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Kepuasan Masyarakat terhadap Layanan Pemerintah dalam Menurunkan Prevalensi Penyakit Hep-B pada Anak Usia 0-12 Tahun di Indonesia

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Abstrak

Penelitian ini mendesak untuk mengatasi keterbatasan pengetahuan tentang prevalensi Hepatitis B (Hep-B) di kalangan anak-anak usia 0-12 tahun di Indonesia. Meskipun pemerintah telah berupaya keras meningkatkan pendidikan kesehatan dan kesadaran, masih ada kekurangan dalam memahami efektivitas strategi komunikasi dan kepuasan masyarakat terhadap layanan yang disediakan. Tujuan penelitian ini adalah mengevaluasi strategi komunikasi pemerintah Indonesia dan tingkat kepuasan masyarakat terhadapnya. Metode kuantitatif digunakan dengan observasi, dokumentasi, dan kuesioner terhadap 220 responden dari berbagai distrik di Indonesia. Hasil penelitian menunjukkan bahwa layanan publik terkait pendidikan kesehatan dan kampanye kesadaran Hep-B untuk anak-anak usia 0-12 tahun dinilai baik dan memuaskan. Faktor yang paling berpengaruh dalam meningkatkan prevalensi Hep-B adalah penularan dari ibu ke anak, terutama selama kehamilan, persalinan, atau menyusui, yang umum terjadi di daerah dengan tingkat Hep-B tinggi dan kurangnya pemeriksaan. Sebagai upaya layanan publik, pemerintah dapat meningkatkan pendidikan kesehatan dan kampanye kesadaran Hep-B, termasuk melalui pendidikan berbasis sekolah.
Kata kunci: publik, kepuasan, layanan, pendidikan kesehatan, pemerintah, Hep-B.

Public Satisfaction of Government Services in Reducing the Prevalence of Hep-B Disease for Children 0-12 Years in Indonesia

Abstract

This research is crucial to address the limited knowledge about the prevalence of Hepatitis B (Hep-B) among children aged 0-12 in Indonesia. Despite the government's dedicated efforts to enhance health education and awareness, there is still a gap in understanding the effectiveness of communication strategies and public satisfaction with the provided services. The aim of this study is to evaluate the communication strategies employed by the Indonesian government and assess public satisfaction. Quantitative methods, including observation, documentation, and questionnaires administered to 220 respondents across various districts in Indonesia, were utilized. The research concludes that public services related to health education and awareness campaigns for reducing Hep-B prevalence among children aged 0-12 are considered good and satisfactory. The most influential factor in increasing Hep-B prevalence is maternal-child transmission, particularly during pregnancy, childbirth, or breastfeeding, which is common in areas with high Hep-B prevalence and insufficient screenings. As a public service effort, the government can enhance health education and Hep-B awareness campaigns, including school-based education.
***Keywords**: public, satisfaction, services, health education, government, Hep-B.*

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INTRODUCTION

Hep-B is a viral infection that affects the liver, the Hep-B virus (HBV) is spread through contact with the blood or other bodily fluids of an infected person. This can occur through sexual contact, sharing of needles or other injection equipment, or from an infected mother to her baby during birth. Hep-B can cause a range of symptoms, including fatigue, abdominal pain, joint pain, and jaundice (yellowing of the skin and eyes). In some cases, people may have no symptoms at all. The infection can range from a mild illness lasting a few weeks to a serious, long-term illness that can lead to liver damage, cirrhosis, liver cancer, and even death. There is a vaccine available that can prevent Hep-B, and there are also medications that can help control the virus and prevent liver damage in people who have been infected.

Hepatitis is inflammation of the tissue that can be caused by infection, drugs, toxins, metabolic disorders, or autoimmune abnormalities. Infections caused by viruses, bacteria, or parasites are the most common cause of acute Hep-B [Arief, 2013]. Hep-B virus (HBV) infection is a virus infection that attacks the liver and can develop into acute or chronic infection [WHO, 2020]. HBV is usually transmitted from person to person through blood (blood product recipients, haemodialysis patients, health workers or blood exposure). High-risk media that spread HBV include semen, cervical-vaginal secretions, saliva, or other bodily fluids, making it can also be transmitted sexually [Dunkelberg, 2014].

