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EVALUATING SCHOOL HEALTH PROGRAMME SUPPORT CAPACITY ACROSS EDUCATIONAL LEVELS IN GORONTALO CITY

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Abstract

The School Health Program (SHP) is a cross-sectoral initiative designed to promote healthy school environments and improve clean and healthy living behaviours among school-aged children. However, disparities in SHP implementation across regions have limited the effectiveness of the program, while previous studies have generally focused on specific educational levels, providing only a partial understanding of program support capacity. This study aimed to assess the support capacity of SHP implementation in public schools across Gorontalo City by evaluating human resources, management systems, and facilities and infrastructure. A quantitative descriptive study using a cross-sectional approach was conducted in 2017 involving 130 public schools, consisting of 107 elementary schools, 16 junior high schools, 3 senior high schools, and 4 vocational schools. Data were collected using questionnaires, observations, and interviews and analyzed descriptively using percentage distributions. The results showed that good human resource capacity was identified in 40.2% of elementary schools, 37.5% of junior high schools, and 28.6% of senior high and vocational schools. Good management systems were observed in 59.8%, 75.0%, and 85.7% of schools at the respective educational levels, while good facilities and infrastructure were reported in 52.3%, 56.3%, and 42.9% of schools. Overall, the SHP support capacity was categorized as good, although deficiencies remained in human resources and essential facilities. Strengthening the competencies of SHP management personnel through regular capacity-building programs is recommended to improve the quality and sustainability of healthy school implementation.
Keywords: Support capacity; Healthy schools; School Health Program; Health promotion

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1. INTRODUCTION

Schools are strategic environments for health promotion efforts because most children and adolescents spend significant time there during their developmental years. *The World Health Organization* (WHO), through its Health Promoting School (HPS) concept, emphasizes that schools function not only as educational institutions but also as vehicles for building health-supportive environments, improving student well-being, and fostering healthy lifestyles through strengthening policies, governance, resources, and cross-sector partnerships (1,2).

In Indonesia, the implementation of this concept is realized through the School Health Program (UKS), a cross-sector program between education and health that aims to improve student health through the development of clean and healthy living behaviors (PHBS), health services, and the development of a healthy school environment. However, the implementation of UKS in various regions still faces challenges, particularly in aspects of human resource capacity, management systems, and the availability of facilities and infrastructure. Various studies have shown that these factors are the main determinants of the success of the healthy school program implementation (3–5).

The national evaluation of UKS implementation also shows variations in achievement across regions. In Gorontalo Province, health screening coverage for first-grade elementary school students has reached 97.85%, while for seventh- and tenth-grade students, the rate remains relatively low at 37.63%. This indicates that UKS implementation is not yet optimal at all levels of education and requires strengthening implementation capacity.

Although numerous studies have been conducted on the UKS, most have focused on specific educational levels or only evaluated aspects of program implementation. Studies that comprehensively assess the supporting capacity for UKS implementation at various educational levels are still limited. Therefore, this study aims to evaluate the supporting capacity for UKS implementation in public schools in Gorontalo City based on three main aspects: human resources, management systems, and facilities and infrastructure, as a basis for developing recommendations for strengthening the implementation of healthy schools.

2. METHOD

This *cross-sectional* study was conducted in 2024 to evaluate the implementation of the School Health Program (UKS) in supporting the development of healthy schools in Gorontalo City, Indonesia. The assessment was based on the UKS implementation standards established by the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia.

The study population comprised all 133 public schools in Gorontalo City, including elementary (SD), junior high (SMP), senior high (SMA), and vocational high schools (SMK). A

total sampling technique was employed to ensure comprehensive representation of public schools across all educational levels. After applying the inclusion criteria, 130 schools were included in the final analysis, consisting of 107 elementary schools, 16 junior high schools, 3 senior high schools, and 4 vocational high schools. Three schools were excluded because they did not meet the study criteria or had incomplete assessment data.

