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Strengthening Governance for Farmers' Occupational Health Efforts: Impact on Target Achievement in Kolaka Regency

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ABSTRACT

Introduction: This study examines the factors influencing the achievement of occupational health targets for farmers in Kolaka Regency, focusing on health literacy, health facility accessibility, health service improvement, and farmer group participation. Conducted from February to July 2023, it involved 213 informal farmers across several sub-districts, using structured interviews and direct observation for data collection.

Method: This study is quantitative with a Cross-Sectional Study design, providing a brief and representative snapshot of the population's condition during a certain period. The study population comprised 455 members of farmer groups in Kolaka Regency. The sample was determined using the Slovin formula, resulting in a sample size of 213 people.

Result: The findings indicate significant relationships between health literacy (p=0.000; φ=0.594) and health facility accessibility (p=0.000; φ=0.689) with achieving health targets. However, health service improvement (p=0.000; φ=0.290) and farmer group participation (p=0.000; φ=0.514) showed weaker correlations. The majority of respondents reported no improvement in health literacy (58.22%), accessibility of health facilities (59.15%), health services (59.62%), and farmer group participation (59.15%). Furthermore, 59% stated that occupational health targets were not achieved.

Conclusion: The study recommends that the Kolaka Regency Regional Government allocate an adequate budget for occupational health programs and improve access to health facilities. The Health Office should enhance health literacy programs and facility accessibility, particularly in remote areas.

Introduction

The management of occupational health efforts for farmers plays a crucial role in achieving comprehensive occupational health targets. Although not bound by strict formal regulations,

the informal sector has a significant impact on worker welfare.[1] The governance relationship in this context includes several aspects, such as health and safety policies, monitoring of working conditions, and education and training for workers.[2,3]

In Indonesia, the informal sector, such as micro, small, and medium enterprises (MSMEs), including the agricultural sector and informal workers, is an integral part of the economy. However, there are still significant challenges in implementing adequate occupational health standards. Many informal workers lack sufficient access to healthcare facilities, training, and information about health and safety practices. Therefore, improving the governance relationship of occupational health efforts for farmers in Indonesia is crucial to maintaining worker welfare, productivity, and economic sustainability.[4]

The governance of occupational health efforts in the agricultural sector, especially in the informal context, has a significant impact on achieving occupational health targets. Agriculture often involves high-risk work, including exposure to chemicals, extreme working conditions, and heavy physical labor. Globally, one of the main trends in occupational health in the agricultural sector is the increased awareness of environmental and public health impacts. Issues such as excessive pesticide use, work-related fatigue, and prolonged sun exposure are gaining serious attention. Governments and non-governmental organizations in various countries are striving to enhance safety standards, educate farmers, and promote the adoption of sustainable farming practices.[5]

Agricultural workers often operate in challenging environmental conditions and have limited access to healthcare services. Additionally, uncontrolled pesticide use and a lack of training on health risk management can lead to long-term health issues.[6]

Based on the 2023 complete enumeration results, comparing the distribution of the Indonesian population working as farmers, it is evident that from 2013 to 2023, there have been dynamic changes in the agricultural sector's structure. Despite a decline in the number of individual farming businesses, the growth of legally incorporated agricultural companies and other farming units indicates diversification and modernization within the sector. With a total of 29,360,833 agricultural businesses in 2023, which is relatively small compared to Indonesia's total population of 278.8 million, the agricultural sector still has a significant impact, necessitating adequate health and safety services for farmers. The sustainability of agricultural businesses is a key focus, especially in addressing occupational health and safety risks such as pesticide exposure and injuries. Farmers, particularly those in individual farming businesses, are vulnerable to these risks due to their often limited access to adequate training and protection.[7]

The generational distribution from Gen X to Gen Z in the context of agricultural management has varying impacts on occupational health and safety in this sector. Generation X, comprising 42.39%, often possesses high levels of skills and experience in agriculture, positively contributing to the implementation of established health and safety practices, emphasizing the use of protective equipment and workplace safety. However, resistance to change and new technology can pose challenges in adopting innovations that could enhance health and safety.

Baby Boomers (27.61%), being the older generation, may contribute to the preservation of traditional agricultural knowledge but face higher health risks due to heavy workloads. Millennials (25.61%) and Gen Z (2.14%), with their interest in technology, can bring innovations that support health and safety, such as using technology applications for monitoring working conditions. However, challenges may arise from their lack of practical field experience and the need for more intensive health and safety education.

