

Short Communication

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The Role of Teachers in Co-Promoting the Health of Children with Heart Disease in Thailand

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ABSTRACT

Teachers was not just imparting knowledge and being good role models for the nation, but many Thailand teachers also had an important role in promoting good health education for youth and society both directly and indirectly pathway. Because teachers influenced the decisions of students, especially children with heart disease who if not treated, symptoms will appear and affect daily life. The symptoms and effects of the disease may hinder long-term education. With the symptoms and severity of heart disease, many teachers are concerned about caring for students with heart disease too. However, if these this child received appropriate treatment and received medication to control symptoms and avoiding risky behavior, they will be able to live a life similar to a normal person and reduce the chance of emergencies occurring. In the better if teachers, parents and healthcare worker teams knew the guidelines for caring for pediatric patients in the same way. Because we recognized the importance of provided highly specific patient care to children with heart disease. This article aims to given knowledge, and presented the role of teachers in participated in health promote for children with heart disease under various contexts. This will allow teachers to be able to care for pediatric patients with confidence and able to plan educational management or organize a curriculum to be in line with heart disease patients, beneficial to both the patient, family, educational institutions, and those involved.

KEYWORDS

Teacher, Health Promote, Children, Heat Disease

INTRODUCTION

Teachers are the ones who impart knowledge and are good role models or molds for children who are the future of the nation. This statement has always been true from the past to the present. Especially in the context of Thai society, which is full of generosity, compromise, and mutual assistance, teachers are like second parents who are revered figures in students' lives. As in other countries, teachers play a crucial role in caring for children with heart disease. They are instilled and promoted as a standard by the government in training and providing knowledge until they can perform their duties with expertise ^[1,2].

Due to the environment and age context, the role of primary and secondary school teachers is broader than that of university lecturer who often interacts and meet students only during the course hours they teach. In addition to primary and secondary school teachers providing knowledge, being role models, and instilling basic morality and ethics in students, many Thai teachers can also provide health education and have the opportunity to meet students who are suffering from various diseases. Especially heart disease, which most people are concerned about, teachers also have the opportunity to find students with heart disease in their classrooms. The most common problems found are, for example, students do not want to miss class, so they do not come to check their medicine on the day and time that the hospital has appointed, especially in core subjects where teachers are strict, or students do not want to miss school, so they do not tell the truth to teachers that they have heart disease, as time passes, they find that the symptoms of the disease are more severe until they appear in the classroom, such as fainting, losing consciousness, shortness of breath, and cardiac arrest ^[3].

These can be a concern for teachers who do not yet have the knowledge or experience to observe, care for, and solve problems when heart disease patients experience abnormal symptoms. However, from the daily news reports in the past, it was found that there are teachers in many schools who can save the lives of children with heart conditions in a timely manner. Promoting health education helps improve quality of life, slows down the progression of the disease, or extends the duration of the disease to the final stage more slowly, which is highly commendable. In particular, common problems in adolescents are neglect of taking medication and not following the advice of health personnel, which leads to negative consequences, which is related to the attitudes of children, especially those who are friends-centered in their lives. Therefore, taking medication, behaving, and having to limit various activities makes adolescent patients feel different from their friends and fear rejection or disapproval from the people they expect. Not taking medication will cause the disease to progress to a stage that is difficult to correct ^[4-6].

But many times, these mental health problems of teenagers can be solved by having teachers at school change their attitudes, inviting friends to join in giving encouragement and supporting them to behave correctly for a long-lasting quality of life, this success is considered a very important example for children and teenagers. These reflect the role of teachers in Thailand, which goes beyond the teaching context to include a context of engagement and trust. Because they are often found in schools and due to the social context, teachers are individuals who have influence

on the beliefs and decisions of children and adolescents. Therefore, this article aims to reflect the role of teachers' participation in promoting the smooth treatment of patients in accordance with the treatment objectives. And presents issues that teachers should know about heart disease, which will promote each school to be ready, relieve anxiety, prevent conflicts in various dimensions, and be a guideline for preventing or dealing with symptoms of children with heart disease. The teaching model for children with heart disease can be adjusted to be consistent with treatment guidelines to promote safety for these children. Having knowledge and good health, you can live your daily life with others normally.