An estimated 240 million people are chronically infected with hepatitis B worldwide (defined as hepatitis B surface antigen (HBsAg) positivity for at least 6 months. Vaccine against hep-B has been available since 1982. Although the prevalence of hep-B virus (HBV) infection is relatively low in developed countries. HBV infection is still quite prevalent in East Asia and Southeast ASIA, including Indonesia (2.5%-10%) [Yano, 2015].

In Southeast Asia, WHO estimates that there are approximately 39.4 million (28.8-76.5 million) people living with chronic HBV and 10.3 million (8.0-17.8 million) people living with chronic hepatitis C. Every year, in Southeast Asia, viral hepatitis contributes to about 410,000 deaths with 78% of total deaths related to liver cancer and cirrhosis due to HBV and HCV. Specifically for HBV, Indonesia is one of the countries in the Southeast Asian region with the highest prevalence rate, so attention and commitment from all policy makers is needed, both at the central and regional level.

The hep-B virus (HBV) infection remains a significant problem in Indonesia due to its high prevalence and complications. In areas with high endemicity, HBV infections usually occur through perinatal or early childhood infections. HBV itself is usually asymptomatic, and chronic HBV infection is a dynamic process involving interactions between the virus, hepatocytes, and the human immune system [Yano, 2015].

According to data from the 2018 CDC surveillance, there were 3,222 new acute hep-B cases. The number of cases is estimated to be 1 per 100,000 population [Yano, 20105]. Indonesia is a country with high hep-B endemicity, being the second largest in the (South East Asian region),

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based on blood donor screening studies by the Indonesian Red Cross, it is estimated that out of 100 Indonesians, 10 of them have been infected with Hep-B or C, so currently it is estimated that there are 28 million people who have already been infected with Hep-B and C, 14 million of whom have the potential to become chronic, and among those with chronic hepatitis, 1.4 million have the potential to become liver cancer. [Sastrosoewignjo, 2020].

According to data in 2020, Indonesia is the country with the highest prevalence of hep-B in ASEAN. In addition, according to data from the 2013 survey, the overall prevalence of hep-B in Indonesia is 7.1% of the population. The prevalence rate increases in those over the age of 5, due to horizontal transmission through blood contact and/or high-risk sexual relationships. Furthermore, the prevalence of Hbs-Ag in pregnant women is still relatively high, ranging from 1.82% to 2.46%.

The risk for the chronic infection to the age at infection; for instance, approximately 90% of infected infants become chronically infected compared with 2%-6% aduts. In addiction HBsAg is an important hepatitis B maker in the field of mother transmission. HBeAg is a small secretory antigen that can cross placenta from mother to the vetus [Milich. 2013].

Undetectable HBsAg is generally considered to indicate a lack of HBV infection or the disappearance of viremia and disease remission [Gitlin, 1997]. This belief may result in misinterpretation among patients with occult HBV infection (OBI), which is an HBV infection that lacks detectable HBsAg. Considering the importance of OBIs, the purpose of this review is to provide comprehensive information on OBIs in Indonesia, including infections among HD patients. In addition to viral factors (such as HBV DNA levels, genotypes, and genomic mutations) host factors such as age, gender, race, immune status might contribute to the progression of lever disease (Naishida, 2013). Genome-wide association studies have identified associations of genetic variations with disease related to HBV, including HBV-related hepatocellular carcinoma (HCC).

The prevalence of infection is generally lower in developed countries, which experience occasional outbreaks, that in developing countries, this difference might reflect the prevalence of the infection in general population. [Burdiek, 2003]

There are several factors that can contribute to this increasing in hep-B disease in Indonesia, such as: (a) lack of vaccination or lack of access to or failure to receive the Hep-B vaccine is a major factor in the spread of the disease, (b) unsafe healthcare practices, such as reusing syringes and other medical equipment, can lead to the spread of Hep-B. (c) sexual transmission: hep-B can be sexually transmitted, and unprotected sexual activity increases the risk of contracting the disease, (d) sharing of needles and other injection equipment: among individuals who inject drugs is a common mode of transmission of Hep-B, (e) mother-to-child transmission: can occur during pregnancy, childbirth, or breastfeeding and is a common mode of transmission in areas with high prevalence of hep-B, (f) lack of screening: for hep-B can lead to delayed diagnosis and treatment, allowing the disease to progress and spread to others, (g) stigma and discrimination against individuals

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with hep-B can prevent them from seeking testing and treatment, and can lead to the spread of the disease, and (h) public scepticism about the transmission of hep-B can stem from a variety of sources, including misinformation, lack of awareness, and cultural beliefs.