According to recent estimates from the International Labour Organization (ILO), approximately 2.3 million people worldwide die annually due to work-related accidents or diseases,

equating to over 6,000 deaths daily. Additionally, there are around 340 million occupational accidents and 160 million cases of work-related illnesses each year. This data indicates an increase in work-related accidents and health issues. In the Commonwealth of Independent States (CIS), the estimated fatal occupational accidents exceed 11,000 cases, significantly higher than official reports, with the construction industry having one of the highest accident rates. Both younger and older workers are vulnerable to these risks, with the aging population in developed countries requiring special attention to occupational health and safety.

It is evident that both younger and older workers face similar risks regarding work-related accidents and health issues. In developed countries, the aging population needs special attention regarding occupational health and safety. To address these challenges, effective occupational health governance is required, including the use of occupational health posts in informal agricultural communities.[8]

Based on data from Databox Indonesia, from 2005 to 2022, there has been a trend of increasing casualties due to occupational accidents in Indonesia. In 2005, the number of victims was 99,023, and over the following years, it fluctuated but generally showed a decrease. However, since 2013, there has been a significant increase, peaking in 2019 at 210,789 victims and continuing to rise to 265,334 victims in 2022. Meanwhile, the percentage relative to the working-age population (70.72% of 275.50 million people) has shown variability, reaching its highest point in 2022 at 13.62%. This increase reflects the challenges in improving workplace safety and worker protection in Indonesia during this period.[9] Showing the distribution of the number of victims of occupational accidents in Indonesia in 2021 based on sectors. Overall, there were 234,370 victims of occupational accidents, with the majority distributed in the trade and services sector at 52,224 victims (22.28%). This was followed by the various industries sector with 48,195 victims (20.56%), and the consumer goods industry with 38,879 victims (16.59%). Meanwhile, the basic and chemical industry, energy-telecom-transportation, and mining sectors each contributed less than 12% of the total victims. Although the financial and investment sector, real estate and property, and the "others" category had smaller contributions, they still remain part of the complexity of occupational safety issues across various economic sectors.

The low utilization of health posts by informal workers, especially in agriculture, can be explained by several complex factors. Firstly, the physical and geographical limitations in accessing health posts, particularly in rural areas, make it difficult for non-formal agricultural workers to reach health facilities. Long distances, limited transportation, and inadequate infrastructure can hinder their ability to access healthcare services regularly.[10]

In addition, low health literacy and understanding of the benefits of prevention may also contribute, resulting in a lack of motivation to seek preventive healthcare services. Social norms that prioritize physical resilience and resistance to seeking medical help can also be major factors in the low utilization of health posts by non-formal agricultural workers.[11]

Districts/cities that have not reached the target, which is 70% of the total number of districts/cities or have not yet reported, are in the provinces of NTB, Riau, Southeast Sulawesi, South Sumatra, NTT, North Sulawesi, Aceh, North Maluku, Lampung, Maluku, West Papua, and Papua.[12]

In 2022, Indonesia had 7,474 health centers, 1,678 companies, 9,593 occupational health units, and 799 GP2SP health services at workplaces providing occupational health services. Specifically, in Southeast Sulawesi Province, there were 240 occupational health units out of a total of 293 health centers units, which accounts for 81.35%.[12] This situation can have an impact on the limited availability of health and safety services in several provinces. Health centers

without occupational health units can hinder workers' access to necessary occupational health information, monitoring, and actions. Therefore, increasing the implementation of occupational health units in health centers that do not yet have them could be a strategic step to ensure uniform health and safety protection across Southeast Sulawesi, benefiting workers in various sectors.

The low utilization of health services by non-formal agricultural workers may be due to several complex factors. One major constraint is the limited physical and geographical accessibility to health facilities in rural or remote areas, where most non-formal agricultural workers operate. Long distances, limited transportation, and inadequate health infrastructure can pose significant barriers for them to access healthcare services.[13]

Financial aspects also play a significant role, as non-formal agricultural workers often face economic constraints that make healthcare costs burdensome and difficult to afford.[14] This is very relevant to the majority of the population in Kolaka Regency being farmers/plantation workers, estimated at 27% of the total population of 228,970 people, with a total of 455 farmer groups formed across 14 districts in Kolaka Regency.

