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Knowledge, motivation, attitude, job design and health cadre performance: a cross sectional study

Rinayati Rinayati[1], Harsono Harsono[2], Ambar Dwi Erawati[3]
[1]Department of Medical Electronics Technology, Faculty of Health and Medical Engineering, Widya Husada Semarang University, Semarang, Indonesia
[2,3]Bachelor of Medical Informatics, Faculty of Nursing, Business and Technology, Widya Husada Semarang University, Semarang, Indonesia

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ABSTRACT

In 2020, the maternal mortality rate in Semarang increased to 98.6/100,000 and was ranked in the top 10 highest in Central Java. Until November 2021, there were 111 cases of Infant Mortality Rate (IMR), 195 cases of dengue fever, and 210 cases of malnutrition. The performance of health cadres and the role of the community must be improved. The results of observations in the field, the working cadres are still limited, and the performance of health cadres is considered not optimal. This cross-sectional study aimed to knowing the influential factors on performance of health cadres. The population of this study was all health cadres. The number of research samples was 68 respondents determined through the quota sampling. The source of data used in this study was primary data obtained through direct interviews using structured questionnaires. Data analysis used frequency distribution, bivariate, and multivariate analyses. Most of the health cadres have performed well (73.5%). The attitude of health cadres is the most influential factor on the performance of health cadres in improving health status in their area (p-value=0.001).

Corresponding Author:

Rinayati
Departement of Medical Electronics Technology, Faculty of Health and Medical Engineering,
Widya Husada Semarang University
Semarang, Indonesia
Email: rinayati@uwhs.ac.id

1. INTRODUCTION

The disease data in November 2021, the City Health Office of Semarang recorded that there were 19 cases of maternal mortality, 111 cases of infant deaths, 114 cases of HIV AIDS, 222 cases of dengue fever, 210 cases of malnutrition, and 1463 cases of pulmonary tuberculosis [1]. The City Health Office had made many efforts, such as through the services of community health centers, hospital collaboration, and cross-sector collaboration, including health cadres [2]. As a liaison between health facilities and residents, the cadre empowerment program will increase the utilization of basic health services [3]. The community health center states that the functions of health cadres are i) socializing health sector programs from the community health center to the community such as Universal Health Coverage, Great Ambulance, and Diverse, Nutritious, Balanced and Safe Food, and Family Planning Safari; ii) collecting data on health problems in the community; iii) improving health promotion activities such as Clean and Healthy Behavior, Healthy Living Community Movement, Eradication of Mosquito Larvae, Healthy Homes, and iv) conducting Dasa Wisma administrative activities and Elimination of mosquito larvae report (PJN reports), clean and healthy lifestyle Reports PHBS reports, and Citizen Data Collection. Semarang health cadres consist of Integrated Service

Post for toddlers, cadres of Integrated Service Postfor the elderly, PJN cadres, and cadres of Maternal and Child Health.

Furthermore, the results of the interview with the head of the Community Association regarding the performance of cadres show that the problems they face included a limited number of cadres, late reporting, limited knowledge, and inactivity. This is in accordance with the results of the study the measurementby children health cadre had not been adequate to significantly change the students' the cleanand healthy lifestyle (CHL), excluding the manner of bringing lunch [4] that the training improves the knowledge of mental health volunteers [5].

Health cadres are male or female, willing, appointed by the community, guided, able, and have the time to organize health activities voluntarily to address individual or community health problems and work in places of health services [6]. Based on that background the government must increase the role of health cadres by taking into account the factors that affect performance. This is in accordance with the results of the study Kundariyah,goodhumanresourcemanagementis needed to increase the productivity of an organization. One of the strategiestoincreaseproductivityandimprovehumanresource management is to use an integrated and comprehensive employee performance measurement [7]. Training on leadership and effective communication is needed to support the role of Community Health Volunteers (CHVs) to motivate the community to use the facilities for better health status [8]. According to Fadhilah, knowledge, attitudes, training, support from program holders, and motivation support the behavior of health cadres in finding TB suspects in the community [9]. Although there has been socialization from the community health center, the knowledge, attitudes, and actions of families and communities towards implementing health programs are generally not enough if there is no information shared by the health cadres [10]. There was a relationship between knowledge, perception, attitude, training, community support with the activity of integrated service post cadres in the Work Area of Community Health Center of Ngembal Kulon, Kudus Regency in 2012 [11]. The motivation of TB cadres in Kediri was mostly influenced by intrinsic factors, such as age, education, occupation, and extrinsic factors, such as incentives [12]. During the Covid 19 pandemic, the role of the integrated service post cadres in assisting cadres of high-risk pregnant women affected pregnancy check-ups in Madura [13]. The cadres' concern for preventing the transmission of COVID-19 in the integrated service post was low, especially in disciplining handwashing behavior every time they serve and maintaining a distance at the post [14] maka than needed The study aims to determine the cadres' characteristics, knowledge, motivation, attitudes, work design, performance, and the factors that influence the performance of health cadres in Gondoriyo, Semarang City.