Public scepticism about the transmission of hep-B can be a barrier to effective prevention and control of the virus, some reasons for scepticism may include: (a) lack of awareness; that some individuals may not be aware of the transmission routes of hep-B and may not understand how easily the virus can be transmitted from one person to another, (b) misconceptions about the virus; there may be misconceptions about the virus and its symptoms, which can lead to misunderstandings and fear, (c) stigma associated with hep-B: the stigma associated with hep-B and its perceived association with intravenous drug use or promiscuity may discourage individuals from seeking testing and treatment, (d) resistance to vaccination: some individuals may be resistant to vaccination due to concerns about safety and efficacy, or they may not understand the importance of vaccination in preventing the spread of hep-B.

To address public scepticism about hep-B prevalence and its transmission, it is important for governments to implement comprehensive health education and awareness campaigns to provide accurate information about the virus and its transmission routes, these campaigns should aim to dispel common misconceptions and address the stigma associated with the disease. Additionally, governments can work to increase access to testing and treatment services, and promote vaccination as a safe and effective means of preventing the prevalence and transmission of hep-B.

Therefore, based on data above, the government action is very important this context refers to the essential role the government plays in addressing public health issues, such as Hepatitis B (Hep-B) among children aged 0-12 years in Indonesia. This involves several aspects: a) policy and legislation: the government needs to enact appropriate policies and legislation that prioritize public health, particularly in preventing and treating Hep-B among children, b) healthcare services: the quality of healthcare services provided by the government directly impacts public satisfaction and trust. Efficient, effective, and accessible healthcare services can significantly contribute to decreasing Hep-B prevalence, c) public awareness and education: the government should invest in awareness campaigns and education about Hep-B's risks, transmission, prevention, and treatment. This can help society understand the importance of preventive measures and early treatment, d) vaccination programs: government-led vaccination programs are key to reducing Hep-B's prevalence. Ensuring that these programs are well-implemented and reach the entire population, especially vulnerable groups, is crucial and, e) monitoring and evaluation: gegular assessment of the healthcare system's effectiveness and the impact of policies can help identify gaps and areas for improvement. The satisfaction of the public with the government's services can be a valuable metric in these evaluations.

By proactively anticipating and responding to these issues, the

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government can significantly contribute to the fight against Hep-B in children, leading to improved public health outcomes and greater satisfaction with government services.

Based on the background and data described above, the purpose of this research is to: a) find out the satisfaction of the Indonesian people with public services in terms of health education and awareness campaigns in reducing the prevalence of hep-B in children aged 0-12 years (b) to find out what factors influence the increase in the prevalence of Hep-B in children aged 0-12 years and (c) to find out what the government can do as a public service in reducing the prevalence of Hep-B in children aged 0-12 years in Indonesia.

METHODS

This study uses quantitative methods to measure the level of satisfaction of the community towards the public service in terms of health education and awareness campaign in in reducing the prevalence of Hep-B disease for children 0-12 years in Indonesia. Data collection techniques used are observational studies, documentation, and distribution of digital questionnaires. The data analysis method techniques that researchers will use is counting the percentages of questionnaire answers. The research samples taken in this study were people living on various islands in Indonesia around 220 people.