Data Department of Agriculture of Kolaka Regency shows that Kolaka Regency has 455 farmer groups with a total population of 61,822 individuals. This distribution underscores the significance of the agricultural sector in the community's employment structure. Tosiba emerges as the district with the highest number of farmer groups, indicating substantial potential in the agricultural sector. The presence of farmer groups in each district reflects the crucial role of farmers in supporting the local economy, while variations in the number of farmer groups between districts highlight the diversification of agricultural activities across Kolaka Regency.[15]

The number of work accidents with specifications for farmers in Kolaka Regency based on health center visits for the last three years can be seen in the following table:

The data about frequency of work accident counts based on health center visits in Kolaka Regency shows fluctuations in the number of patient visits to Community Health Centers from 2021 to 2023 in Kolaka Regency. This highlights the importance of addressing the need for effective Occupational Health Service Units to ensure adequate healthcare services for informal workers in Kolaka Regency. There appears to be variation among Puskesmas in terms of visitation numbers, indicating differences in accessibility, service availability, or quality of occupational health services. Therefore, a careful analysis of the need for Health Effort Posts units that align with patient visit dynamics and changes in achieving occupational health targets in Kolaka Regency is essential. Effective Health Effort Posts units can tailor occupational health services to the specific needs of the informal sector, thereby enhancing the effectiveness of occupational health efforts and achieving set targets.

The frequency of Occupational Health Effort Posts and their achievement indicators based on health centers in Kolaka District in 2023 shows that out of 14 health centers, there are 28 Health Effort Posts with a total of 840 members. Overall, the indicators show a decrease in workplace accidents by 82.86%, periodic health check-ups at 84.64%, implementation of the Occupational Health and Safety program at 86.93%, and an increase in worker Occupational Health and Safety awareness by 77.36%, with an overall average achievement of 82.95%. Health centers like Wundulako and Kolaka stand out with achievements above 90%, indicating successful implementation of the Occupational Health and Safety program. However, health centers such as Tanggetada, Polinggona, Toari, and Tosiba are still below the 80% target, suggesting the need for improvements in specific aspects. Despite the overall good performance in occupational health efforts at health centers in Kolaka District, there are still 4 health centers that have not achieved the target indicators, indicating issues that need to be

addressed to ensure optimal standards of safety and occupational health across all health centers.

Improving the governance of occupational health efforts in the informal agricultural sector requires multi-sectoral involvement, including government, agricultural business providers, and farming communities. Providing training on health risk management, technical assistance, and promoting environmentally friendly farming practices should be part of the solution and the establishment of Health Effort Posts posts. This is aimed at enabling all community members, especially those in informal agricultural work, to utilize all health service facilities as a means to reduce the likelihood of accidents and health risks.

Method

This study is quantitative with a Cross-Sectional Study design, which means it is an observational study involving data observation on a population or sample at a specific point in time, providing a brief and representative snapshot of the population's condition during a certain period. [16] The research was conducted in Kolaka Regency, divided into 14 areas according to the working areas of the respective health centers (puskesmas), from February to March 2024. The study population comprised 455 members of farmer groups in Kolaka Regency. The sample was determined using the Slovin formula, resulting in a sample size of 213 people (n=212.8 ≈ 213). The Cluster Random Sampling method was employed, which involves dividing the population into strata, selecting simple random samples from each stratum, and combining them to estimate the population parameters.[17] The 213 samples were then distributed across each health center's working area based on their population.

Result

Table 1 shows the frequency distribution of respondents towards improving health literacy. Of the 213 respondents, as many as 124 people (58.22%) reported that their literacy did not increase, while 89 people (41.78%) reported an increase in literacy. The frequency distribution of respondents related to the accessibility of health facilities. Of the 213 respondents, 126 people (59.15%) reported that the accessibility of health facilities did not increase, while 87 people (40.85%) reported an increase in accessibility. The frequency distribution of respondents' statements regarding the Service Improvement variable. Of the total 213 respondents, as many as 86 people (40.38%) felt that services had improved, while 127 people (59.62%) felt that services had not improved. This data indicates that the majority of respondents, more than half, feel that there is no improvement in the services they receive. This indicates the urgency for improvements in the quality or accessibility of services in order to meet the expectations and needs of the community. The data presented in Table 1 it can be interpreted that out of a total of 213 respondents surveyed regarding Farmer Group Participation, the majority (59.15%) stated that participation did not increase, while 40.85% stated that there was an increase. These results show a tendency in perception of stagnation or decreased participation, which may indicate a challenge in increasing farmers' involvement in farmer group activities.

