

Identification of Symbols in Indonesian Traditional Fairy Tales as a Health Promotion for the Prevention of Non-Communicable Diseases Diabetes Mellitus and Hypertension

Chelomitha Malindra Purnamayanti✉¹⁾, Farhaiza Ramadhania¹⁾, Rahelia Demak Siahaan¹⁾, Rina Pertiwi¹⁾, Yunika Tri Yulianti¹⁾, Susy Katikana Sebayang²⁾

¹ Public Health Study Program, Faculty of Health, Medicine, and Life Sciences, Universitas Airlangga

² Department of Health, Medicine, and Life Sciences, Faculty of Health, Medicine, and Life Sciences, Universitas Airlangga

✉Email: chelomitha.malin.purnamayanti-2019@fkm.unair.ac.id

ABSTRACT

Background: Non-communicable diseases are one of the groups of diseases with the highest causes of death in the world. This was shown by data from WHO that in 2023, around 74 percent of the causes of death in the world are non-communicable diseases that kill 41 million people per year. This is due to the lack of public understanding of the influence of risk factors for non-communicable diseases on the incidence of non-communicable diseases and complications that can be caused by non-communicable diseases. Therefore, the use of traditional Indonesian fairy tale symbols in health promotion media for the prevention of non-communicable diseases can be used as an alternative solution to overcoming this challenge. **Aims:** This study aims to identify, examine, and synthesize symbols in traditional Indonesian fairy tales that have the potential to they can be developed to improve health messages to prevent non-communicable diseases, especially diabetes mellitus and hypertension. **Method:** The method used in this study was a Literature Review with a narrative review study design. The steps taken are to gather all the fairy tales with inclusion criteria are fairy tales that have symbols about non-communicable diseases and exclusion criteria are incomplete fairy tales, and then do the screening, identifying symbols, analyzing symbols, and selecting potential symbols. **Results:** Of the 21 relevant titles of Indonesian traditional fairy tales and legends, 85 symbols were identified. From the analysis of the meaning of each symbol, 16 symbols were found that have the potential to be used as promotions for the prevention of non-communicable diseases, diabetes mellitus, and hypertension, with 10 different symbol categories spread across 7 provinces in Indonesia. **Conclusion:** there are many symbols from traditional Indonesian fairy tales that have the potential to they can be used to increase the effectiveness of delivering health messages as an effort to promote the prevention of non-communicable diseases diabetes mellitus and hypertension. These symbols can be made into health messages nationally and can be flexibly used to create health messages in each region.

Keywords: Non-Communicable Disease, Prevention, Symbol

INTRODUCTION

Non-communicable diseases (NCDs) are one of the groups of diseases with the highest causes of death in the world. In 2023, WHO (World Health Organization) data shows that non-communicable diseases are the cause of death in the world around 74% or can kill as many as 41 million people per year (WHO, 2023). Non-communicable diseases are not diseases that can be passed from person

to person which in their course take a long time and slowly develop into more severe and show symptoms. The incidence of non-communicable diseases is increasing day by day. There is a tendency to increase the prevalence of non-communicable diseases such as diabetes, hypertension, stroke, and joint disease/rheumatism/gout as shown by Riskesdas data in 2007, 2013, and 2018.

Along with the times, there are changes in lifestyle, the increasing

population, and increasing life expectancy, these are closely related to the increasing incidence of non-communicable diseases. A diet that is high in calories, low in fiber, high in salt, high in sugar, and high in fat is then followed by a sedentary lifestyle, coupled with a movement pattern that lacks physical activity, stress, and lack of rest also triggers hypertension and diabetes mellitus among the people of Indonesia (Purwanto, 2022). Thus, efforts to control and prevent non-communicable diseases need to change behavior through innovation.

Nationally, the results of Riskesdas 2018 show the proportion of the population with hypertension is 34.11%. The rate of hypertension in women (36.85%) is higher than in men (31.34%). The prevalence of hypertension cases is slightly higher in urban areas (34.43%) than in rural areas (33.72%). The prevalence of hypertension increases with age (Ministry of Health of the Republic of Indonesia, 2019). Meanwhile, the prevalence of diabetes in Indonesia based on a doctor's diagnosis over the age of 15 years has increased from 2013, from 1.5% to 2.0% in 2018. However, the prevalence of diabetes according to the results of blood sugar examinations increased from 6.9% in 2013 to 8.5% in 2018, but only 25% of people with diabetes know that they have diabetes (Ministry of Health RI).

