

DEVELOPING HEALTH RESILIENCE IN COMMUNITY DURING THE COVID-19 PANDEMIC

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ABSTRACT

The Covid-19 pandemic has been going on for 2 years without showing definite signs when this pandemic will end. WHO has declared the world to face the worst possible countries and prepare for a new life order as a "new normal." This new order of life requires people to live with the Covid-19 pandemic. The concept of a new life or new normal is actually a new concept. Long before the Covid-19 Pandemic this concept was related to health resilience. The concept of health resilience has a broader meaning, not only humans who have to adapt to new habits, but also the concept of

health resilience that makes humans capable and have the capacity to survive the Covid-19 Pandemic, the ability and even recover from adversity due to the Covid-19 Pandemic, adapting new habits (new normal) to negative events, serious threats, and dangers from the Covid-19 Pandemic, all of which are aimed at strengthening human health. WHO in the framework of the SDGs 2030 has reminded the importance of creating a resilient community so that human health becomes better and stronger. Based on the literature review, this article aims to explain the conceptual framework for developing

health resilience in communities during the Covid-19 pandemic.

Keyword : Covid-19, Health Resilience, Community Health Resilience, Developing Health Resilience, Policy Implication

A. INTRODUCTION

The Covid-19 pandemic has lasted for 2 years since January 2020 was first designated by the World Health Organization (WHO) as an outbreak of a new corona virus disease called Covid-19, and was declared a public health emergency with a high risk of spreading Covid-19 to other countries around the world. The Covid-19 pandemic is likely to continue to circulate for a long time without showing definite signs of when this pandemic will end. Therefore, WHO advises the global community to prepare for the worst and prepare for the transition to a new normal (WHO, 2020).

Related transition to a new normal, there are six conditions put forward by WHO before a country is said to be able or eligible to enter the new normal, namely; 1) there is evidence that the transmission of Covid-19 has been controlled, 2) the capacity of the public health system including hospitals is adequate to identify, isolate, test, trace contacts and quarantine the infected, 3) prevent the risk of imported cases from reoccurring, 4) minimize the risk Covid-19 for vulnerable groups, 5) taking precautions in the workplace that must be strictly defined, including maintaining physical distance, having hand washing facilities, and having good air circulation, 6) understanding the risks of an adequate community towards the transition to a new normal. After fulfilling these six main requirements, only then can a country move towards a new normal (<https://laporCOVID19.org/>).

Indonesia is not left behind in discussing the concept of a new normal in handling the Covid-19 pandemic. This discourse continues to be rolled out, especially after President Joko Widodo invites the public to make peace with this virus. In fact, the Indonesian government is preparing to implement a new order of life or a new normal. The question is, has Indonesia really met the requirements set by WHO before entering this new normal? Epidemiologist from Padjadjaran University, Bandung, dr. Panji Hadisoemarto MPH, who is also a collaborator of LaporCOVID19.org, warned the Indonesian government to first meet the requirements set by WHO before heading to a new normal, so that the new normal does not become a new abnormality, or even become a new disaster (<https://laporCOVID19.org/>).

Apart from Indonesia's readiness towards a new normal, it is interesting to note that talking about the concept of "new normal" in dealing with the Covid-19 pandemic is not new to WHO. WHO has known this concept for a long time before the Covid-19 pandemic hit the world. The concept of "new normal" actually has similarities or can be said to be one of the characteristics of the concept of health resilience which has been echoed for a long time by WHO. When compared with the meaning of the concept of "new normal", the concept of health resilience has a broader meaning. Not only adapting to new habits (new normal), but the concept of health resilience is the ability and capacity of individuals and communities to use physical, mental, behavioral and social health assets to be able to survive negative events or serious threats and dangers, have the ability to and the capacity to recover from adversity of negative events, and be able to adapt to new habits to negative events or serious threats and dangers all of which contribute to strengthening human health for the better and stronger. WHO (2017) has reminded within the framework of the WHO European Region policy for health and well-being in 2020, and the 2030 Sustainable Development Goals (SDGs) of the importance of creating resilient communities that support better and stronger human health. Yet these priorities turn out to be the least understood or the most underestimated. So, creating a resilient community in the health sector is an important and urgent need to be able to answer the challenges during the Covid-19 pandemic which has not shown any signs of when this pandemic will end. Therefore, the next question is how to develop health resilience in the community during the Covid-19 pandemic?

