



A Qualitative Inquiry into Rural Primary Schooler's Hygiene at Home School Setting during the Covid-19 Pandemic in Kupang Regency, East Nusa Tenggara Province, Indonesia

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Abstract

Introduction: The importance of personal hygiene in preventing the spread of infection cannot be underestimated. Handwashing is an essential aspect of personal hygiene, especially among children. However, children in rural areas are often difficult to maintain their personal hygiene, especially in the limited resources area. This study aimed to explore primary school students' hygiene in rural and remote areas in the Kupang regency.

Methods: This study was conducted as a part of the end line evaluation of the MEMBACA II project. Teachers from four primary schools in three villages were purposively selected to participate in this study. The teachers were recruited from the participant schools of the MEMBACA II Project. Data was collected using phone interviews. Data were analyzed using inductive thematic analysis

Results: In total, there were 31 participants across four primary schools interviewed. The participants consisted of teachers, village leaders, village reading camp facilitators, and school supervisors. Participants were recruited as a proxy for providing information about students' hygiene. There were three themes identified as a result of the data analysis. The first theme is an improvement in children's hygiene behavior. The second theme is the benefit of the little doctor program in children's hygiene practices. The third theme challenges in children's hygiene promotion and education. Overall, children were used to handwashing practices. They understood the importance of handwashing, especially during the Covid-19 pandemic. They were also aware of four essential times of handwashing. However, the adults perceived the need for handwashing equipment and access to clean water were the main challenges to maintaining students' hygiene.

Conclusion: The study demonstrated the significance of regularly teaching children about handwashing in making handwashing habits among these youngsters. A continuing provision of health literacy and access to clean water is required to maintain hygiene behavior.

Keywords: Personal hygiene, handwashing, primary school, children

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Introduction

Indonesia is the world's 4th most populous country, with a total population estimated at more than 270 million in

2019¹, and within that number, one-third of the population are children. East Nusa Tenggara (ENT) has one of the lowest human development index scores in

Indonesia.² The ENT province is predominantly rural (83.3%), and 75-80% of the population are farmers. The total population of ENT is 5,325,566, with a population density of 114/km² and a growth rate of 1,66%.² Of this population, 21.09% is categorized as poor (compared to 9.4% of the national poverty rate). The province has a high potential for development in its young population: around half of the population is below 25, and about three quarter is below 40 years old.² Kupang district, where the MEMBACA II project was implemented, is the second-largest district in the ENT province with a total area of 5,525.83 km², contributing to 11,53% of the area in this province. The total population of the Kupang district is 403,580 with a population density is 73/km², and its growth rate is 3,15%.³ Of this population, 23,03% is categorized as poor. The district has a high proportion of children aged 7 to 12 who are not attending school anymore.³ MEMBACA (Making Early Matter through Books and Community Action) Project is a literacy program with the main goal is to make 1700 children in Kupang District enjoy their right to high-quality primary education in the protective learning environment for literacy skill improvement. The MEMBACA program includes teacher training, community reading activities, age-appropriate local language material creation to support emergent literacy skills among early-grade children and create a healthy and supportive learning environment for children.

During the COVID-19 pandemic, school-age children and adolescents are at risk of contracting the COVID-19 virus because of their activity and tendency to gather.⁴ However, due to good immunity, the COVID-19 infection among this cohort is often mild or does not show symptoms.⁴ Therefore, the infection was undetected, ignored, and had the potential to spread to adults around them. To minimize the transmission of COVID-19 to children, the Indonesian government has issued a policy of studying at home through an online model.⁵ However, it turns out that the transmission of COVID-19 still affects school-age children and adolescents. It was recorded that data on COVID-19 in children aged 6-18 years was 6.8% of the

total confirmed cases (143,043 cases as of 18 August 2020); 6.7% of the total cases treated; 7.2% of the total cases recovered, and 1.3% of the total cases died.⁵

Handwashing with soap and running water is vital to the COVID-19 prevention strategy.⁶ Nevertheless, this essential and effective intervention for preventing sanitation-related diseases like cholera, diarrhea, dysentery, typhoid, and soil-transmitted helminth infections, are not regularly practiced by many East Nusa Tenggara people even before the COVID-19 pandemic. People practicing handwashing with soap and running water were difficult to attain among communities in rural and remote areas, including low-income urban settlements.⁷ Poor personal hygiene practices and lack of sanitation play a crucial role in increasing communicable diseases.⁸ In daily life, hygiene has always played a vital role in primary school children. Poor hygiene in school hampers child growth and development.⁹ It also affects the student's capacity to concentrate and study by decreasing school attendance.¹⁰ Therefore, it is needed to explore primary school students' hygiene in rural or remote areas in order to maintain children's health and the health of communities around them. This study will become an important input to limit the transmission of the Covid 19 infection at school and to establish good hygiene practices for reopening learning at school.