PURPOSE OF THE ARTICLE

1. To provide basic knowledge about heart disease to primary school teachers, secondary school teachers and related persons.
2. To promote and present the role of teachers' participation in promoting the health of children with heart disease.

Acquisition of data

Health knowledge data comes from the collection of principles, concepts, and research results related to pediatric heart disease. Content about the care, diagnosis, and treatment of pediatric heart disease patients comes from a multidisciplinary team of health professionals both domestically and internationally. And comes from relevant organizations such as the American College of Cardiology (ACC) and the American Heart Association (AHA), etc. It is applied and integrated into the context of Thai society to enhance teachers' competence in promoting the health of children with heart disease.

GENERAL KNOWLEDGE CONTEXT

Types of heart disease and key symptoms

1. Congenital heart disease
 - 1.1. Cyanotic heart disease
 - 1.1.1. Cyanotic type with a lot of blood flowing to the lungs. Important symptoms are fatigue, rapid breathing, inability to lie flat, and weight and height below the standard.
 - 1.1.2. Cyanotic type with less blood flow to the lungs, such as those with right heart valve stenosis or atrophy, including Pulmonary atresia, Tricuspid atresia. Important symptoms are dark fingertips and lips ^[7].
 - 1.2. Acyanotic heart disease
2. Acquired heart disease
 - 2.1. Arrhythmia: Important symptoms: palpitations, dizziness, fainting, and loss of consciousness.
 - 2.2. Coronary artery disease: main symptoms was chest pain ^[8].

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2.3. Rheumatic heart disease: Valve damage main symptoms are fever and fatigue

Contextual Objectives: To know the types and initial symptoms of heart disease that can be observed, which will promote timely assistance for child patients or rapid transport to the hospital.

DIAGNOSTIC CONTEXT

Tools used to detect and monitor the severity of common heart disease include physical examination and listening to the heart with a stethoscope, blood pressure monitor, electrocardiography (ECG), chest X-ray, and laboratory tests for children with cyanotic heart disease, specialized tests may be necessary such as pulse oximetry ^[9]. Echocardiography (ECHO) However, if there are limitations in the examination or the obtained information is not sufficient, it may require a more advanced examination that requires a process and specialists, which is expensive, such as, Cardiac catheterization treatment, Cardiac magnetic resonance imaging (CMRI), Cardiac computed tomography (CT scan) In each examination, the doctor will consider the appropriate indications for each case. Sometime, an appointment may be made for a later date or it depends on the appointment schedule that can be managed, causing the patient to have to take time off from school to come to the examination, which affects the teaching and learning that teachers must plan for students to be able to follow up on teaching later, receive assignments or homework to submit later.

Contextual objectives: To understand the nature of appointments for heart disease screening and treatment, and initial symptoms, which will enable teachers, parents, and children with heart disease to see the importance of appointments and be able to plan and manage their school schedule in advance appropriately.

TREATMENT CONTEXT

Palliative surgery is mostly used for cyanotic heart disease in children because the anatomy and physiology of children are different from adults and their body size is smaller but changes rapidly during growth. Treatment plans and device size selection are therefore more detailed and involve more risks than in adults whose body size and blood volume are stable. In children with cyanotic heart disease, the doctor must take into account the size of the blood vessels in the heart and lungs from the beginning to the end, so the surgery must be performed multiple times at various times, such as (Stage 1) Pulmonary bypass surgery is usually performed in patients with atrophy of the aorta and right-sided heart failure that cannot be repaired to return the four chambers to normal function like in normal people. Palliative surgery at this stage is to allow some blood to be sent to the lungs for purification by using higher arterial pressure to push blood to flow, which will be sufficient to nourish the body only in the early stages ^[10]. The oxygen at the fingertips at this stage is approximately 75-80% ^[11] (Stage 2). Later, when the size of the blood vessels increases, the pressure in the lungs and heart will change, so the second stage of surgery is performed by creating a bypass route to divert venous blood from the upper part of the body to the lungs instead of the first stage. The direction of circulation will be closer to that of a normal person. During this period, the oxygen at the fingertips