B. METHODS

The purpose of this article is to conceptually explain the framework on how to build health resilience in the community during the Covid-19 pandemic. The method used is based on the literature review. The literature search engine uses “Google Scholar”, “Scinapse”, and “Pubmed”. The year of publication of articles is limited from 2011-2021. Literature search strategy using the keywords "health resilience", and "Pandemic Covid-19". From this search, we found 1 scientific article that specifically discusses the concept of health resilience, 3 articles talking about community health resilience, and we also found 5 articles explaining the health resilience system. Our next strategy is to broaden our search by using the keywords “health” and “resilience”. The search results found 2 articles related to the concept of "health" and the concept of "resilience". Because the articles we found were still very limited regarding the conceptual framework for building health resilience, we developed a search for articles with

the keywords "community resilience framework". As a result, we found 135 articles related to “community resilience frameworks”. However, we did not take all the articles. We selected 10 articles that discuss frameworks for building or developing resilience in communities related to health. We also found 4 “covid-19 pandemic” articles related to the concept of “resilience”. So the total number of articles reviewed is 25 articles. The results of the literature review of the 25 articles are presented below.

C. RESILIENCE, HEALTH RESILIENCE, HEALTH SYSTEM RESILIENCE

The term “resilience” was first used in the 1950s in an article reported in Scopus (Tim RH Davis, Alistair J. Davies, 2018). Meanwhile, according to Anne Tiernan, et al., (2019) the term resilience was introduced conceptually by Holling (1973) who defined resilience as "a measure of the ability of an ecological system to absorb changes in state variables, driving variables, and persist."

Furthermore, Anne Tiernan, et. al., (2019) conceptualizes resilience as a characteristic of the system if it covers the whole, where resilience has the ability to:

- a) Remain stable in the face of external disturbances and pressures.
- b) Recover after major disturbance (recover).
- c) Adapt to new circumstances (adapt new normal).

Sonny S. Patel, et al., (2017) generally distinguish 3 types of definitions of resilience, namely; a) the definition of resilience is referred to as a process, namely; continuous process of change and adaptation; b) the definition of resilience states the absence or non-occurrence of adverse effects, namely; ability to maintain stable function; c) definition of resilience as a range of attributes, for example; response related skills

Heng Cai, et al., (2018) in a study based on a systematic review found 10 words that are often used to define resilience across disciplines (including health) and types of disasters (including pandemics), namely; ability, capacity, system(s), disaster, recover, social, absorb, change, vulnerability, and adapt. Of the 10 words, Heng Cai, et al., (2018) put more emphasis on the words "ability", "capacity", and "system" as the most important elements in the measurement and analysis of resilience.

Recent developments, the concept of resilience has experienced rapid progress. At this time, the concept of resilience has various phenomena which have been studied and applied in various disciplines, not only in socio-ecological systems, but also in social sciences, economics, psychology, health. In the health disciplines there is a concept called health

resilience. However, in the literature search, very few terms, definitions, and concepts that state health resilience are revealed. One of the experts who defines resilience from a health point of view is Wulff Katharine, et al., (2015). He stated that to develop human resilience its centrality to health so that it should be to build human resilience, health must be the main or first of any applicable models. Through an article entitled “What Is Health Resilience and How Can We Build It?” Wulff Katharine, et al., (2015) introduced the concept of health resilience. This concept was born from the criticism of Wulff Katharine, et al., (2015) against the traditional view of building community resilience that focuses on the infrastructure and environmental sectors. According to Wulff Katharine, et al., (2015) although the ultimate goal is to protect human life, what is produced by the intervention focus on the infrastructure sector does not serve humans in a resilience framework. Whereas resilience is central to human health. In developing the concept of health resilience, Wulff Katharine, et al., (2015) adopted the definition of health from WHO, namely; state of physical, mental and social well-being. From this definition, Wulff Katharine, et al., (2015) defines health resilience as the ability to maintain physical, mental, and social well-being both individually and in the community.

Meanwhile, in the literature search, the concept of health resilience is different from the concept of health system resilience. In the concept of health resilience, the central point of which is humans, this concept emphasizes how to develop human health to get better from day to day, despite disturbances, shocks, dangers, or disasters. While the concept of health system resilience focuses on the organization, actors, management in the health system. The concept of health system resilience consists of two main concepts (Margaret E. Kruk, et. al., 2017, Karl Blanchet, et. al., 2017, C. Pailliard Turenne, et. al., 2019, Fridell M, et. al., 2020, Louise Biddle, et. al., 2020), namely: 1) organizational capacity, actors, management, and 2) level of resilience. The two main concepts are further detailed as follows:

1) Organizational capacity, actors, management

Organizational capacity, actor, management has 4 main elements, namely;

- a) Knowledge to collect, analyze, and integrate knowledge of various different and uncertain forms.
- b) Ability to cope with and anticipate conditions of uncertainty and uncertainty.
- c) Legitimacy of capacity to manage, deal with, and engage effectively with multisectoral and cross-sectoral interdependence dynamics.
- d) Capacity to build or develop socially acceptable institutions.