Methods

Research design

This study is designed as a qualitative study, using in-depth telephone interviews as the primary data collection method. A qualitative approach was applied based on the current situation in the field, which prohibits any physical contact with children and other stakeholders due to the COVID-19 health protocols in Indonesia. Two researchers and five enumerators conducted the phone interview, with the length per session around 30 to 45 minutes. Both the researchers and enumerators were never involved in the MEMBACA II project, as this study was an independent evaluation study. Before the interview began, the

participants received an initial call to ask for their participation and to establish their understanding of the study. The informed consent was read to the participants in this initial call. Once they agree to participate, the participants were asked on their time to engage in the interview. During data collection, the challenges were to collect the phone number and to get a smooth phone connection with participants. A total of 40 days for the researcher to complete the study from 6 November 2020 to 16 December 2020. The research permit was granted as a part of the whole MEMBACA II Project from the department of education and the local government.

Sampling

The study employed a qualitative sampling strategy which is a stratified purposive sampling method to purposely choose participants from three strata, namely subdistricts, villages and schools. The participants were selected based on the following criteria:

- School Principals, Teachers, UKS Teachers, and Reading Camp facilitators
- Live in an area with mobile phone signal coverage. Besides, the respondent should have a mobile phone and be able to receive a call.
- Agree to participate in the study

The reason for using the stratified purposive sampling was due to the program area of the MEMBACA Project and to recruit participants to schools that are representative of each stratum.

The data were triangulated with the evaluation perspectives from several stakeholders. Therefore, the study recruited the following key informants to participate in the study:

1. Primary school supervisors
2. Village leaders
3. MEMBACA II project staff

The sources of primary data were obtained from interview sessions with 31 participants. There were no participants who withdrew from the study. When there was no additional new information gathered from the interviews, the data collection was ceased. The investigators came to the conclusion that the data

saturation had been achieved with a total of 31 key informants. Informed consent was read to participants by phone, and verbal consents were recorded using an audio recorder to replace the signature. The interview recording was transcribed verbatim by the enumerator then the main investigators checked the transcription and compared it with the recording. After that, data were coded and organized into sub-themes and themes. The result of data analysis found three themes: (1) An improvement in children's hygiene behavior; (2) The benefit of little doctor program into children hygiene practices; (3) Challenges in children hygiene promotion and education.

Results

The study was conducted in four schools in the rural and remote parts of the district of Kupang. These four schools were located remote and far from the main road (the provincial roads) and were not fully accessed with the phone signal. For instance, one government school in Oelbiteno village is located more than 30 kilometers from the provincial roads and under the rocky mountain range. These rural and remotes schools were part of the MEMBACA II project. The Project runs from mid of 2017 until mid of 2020. The Project is a school-based Project to improve students' literacy skills. However, the project was also delivered a school health program to improve students' knowledge and skills of healthy behavior. Since early March 2020, all Indonesian schools needed to deliver online learning, including these sampled schools. However, online learning where not possible without the availability of the internet and technology. Therefore, some teachers decided to visit their students' houses and formed study groups. While visiting students, teachers were also reminded children to practice good hygiene behavior such as handwashing, bathing, and trimming their nails. During the data collection, some schools were reopening but only for a short learning time.

Improved in personal hygiene behavior

Principals and teachers believed that their students are now more aware and

able to practice hygiene behavior at school. Since the school took part in the MEMBACA II Project, the school also imposes a rule to check on students' hygiene behavior, such as taking a bath before coming to school, handwashing with soap, teeth brushing, nail trimming, and hair washing regularly. This practice had been carried on into the home study visit and village reading group when the students need to study at home. When the children resume study at school, they were now more aware and diligently practice this good hygiene behavior. One of the teachers described,

"For children's hygiene behavior, it is going well. We provided a hand wash station for students. Before entering the class, students need to wash their hands. We also examine their cleanliness every other day. Sometimes in a week, we spend a day checking students' hygiene regularly."
(Grade 3 Teacher 1, Female)

The same activity occurred across the schools. Each participant mentioned their regular activity to keep reminding the children to maintain their health and clean behavior. Implementation staff also shared that children have improved knowledge and practices in maintaining health.