Table 2 it was found that out of a total of 124 respondents with low literacy, 104 respondents (83.87%) had a lack of achievement of the target of occupational health efforts, while only 20 respondents (16.13%) achieved sufficient targets. On the other hand, of the 89 respondents with sufficient literacy, 67 respondents (75.28%) achieved the target of adequate occupational health efforts, while 22 respondents (24.72%) achieved the target of insufficient work. A very low p-value, which is 0.000, shows that the relationship between literacy level and achievement of occupational health efforts targets is statistically significant. In addition, the phi (φ) value of 0.594 indicates the strength of the moderate relationship between the literacy level and the achievement of the target of occupational health efforts.

Table 3 it was found that most of the 126 respondents with poor accessibility of health facilities (87.30%) had less achievement of the target of occupational health efforts, while only 12.70% achieved the target sufficiently. On the other hand, of the 87 respondents with sufficient accessibility of health facilities, as many as 81.61% achieved the target of adequate occupational health efforts, while 18.39% achieved the target of lacking. The analysis shows that the relationship between the accessibility of health facilities and the achievement of occupational health efforts targets is statistically significant, with a low p-value (0.000) and a phi value (φ) indicating a strong relationship (0.689). This indicates that the accessibility of health facilities plays a major role in achieving the occupational health target in Kolaka Regency.

Table 4 of the total 127 respondents, it was found that as many as 90 respondents (70.87%) had insufficient service improvement and insufficient achievement of occupational health efforts targets. On the other hand, of the 86 respondents with sufficient service improvements, as many as 50 respondents (58.14%) achieved the target of adequate occupational health efforts. Although the association between service improvement and achievement of occupational health efforts targets was statistically significant (p-value = 0.000), the phi value (φ = 0.290) showed a weak relationship, indicating that other factors may play a role in determining the achievement of these targets.

Table 5 shows from a total of 126 respondents, it was found that as many as 101 respondents (80.16%) with insufficient participation of farmer groups had insufficient achievement of occupational health efforts. On the other hand, of the 87 respondents with sufficient participation of farmer groups, as many as 62 respondents (71.26%) achieved the target of sufficient occupational health efforts. Although the relationship between farmer group participation and occupational health target achievement was statistically significant (p-value = 0.000), the phi value (φ = 0.514) showed a moderate relationship, indicating that participation in farmer groups had a considerable influence on the achievement of the target.

Table 1.
Distribution of Frequency of Respondents' Statements on Literacy, Accessibility Variables of Health Facilities, Service Improvement, and Participation of Farmer Groups

Variables	Frequency	Percentage
Literacy		
Increase	89	41.78
Not Increasing	124	58.22
Accessibility of Health Facilites		
Increase	87	40.85
Not Increasing	126	59.15
Service Improvement		
Increase	86	40.38
Not Increasing	127	59.62
Farmer Group Participation		
Increase	87	40.85
Not Increasing	126	59.15
Achievement of Occupational Health Efforts Target		
Achieved	87	40.85
Not Achieved	126	59.15
Total	213	100.0

Table 2.
The Relationship between Literacy and the Achievement of Occupational Health Efforts Targets

Literacy	Achievement of Occupational Health Efforts Target				Total		P-Value	φ
	Not Achieved		Achieved					
	f	%	f	%	f	%		
Not Increasing	104	83.87	20	16.13	124	100	0.000	0.594
Increase	22	24.72	67	75.28	89	100		
Total (n)	126	59.15	87	40.85	213	100		

Table 3.
The relationship between the Accessibility of Health Facilities and the Achievement of Occupational Health Efforts Targets

Accessibility of Health Facilities	Achievement of Occupational Health Efforts Target				Total		P-Value	φ
	Not Achieved		Achieved					
	f	%	f	%	f	%		
Not Increasing	110	87.30	16	12.70	126	100	0.000	0.689
Increase	16	18.39	71	81.61	87	100		
Total (n)	126	59.15	87	40.85	213	100		

Table 4.
Relationship between Service Improvement and Achievement of Occupational Health Efforts Target

Farmer Group Participation	Achievement of Occupational Health Efforts Target				Total		P-Value	φ
	Not Achieved		Achieved					
	f	%	f	%	f	%		
Not Increasing	90	70.87	37	20.13	127	100	0.000	0.290
Increase	36	41.86	50	58.14	86	100		
Total (n)	126	59.15	87	40.85	213	100		

