Kesehatan) so they can use their insurance. The medical costs will be covered by the Healthcare and Social Security Agency (BPJS Kesehatan).

Recall bias might exist because the respondents have to answer the costs spent on health care in the past 4 weeks and the past 12 months. Bias also could arise from the missing data. Many elderly did not answer the costs spent on health care services. The health expenditures found in this study might be under the estimation. However, the national data from the Indonesian Family Life Survey (IFLS) used in this study can give an overview of the health expenditures among the elderly in Indonesia. It is important to ensure gender equality in the health sector as stated in the SDG's goals. Better health service financing schemes are needed to prevent catastrophic health expenditure, especially for the elderly.

5. Conclusion

The highest spending was for paying the inpatient service. There was no significant difference in all the types of health expenses (self-treatment, outpatient, and inpatient) between elderly males and females. Nevertheless, elderly men tended to spend more

money on paying for them. Gender-responsive care should be addressed to realize universal health coverage and improve the health status of the elderly.

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