"Now, children know when to brush their teeth and when to wash their hands. This handwashing habit, because continuously done, can be a positive impact on these children. Moreover, this happened before corona, so when in corona (pandemic), these children have already used to handwashing."
(Staff 3, Male)

Although schools were closed for several months during the pandemic and resumed in the last month, these healthy behaviors such as handwashing proved valuable during the pandemic. One of the school supervisors commented,

"Children showed improvement in their awareness to put

garbage in the garbage bins. One of the best changes was that related to washing hands when pandemic started in 2020, and these children no longer feel that the handwashing protocols are something new, they have been used to it."
(School Supervisor 2, Male)

One of the reading facilitators also observed that it is easier for them to teach children about COVID-19 prevention measures because they already know about the importance of handwashing. She said,

"When the covid 19 pandemics affected in March, children come to reading camp wearing masks and wash their hands. They also keep our camp tidy and clean."
(Reading Camp Facilitator 1, Female)

The positive influence of the little doctor initiative

Another activity to improve children's health knowledge and practice is an activity called "*Dokter Kecil*" (Little doctor). The activity was introduced as a part of the MEMBACA II project. At that time, participants viewed that this initiative worked well, and the little doctors were observed as proactive and confident in promoting health behaviors to their peers. Changes in health behavior were observed as heavily influenced by little doctors' activity. These children were trained with health and hygiene knowledge and motivated to spread their knowledge and practice to their peers. All the schools supported this little doctor project and feel that a project like this helps reach and engage students more to learn and practice healthy behavior. One of the teachers reported,

"Every Friday, the students were gathering together, and then the little doctor will encourage and invite their friends to check on their nails, their hands, their hair, whether they brush their teeth. Then they will also remind their

friends about hand washing and brushing teeth regularly."
(UKS Teacher 3, Female)

The changes in students' healthy behavior were also noticeable by school supervisors and village leaders. They applaud the school's efforts in promoting healthy and clean behavior for the children. One of the school supervisors asserted,

"Since participating in the little doctor training, now the students were more aware of practicing healthy behavior at school."
(School Supervisor 4, Male)

The effect of the little doctor project has also benefited the students' families. Students could become a focal point for their families to learn about healthy behavior. One of MEMBACA Staff stated,

"Since the little doctor project, they become more motivated to tell others, including their parents, to do health-promoting behaviors."
(MEMBACA Staff 4, Female)

Challenges for educating and practicing personal hygiene in rural primary school

There are no schools against the implementation of health knowledge and practice program. However, some implementation staff argued that the changes in children's health practices were not as significant enough as the project expected to achieve. MEMBACA staff also observed that even though the MEMBACA II project already make a provision to support the students to maintain their healthy and clean behavior, the behavioral changes are not significant as the program would expect. One of the MEMBACA staff commented,

"Behavior change is the main challenge for us because changing children, parents, and teachers' behaviors are not easy. For example, healthy behavior in school, previously there was no handwashing equipment. However, now it is

provided, even though children still needed to be reminded routinely to use them, and also the water itself are scarce."
(MEMBACA Staff 1, Male)

The availability of clean water was the major setback to maintaining children's healthy behavior at school. The teachers and principals also noticed this limitation. One of the principals admitted that,

"The water source is quite far from the school, so the children need to bring clean water from their house if we want to practice handwashing or brushing teeth. Therefore, it is sometimes difficult to maintain this hygiene behavior at school."
(Grade 2 Teacher 2, Female)