Table 5.
Relationship between Farmer Group Participation and Achievement of Occupational Health Efforts Target

Farmer Group Participation	Achievement of Occupational Health Efforts Target				Total		P-Value	φ
	Not Achieved		Achieved					
	f	%	f	%	f	%		
Not Increasing	101	80.16	25	19.84	126	100	0.000	0.514
Increase	25	28.74	62	71.26	87	100		
Total (n)	126	59.15	87	40.85	213	100		

Discussion

The Relationship between Literacy and the Achievement of Occupational Health Efforts Targets

The results of the research from 213 respondents studied, it was found that of the 124 respondents with low literacy, as many as 83.87% had insufficient achievement of the target of occupational health efforts, while only 16.13% achieved the target sufficiently. On the other hand, of the 89 respondents with sufficient literacy, 75.28% achieved the target of adequate occupational health efforts, while 24.72% achieved the target of lacking. The relationship

between literacy level and achievement of occupational health targets is statistically significant, with a low p-value (<0.001) and a phi value (φ) of 0.594 indicating a moderate relationship between the two.

The recapitulation of respondents' answers also showed that many of them had difficulty accessing and understanding health information. Around 35.68% of respondents faced difficulties in finding information related to disease symptoms, medical treatment, and medical emergency information. Understanding of doctor's instructions (37.09%) and drug information (41.78%) was also considered difficult. However, some respondents felt quite helpful in understanding health warnings (32.86%).

The theory of Health Literacy provides a structure to understand the impact of a person's literacy level on the way individuals understand and make decisions about health. Health literacy includes the ability of individuals to access, understand, assess, and use health information to make necessary decisions in informational and health contexts.[18] Thus, farmers with better literacy tend to have better abilities in understanding occupational health information, accessing necessary health services and implementing safer health practices in the field.

The Social Determinants of Health theory emphasizes that social, economic and environmental factors have an important role in determining the health of individuals and populations. Literacy level can be considered as one of the social determinants that affect farmers' occupational health.[19] Low literacy may reflect limited access to education, information and health resources, all of which impact farmers' ability to understand occupational health risks and implement the necessary preventive measures.[20]

Social Cognitive Theory emphasizes the importance of psychological and social factors in the formation of behavior. Occupational literacy and health are an integral part of where direct experience, observation of others, and social support can influence how individuals develop their health literacy and apply it in daily practice.[21] It can be illustrated that collaboration between farmer groups and health centers can be an important means of providing information, supporting knowledge exchange and strengthening farmers' ability to manage their health and safety in the field.

Previous research has shown that literacy levels significantly affect the understanding and application of occupational health practices. Where low literacy tends to lack understanding of occupational risks and necessary preventive measures, so they have a higher rate of work-related accidents and illnesses.[22]

Previous studies have also shown that focused and structured health education programs can significantly improve occupational health and safety literacy among the farming population. Interventions such as routine counselling and public awareness campaigns have proven successful in increasing understanding of safe occupational health practices.[23] Other research suggests that limited access to health information, especially in rural or remote areas, can be a major obstacle to improving farmers' occupational health. Improving information accessibility through digital technology or community programs has proven effective in overcoming these barriers.[24]

Several studies have linked literacy levels to improved quality of life in general, including health and economic aspects. Farmers with higher literacy tend to have better access to health services, and can take advantage of greater economic opportunities.[25] Previous research has also shown the importance of integration between health and agriculture programs in improving overall farmers' welfare. This approach not only strengthens occupational health literacy but also supports the sustainability of sustainable agricultural practices.[26]

This study reveals that the level of literacy has a significant impact on the achievement of occupational health efforts in Kolaka Regency, with better literacy closely related to more adequate achievements. Health Literacy Theory,

Health Social Determinants and Cognitive Social Theory explain how literacy affects the understanding, access and application of health information. Previous studies support these findings, suggesting that structured health education and improved access to information can significantly improve health literacy and farmers' quality of life. Therefore, increasing literacy and accessibility of health information is essential to improve occupational health and overall farmer welfare

The implications of these findings are particularly relevant for policies and intervention programs at the local level. The Health Office and local governments need to prioritize efforts to improve occupational health literacy among farmers, including through more structured counseling and training programs. Improving the accessibility of health information should also be a focus, by ensuring that farmers have easy access and understand the information needed to maintain their health and safety in the field. Collaboration between health centers, farmer groups and the community as a whole will be the key in improving health literacy and improving the quality of life of farmers as a whole.