CERDIK is a health promotion program to familiarize clean and healthy living behavior as an effort to control risk factors for non-communicable diseases. SMART behavior includes regular health checks, get rid of cigarette smoke, exercising frequently, balanced healthy diet, adequate rest, and manage stress. Routine health checks are an examination of risk factors for non-communicable diseases that can be carried out through the Integrated Development Post (Posbindu) for non-communicable diseases in villages/kelurahan and Puskesmas. While eliminating cigarette smoke is done through the establishment of smoke-free areas in schools, this is an effort to reduce the prevalence of smokers 18 years. Efforts to control non-communicable diseases will not succeed if they are only carried out by the Ministry of Health without the support of all levels, such as government, the private sector, professional organizations,

community organizations, and even all levels of society (Ministry of Health of the Republic of Indonesia, 2019).

However, the efforts that have been made to prevent and control the risk factors for this non-communicable disease have unfortunately not been optimal. This can be seen from the lack of public understanding of the risk factors for non-communicable diseases to the incidence of non-communicable diseases and the possible complications that non-communicable diseases can cause (Kurniasih, 2020). In general, they believe that non-communicable diseases are caused by genetic factors, the disease of parents, or the disease of the rich. To increase public understanding of risk factors, prevention efforts and possible complications caused by non-communicable diseases can be carried out by delivering health messages through various health promotion media.

Based on the results of the study, the limitations and lack of media that convey health information in the community such as posters or other media are some of the challenges and obstacles in controlling non-communicable diseases in semi-urban areas (Reskiaddin *et al.*, 2020). The national health message related to the prevention of Non-Communicable Diseases (NCD) can be strengthened and more effective by using traditional Indonesian fairy tale symbols that have taken root in the community. Traditional stories, legends, and fairy tales are told and passed down verbally to mold a child's character. The values in the stories tend to shape the mindset and behavior as well as the growth of the child's personality. Traditional fairy tales are created with various purposes, including recording stories, sagas, or important events in the community that have occurred, character building for the inheriting generation, and instilling moral and cultural values, and ethical knowledge in the community (Nugraha, 2022). Children then carry the moral messages contained in fairy tales into adulthood and then retell them to their children. It is not uncommon for fairy tales and legends to also involve diseases, one of which is non-communicable diseases. Storytelling method is a form of activity that can be carried out when providing learning to children. Pangestuti (2021) states that storytelling is an

effective method so that children do not become bored, and can even make learning very enjoyable for children. Handayani (2023) mentioned that children can be influenced very easily through stories or fairy tales.

Humans are also known as "homo symbolism", which means that humans are biological creatures who often adapt and communicate with their physical and social environment by using symbols found in their lives (Hendro, 2020). A study that discusses the symbols in the folklore "Tana Lawu" found the symbol "Lightning". In the passage "they agreed and promised to match their children when they grew up, at that time lightning thundered as if the sky would fall when they promised". The results of this study indicate that the code of symbols in folklore as a text marker can bring the reader into the world of symbols, signs, and symbols and their meanings.

This can be implemented in health promotion where the symbols contained in folklore can inform the public about health, especially non-communicable diseases. But until now there has been no study about this. Therefore, this research gap can be used to analyze symbols in fairy tales that can be used in health promotion against non-communicable diseases such as diabetes mellitus and hypertension.

From the description of the background, this study aims to a) identify symbols contained in traditional Indonesian fairy tales related to health promotion of non-communicable diseases; b) assess the context and meaning of symbols in traditional fairy tales circulating in the community to improve health messages for preventing non-communicable diseases and c) synthesizing potential symbols that can be developed to improve health messages as an effort to prevent non-communicable diseases, especially diabetes mellitus and hypertension. This study will produce a list of symbols of potential and deeply rooted in culture that can be used by governments, health professionals, and the general public to design strong and entrenched health messages to communities at risk for diabetes mellitus and hypertension.

METHODS

The method applied in identifying symbols found in traditional Indonesian fairy tales is the Literature Review method with narrative review study design. Stage the first one conducted by gathering all fairytales in Indonesia from the Internet and library area. The symbol was searched online with Google machine to find literature using keywords such as "Traditional Legend", "Traditional Tale", "Traditional Story" and "Folk Story" that appear on the first 10 pages, then the search results of each keyword in the data and collected. The inclusion criteria are the Fairy tale symbolizing a non-communicable disease, and the exclusion criteria is an incomplete fairy tale. Fairy tale quest is also conducted offline in the library area on rack book fairytale. After fairy tales are collected, the next stage is to do a screening to exclude duplication of fairy tales, that come from abroad, and fairy tales that have nothing to do with disease. All fairy tales that meet the inclusion criteria are then re-read to find the symbols contained in the tales. Furthermore, the symbols found are re-examined and consolidated to find differences with the results of reading and identifying the previous symbols, so that a complete list of symbols is obtained. From the symbols that have been collected then an analysis of the meaning of each symbol is carried out. From all the meaningful symbols, then the selection of which symbols have the potential to be used as an effort to prevent non-communicable diseases, diabetes mellitus, and hypertension.