In this research, there are 4 respondent categories which are gender, ages, occupation, and domicile, it seen on tables below:

Table 1. Respondent's Characteristics

Respondent's Characteristics	**f**	**%**
Gender		
Male	72	32,4
Female	148	67,6
Ages		
<20	87	39,7
20-30	40	18,3
30-40	86	39,3
>40	7	2,7
Occupations		
Students	113	51,6
Housewife	33	15,1
PNS/BUMN/TNI/Police	12	5,5
Private Sectors Employees	20	9,1
Entrepreneur	15	6,8
Labourer/Farmer	0	0
Public Health Workers	3	1,4
Others	23	10,5
Domicile		
Sumatera	12	5,5
Jawa & Bali	205	93,2
Kalimantan	1	0,5
Sulawesi	1	0,5
NTB-NTT	1	0,5
Irian Jaya	0	0

RESULTS AND DISCUSSIONS

This study intends to see the public satisfaction of public services in form of health education and awareness campaign by using data of questionnaire which is filled out by 220 respondents. We will see the data, only from 5 questions in the table below:

Table 2. Questionnaires Data

No	**Questions**	**Answers Option**	**%**	**Total**
1	Where did you get an	Family or friends	46.9	100

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	information about Hep-B disease in children 0-12 years?	Local government	22.4	49
		Media (either from television, radio, newspapers, or the internet),	19.6	43
		Broadcast (short messages or even WhatsApp).	11	24
2.	How the government's socialization in urging its people about public services (health education and awareness campaigns) in reducing the prevalence Hep-B for children 0-12 years?	Very good	13,7	30
		Good	15,5	34
		Neutral	16,4	36
		Quite Good	51,6	100
		Not Good	2,7	6
3.	Are the central and local government informative to give health education and awareness campaigns) in reducing the prevalence Hep-B for children 0-12 years?	Very good	14,2	31
		Good	47	103
		Neutral	25,6	56
		Quite Good	12,8	28
		Not Good	0,5	1
4.	Has there ever been direct counseling from the local government to educate the public about hep-B disease in children 0-12 years?	Have received counseling from the government	47,9	105
		There had never been any counseling from the government about hep-B	52,1	115
5.	Were the public services of the government (health education and	Very Good	30,6	67
		Good	47,9	105
		Neutral	16,4	36
		Quite Good	2,7	6

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	awareness campaign) in reducing the prevalence of Hep-B for children 0-12 years is satisfying?	Not Good	2,3	5

The data shows that most of respondent get an information about hep-B disease in children 0-12 years from family or friends. Most of them, around 100 persons thought that the government's socialization in urging its people about public services (health education and awareness campaigns) in reducing the prevalence Hep-B for children 0-12 years was quite good. The central and local government informative give health education and awareness campaigns) in reducing the prevalence Hep-B for children 0-12 years was good. The government did the direct counselling from the local government to educate the public about hep-B disease in children 0-12 years. Last, their satisfaction about public services of the government (health education and awareness campaign) in reducing the prevalence of Hep-B for children 0-12 years were good.

Here are some steps that children 0-12 years old can take to avoid getting infected with the Hep-B virus such as: (a) to get vaccinated; the hep-B vaccine is safe and effective and is recommended for all children. Children should receive a series of three shots to be fully protected against the virus, (b) avoid sharing personal items; children should avoid sharing items such as toothbrushes, razors, and nail clippers, as these can all be potential sources of transmission for the virus, (c) wash hands frequently: Encourage children to wash their hands often with soap and water, especially after using the bathroom and before eating, (d) avoid contact with bodily fluids: teach children to avoid direct contact with blood, semen, vaginal secretions, and other bodily fluids, as these can all contain the virus, (d) stay away from risky behaviors: children should be educated about risky behaviors, such as sharing needles or having unprotected sex, and the importance of avoiding these behaviors, (e) report any cuts or wounds; if children have any cuts or wounds, they should be covered and kept clean to prevent the transmission of the virus. By following these steps, children can greatly reduce their risk of getting infected with the Hep-B virus and protect their health

The primary goal of hepatitis B prevention program is reduction of HBV-related to chronic liver disease and chronic HBV infection. A secondary goal is the prevention of acute hep-B. HBV infection can be prevented by screening blood, plasma, organ, tissue and semen donors, virus inactivation of plasma-derived products, risk-reduction counselling and services, and implementation and maintenance of infection control practices. Although such activities can reduce or eliminate the potential risk for HBV transmission, by far the single most effective prevention measure is immunization [Miriam, 2003].