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will increase slightly, approximately 80-85% ^[12]. Later, when the child's body grows up, the size of the pulmonary vein branches grows well, causing the blood volume from the lower part of the body to increase until the bypass from the second stage is no longer sufficient, requiring surgery (stage 3), which is to connect another lower vein to the pulmonary branch. This period has veins coming into the lungs both above and below. The oxygen at the fingertips during this period is approximately 85-90% ^[12]. This condition increases the risk of the patient developing an infection outside the heart, such as a brain abscess ^[13,14]. Patients with cyanotic heart disease should therefore avoid behaviors that cause infection, such as tooth decay, tattooing or skin piercing, sharing of drugs or injection needles, and being careful of deep wounds from accidents, etc. In addition, the lower extremity vein graft may require the use of artificial veins made from synthetic materials, so the patient must take anticoagulants to prevent blood clots from forming and blocking the blood vessels. And be careful not to let germs from the tooth attach to the artificial blood vessels. The dentist will know how to give antibiotics before performing any risky procedures ^[15,16]. However, before each surgery, in order to reduce risks and obtain accurate information according to treatment standards, patients must undergo cardiac catheterization to measure various values at the appropriate time (Golden period) according to treatment standards for each disease. Cardiac catheterization requires hospitalization and anesthesia. The procedure takes 3 days and 2 nights, which may affect teaching. After the procedure, the leg with the catheter may need to be avoided for a period of time to prevent complications with the large veins in the leg, which may affect physical education or related activities. In some young children with cyanotic heart disease, fingertip oxygen levels below 95% are measured ^[7]. When exerting heavily, you may feel tired. If left untreated, severe cyanosis (Spell) may occur. In an emergency, it must be treated with the Knee Chest Position or squatting. This is lying down or sitting with your knees bent close to your chest. This method will reduce the amount of dark blood flowing to the left side until the cyanosis gradually improves ^[17]. However, most children with cyanotic heart disease naturally instinctive stop and crouch down when they are playing. If the teacher who is close to the patient or the physical education teacher has basic knowledge about heart disease, they will be able to observe the symptoms, understand the behavior, and in an emergency, provide assistance in a timely manner.

Total correction, In the treatment of cyanotic heart disease where the blood vessels and heart are not atrophied, the doctor will insert an artificial blood vessel to create a conduit that is close to normal. This method can only be done in cases where the heart structure is suitable. However, the emphasis is still on preventing tooth decay and maintaining oral hygiene. However, if this surgery is performed at a young age, when the body grows up, the size of the artificial blood vessel used may have a lifespan due to deterioration or calcium deposits, causing narrowing later on, and when the body grows up, this blood vessel may become too small because it does not keep up with the body. When the time is right, surgery may be needed to replace the blood vessel to make it more suitable and functional. However, inserting an artificial blood vessel that is too large not only does not extend the lifespan of the vessel, but it can also cause excessive blood volume to the lungs, which can cause symptoms and complications. Therefore, in one year Therefore, the doctor must make an appointment to follow up on the symptoms periodically in order to plan ahead appropriately, especially in cases where there are residual lesions, complications, or abnormal

heart rhythms ^[18]. If you still need to take medication to control or prevent symptoms, your doctor may need to make more frequent appointments, which may cause you to miss school, and affect your study time.