RESULTS AND DISCUSSION

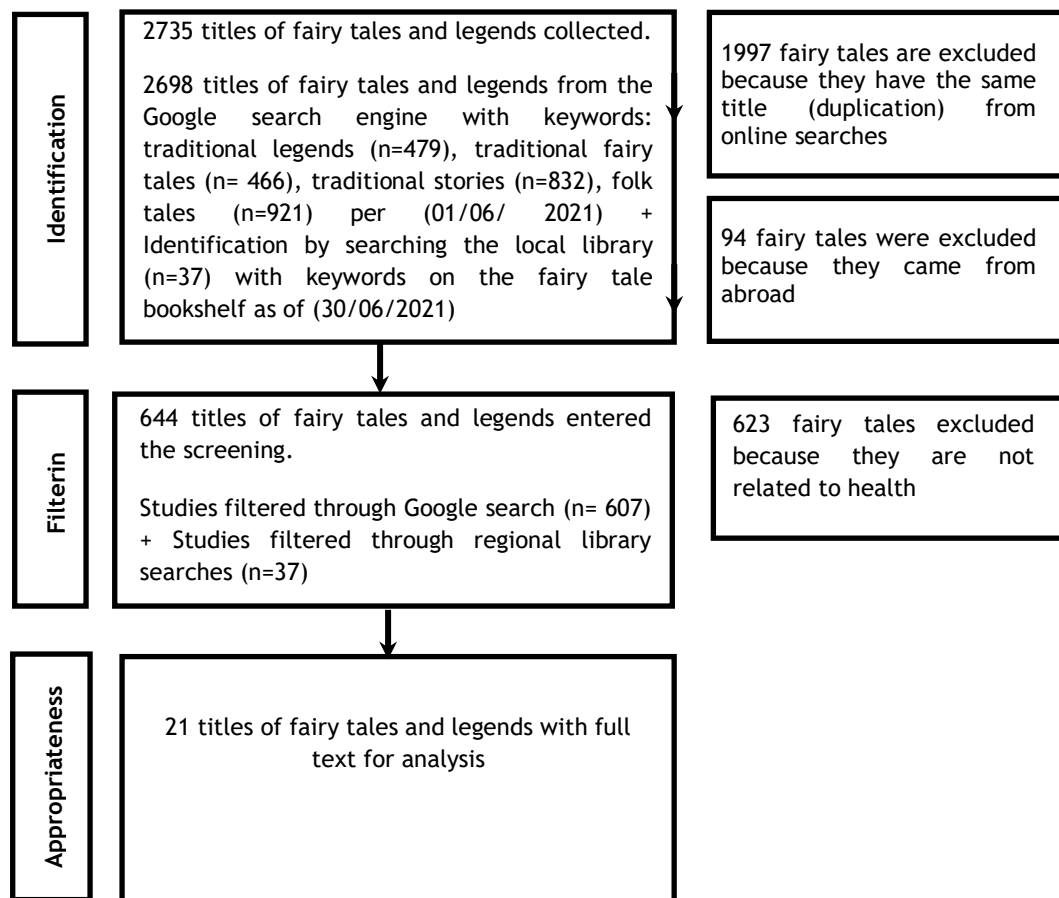


Figure 1. Search Results

A search through the Google search engine on June 1, 2021, resulted in 479, 466, 823, and 921 titles of fairy tales and legends with a total of 2698. A search in the regional library on June 30, 2021, yielded 37 titles related to fairy tales, and no fairy tale titles were found come from abroad or the title of the same fairy tale. Thus, 2735 titles were identified. From a total of 2735 fairy tale titles identified, it turns out that 94 fairy tale titles originated from abroad and 1997

fairy tales with the same title (duplication) from online searches and must be removed. There are 644 fairy tale titles, of which 623 fairy tale titles are not relevant to health, so they must be removed. There are several symbols in fairy tales related to non-communicable diseases such as diabetes mellitus and hypertension. The symbols are categorized into groups based on the meaning of each symbol.