Immunization strategies in developed countries very widely, International Sustainable Development Goals (SDGs) for elimination of hepatitis B virus (HBV) infection set ambitious targets for 2030. In African populations,

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infant immunization has been fundamental to reducing incident infections in children, but overall population prevalence of chronic hepatitis B (CHB) infection remains high. In high-prevalence populations, adult catch-up vaccination has sometimes been deployed [McNaughton, 2020]. In United States, the immunization strategy has evolved over time and now includes: (1) prevention of perinatal HBV infection through routine screening of all pregnant women and appropriate postexposure monoprophylaxis of in infants to born HBsAg positive women; (2) routine vaccination of adolescents who have not previously been vaccinated, and (4) vaccination of adults increased risk of infection [Centre of Disease, 1991]. Most countries in western Europe have focused efforts on prevention of perinatal infection and routine vaccination adolescents; rarely, routine immunization of infants also has been included [Steenberg, 1998]. In eastern European countries, routine immunization of infants has been the primary strategy.

The success of routine immunization of children and adolescents in interrupting HBV transmission already has been demonstrated in both high and low HBV endemic areas. During 15 years after routine childhood hepatitis B immunization was implemented, the prevalence of chronic HBV infection among children < 15 years old declined from 10 to 0.7%, a decrease of 93% and rates of HCC among 6-14 years old declined by 50%. [Villa, 2002] Similarly, almost a 90% decline was observed in the overall prevalence of infection (as measured by antibody to hep-B core antigen) remained high. In countries such as Italy and the United States, the incidence of acute hepatitis B has declined dramatically during the past decade, particularly among persons in younger age groups [Goldstein, 2002]. A seroprevalence study conducted among pre-school immunized children revealed that the prevalence of hepatitis B surface antigen (HBsAg), antibody to hepatitis B surface antigen (anti-HBs) and antibody to hepatitis core antigen (anti-HBc) was 0.7%, 77.0%, and 5.3%, respectively. Among unimmunized mothers the prevalence was 6.6%, 57.9% and 67.2%, respectively. [Tsukakoshi, 2015]

Besides that, the safety of HBV vaccination has been widely recognized as a best practice. An immune reaction from the host is intended to be induced as part of this vaccination to prevent HBV replication in the host. The therapeutic efficacy and safety of the HBV antibody are determined by a few immunological and clinical factors. As evidenced by more than 20 years of a successful vaccination program, the authorized recombinant hepatitis B vaccines are currently immunogenic, effective in over 90% of vaccinees, and generally very well endured. [28].

Adults still have poor vaccination rates for the hepatitis B virus (HBV), which is a major contributor to chronic hepatitis, liver cirrhosis, and hepatocellular carcinoma. Adults who did not receive a newborn vaccination are still at risk for HBV infection. A 3-dose immunization is frequently not finished over a 6-month period [Timo, 2021], additionally, a recent study of US adults showed that a 2-dose vaccine has better adherence than a 3-dose vaccine. The age group 30 to 49 years old has the greatest rate of new HBV

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infections in the United States, accounting for 33.2% of those between 25 and 39 years old [US Department of Health, 2021], 32.0% of those between 45 and 54 years old, and 27.6% of those over 55 years old in 2016 [31]. The people who need an HBV vaccine that provides rapid seroprotect ion the most are those who work in healthcare, the armed forces, and those who journey to endemic areas [Medawar, 2021].

So, the routine immunization of children and adolescents has been highly successful in interrupting the transmission of hepatitis B virus (HBV) in many parts of the world. According to the World Health Organization (WHO), the global coverage of the three-dose hepatitis B vaccine series in infants increased from 31% in 2000 to 84% in 2019, with some countries achieving coverage rates of 95% or higher.

Studies have shown that routine immunization of infants and children can significantly reduce the incidence of chronic HBV infection, liver cancer, and other complications associated with the disease. For example, a study conducted in Taiwan found that the introduction of routine hepatitis B vaccination for infants in 1984 resulted in a significant decrease in the incidence of chronic HBV infection and liver cancer in the population. Similarly, a study conducted in Alaska found that the implementation of a comprehensive hepatitis B vaccination program for Native American infants and children resulted in a significant decrease in the incidence of acute HBV infection and chronic HBV infection.