Acquired heart surgery and cyanotic heart disease Common diseases in this group include replacing or repairing a narrowed or leaking heart valve, closing a hole in the heart wall, etc. These surgeries usually treat the underlying cause directly. The treatment results are usually more than 90% corrective of the underlying disease. Residual disease or minor side effects are only found in about 10%, depending on the severity and location of the pathology. Most are open heart surgeries. In which the heart-lung machine will be used to help during the surgery. However, for atrial septal defect closure or a simple and short-term surgery, the surgeon may consider choosing closed heart surgery, which does not use the heart-lung machine or cardiac arrest agents. However, most of these treatments involve cutting or stitching into the heart tissue, which contains the electrical pathways that control the heart's rhythm. Cutting can cause obstructions or interruptions that affect the heart's rhythm, which can cause symptoms such as palpitations, fainting, or fainting ^[18]. However, if the patient goes to the doctor's appointment, the problem can be detected by an electrocardiogram, as some abnormalities only require symptom monitoring. Metal heart valve prostheses may require lifelong anticoagulation medication to prevent the valve from stretching and causing stenosis. These medications make it difficult for the blood to stop flowing, so care must be taken to avoid traumatic injuries, especially to the brain and eyes. Including blood loss from menstruation and abdominal wounds, which teachers may observe or adjust the sport to avoid the impact or risk of falls. However, if organs, animal tissues or donor organs are inserted, immunosuppressive drugs may be required to prevent tissue rejection, which will weaken the immune system and make it easier to get infected. Therefore, cleanliness must be maintained, especially when cooking food, and raw vegetables and fruits that may be contaminated with germs must be avoided ^[19].

Treatment of heart disease through catheterization. Currently, treatment through catheterization is another popular method, such as occlusion of atrial septal defects, occlusion of ventricular septal defects, and insertion of artificial heart valves through catheterization. These devices do not react with the body.

Doctors may use them for palliative treatment, consist of:

In cyanotic heart disease, especially in cases where the child is not yet at an appropriate weight but the body needs to receive sufficient red blood cells, the doctor may use a catheter for palliative treatment ^[20]. Such as Balloon atrial septostomy or Patent ductus arteriosus stent. However, sometimes, a catheter-based treatment method may be used to release the overflow embolization device (Coil embolization occlude). Some of these devices may be removed by the surgeon when the time comes for complete surgical correction.

In non-cyanotic heart disease, catheterization is usually a one-time procedure that lasts for a long time or even a lifetime. However, during the first month of recovery, care must be taken to prevent activities that may cause the device to dislodge. For example, impact, jumping from a high place, etc. Be careful of the wound in the groin

which is the position of the tube insertion. There may be bleeding spots, scabs falling off, blood clots blocking the blood vessels, numbness or pain in the extremities, infected wounds, etc ^[20,21].

Contextual objective: To know the types and treatment methods of each type of heart disease in children, some of which require waiting or rushing according to the appropriate period (Golden period). If this period is passed, treatment results and quality of life may worsen or not be as good as they should be to know the complexities and what to be careful about after treatment, which will help increase safety for child patients and allow teachers to plan teaching during the long recovery period after surgery.