Table 1. List of Potential Symbols that can be used for Efforts to Promote Prevention of Non-Communicable Diseases Diabetes Mellitus and Hypertension

Symbol Category	Symbol	Meaning of Potential Symbols for Prevention of Non-Communicable Diseases Diabetes Mellitus and Hypertension
Disease prevention	Healthy food	Anything that enters the body will greatly affect the system in the body and determine health conditions. By eating healthy foods and planning the right diet, it is important to maintain a healthy body and prevent non-communicable diseases, such as diabetes and hypertension.
	Checking food	Checking all food intake that will be consumed is important to prevent non-communicable diseases. Do not overconsume sugar, salt, and fat every day. Check for each intake of

		sugar, salt, and fat to be consumed, and make sure it does not exceed the recommended limit. We recommend increasing the consumption of fruits and vegetables.
Disease	Wounds that cause odor	One of the advanced health problems experienced by people with Diabetes Mellitus is wounds that are difficult to heal and some of these wounds cause an unpleasant odor. High blood sugar levels make it difficult for the body to fight bacteria. As a result, the wound does not heal and causes an unpleasant odor
	Paralyzed	Patients with Non-Communicable Diseases need to have determination and hope for recovery. Because the strongest healing comes from within.
	Teluh disease, trance, wounds	Apart from having a family medical history that can cause non-communicable diseases, many other factors predispose a person to non-communicable diseases, which are none other than an unhealthy lifestyle, such as smoking, poor eating habits, minimal physical activity, and consumption of beverages. alcoholic.
Dead cause	Arrogant	The arrogant nature of people who always feel they are healthy and are reluctant to have health checks can cause the disease to worsen and cause death.
Causes of disease	Old beggar	The old beggar is symbolized as someone who can give illness (curse) to others when someone does not do something good which in this case is to prevent illness.
	Self arrogance	The arrogant nature of people who always feel they are healthy can be the cause of disease, where people are reluctant to carry out health checks if there are no serious complaints experienced. In fact, by conducting routine health checks, apart from being able to detect health problems early, it can also prevent disease complications.
Healer	Hereditary medicine	In addition to medical treatment as an effort to get treatment and healing, the treatment process can be carried out with traditional medicine that is carried out from generation to generation. Medical treatment and traditional medicine are considered as all effort that could conducted to increase degrees of health Public so that the presence of traditional healers and doctors can go hand in hand in society regardless of which one party is superior to the other.
	3 drops of blood	If a person has a non-communicable disease, it not only causes illness, physical disability, to death but also often results in financial burdens for the family. The sacrifice that the family makes in this regard is something very extraordinary.
Struggle	Long journey to get medicine	The healing process takes a long time because the process leads to Healing. Trying to recover quickly is a form of struggle to achieve that healing.
	You have to swim to the middle of the river to get bangkawali flowers	The healing process takes a long time because the process leads to Healing. Trying to recover quickly is a form of struggle to achieve that healing.
Good trait	Love each other	If there are relatives who are suffering from non-communicable diseases, we should be able to love each other by providing moral support in the form of enthusiasm and attention as well as sending food so that the sufferer can recover quickly.
Bad trait	Arrogance	Arrogance is a bad trait that exists in people who always feel they are healthy. This trait makes people feel that they are fine and reluctant to get a health check-up.
Where to find medicine	coral cave	Non-communicable diseases are chronic diseases with a long duration with a generally slow healing process or clinical condition control. However, a person with a non-communicable disease can be able to obtain a better health condition, by consistently carrying out a better lifestyle and routinely carrying out health checks, the control and healing

process is not impossible.

Of the 21 titles of fairy tales and legends, 85 symbols were identified. From the analysis of the meaning of each symbol, 16 symbols were found that have the potential to be used as promotions for the prevention of non-communicable

diseases of diabetes mellitus and hypertension with 15 different symbol categories. Of the 15 symbols, the symbol of pride is the one that appears the most, which is 3 times. In addition, each symbol only appears 1 time.

Table 2. List of Regional Origins that Have Potential Symbols That Can be Used for Promotion of Non-Communicable Disease Prevention Efforts Diabetes Mellitus and Hypertension

Fairy Tale Origin	Fairy Tale Title	Symbol category	Found Symbol
Jambi	The origin of the name of the village of Kemingking	Causes of disease	old beggar
			Self arrogance
Central Java	Coral Bolong	Where to find medicine	coral cave
			Disease
	The Legend of the Origin of Mosquitoes	Dead cause	Proud
			Healer
Swamp Dizziness	Disease	Wounds that cause odor	
		Healthy food	
East Java	Jaka Budug and Putri Kemuning	Disease prevention	Checking food
East Kalimantan	Mr. Century of Traditional Medicine	Healer	Hereditary medicine
Nanggroe Aceh Darussalam	Banta Seudang	Struggle	Long journey to get medicine
			You have to swim to the middle of the river to get bangkawali flowers
South Sulawesi	Lamadukelleng	Disease	Arrogance
			Teluh disease, trance, wounds
(Fable)	Squirrels love each other with hard fish	Good trait	Love each other

