Knowledge and Skills of Community Health Workers in Filling of Towards Health Card (Kartu Menuju Sehat)

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Abstract

Background: The knowledge and skills of community health workers (Posyandu's cadre) in filling of Towards Health Card (Kartu Menuju Sehat or KMS) play an important role in monitoring the growth of toddlers. **Aims**: To analyze the knowledge and skills of community health workers in filling out the health card (KMS) in the Kayuwou Health Center Work Area, Donggala Regency, Central Sulawesi. **Methods**: This study was an analytic observational study using a cross-sectional design with a total sample of 39 people taken by simple random sampling. Data collection techniques were carried out by interviews and performance. Analysis was performed by chi-square test. **Results**: The results showed that most of the respondents had sufficient knowledge about KMS (59.0%) and were classified as skilled in completing KMS (61.5%). The working status of cadres has a significant relationship with the skills of cadres in completing the KMS (p<0.05). **Conclusion:** It is better if people who are appointed as community health workers are people who are not working so they can focus more on carrying out their duties as cadres.

Keywords: Cadre, Kartu Menuju Sehat, Growth monitoring, Children under 5 years old

Key Messages:
- Most of the community health workers (Posyandu's cadre) had sufficient knowledge about KMS and were classified as skilled in completing KMS.
- People who are appointed as Community health workers are people who are not working so they can focus more on carrying out their duties as cadres.

1. Introduction

The burden of nutritional problems in toddlers in Indonesia has not been resolved to date. The prevalence of acute and chronic malnutrition under five is still quite high. The Ministry of Health of the Republic of Indonesia reported that the prevalence of underweight toddlers increased from 16.3% in 2019 to 17% in 2021. Meanwhile, the prevalence of stunting fluctuated, namely 36.8% in 2007 and then increased to 37.2% in 2013 and in several the last survey continued to experience a decline until 2021 showing 24.4%(1). Although the prevalence of

stunting is currently decreasing, it is still above the WHO recommendation threshold of 10-20%, which is classified as medium and low if <10%(2).

Efforts to monitor the growth and development of toddlers through community participation at community integrated health service (Posyandu) are crucial to improve the nutritional, cognitive, mental and psychosocial health status of children. Unfortunately, the participation of mothers under five to posyandu is still lacking. Community participation in monitoring the growth of children under five and at the same time assessing the performance of health workers in educating the public in monitoring growth is reflected in the proportion of the number of children under five being weighed (D/S)(3). According to the SSGI report (2021) the proportion of toddlers who are weighed according to standards (≥8 times a year) in Indonesia is still low, namely only 36.9%, while in Central Sulawesi it is also not high, namely only 42.1%1. This is still far from the national target of D/S presentation which must be achieved, which is 85%, and the target for Central Sulawesi Province is 80% (4).

One of the factors that influence the participation of mothers under five to posyandu is satisfaction with posyandu services(5). As a community-based health effort (UKBM) that is managed and organized from, by, for and with the community, posyandu services will not run effectively without the support of qualified community health workers. One of the cadre's activities is filling out the Towards Health Card (Kartu Menuju Sehat or KMS), which is a card that contains a child's normal growth curve based on the anthropometric index of body weight for age. KMS can also detect growth disorders or the risk of excess nutrition earlier, so that preventive measures can be taken more quickly and appropriately before more serious problems occur (6). There are still many Community health workers who have incomplete knowledge in filling out the Health Card (KMS) (7), even though cadres should fill in the KMS completely so that growth monitoring can be carried out correctly. The skills of cadres in completing KMS greatly affect growth monitoring activities in a region.

The impact of the lack of knowledge and skills of Community health workers will have both direct and indirect consequences. The direct impact on children, poor monitoring of growth and development will result in not monitoring the health of children and will have an impact on incomplete KMS filling(6). The resulting data is inaccurate and precise, so that it cannot be used as a basis for formulating programs and policies in the health, food and nutrition sectors. Accurate and precise data and information play an important role in the decision-making process for formulating policies, planning (8) (9).

Based on the profile data of the Kayuwou's Health Center (Puskesmas) in 2019, there are 13 Posyandu working areas in the Puskesmas with a total of 43 cadres. Some Posyandu do not yet have a complete number of cadres or the number of cadres is less than 5 people, while the minimum number of cadres recommended in each Posyandu is 5 people(6). Community participation in Posyandu is also not maximized as reflected in D/S achievements in 2018 in working areas Kayuwou Health Center is also still low at 25.14%. This study aims to analyze the knowledge and skills of community health workers in filling out the health card (KMS) in the Kayuwou Health Center Work Area, Donggala Regency, Central Sulawesi.

2. Methods

This research is an observational study with a cross sectional design. The research was conducted in February 2020 in the Working Area of the Kayuwou Health Center, Sindue Tobata District, Donggala Regency, Central Sulawesi. The research sample consisted of 39 from 43 community health workers who served in the Kayuwou Health Center Work Area, which were taken by simple random sampling.