The Relationship between Health Facility Accessibility and Achievement of Occupational Health Efforts Targets

The results of the research of a total of 213 respondents studied, most of the 126 respondents with poor accessibility of health facilities (87.30%) had less achievement of the target of occupational health efforts, while only 12.70% achieved the target sufficiently. On the other hand, of the 87 respondents with sufficient accessibility of health facilities, 81.61% achieved the target of adequate occupational health efforts, while 18.39% achieved the target of lacking. The analysis shows that the relationship between the accessibility of health facilities and the achievement of occupational health efforts targets is statistically significant, with a low p-value (0.000) and a phi value (φ) indicating a strong relationship (0.689). This indicates that the accessibility of health facilities plays a major role in achieving the occupational health target in Kolaka Regency.

Recapitulation of the results of the respondents' answers, this study illustrates that the accessibility of occupational health facilities in Kolaka Regency has a significant variation in perception among respondents. The majority of respondents stated the importance of improving accessibility, but the existence of nearby health facilities received a lower response. In addition, there is a fairly high level of dissatisfaction with the contribution of accessibility to the achievement of current occupational health targets.

It is known that there are many factors that can influence such as social, economic and environmental factors in influencing the accessibility of occupational health services. The Theory of Social Determinants of Health emphasizes that geographical location, socioeconomic structure and availability of health infrastructure can have a significant effect on the occupational health of individuals.[20] In addition, Health Services Access Theory also emphasizes the importance of existence, availability, acceptance, and financial ability in determining how well respondents can access the occupational health services needed. The equitable approach in access to health services, both in terms of geography, social, and economic, is also relevant in this context, where the analysis of the distribution of accessibility and disparity in the achievement of occupational health targets among respondent groups is important.[27]

Meanwhile, the Ecological Health Theory indicates the complex interaction between individuals, communities and the physical and social environment in determining health, which is relevant to understand how environmental, social and economic factors affect the accessibility and achievement of occupational health goals.[28]

Previous research by Gizaw regarding the accessibility of health services in rural areas, it is emphasized that geographical factors and health infrastructure play a crucial role in determining an

individual's ability to access the necessary health services. This study is relevant because it highlights the importance of health infrastructure in supporting occupational health in remote or rural areas.[29]

Research by Peyton regarding the analysis of workers' perceptions of the availability and quality of occupational health services, it shows that negative perceptions of accessibility can directly affect workers' motivation and occupational health.[30] Study by Simangunsong which examines the influence of social and economic factors on health care accessibility shows that social and economic structures play an important role in determining how well individuals can access the health services they need.[31] It is reinforced by the theory that socioeconomic conditions can be an obstacle or determining factor in the accessibility of occupational health services.[32]

Research by Chowdhury, who explore equality in access to health services emphasizes the need to reduce disparities in health care accessibility between different groups.[33] Research by Kolossváry, which analyzes the impact of economic and environmental factors on occupational health shows that socio-economic conditions and the living environment significantly affect the accessibility and quality of occupational health services.[34]

This study reveals that the accessibility of occupational health facilities in Kolaka Regency has a significant impact on the achievement of farmers' occupational health efforts. With statistical values showing a strong relationship between accessibility and achievement of occupational health targets, the importance of improving the quality and availability of occupational health services is becoming more urgent. Social, economic and environmental factors also play an important role in influencing this accessibility, as explained by the theories that support this research.

The implication of this study is the need for targeted interventions to improve health infrastructure in rural or remote areas such as Kolaka Regency. Providing equal access to occupational health services for all individuals, regardless of geographical, social, or economic factors, is a crucial step in improving farmers' occupational welfare and safety. These findings also reveal the importance of considering workers' perceptions of occupational health service accessibility in designing effective policies to increase work motivation and productivity.

The Relationship between Service Improvement and the Achievement of Occupational Health Efforts Targets

The results of the study were known from a total of 127 respondents, 90 respondents (70.87%) experienced a lack of service improvement and had a lack of achievement of occupational health efforts. On the other hand, of the 86 respondents who experienced sufficient service improvement, 50 respondents (58.14%) managed to achieve the target of sufficient occupational health efforts. Although the association between service improvement and achievement of occupational health efforts targets was statistically significant (p-value = 0.000), the phi value ($\varphi = 0.290$) indicated a weak relationship, indicating that other factors may also influence the achievement of the target.