The study evaluated three dimensions of UKS support capacity: (1) human resources, (2) the UKS implementation management system, and (3) the availability of UKS facilities and infrastructure. Human resources included the availability of UKS personnel and teacher involvement, while the management system covered planning, implementation, monitoring, evaluation, and intersectoral coordination. Facilities and infrastructure were assessed based on the availability of UKS rooms, medical equipment, sanitation facilities, and supporting educational media.

Data were collected using structured questionnaires, standardized observation checklists, and structured interviews with school principals, UKS coordinators, or teachers responsible for UKS implementation. The research instruments were developed based on the national UKS implementation indicators issued by the Ministry of Education, Culture, Research, and Technology. Prior to data collection, the instruments were reviewed by experts in public health and school health to ensure their content relevance and clarity.

Data collection was conducted by trained enumerators through school visits. Interviews, direct observations, and document reviews were performed using standardized procedures. Each indicator was scored according to the national UKS assessment guidelines, and the total score for each component was classified into poor, moderate, or good categories based on predetermined score intervals.

Data were analyzed using IBM SPSS Statistics. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to describe the achievement of each UKS support capacity component across educational levels.

3. RESULTS AND DISCUSSION

The results of the evaluation of the carrying capacity of the School Health Program (UKS) at the State Elementary School (SDN) level are presented based on three main components, namely human resources, management systems, and facilities and infrastructure as indicators of healthy school implementation as presented in the table below:

Results

Evaluation of the UKS Program Support Capacity in the Development of Healthy Schools at the State Elementary School (SDN) Level Throughout Gorontalo City.

The research results obtained from the 3 aspects of the UKS program support evaluation category at the SDN level are as shown in Table 1.

Table 1. Evaluation of the Supporting Capacity of the UKS Program in the Development of Healthy Schools at Elementary School Level in Gorontalo City

UKS Program Support Capacity	Category	n	%	Cumulative Percentage
Human Resources Condition	Not good	21	19.6	19.6
	Pretty good	43	40.2	59.8
	Good	43	40.2	100.0
Management System Used in the Implementation of the UKS Program	Not good	1	0.9	0.9
	Pretty good	42	39.3	40.2
	Good	64	59.8	100.0
Provision of Facilities and Infrastructure	Not good	6	5.6	5.6
	Pretty good	45	42.1	47.7
	Good	56	52.3	100.0
Amount		107	100.0	100.0

Source: Primary Data, 2024

Table 1 shows that the implementation of the UKS Program at the elementary school level in Gorontalo City has generally been categorized as good, although there is still variation in achievement across each evaluation component. The management system aspect demonstrated the best performance, with 59.8% of schools categorized as good. This finding indicates that most schools have UKS management mechanisms in place that operate relatively according to standards.

Conversely, human resources and infrastructure still require strengthening. Although 40.2% and 52.3% of schools, respectively, have achieved the good category, more than half of schools do not yet have optimal human resource capacity, while almost half of schools do not meet the UKS facility and infrastructure standards. These findings indicate that the success of UKS implementation at the elementary school level is still influenced by the readiness of implementing personnel and the availability of supporting facilities, thus requiring capacity building and ongoing provision of facilities.

To obtain a general overview of the level of UKS implementation support in each school, an index measurement was carried out based on the accumulated scores of the three evaluation components in Table 2.

Table 2. UKS Supporting Capacity Evaluation Index in Developing Healthy Schools at Elementary School Level in Gorontalo City.

Measurement Value (score)	Number of Schools	%	Category
28-39	55	51.4	Good
16-27	46	43.0	Pretty good
4-15	6	5.6	Not good
Amount	107	100	

Source: Primary Data, 2024

In Table 2, more than half of the elementary schools (51.4%) have achieved a UKS support index in the good category. However, 43.0% of schools still fall into the fair category and 5.6% into the poor category. Therefore, nearly half of the schools (48.6%) still require strengthening to achieve the good category. This situation indicates that although UKS implementation has generally been quite successful, equitable distribution of program implementation quality across schools remains a challenge in developing healthy schools in Gorontalo City.