Data on the characteristics and knowledge of respondents were collected through an interview process using a questionnaire. Knowledge is categorized into sufficient knowledge (if the correct answer score is ≥60%) and lacking (if the correct answer score is <60%). Meanwhile, data on the skills of the respondents was collected by means of performance, in which respondents were asked to fill out KMS sheets based on the cases given. Skills assessment is categorized into skilled (if the performance value score ≥ average score) and unskilled (performance value score < average score). The components of KMS filling skills that are assessed are (a) the ability to determine the age of the baby; (b) ability to use KMS types based on baby's sex; (c) the ability to fill in the baby's weight in the right column; (d) the ability to accurately determine the baby's growth status; and (e) ability to plot and connect growth lines precisely. The type of KMS used is the one officially used in Indonesia based on the Regulation of the Minister of Health of the Republic of Indonesia Number 155/Menkes/PER/I/2010 concerning Use of the Towards Health Card (KMS) for Toddlers. Data analysis was

performed using univariate and bivariate analysis using the chi-square test with a significance value of 0.05 at 95% confidence interval.

3. Results

Characteristics of Respondents

This research involved 39 community health workers in the Kayuwou Community Health Center, Donggala Regency. All respondents in this study were female (100%), while marital status showed that almost all were married (97.40%) and most were >30 years old (64.30%). The education level of most of the respondents belonged to the middle or higher level, namely junior high school/equivalent (28.20%), high school/equivalent (48.70%), and tertiary education (2.60%), while cadres who completed elementary school/equivalent education less (20.50%). Most of the cadres work as housewives (74.4%), while some work as farmers (20.5%) and traders (2.6%) and do not work (2.6%) (Table 1).

Table 1 Characteristics of Respondents

Characteristics of Respondents	n	%
Sex		
Man	0	0.00
Female	39	100.00
Marital status		
Married	38	97.40
Not Married	1	2.60
Age (years)		
>30	25	64.10
≤30	14	35.90
Education's level		
Elementary school	8	20.50
Secondary school	11	28.20
High school	19	48.70
Diploma/bachelor	1	2.60
Occupational		
Farmer	8	20.50
Trader	1	2.60
Housewife	29	74.40
None	1	2.60
TOTAL	**39**	**100.00**

Knowledge and Skills for Filling Towards Healthy Cards (KMS)

More than half of the respondents had sufficient knowledge in filling out the KMS (59.0%) while some cadres still lacked knowledge in filling in the KMS (41.0%). The skills of the cadres in completing the KMS showed that most of the community health workers were already skilled in filling out the KMS (61.5%), but there were also quite a lot of unskilled cadres, namely 15 people (38.5%) (Table 2).

Table 2 Status of Knowledge and Skills in Completing KMS

Variable	n	%
Knowledge category		
sufficient	23	59.00
insufficient	16	41.00
Skill category		
skilled	24	61.50
unskilled	15	38.50
Total	**39**	**100,00**

The distribution of respondents' abilities in filling out the KMS showed that most of the cadres were able to determine the age of the baby correctly (71.80%), were able to fill in the baby's weight in the right column (74.40%), plotted and connected the growth line correctly (56, 4%) and all respondents were able to use the KMS type based on the sex of the baby (100%). Only a small number of cadres were able to accurately determine the growth status of infants (10.3%) (Table 3).

Table 3 Distribution of skill components in filling out KMS

Skill components in filling out KMS	n	%
Determine the age of the baby		
skilled	28	71.80
unskilled	11	28.20
Ability to use KMS types based on baby's sex;		
skilled	39	100.00
unskilled	0	0.00
Ability to fill in the baby's weight in the right column;		
skilled	29	74.40
unskilled	10	25.60
Ability to accurately determine the baby's growth status;		
skilled	4	10.30
unskilled	35	89.70
Ability to plot and connect growth lines precisely		
skilled	22	56.40
unskilled	17	43.60
TOTAL	39	100.00

Bivariate analysis showed that marital status, age, educational level, and working status were not significantly related to knowledge status in filling out the KMS (p>0.05) (Table 4).

Table 4 The relationship between the characteristics of respondents and the status of knowledge in filling out the KMS

Variables	Status of Knowledge and Skills in Completing KMS				p-value (95%CI)
	insufficient		sufficient		
	n	%	n	%	
Marital status					
Married	15	39.5	23	60.5	0.225
Not Married	1	100,0	0	0.0	
Age					
>30 years old	9	36.0	16	64.0	0.394
≤30 years old	7	50.0	7	50.0	
Education's level					
≤ elementary school	4	50.0	4	50.0	0.563
≥ secondary or higher	12	38.7	19	61.3	
Employment status					
Employ	13	43.3	17	56.7	0.593
unemployed	3	33.3	6	66.7	
Total	16	41.0	23	59.0	

Meanwhile, bivariate analysis of skills status in completing KMS showed that working status had a significant relationship with skill status in filling out KMS (p <0.05) (Table 5).