2) Level of Resilience

Meanwhile, the level of resilience is divided into 3 levels of resilience, namely:

- a) Absorption is the capacity of the health system to continue to provide basic health services and protection to the population despite surprises by using the same level of resources and capacity both in quantity and quality with the principle of equality.
- b) Adaptive capacity; capacity of health system actors to adapt to provide the same level of health care with existing resources.
- c) Transformative capacity; the ability of health system actors to continue to transform in response to a constantly changing environment such as changes in the function and structure of the health system

Based on the exposure of the experts above, it can be said that the concept of resilience has various phenomena depending on the point of view of which disciplines explain the concept of resilience. In addition, the concept of resilience emphasizes more on a sustainable process, and has 5 main characteristics, namely; 1) the ability and capacity to survive, 2) the ability and capacity to recover, 3) the ability and capacity to adapt to new habits (adapt new normal), 4) the presence of threats, dangers, serious disturbances, disasters and 5) Resilience is seen as a system. So from the point of view of the health sector, it can be concluded that health resilience is that both individuals and communities have the ability and capacity to survive, the ability and capacity to recover, the ability and capacity to adapt new habits (new normal) to negative events, serious threats and dangers so as to strengthen physical health, behavioral health, and social well-being.

However, the next question is whether resilience or health resilience is beneficial for humans? In detail, Meetu Khosla (2017) and Miijin Kim, et al., (2019) suggest the benefits of resilience to health are as follows:

- a) Resilience provides emotional benefits in the form of greater positive emotions. These positive emotions provide resistance to symptoms of stress and depression.
- b) Resilience provides cognitive benefits in the form of using strategies and problem solving skills effectively to cope with, and re-evaluate the meaning of stress or stressors that can affect mental health.
- c) Resilience is related to the belief to see life from a positive perspective, which is more meaningful to help reduce the tendency to suffer from stress disorders and depression.

- d) Resilience motivates a person to live and struggle in a faster recovery from the effects of psychological trauma
- e) Resilience helps protect against the negative effects and side effects of mental health in the form of disorders of physical health conditions such as heart disease. Where there is a correlation that higher levels of resilience are associated with lower levels of stress and depression symptoms that affect aspects of physical health.
- f) Resilience is the main factor in improving health related to quality of life.

So, the benefits of resilience greatly contribute to human health, both for physical health, mental health, and human well-being. Therefore, it is important and urgent to act or efforts to develop health resilience in the community.

D. INDIVIDUAL RESILIENCE, COMMUNITY RESILIENCE, COMMUNITY HEALTH RESILIENCE

A.M. Aslam Saja, et al., (2019) in their systematic review distinguishes the concept of resilience based on the unit of analysis into; a) resilience at the individual level, and b) resilience at the community level. David M. Abramsom, et al., (2014) wisely summarizes the differences in individual resilience, community resilience and community health resilience into a similarity between the three concepts, where the interaction between community resilience attributes and individual resilience attributes can be seen as the ability of the community to connect individuals with social resources as the capacity to be resilient. Furthermore, David M. Abramsom, et al., (2014) stated that resilience itself can be scaled either at the individual, household, community, institutional or nation-state level. This means that resilience can be measured at all levels (individual, community, country). However, not only can resilience be measured, but resilience can also be modified, meaning that changes can be made to achieve a stronger process. In other words, it is a necessity to increase resilience.

In detail, experts define both individual and community resilience, which can be explained as follows.

a. Individual Resilience

Melinda J. Morton, and Nicole Lurie (2013) define individual resilience as physically and psychologically healthy, where good physical and psychological health before a disaster will support greater resilience in a disaster situation or event.

b. Community Resilience

Alonso Plough, et al. Al. (2013) define community resilience as the ongoing ability of a community to survive and recover from adversity whether caused by economic stress, pandemics, man-made disasters or natural disasters.

c. Health Resilience Community

NPRSB (2014), and NBSB (2016) introduced a concept called Community Health Resilience (CHR). NPRSB (2014) states that community health resilience is the ability of a community to use its assets to strengthen the public health system and health care system and to improve the physical, behavioral and social health of the community so that they are able to survive, adapt and recover from adversity. Added by NBSB (2016), health resilience refers to the integration of physical health, behavioral health, and well-being of both individuals and communities within a holistic framework.