2. RESEARCH METHOD

This study used a quantitative descriptive analytic method with a cross-sectional design. The population of this study was all health cadres in the Gondoriyo Village. The study was conducted from September 2019 to March 2020. In this study, the sampling method used was quota sampling. Sources of data used in this study is primary data obtained through direct interviews using structured questionnaires. The questionnaire has been tested for validity and reliability. Data analysis used univariate analysis with frequency distribution, bivariate analysis, and multivariate analysis with Spearman's Rank test.

Permission for the study was obtained by making a prior to collecting data. This study was approved by ethics committee of institute of health and science college of "Widya Husada Semarang University" (Ref. No 45/EC-P3M/STIKES-WH/I-2020). All respondents gave their inform consent prior to their inclusion in the study.

3. RESULTS AND DISCUSSION

3.1. The characteristics of respondents

Table 1 shows that from 68 research respondents, there were 28 respondents (41.2%) aged ≤50 years old. Most of the cadre age are middle adults (40-60 years old). The task at this age is to develop leisure time activities for adults with a change in interest in civic and social responsibilities and to develop intentions in leisure time that are oriented towards maturity, in a place where family-oriented activities [15], [16]. Older cadres are more active because they have plenty of time in the morning. There is a commitment to healthy residents in their environment [17]. This is consistent with the study stating that women scored significantly higher on agreeableness, extraversion, and openness, while significantly lower on the traits of neuroticism [18]. Educational Background is defined as respondents' highest formal education which have ever attended and proven by a certificate. The study results show that the educational status of healthy volunteers affect the intention to improve their performance [19]. The educational level significantly and positively impacts the social interaction and self-perception of health cadres [20]. Government employees

engage significantly more in volunteering than their counterparts in the private sector. This is also consistent with research that lower knowledge was found among the unemployed individuals and students than working individuals [21].

Table 1. The description of respondents' characteristics based on age, sex, educational background, occupation

No.	Respondents' characteristics	Frequency	Percentage
1	Age		
	≤30 year	10	14.7
	≤40 year	26	38.2
	≤50 year	28	41.2
	≤60 year	4	5.9
2	Sex		
	Male	0	0
	Female	68	100
3	Educational Background		
	Junior high school	5	7.4
	Senior high school	32	47.1
	Associate degree	11	16.2
	Bachelor degree	17	25.0
	Master degree	3	4.4
4	Occupation		
	Civil servant	3	4.4
	Private employee	18	26.5
	Merchant	41	60.3
	Housewife	6	8.8
		68	100.00

3.2. The frequency distribution of cadre's knowledge, motivation, attitude, job design and performance

Table 2 shows that the level of knowledge among the cadres was mostly good (73.5%). Cadres with good knowledge have the advantages of feeling comfortable, having better relations with the community, and being more effective in carrying out their duties [22]. Knowledge is an aspect that contributes to shaping one's actions, and behavior based on knowledge will be more sustainable than those not [23]. Cadre motivation was mostly good (54.4%). Motivation can be obtained due to opportunities for socialization and physical activity, and increased self-esteem [24]. Providing incentives and non-monetary logistics such as anthropometric equipment can increase cadre motivation [19]. Their personal interests influence the motivation of cadres in the form of recognition by community members and health workers, selection of community leaders, and incentives [25]. The attitude of cadres was good or positive (52.9%). Leadership-oriented to empowering learning and innovation affects the commitment and attitude of cadres [26]. The decentralization of authority by health cadres can target the real needs of the local community [27]. Cadre job design was good (61.8%). Work details will consistently provide uniform work results and will be easy in the monitoring and evaluation process [28]. The design of the cadre selection and replacement planning program must be considered by the village apparatus in increasing cadre retention [29], and the performance of cadres was good (73.5%). The factors that influence performance occur at the individual, community, program, and organizational levels, including factors not previously identified in the literature [30].

Table 2. The frequency distribution of cadre's knowledge, motivation, attitude, job design dan performance

Variable	Category			
	Good		Fair	
	n	%	n	%
Cadre's knowledge	50	73.5	18	26.4
Cadre's motivation	37	54.4	31	45.6
Cadre's attitude	36	52.9	32	47.1
Cadre's job design	42	61.8	26	38.2
Cadre's performance	50	73.5	18	26.4

3.3. Analisa bivariat relationship between knowledge, motivation, attitude, job desain, withcadre's performance

Table 3 shows that the percentage of health cadres with sufficient knowledge and performance was 27.8%, greater than health cadres with good knowledge and sufficient performance of 26%. In comparison,

the percentage of health cadres who had good knowledge and good performance was 74%, greater than those who had sufficient knowledge and good performance of 72%. There was no relationship between knowledge and the performance of health cadres (p-value =0.883 and r =0.089). in tune with Rinayati, health cadre knowledge is not related to cadre performance [31]. The relationship between effective social or professional interactions can increase knowledge and performance [32]. A person's knowledge is significant according to job group [33], while training based on job dimensions and making job descriptions was proven to increase the level of knowledge about performance and its dimensions [34].