Table 5 The relationship between the characteristics of the respondents and the status of the KMS filling skills

Variables	Skills in Completing KMS				p-value (95%CI)
	unskilled		skilled		
	n	%	N	%	
Marital status					
Married	15	39.5	23	60.5	0.423
Not Married	0	0.0	1	100.0	
Age					
>30 years old	10	40.0	15	60.0	0.792
≤30 years old	5	35.7	9	64.3	
Education's level					
≤ elementary school	1	12.5	7	87.5	0.090
≥ secondary or higher	14	45.2	17	54.8	
Employment status					
Employ	7	23.3	23	76.7	**0.000***
Unemployed	8	89.9	1	10.1	
Total	**15**	**41.0**	**24**	**59.0**	

4. Discussion

Knowledge of cadres in filling out KMS

The results of this study indicated that more than half of the respondents had sufficient knowledge in filling out the KMS (59.0%) while the other half were still lacking in knowledge in filling out the KMS (41.0%). This is in line with research conducted by Putri (2016) that most community health workers have relatively good knowledge of filling out the KMS (64.1%) (10). Cadres' knowledge of good KMS is the main factor that will support the role of cadres in completing, using or utilizing KMS as a medium for recording the health status of toddlers and as a basis for education to mothers and communication between health workers to mothers. Therefore, knowledge of cadres about KMS is very important. Good knowledge tends to improve the quality of their work (11).

Knowledge can be influenced by several factors such as age. In this study, most of the cadres were aged <30 years. Age up to 30 years is still classified as a youth group(12). Relatively younger age has the ability to receive stimulus (stimulus) information more quickly compared to older age. And vice versa, if you have entered old age, your cognitive abilities will decrease(13). In addition to age, one's knowledge can also be influenced by the level of formal education. In this study, the education level of the respondents indicated that most of the respondents had a high school education level or higher. The level of education is related to the knowledge of cadres (14) (15). The higher the level of education, the more opportunities a person has to gain access to knowledge and information.

Knowledge of cadres affects the precision and accuracy of toddler weighing results. Cadres with less knowledge are more at risk of giving imprecise and inaccurate weight measurement results compared to cadres with sufficient knowledge(16). At a more advanced stage, this can have an impact on the low quality of the data used in policy formulation and planning. Meanwhile, on the other hand, the success of the program is highly dependent on data quality(17) (18).

The knowledge of cadres who are still low in filling out KMS can be overcome by the need for cadre training programs, especially for cadres who have never participated in any KMS filling training before. Meanwhile, for cadres who have attended previous training, it is necessary to refresh the cadres to be able to update the latest knowledge. Training or refreshment for cadres can be facilitated by the local Puskesmas or can also be facilitated by the village government using village funds. Cross-sector participation is needed in handling all health problems.

Skills of Cadres in Completing KMS

The skills of the cadres in filling in the KMS showed that most of the community health workers were already

skilled in filling in the KMS (61.5%), but there were also quite a lot of unskilled cadres, namely 15 people (38.5%). This is in line with several studies which show relatively the same thing, that not all cadres are skilled in completing KMS(19) (20).

There are several factors related to the skills of cadres in completing the KMS. The results of this study indicate that there is a significant relationship between working status and skills in completing the KMS. This is in line with research by Afifah (2021) that there is a relationship between employment status and skills in completing KMS(20). Unemployed cadres tend to be more skilled in completing the KMS. This is related to the daily activities of cadres. Cadres who are not working can focus more on their duties and responsibilities as community health workers.

Skills can be influenced by the level of education because people who are more educated will be more skilled at doing something. Cadres with higher levels of education are likely to have better skills(21). Although in this study, educational level was not significantly related (p=0.090), there was a tendency for cadres with a high school education level or higher to have better skills than cadres with a primary education level.

Efforts to increase the knowledge and skills of cadres need to be continued. Training can increase the confidence of cadres in carrying out their duties. Cadres who have attended training show an improvement in knowledge and skills (13) (22). Even so, there are many other factors that influence the work performance of community health workers, including motivation and commitment(23).

Cadres who are less skilled in filling in the KMS have an impact on the resulting data which is also inaccurate. If this data is used as the basis for formulating government policies, it will have implications for policies that are not appropriate, not on target, and goals that are not achieved. To improve the skills of cadres, it is necessary to develop regular and periodic training programs. The process of recruiting Posyandu cadres also needs to consider that they are not too old, have a secondary or higher education and can spend more time empowering the community's health.

5. Conclusion

Most of the cadres have sufficient level of knowledge and are skilled in completing KMS. The level of education has a significant relationship with the skills of KMS filling cadres. Cadres who are not working tend to be more skilled in completing KMS compared to working cadres.

Conflicts of Interest: The authors declare no conflict of interest.

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