ANTICOAGULANT CONTEXT

In patients with various types of heart disease, such as cyanotic heart disease who have undergone surgery by grafting artificial blood vessels, early placement of a device to close the atrial septal defect, or Kawasaki disease that affects the coronary arteries, etc. These conditions require the doctor to use anticoagulants and antiplatelet drugs, which can be monitored by blood tests to check the coagulation values and blood count ^[22]. In addition, in patients undergoing palliative surgery, such as the Modified Ballot-Tausig shunt (MBTs), doctors use echocardiography to detect blood clots, which is often performed without the harmful radiation. In the assessment of MBTs, the supine position and neck tilt are used. Therefore, in uncooperative pediatric patients, sedation with various drugs such as Chloral hydrate syrup, 100 mg/ml, 50 mg/kg, maximum not exceeding 5 grams/day, must be monitored for hyper-secretion due to drug effects ^[23]. When positioning the patient by using a pillow to support the shoulders and tilt the neck, when placing the probe, care must be taken around the surgical wound. A probe with a high frequency, such as 8-9 MHz, or higher, must be selected for image clarity, which is necessary for assessing the junction of both the proximal (insertion site) and distal (anastomosis site) of the artificial blood vessel must be taken. If these artificial blood vessels work well, the echocardiogram will show continuous flow of blood under a low average pressure. There is no blood clot that causes obstruction or slow flow. The doctor will consider giving aspirin and anticoagulant and antiplatelet aggregation to prevent blockage that will reduce blood flow to the lungs, causing cyanosis and loss of consciousness (Spell). However, these drugs slow down blood clotting, so caution is needed for cerebral hemorrhage from trauma or accident ^[22]. For example, sports or activities that are at risk of head injuries or accidents from vehicle traffic, which teachers can plan to adjust teaching methods and care for children to be consistent without problems, such as studying physical education carefully and avoiding risky activities, etc. If bleeding occurs, the patient should apply pressure to stop the bleeding properly, which may take longer than usual. The patient should be taken to the hospital immediately, showing the medication identification card or informing the doctor and health personnel of the use of this group of drugs immediately.

Contextual Objective: Know and be aware of the effects of anticoagulant use, precautions, and solutions when problems arise.

HYGIENIC CONTEXT

In addition to emphasizing the importance of regular check-ups, teachers should promote good hygiene habits, especially for children with heart disease who must be free from gum and tooth disease because oral germs are associated with heart infections. In some cases, education on the use of antibiotics is required prior to oral procedures, for which the cardiologist usually provides the patient with an identification card or a medical certificate to communicate with the dentist (Figure 1). As with any blood vessel replacement or prosthetic device placement, which is associated with bacterial infection of the heart and the suture or surgical revision site (Infective endocarditis; IE), patients need to maintain strict well-being with guidance and follow-up assessment by a team of nurses. In addition, some children with cyanotic heart disease who do not have a spleen to eliminate germs are at risk of immune system problems, especially infections. Also, patients with a spleen but some heart diseases still have lesions even after treatment. Such as extra blood vessels or narrowing or residual leaks. Therefore, doctors often consider giving antibiotics to prevent long-term infection. Therefore, doctors often prescribe antibiotics to prevent infection. However, even though the side effects of taking the drug are not very high, long-term use of the drug requires regular blood tests to check liver and kidney function according to international standards so that the plan can be adjusted in a timely manner [15,16,24]. In patients with a history of Rheumatic heart disease; RHD, which is caused by Streptococcus bacteria destroying the heart valves through a streptococcal autoimmune sequelae process, these patients require monthly injections of the antibiotic Benzathine penicillin G for several years to prevent and eradicate the infection (Figure 1-5). Or take medicine every day on time for many years to control and prevent such conditions. Therefore, teachers are important persons who, in addition to knowing the characteristics of the disease, are close to the patient and have reliable knowledge and can therefore help emphasize this to patients and their guardians. However, this context still requires home visits by nurses and public health workers to monitor hygiene and other risks. Such as oral health, sharing of injection needles, tattooing, skin piercing [25,26]. In addition to the factors related to the disease itself, teachers and related persons should advise patients to avoid throwing antibiotics into water sources or general trash.

Contextual objectives: Know and realize the importance of oral health care, especially gums and teeth that are related to heart infections, and know the characteristics of antibiotic use to prevent infection before tooth extraction, including the use of antibiotics in Rheumatic heart disease.