The success of routine immunization in interrupting HBV transmission is due in large to the high efficacy and safety of the hepatitis B vaccine, as well as the widespread implementation of vaccination programs in many countries. However, there are still many challenges to achieving universal coverage, particularly in low- and middle-income countries where resources and infrastructure may be limited. Ongoing efforts to expand access to hepatitis B vaccination and increase awareness of the importance of vaccination are critical to further reducing the burden of HBV infection worldwide.

HBV vaccination is currently the most efficient method of preventing HBV transmission, although the immune system does not deteriorate with age, seroprotect ion titters do. A Thai study on kids who received the recombinant HB vaccine as babies discovered proof of the aforementioned. At the age of 5 years, 89.8% of individuals had protective anti-HBs titters [Homenta, 2017]. It can be deduced that booster shots at age 5 are not necessary because the epidemiological pattern of HB in Indonesia and Thailand are comparable [Ranuh, 2011]. Other research, however, revealed that beneficial anti-HBs titters were only 12%–47.9% at the age of 10–12 years.9-15 Additionally, according to Ministry of Health data from 2013, only 75.6% of Indonesian adults had received the third dose of the hepatitis B vaccine, which is still below the required standard of protection (80%). [Depkes RI, 2014].

CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on research data and discussion above it can concluded that: a) most of respondent of this research around 47,9% or 105 persons stated that public services in terms of health education and awareness campaigns in reducing the

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prevalence of hep-B in children aged 0-12 years was good, and they satisfied enough, b) the factors that most influence in increase in the prevalence of Hep-B in children aged 0-12 years are mother-to-child transmission: can occur during pregnancy, childbirth, or breastfeeding and is a common mode of transmission in areas with high prevalence of hep-B and lack of screening, c). what the government can do as a public service in reducing the prevalence of Hep-B in children aged 0-12 years in Indonesia is health education and awareness of hep-B campaign by several ways, such as school-based education, community-based education, mass media campaign, and health worker education.

Prevention of hep-B is an important public health issue, and governments around the world play a crucial role in promoting awareness and implementing measures to reduce the spread of the virus. Here are some of the ways governments can promote health and prevent hep-B disease such as vaccination programs, screening and testing programs, safe injecting practices, blood safety measures and health education and awareness campaign. In terms of prevention of HBV, preventing infections acquired at birth and in early childhood is critical. The key to reduce mother-to-child transmission is timely administration of the first dose of the Hepatitis B vaccine within 24 hours of birth. Efficacy of the vaccine in preventing perinatal transmission declines with increasing intervals between birth and the time of administration of the vaccine.

With this health education and awareness campaign, misinformation about hep-B can be reduced and can help to increase awareness about the disease and its modes of transmission, dispel misconceptions, and reduce stigma and discrimination. The government must provide this health education and awareness of hep-B campaign by several ways such as school-based education, community-based education, mass media campaign, and health worker education. Health education programs should be designed to be culturally appropriate and accessible to all populations, especially for children 0-12 years. They should also provide clear, evidence-based information about Hep-B, including the benefits of vaccination, the importance of screening and early treatment, and the risk factors for infection. Health education programs should be ongoing and sustained to ensure that accurate information continues to reach the public, and that misinformation and skepticism about Hep-B are effectively addressed over time.

Suggestions

Based on the results of the research above, we can recommend the Indonesian government to provide more education to the Indonesian people regarding Hepatitis B. Hepatitis B prevention education activities can be carried out in various ways such as school-based education, vaccination, or health education for healthcare workers in various regions in Indonesia, so that the skepticism of the Indonesian people regarding Hepatitis B can be reduced.

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SHORT PROFILE

My name is Elsa Silvia Nur Aulia. I am from the Humanities Department, Faculty of Arts and Design, Bandung Institut Teknologi Bandung. I obtained my bachelor's and master's degrees in Arabic Language Education from the Indonesian University of Education and completed my PhD at Universitas Islam Negeri (UIN) Sunan Gunung Djati Bandung. Currently, I am a permanent lecturer at the Insitut Teknologi Bandung, teaching Islamic Religion and Ethics. However, my research interests are not only in religious education, but also in broader topics such as social issues, humanities, digitalization, economics, and health.