Evaluation of the UKS Program Support Capacity in the Development of Healthy Schools at the State Junior High School (SMP N) Level Throughout Gorontalo City

Evaluation of the UKS Program's carrying capacity at the junior high school level was carried out using the same indicators to determine the readiness for implementing healthy schools at the junior high school level as described in Table 3 below:

Table 3. Evaluation of the UKS Program Support Capacity in the Development of Healthy Schools at the Junior High School Level in Gorontalo City

UKS Program Support Capacity	Category	n	%	Cum Percent
Human Resources Condition	Not good	1	6.3	6.3
	Pretty good	9	56.3	62.5
	Good	6	37.5	100.0
Management System Used in the Implementation of the UKS Program	Pretty good	4	25.0	25
	Good	12	75.0	100.0
Provision of Facilities and Infrastructure	Not good	1	6.3	6.2
	Pretty good	6	37.5	43.7
	Good	9	56.3	100.0
Amount		16	100.0	100.0

Source: Primary Data, 2024

Table 3 shows that the management system aspect was the component with the best performance, with 75.0% of schools in the good category. This indicates that the UKS planning and implementation mechanisms at most junior high schools have been relatively effective.

Conversely, human resources remain a major challenge. Sixty-two percent of schools are still in the fair and poor categories, indicating that the competence and involvement of school health unit (UKS) administrators are suboptimal. Furthermore, 43.7 percent of schools lack adequate facilities and infrastructure. These

findings indicate that improving human resource quality and providing supporting facilities are still necessary to optimize UKS implementation at the junior high school (SMP) level.

Next, the UKS support capacity index is calculated to describe the level of readiness for comprehensive program implementation at the SMPN level in table 4 below:

Table 4. UKS Supporting Capacity Evaluation Index in Developing Healthy Schools at the Elementary School and National Primary School Level in Gorontalo City

Measurement Value (score)	Number of Schools	%	Category
25-29	8	50.0	Good
20-24	5	31.2	Pretty good
15-19	3	18.8	Not good
Amount	16	100	

Source: Primary Data, 2024

Measurement results indicate that half of the junior high schools (50.0%) are in the good category. However, 31.2% of schools are still in the fair category and 18.8% are in the poor category. These findings indicate that one in two junior high schools still needs to improve their UKS implementation capacity so that all schools can optimally meet healthy school standards.

Evaluation of the Support Capacity of the UKS Program in the Development of Healthy Schools at the State Senior High School and State Vocational School Level (SMA N / SMKN) Throughout Gorontalo City

The evaluation results at the SMAN and SMKN levels describe the supporting conditions for UKS implementation based on three main components, namely human resources, management systems, and facilities and infrastructure, as explained in Table 5 :

Table 5. Evaluation of the UKS Program Support Capacity in the Development of Healthy Schools at the Senior High School /Vocational High School Level in Gorontalo City

UKS Program Support Capacity	Category	n	%	Cum Percent
Human Resources Condition	Not good	3	42.9	42.9
	Pretty good	2	28.6	71.4
	Good	2	28.6	100.0
Management System Used in the Implementation of the UKS Program	Not good	1	14.3	14.3
	Good	7	85.7	100.0
Provision of Facilities and Infrastructure	Not good	2	28.6	28.6
	Pretty good	2	28.6	57.1
	Good	3	42.9	100.0
Amount		7	100.0	100.0

Source: Primary Data, 2024

In Table 5, only 42.8% of senior high schools (SMAN/SMKN) were in the good category, while the remaining 57.2% were in the fair and poor categories. This percentage represents the lowest achievement compared to elementary and junior high schools (SDN) levels.

This finding indicates that the implementation of the UKS at the senior high school level still requires greater attention, particularly through strengthening human resource capacity, providing facilities and infrastructure, and continuously improving the quality of program development.