The results of a survey on health post services in Kolaka Regency based on a questionnaire showed that 21.13% of respondents rated low (rating 1) the effectiveness of health post services in supporting occupational health needs in Kolaka Regency, while 25.35% gave the highest rating (rating 5). The vast majority, 23.94%, feel that the services provided by health posts can meet the needs of occupational health and safety in their workplaces. This indicates that most respondents feel the benefits of the existence of health posts in the region.

Some Health Services Theories focus on the provision, accessibility and use of health services by individuals or populations. This involves aspects such as quality, operational efficiency and user satisfaction with the service. Efforts to improve health services include improving

operational efficiency, improving service quality and expanding accessibility for the entire community.[35]

Service Quality Theory is important in understanding the definition, measurement and improvement of service quality. In the context of health services, this theory emphasizes aspects such as reliability, responsiveness, assurance, empathy and other technicalities that contribute to the quality of services. Healthcare improvements must pay attention to all these dimensions to ensure a positive user experience.

Other theories, such as Service Acceptance Theory, study the factors that influence the acceptance or rejection of health services by individuals or communities. Strategies to increase healthcare uptake can include education, advocacy, or strengthening trust in the health system. Improving health services should consider ways to increase the level of public acceptance of the services offered given the diverse cultures for the local community.

Health Economics Theoryexamines the economic aspects of health service provision, including power source allocation, cost efficiency and the impact of economic decisions on service accessibility and quality. The improvement of health services in this context focuses on the efficient use of power sources and increasing added value from an economic point of view.

The overall application of these theories can help design effective strategies to improve health services, improve accessibility, improve quality and ensure wider acceptance from society. Previous research by Michell, examines workers' perception of the quality of occupational health services and its relationship with motivation and occupational welfare, that workers' perception of occupational health services can affect the achievement of occupational health targets.[36]

Research by Chen, analyzed the impact of economic and environmental factors on occupational health, including the accessibility and quality of occupational health services. The results of this study can provide insight into how external factors affect the achievement of occupational health targets.[37] Research by Chowdhury, regarding the accessibility of health services in rural areas, it highlights that geographical factors and health infrastructure affect the ability of individuals to access necessary health services.[33] Study by Michell about workers' perceptions of the availability and quality of occupational health services shows that negative perceptions of service accessibility can affect occupational well-being.[36]

The researchers assume that the need to improve a more flexible and accurate health care system and improve emergency services is essential to ensure easier and more effective access for all communities, including farmers in remote areas. This improvement not only includes better health infrastructure but also involves increased training of medical personnel and public education on the importance of quality health services. The UKK post in Kolaka Regency needs to design to increase efficiency and user satisfaction, as well as achieve even more optimal occupational health targets.

The Relationship between Farmer Group Participation and the Achievement of Occupational Health Efforts Targets

The results of the study were known from a total of 213 respondents, it was found that as many as 101 respondents (47.42%) with insufficient participation of farmer groups had insufficient achievement of occupational health efforts. On the other hand, of the 112 respondents with sufficient participation of farmer groups, as many as 62 respondents (55.36%) achieved the target of sufficient occupational health efforts. Although the relationship between farmer group participation and the achievement of occupational health efforts target was statistically significant (p-value = 0.000), the phi value (φ = 0.514) showed a moderate relationship, indicating that participation in farmer groups had a considerable influence on the achievement of the target.

The results of observation and recapitulation of respondents' answers were known that most respondents rarely participated (28.64%), those

who participated felt encouraged to implement occupational health and safety practices (31.92%). Respondents also generally believed that farmer group activities increased awareness of occupational health (26.76%), although some felt that group members were less helpful in improving occupational health and safety conditions (16.43%).

The researcher assumes that increasing participation in farmer group activities can be an effective strategy to improve the achievement of occupational health targets. It is hoped that by increasing the frequency and quality of participation, more farmers will feel encouraged to implement occupational health and safety practices, and benefit from increased collective awareness supported by farmer group activities. In addition, efforts to improve support from farmer group members are also considered important to ensure that all participants feel helped and supported in efforts to improve their occupational health and safety conditions.