Table 2 shows that 7 provinces have potential symbols that can be used as an effort to promote the prevention of non-communicable diseases diabetes mellitus and hypertension. The symbol of arrogance is the symbol that most often appears 3 times, but all three come from different regions and categories. The symbol of arrogance in the disease-causing category comes from Jambi province, pride in the death-causing category comes from Central Java province, and pride in the bad character category comes from the province of Nanggroe Aceh Darussalam. These sixteen potential symbols are scattered in the western part of Indonesia and eastern Indonesia with 4 symbols. Meanwhile, potential symbols originating from the eastern part of Indonesia are only found in the province of South Sulawesi.

Previously, there had never been other research that examined the application of symbols from traditional Indonesian fairy tales that were applied

to deliver health messages, especially to promote the prevention of non-communicable diseases diabetes mellitus, and hypertension. When in fact these symbols are very capable and potential to develop into a way to deliver health messages to the public. Because symbols are part of reality that functions as communication and becomes the basis for mutual understanding to be understood. The highest value of a symbol lies in the substance with which the idea is presented. This means that the use of symbols in delivering a health message will be easier to understand and accept with a mutually agreed meaning.

Several studies analyze the symbols found in many fairy tales such as in the story "Datoe Lancang-Putri Kayan", where there is a crow symbol which is interpreted as a sign that there is a war going on, a knight's clothing symbol which indicates that someone who wears it is a warrior who is ready to fight, a chopstick symbol which is interpreted as a typical

Dayak tribe weapon (Hakim, 2019). In addition, in Dayak Kanayatn folklore in the Bajare dialect, the symbols found are grouped into 3 categories, namely symbols that reflect human relationships with God (Jubata), human relationships with humans, and human relationships with nature (Sinto *et al.*, 2019). Whereas in Muna Folklore, the symbol found is the diamond symbol which is symbolized as a provision for life (Kasriani, 2016). Other stories such as Sampuren Sindates contain the symbol *sige grahgah* (giant crab) whose appearance is marked by the change from the dry season to the rainy season (Sinamo, 2021).

From the research above, it can be seen that there are many symbols found in traditional Indonesian fairy tales. However, no one has studied symbols that have the potential to be used to increase the effectiveness of delivering health messages to promote the prevention of non-communicable diseases of diabetes mellitus and hypertension, so this study will focus on things that have not been studied. Apart from being able to serve as a national health message, potential symbols can also be applied to increase the effectiveness of health messages in promoting the prevention of diabetes mellitus and hypertension non-communicable diseases found in this study, and can be flexibly used to create health messages in each region. The use of symbols in fairy tales in health promotion can also be an effective tool used to improve community literacy skills narrated through social and cultural values in fairy tales (Rahman, 2022).

This study produces potential symbols that have close ties to community culture that can be used by local governments and related parties to be applied to increase the effectiveness of health messages in each potential symbol origin area. The application of symbols as an effort to increase the effectiveness of health messages in health promotion media can be disseminated directly to the public through health facilities and other public facilities/places. These potential symbols can be used as a basis for designing strong health messages including awareness to regulate diet, pay attention to nutritional intake consumed,

However, this study still has a weakness, namely that it cannot be directly applied in the field as a health

message carrier, so further studies are needed to see the effectiveness of delivering health messages using symbols in traditional Indonesian fairy tales. This study is needed to test whether there are changes in knowledge, attitudes, and potential changes in people's behavior towards health messages received before and after observing the media with health messages made using symbols in traditional Indonesian fairy tales.

CONCLUSION

Based on the above discussion, it can be concluded that there are many symbols from traditional Indonesian fairy tales that have the potential so that they can be used to increase the effectiveness of delivering health messages as an effort to promote the prevention of non-communicable diseases diabetes mellitus, and hypertension. Of the 21 relevant titles of traditional Indonesian fairy tales and legends, 85 symbols were identified. The analysis of the meaning of each symbol found 15 symbols that have the potential to be used as a promotion for the prevention of non-communicable diseases diabetes mellitus and hypertension with 10 different symbol categories spread across 7 provinces in Indonesia. These symbols can be made into health messages nationally and can be flexibly used to create health messages in each region.

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