Table 6. Support Capacity Evaluation Index for the Development of Healthy Schools among Senior High Schools (SMAN/SMKN) in Gorontalo City

Measurement Score	Number of Schools (n)	(%)	Category
25–29	3	42.8	Good
20–24	2	28.6	Fair
15–19	2	28.6	Poor
Amount	**7**	**100.0**	

Source: Primary Data, 2024

Table 6 presents the distribution of the School Health Program (SHP) support capacity index among seven public senior high schools and vocational high schools (SMAN/SMKN) in Gorontalo City. The findings indicate that nearly half of the participating schools (42.8%, $n = 3$) achieved a good level of support capacity for healthy school development. Meanwhile, 28.6% ($n = 2$) were classified as having fair support capacity, and an equal proportion (28.6%, $n = 2$) fell into the poor category.

These findings suggest that although a substantial proportion of schools have established a relatively strong foundation for implementing the Healthy School Program, more than half (57.2%) have not yet reached the optimal level of institutional support. Schools categorized as fair or poor may still face challenges related to governance, policy implementation, infrastructure, resource availability, intersectoral collaboration, and stakeholder commitment, which collectively influence the effectiveness of school health initiatives.

Discussion

The research results show that the School Health Program (UKS)'s support for developing healthy schools in Gorontalo City still shows variation at each educational level. In general, most schools are in the good category, but a number of schools are still in the fairly good and poor categories in terms of human resources (HR), management systems, and facilities and infrastructure. These findings indicate that the implementation of UKS has not fully met the principles of *Health Promoting Schools* (HPS), which emphasize strengthening school capacity comprehensively through policy support, resources, a healthy learning environment, and sustainable cross-sector collaboration (1,2).

In terms of human resources, this study shows that the main obstacle remains at the elementary school (SDN) level, where some

schools still lack a definitive UKS (School Health Unit) teacher due to transfers or retirement. This situation results in suboptimal UKS implementation, as program management remains dependent on specific individuals. Furthermore, most UKS teachers at all levels have never received specific training on UKS management or the healthy school approach, leading to UKS activities being more oriented toward simple curative services rather than promotive and preventive efforts. At the junior high school (SMPPN) and senior high school (SMAN/SMKN) levels, the larger number of teaching staff results in a relatively better division of UKS management duties compared to elementary school (SDN), but the need for competency improvement remains a challenge.

These findings indicate that the success of UKS implementation is determined not only by the presence of a managing teacher, but also by the competence and support of the school organization. The global *Health Promoting School standard* positions teachers as agents of change who play a role in integrating health education into the learning process and building a culture of healthy living in the school environment (1,2). Various studies also show that increasing teacher capacity through ongoing training, mentoring, and coaching is a crucial factor in improving the quality of healthy school implementation (4,5). In addition, the success of the program is greatly influenced by the leadership of the principal in providing organizational support, clear division of tasks, and strengthening the commitment of all school members to UKS implementation (7,12). Therefore, strengthening human resources through routine training, definitively appointing managing teachers, and regular supervision needs to be a priority in UKS development in Gorontalo City.

In terms of management systems, the research results indicate that most schools have a fairly good UKS management system, but there are still schools that do not have an active UKS organizational structure, clear division of tasks, or updated administrative documents. Furthermore, school partnerships are still dominated by Community Health Centers (Puskesmas), while collaboration with the BPOM, BNN, PMI, KPA, and other institutions is still limited. This condition indicates that the implementation of UKS has not fully implemented the principle of cross-sector collaboration, which is an important component of the *Health Promoting School approach* . Similarly, the implementation of the Smoke-Free Area (KTR) policy is still not optimal in some elementary schools, despite the existence of regional regulations regarding KTR.

These results indicate that the success of the UKS requires a management system that is not only oriented towards administration, but also capable of building a network of partnerships, leadership, and sustainable cross-sector coordination. The WHO emphasizes that healthy schools must be supported by strong school policies, effective leadership, and partnerships

with various stakeholders as part of healthy school governance (1,2). These findings are also supported by various studies showing that cross-sector collaboration, school leadership, and community involvement are key factors in increasing the success of *Health Promoting School* implementation and the sustainability of health programs in schools (3,5,7,11). Therefore, strengthening the UKS management system is not only carried out through organizational formation, but also through optimizing the coordination, monitoring, and partnership functions with various relevant institutions.