Emile Durkheim and Robert Putnam in Prus emphasizing the importance of individual involvement in social and community activities to strengthen social solidarity and individual well-being. This engagement allows farmers to share knowledge, experiences, and best practices related to occupational health and safety. As a result, this active participation not only increases community solidarity but also encourages the implementation of occupational health and safety practices, thereby helping to achieve better occupational health targets.[38]

According to Albert Bandura in Rumjaun, learn through observation and interaction with others. Participation in farmer groups provides opportunities for farmers to learn from the experiences and good practices of their peers. Through direct observation and information exchange, farmers can increase awareness and skills in implementing occupational health and safety practices. This learning process allows for the rapid adoption of new techniques and a deep understanding of the importance of occupational health, ultimately improving the implementation of health practices in the field.[39]

According to Kurt Lewin in Burnes develop a change model that involves three stages: Unfreezing, Changing, and Refreezing. Involvement in farmer group activities can be considered an 'unfreezing' process in which farmers realize the need to change. Furthermore, the 'changing' stage occurs when they begin to adopt new health practices learned from group activities. Finally, the 'refreezing' stage occurs when these new practices become habitual and integrated into the daily routine of farmers. By going through these three stages, farmer groups can facilitate sustainable and effective behavior change in improving occupational health and safety.[40]

According to Sheldon Cohen and Thomas Ashby Wills in Jackman emphasizing the importance of social support in improving individual well-being and motivating positive behavior change. In the context of farmer groups, support from group members plays an important role in motivating farmers to implement occupational health and safety practices. This social support can be in the form of practical, emotional, and informational assistance provided by fellow members of farmer groups. With this support, farmers feel more motivated and able to overcome the challenges faced in an effort to improve occupational health and safety conditions, thereby contributing to the achievement of more optimal occupational health targets.[41]

Previous research by Rizzo found that farmers who were active in farmer groups tended to have a better understanding of occupational health and safety practices. They also achieved higher levels of occupational health compared to less participating farmers. These findings indicate that participation in farmer groups in India contributes significantly to the improvement of the implementation of occupational health practices in the agricultural sector.[42]

Research by Daghagh Yazd focused on the fact that active involvement in farmer groups can

increase awareness about health risks among farmers. Social support obtained through farmer groups has also proven to be important in encouraging positive behavior change related to occupational health and safety. This shows that collaboration within farmer groups can be an effective strategy to improve the welfare and safety of farmers in Southeast Asia.[43]

Research by Rizzo study found that farmer groups play an important role in disseminating information about innovations in occupational health and safety practices. Farmers who are actively involved in farmer groups tend to adopt these new practices more quickly than those who are not involved. This confirms that farmer groups not only increase access to information but also encourage the adoption of innovations that are beneficial to farmers' occupational health.[42]

Research by Estrany-Munar, evaluated the effectiveness of community-based occupational health training programs in West Africa. The findings show that active participation in the program increases knowledge and application of occupational health practices among farmers. High participation rates also correlate with better achievement of occupational health targets, suggesting that farmer group-based programs can provide significant benefits for occupational health and safety.[44]

Research by Waglina Ma focused on the role of farmer groups in raising awareness and action on environmental health risks among farmers in Europe. The results show that participation in farmer groups not only increases awareness of environmental hazards but also encourages the adoption of safer practices in agricultural contexts. Farmers who are active in farmer groups have better levels of occupational health, which suggests that community collaboration can play a crucial role in improving farmer health and safety.[45]

Active participation in farmer groups has been proven to have a significant positive impact on the occupational health of farmers in various regions. Farmer groups serve as an effective platform to raise awareness, support social learning, and spread innovation among farmers. Social support provided by farmer group members also provides additional benefits in encouraging positive behavior change related to occupational health and safety.

The implications of these findings are relevant for agricultural policies around the world. Increased participation in farmer groups can be an effective strategy to improve the implementation of occupational health and safety practices. Investments in supporting and strengthening farmer groups can accelerate the adoption of safer and more sustainable agricultural practices, through increased collaboration, practical knowledge, and social support among farmer communities.

Conclusion

Based on the results of the research and discussion, it can be concluded that there is a moderate relationship between Literacy and the Achievement of Occupational Health Efforts Targets. There is a Strong Relationship between Accessibility of Health Facilities and the Achievement of Occupational Health Efforts Targets. There is a weak relationship between Service Improvement and Achievement of Occupational Health Efforts Targets. There is a moderate relationship between Farmer Group Participation and Achievement of Occupational Health Efforts Targets.

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