Discussions

Primary school-age children include groups of children between the ages of 7 and 12 years, a group with a high vulnerability level, mainly because they are in growth age.¹⁰ Education towards forming healthy living behaviors is an essential part of the primary school health literacy program. Providing hygiene education services in schools to encourage students' hygiene at school and home contributes to positive health outcomes, lowers the burden of infectious diseases, and enhances children's academic performances.¹¹ For the last three years, schools in the rural or remote areas of the Kupang district had received the MEMBACA program. This program worked together with schools, village leaders, and communities to improve rural children's literacy skills, including health knowledge and practices. Knowledge is one of the most critical domains in shaping one's actions. Providing exciting and accompanied demonstrations will be easy to remember and be practiced by participants rather than just being given a question and answer session. This study's finding is in line with Widyasari et al. (2020) research, which found that training influences a person's hygiene practices.¹² Health education made students understand and aware of the importance of

maintaining personal hygiene in preventing disease and maintaining a healthy condition so that they are motivated to make improvements to personal hygiene patterns, which are expected to become their daily behavior. Research by Curtis et al. (2001) in Burkina Faso proved that health education about hygiene could promote students' healthy behavior.¹³ Bieri et al. (2013) also found in their study with school children in China that the health education package effectively prevented worms among school students.¹⁴

This study showed that teachers conducted a daily check-up on students' cleanliness. Teachers need to make sure that students adequately maintained their hygiene. Teachers acknowledged that students had good hygiene practices, such as taking a bath before going to school, trimming their nails, and brushing their teeth. Similarly, Ansari and Warbhe (2014) found in their study that most of their students' participants took a bath daily, brushed their teeth twice a day, and washed their hair daily.¹⁵ The majority of students in a study conducted by Vivas et al. (2010) in Angola, Ethiopia revealed washing their hands before meals.¹⁶ The proportions of children who said handwashing was crucial and required before eating were 99.7% and 98.8%, respectively. These high percentages are related to the high percentage of children who wash their hands before eating. Kishore (2007) believed that children in developing countries were now more aware of self-care and practiced good hygiene.¹⁷ This study showed that the supervision, examination, and guidance carried out every month by classroom teachers whom little doctor assists will stimulate students to change the hygiene behavior that they usually do so far.

Another finding of this study showed that to maintain and allow students to practice good hygiene, schools need to create a supportive environment such as access to clean water and toilet, handwashing equipment, and rubbish bin. The participants of this study admitted that their students were now developing a good practice of handwashing however the schools are lack clean water. Thus, students were asked to bring water from

their home to school. This situation might not able to sustain for a long period, especially when students return to school with the new norm adaptation. UNICEF (2020) provided a safe guideline for reopening schools.¹⁸ The availability of infrastructure in schools to prevent the transmission of covid-19 must be guaranteed to create a safe and healthy environment. It is not easy and cheap for schools to provide these means of prevention. The provision of an infrared thermometer, handwashing facilities in every corner of the school, and masks, including setting school benches and arranging school schedules, require a lot of resources. For schools where school committee participation is very high, this is not an obstacle. It is necessary to think about the existence of a school where its operation depends entirely on the government's budget.

To date, students' health status in schools is carried out in a school health program called UKS (School Health Unit). This program is expected to play an active role in preventing the transmission of covid-19 if schools decide to reorganize the teaching and learning process during the pandemic. By paying attention to the cross-sectoral principles in implementing healthy schools, the preparation of guidelines for adaptation to new school habits should involve related sectors. coordination from various related parties was needed. During a pandemic, the Puskesmas are the primary health providers for schools, so every school needs to optimize the UKS space as a first-rate service to prevent covid-19 transmission in schools (Indonesia Ministry of Health, 2020).⁵ Of course, by continuing to consult the Puskesmas in its implementation. The school committee and community leaders need to involve in the task force to prevent Covid-19 transmission in schools. The private sector can also be involved by providing intake programs to increase school children's immunity or provide facilities related to protocols for new habitual adaptation behaviors in schools. Schools and related agencies (this could involve health centers, government and non-government agencies, and also elements of sub-districts and villages) need

to regulate how to adapt to new habits for the community around the school.

Conclusion

Children who are growing and developing are vulnerable to health problems. Therefore, it needs to be accompanied by knowing health, healthy living habits, getting health services immediately if they experience health problems and being directly involved in creating a healthy school environment. School is the main element in creating children to grow and develop and have a high degree of health. This can be achieved by optimising the UKS Trias' role, namely providing health knowledge to students, providing health services for elementary school members who need it, and being in a healthy school environment. In providing health education, it must accommodate the adaptation protocol for new habits in schools. Health protocols are carried out by adjusting local resources and socio-cultural conditions. Schools need to increase knowledge and continuously socialise new habitual adaptation behaviours when students have returned to school. Not only aimed at students but also all school members, including teachers and school employees. Schools are responsible for the socialisation of these new habitual adaptation behaviours. These efforts must start as soon as possible before a formal return to school decision is made.

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