Table 3. Relationship between knowledge, motivation, attitude, job desain, with cadre's performance

Variable	Category	Cadre's Performance				Total	p value	r value
		Good		Fair				
		n	%	n	%			
Cadre's knowledge	Good	37	74.0%	13	72.2%	50	0.883	0.089
	Fair	13	27.8%	5	26.0%	18		
Cadre's motivation	Good	33	89.2%	4	10.8%	37	0.001	0.617
	Fair	17	54.8%	14	45.2%	31		
Cadre's attitude	Positive	32	88.9%	4	11.1%	36	0.002	0.600
	Negative	18	56.2%	14	43.8%	32		
Cadre's job desain	Good	34	81.0%	8	19.0%	42	0.007	0.500
	Fair	16	61.5%	10	38.5%	16		

Notes* means p-value <0.005

The percentage of health cadres who have sufficient motivation and sufficient performance was 45.2%, greater than those who had good motivation and moderate performance of 26%. While the percentage of health cadres who had good motivation and good performance was 89.2%, greater than those who had sufficient motivation and good performance of 54.8%. There was a relationship between motivation and performance of health cadres (p-value =0.001 and r =0.617). Volunteers need to know what their role to maintain motivation. A volunteer can and should not act as a substitute for a professional, only as a compliment, and expectations should be addressed to all stakeholders [35]. With high intrinsic motivation, people can maintain their performance over time because they seem willing to invest more effort over time than in low intrinsic motivation. They will be intrinsically motivated when they do it for the pleasure [36].

The percentage of health cadres who had a negative attitude and sufficient performance was 43.8%, greater than those who had a positive attitude and moderate performance of 11.1%. In comparison, the percentage of health cadres who had a positive attitude and good performance was 88.9%, greater than those who had a negative attitude and good performance of 56.2%. There was a relationship between the attitude of cadres to the performance of health cadres (p-value =0.002 and r =0.600). Building a positive attitude requires continuous training and knowledge improvement about the skills of health cadres and integrating these skills into cadre activities [37], [38]. Therefore, it needs education improvement strategies that are able to influence more positive attitudes [39].

The percentage of health cadres who perceived adequate job design and adequate performance was 38.5%, greater than those who had a good job design perception and moderate performance of 19.0%. While the percentage of health cadres who had good job design perceptions and good performance was 81%, greater than those who had sufficient job design perceptions and good performance of 61.5%. There was a relationship between perceptions of job design and health performance (p-value =0.007 and r =0.500). Training may have a role in initiating job redesign [34]. Job design can be a powerful vehicle for learning, developing, maintaining, and improving physical and mental health [40].

3.4. Analisa multivariate relationship between motivation, attitude, job desain, withcadre's performance

Using the enter method, the variables of knowledge, motivation, attitude, and job design are entered together into multiple linear regression analyses, Table 4 shows results of the enter method mentions the most influential attitude variable. This is similar to research on health workers in Malaysia. They have good attitudes towards health care practices [41]. Differences in timing and actions taken by the government, trust in the governing institutions, and experience in previous management may have influenced the attitudes of cadres [42]. Systematic public health training for health cadres and implementation in the services provided will expand knowledge and build positive attitudes of cadres [43].

Table 4. Results of the enter method

No	Variabel	Beta	P	Description
1	Attitude	0.486	0.001	Influenced

Differences in timing and actions taken by the government, trust in the governing institutions, and experience in previous management may have influenced the attitudes of cadres [42]. Systematic public health training for health cadres and implementation in the services provided will expand knowledge and build positive attitudes of cadres [43]. Increased knowledge and skills can familiarize the positive attitude of cadres in providing services to the community [37], [38].

4. CONCLUSION

The study revealed that the attitude was the most influential factor on the performance of health cadres in improving health status in their area. It is recommended that the government need to improve the performance of health cadres by promoting health to the public and improving the participation of cadres. The cadres can be given an award, both material and non-material. Furthermore, the performance of health cadres can be improved by collaborating with the community, stakeholders, and religious and community leaders.

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BIOGRAPHIES OF AUTHORS

Rinayati is a lectur public health course in Medical Electronics Technology Program Diploma in Widya Husada Semarang University, a longitudinal cohort focusing on maternal and child health policy analysis. She published more than 40 articles and books in the field of maternal and child health. His scientific work has been utilized or cited by nearly 25 other authors. She can be contacted at email: rinayati@uwhs.ac.id.

Harsono is a lecturer in Medical Informatics Widya Husada Semarang University, a longitudinal cohort focusing informatics health system. He published more than eight articles in the field of informatics healths system. He can be contacted at email: harsono@uwhs.ac.id.

Ambar Dwi Erawati is a lecturer at Widya Husada University Semarang with expertise in health policy analysts. It has published more than 35 articles and books in the field of health, policies in the field of health. She can be contacted via email: ambarerawati@gmail.com.