สาขารักษาโรคหัวใจ กุมารเวชศาสตร์ รามาศูนย์ 02-2012661

ชื่อ

โรคหัวใจ

แพทย์ผู้แนะนำ

กรณีต้องได้รับการทำหัตถการรักษา

ไม่ต้องให้ยาปฏิชีวนะก่อนทำ

แนะนำให้ยาปฏิชีวนะก่อนหัตถการ 1 ชั่วโมง (ดูยาต้านคล็อง)

	ยา	ขนาดยา
กิน	Amoxicillin	50 mg/kg (max 2 g)
ฉีด	Ampicillin	50 mg/kg (max 2 g) IV/IM
	Cefazolin/Ceftriaxone	50 mg/kg (max 1 g) IV/IM
กิน (แพ้ penicillin)	Cephalexin	50 mg/kg (max 2 g)
	Azithromycin	15 mg/kg (max 500 mg)
	Doxycycline	2.2 mg/kg (max 100 mg)
ฉีด (แพ้ penicillin/ampicillin)	Cefazolin/Ceftriaxone	50 mg/kg (max 1 g) IV/IM

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Figure 1-2: Disease name card and antibiotic instructions before oral procedures to communicate with dentists.
 Source: Department of Pediatrics, Faculty of Medicine, Ramathibodi Hospital, Mahidol University.

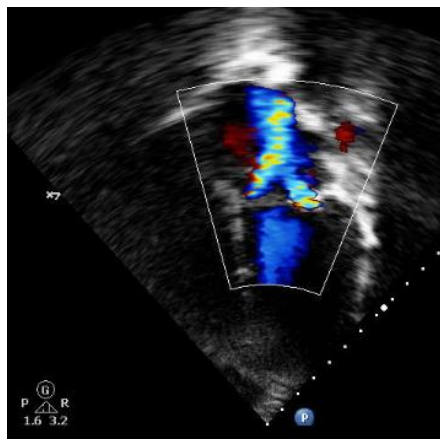


Figure 3: Echocardiogram 2D with color mode in apical 4 chambers shows para prosthesis mitral valvular leakage 2 jets after transplantation due to infectious endocarditis.



Figure 4: Shows the appearance of dental caries in children. If left untreated by a dentist, it can become a cause of cardiac infection, especially in patients who have undergone surgery or have had devices placed in the heart and blood vessels.

ขอความกรุณาจากท่านช่วยเขียน

Benzathine penicillin 6 แชน ยูนิด IM ทุก.....สัปดาห์*

Benzathine penicillin 1 ล้าน 2 แชน ยูนิด IM ทุก.....สัปดาห์*

ในวันที่ยังคงป่วยนี้

วันที่ฉีด	สายฉีดยูนิด	สถานที่ฉีด

วิธีการผสมยาฉีด

ใช้ Syringe 10 ml ไลโซซิม No.18 ชุด Sterile water for injection ปริมาณ 3 - 4 ซีซี ฉีดเข้า Vial ยาผสมอย่างละเอียดจากนั้นดูดยาจากกับ Syringe แล้วเปลี่ยนเข็มเป็น No.20-21 แล้วฉีดในทันที ที่บริเวณสะโพก กระจายฉีดนาน 3 -5 นาที (ถ้าใช้เข็มขนาดเล็กจะฉีดยาไม่เข้าเพราะยาจะหนืดมาก ถ้าผสมในปริมาณจะฉีดจะฉีดไม่ได้)

หลังฉีด ผู้ป่วยจะมีอาการปวดบริเวณที่ฉีดมาก ควรให้ยาแก้ปวด paracetamol หรือวาง cold pack ได้ตามสมควรและหลังฉีดให้ผู้ป่วยรอดเพื่อ Observe อาการแพ้ยา อย่างน้อย 20-30 นาที

Figure 5: Shows an example of an ID card and advice for rheumatic heart disease patients to take their medicine to a clinic or hospital near their home to receive antibiotics regularly.
 Source: Faculty of Medicine, Ramathibodi Hospital, Mahidol University

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CONTEXT OF IMMUNIZATION AND VACCINATION

Since heart disease is classified as a non-communicable disease, prevention of heart disease focuses on prevention and education. It is divided into two types: congenital heart disease, which is related to the mother's self-care from the time of pregnancy or during the perinatal period exposure to chemicals and germs during pregnancy or conception affects the formation of cells in the fetus's heart. Mothers who intend to become pregnant should plan to have a health check-up, receive vaccinations, and receive prenatal care with an obstetrician at the hospital [27]. Acquired heart disease is related to lifestyle habits, creating good health attitudes since childhood, such as getting immunized, exercising regularly, and eating a balanced diet, maintain cleanliness and hygiene, avoid using drugs and cigarettes, and avoid risky behaviors such as stress, sweet foods, high-fat foods, and high-sodium foods, which can reduce the chances of heart disease [28,29].