In terms of facilities and infrastructure, this study shows that there are still gaps in the provision of UKS facilities at all levels of education. Limited UKS rooms, which are still combined with other rooms, and the lack of thermometers, sphygmomanometers, *Snellen charts* , anthropometric instruments, blankets, and health report books are obstacles in the provision of health services in schools, especially at the elementary school level. Although the condition of facilities at junior high schools (SMPPN) and senior high schools (SMAN/SMKN), there are still schools that do not have facilities that meet standards, so that UKS services cannot be implemented optimally. These findings indicate that the provision of basic UKS facilities remains a priority in supporting school health services.

The availability of facilities and infrastructure is an important indicator in the implementation of *Health Promoting Schools* because it is directly related to the school's ability to provide basic health services, early detection of health problems, and create a safe and healthy learning environment (1,2). *Systematic reviews* show that the effectiveness of school health programs is influenced by the availability of supporting facilities, an adequate physical environment, and sustainable resource support (6). Research in Southeast Asia and Indonesia also reports that limited school health facilities remain a major obstacle in the implementation of UKS, so local government support is needed to meet minimum standards for school health facilities (8,9). Based on the results of this study, the priority for procuring facilities should be focused on independent UKS rooms, thermometers, anthropometric devices, *Snellen charts* , sphygmomanometers, and health report books as essential tools in supporting student health services.

Differences in the achievement of UKS support capacity at each level of education indicate that healthy school development strategies need to be tailored to the characteristics of each educational unit. Elementary schools (SDN) require prioritizing strengthening human resource capacity and providing basic facilities, junior high schools (SMPN) require improving the competence of UKS managers along with optimizing supporting facilities, while senior high schools (SMAN/SMKN) require strengthening human resource capacity and improving health facilities to ensure optimal UKS implementation. These findings suggest that a

uniform approach is ineffective, necessitating a development strategy based on needs and evaluation results at each level of education (2,5,12).

Overall, this study shows that the development of the Health Promoting School (UKS) in Gorontalo City has a fairly good foundation, but still requires strengthening in aspects of human resource capacity, program governance, and the provision of facilities and infrastructure. These three aspects are interrelated components in building *a Health Promoting School* . Strengthening the commitment of local governments, education offices, health offices, community health centers, principals, teachers, and student participation are strategic steps to create schools that are able to develop a culture of clean and healthy living in a sustainable manner. This approach is in line with the concept of *Health Promoting Schools* , which positions schools as environments that function not only as places of learning, but also as a vehicle for developing healthy behaviors, improving the quality of life, and empowering all school members through continuous cross-sector collaboration (1,2,12).

4. CONCLUSION

Evaluation of the carrying capacity of the School Health Program (UKS) in developing healthy schools in Gorontalo City shows that in general the implementation of UKS has been in the good category, but there are still variations in achievements at each level of education.

At the elementary school (SDN) level, the main challenges remain human resource (HR) capacity, management systems, and infrastructure availability. At the junior high school (SMPN) level, the management system has been operating relatively well, but strengthening HR competencies and providing supporting facilities is still needed.

Meanwhile, at the SMAN/SMKN level, the management system shows better achievements compared to other levels, although the quality of human resources managers and the completeness of UKS facilities still require attention.

The three components of support—human resources, management systems, and facilities and infrastructure—are interrelated factors in supporting the successful implementation of the School Health Unit (UKS). Therefore, developing healthy schools requires strengthening the capacity of teacher managers through ongoing training, optimizing governance and cross-sector partnerships, and ensuring that UKS facilities and infrastructure meet standards.

These efforts are expected to accelerate the transformation of UKS towards a *Health Promoting School approach* that is oriented towards creating a healthy, safe, participatory, and sustainable school environment in improving clean and healthy living behaviors for all school residents.

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