In children with uncorrected congenital heart disease, especially those with large blood volumes reaching the lungs, In addition to the patient having symptoms of fatigue, the excessive blood volume in the lungs affects the lung tissue, which also increases the chance of lung infection more than normal people. Therefore, it is recommended to receive the invasive pneumococcal vaccine; IPD. And in patients with Kawasaki disease with abnormal coronary arteries who must receive Intravenous immunoglobulin; IVIG will affect the receipt of live attenuated vaccines because IVIG will cause the body to not produce immunity as well as it should. The doctor will recommend postponing the receipt of live attenuated vaccines [30]. If parents and teachers know these details, they will be able to plan comprehensive and effective care to prevent illnesses that cause long absences from school. In addition, in the English course for secondary school, if English vocabulary and specific names are inserted, such as disease names, symptom names, organ names, drug names, vaccine names consist of Rhythm, Arrhythmia, Aspirin, Cardiopulmonary resuscitation; CPR, Valvular stenosis, Influenza vaccine, etc., it will help children become more familiar, able to remember and associate with diseases or methods of disease prevention and treatment [31]. In particular, being able to remember the names of vaccines and the names of your own diseases not only allows you to communicate quickly with teachers and health personnel, but also increases safety from incomplete vaccination or duplicate vaccination.

Contextual Goals: Know the necessity of vaccination, especially the ability to resist pathogens to promote normal body function, know the characteristics of safe vaccination in heart disease, know the benefits of remembering the names of medications and vaccines.

CONCLUSION

In addition to the teaching standards that teaching personnel must adhere to, teachers can also easily participate in the awareness, understanding, and promotion of behavior for students and children with heart disease. There are 6 contexts: 1) General disease knowledge context, 2) diagnostic context, 3) treatment context, 4) anticoagulant context, 5) hygiene context, and 6) prevention and vaccination context. This reinforces that teachers, in addition to being

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knowledge providers to students, with their credibility, seniority, and closeness, will also act as a mediator to promote the treatment of complex diseases that require knowledge and understanding to be better. Because teachers can instill and influence attitudes, provide knowledge, and emphasize health education and maintaining cleanliness of the body and mouth. In addition, integrating vocabulary, drug names, disease names, and organ names in teaching basic subjects also helps create familiarity and indirectly promote health. Even for children with limited access to health care and treatment, teachers can be the direct point of contact for assistance from volunteers, foundations, sub-district health promoting hospitals, social workers, nursing teams or doctors. For example, teachers in primary and secondary schools, in juvenile detention centers and shelters for poor children, etc. Therefore, in the context of Thai society, teachers not only play a role and contribute to the education of students, but also play an important role in the quality of life of students by instilling in children the awareness of the importance of taking care of their health and introducing good hygiene to citizens of the nation.

SUGGESTIONS OR APPENDIX

This article does not intend to increase the burden on Thai teachers as caregivers, but rather to reflect the roles and capabilities of Thai teachers in promoting youth health (Support and promote), which has always been beneficial to Thai society and has not been talked about as much as in other countries. and want to insert health principles that will help teachers gain knowledge and confidence to support children with heart disease to live safely with others, Able to provide emergency care to reduce risk and prevent patients from being seen as a burden or being discriminated against. In addition, the information in this article can be used to effectively design supplementary curricula or create teaching plans for children with heart disease. It can manage the limitations and precautions in students' lives to be consistent with long-term teaching objectives. To enable homes, schools and hospitals to work together to care for pediatric heart disease patients more harmoniously and with greater understanding.

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