E. DEVELOPING HEALTH RESILIENCE

In developing health resilience, the concept used is adapted from opinions (Anita Chandra, et al. 2011, NPRSB, 2014, NBSB, 2016), where the characteristics for developing health resilience (show at table E.1).

The focus in developing health resilience is on humans, especially those referred to as vulnerable populations. Talking about vulnerable populations Studies have confirmed the determinants that affect resilience both at the individual and community level that have an effect on physical health, behavioral health, and wellbeing. The determinants are as follows:

1. Vulnerability

Exposure to danger due to the Covid-19 pandemic causes the loss of physical, psychological, social, and economic resources. In the concept of resilience, individuals and communities are addressed to the needs of at-risk populations which are referred to as vulnerable populations. In dealing with these vulnerabilities, it can be done through the development of resilience both before and after the occurrence of serious disturbances, emergencies or disasters which will reduce long-term problems. In Indonesia, the findings from the Nanyang Social Resilience Lab Study on the value of the risk perception variable for Covid-19 for residents of DKI Jakarta are very low. This indicates the strong tendency of DKI Jakarta residents to underestimate the Covid-19 outbreak. Most of the respondents believed that their chances of contracting Covid-19 were very small. From the point of view of the vulnerability of this meeting, it will certainly

exacerbate the vulnerability of the population from the Covid-19 pandemic in Indonesia (Social Resilience Lab Nanyang Technological University, 2020).

Table E.1 Characteristic for Developing Health Resilience

	NBSB, 2016	NPRSB, 2014	Anita Chandra, et al. 2011
Focus	Human (vulnerable population)	Human (vulnerable population)	Human (vulnerable population)
Purpose	Health Physical, Behavioral, Wellbeing includes emotional, social, spiritual	Physical, Behavioral, social, environmental health	Physical Health, Psychological health Social Economic wellbeing
Function	Withstand, Recover, adaptation from disaster, emergency	Withstand, Recover, adaptation from disaster, emergency	Withstand, Recover, adaptation from disaster, emergency
Component	Social Connectedness, Communication Risk Strengthened daily health Whole community network	Social Connected Access daily health Collective and Collaboration action Communication	Integration and Involvement of Organization Social Connectedness Effective risk Communication
Tools	Access, Promote, Education, Intervention	Access, Promote, Education	Access, Promote, Education

2. Knowledge and skill

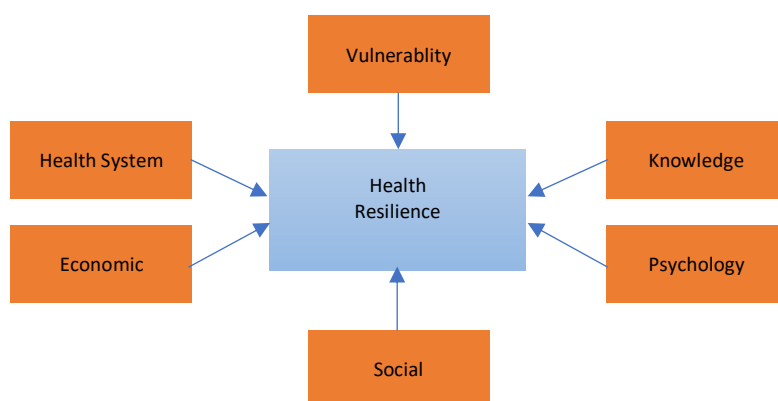
Knowledge and skills help for reasoning and problem solving so as to increase and promote positive emotions and attitudes such as self-esteem, self-efficacy, optimism that facilitates healthy behavior, coping with adverse psychological reactions to mental health which are all related with individual and community resilience. Research conducted by the Nanyang Social Resilience Lab in two major cities in Indonesia (Surabaya, DKI Jakarta) recommends that the level of knowledge and information regarding the Covid-19 pandemic condition still needs to be improved by utilizing information sources that are trusted by the public (Social Resilience Lab Nanyang Technological University, 2020).

3. Psychological Determinant

Psychological determinants such as; Coping skills, emotional regulation, self-efficacy, and optimism help activate resilience. However, psychological determinants that can be a risk factor in humans are mental health (anxiety, depression, stress). Studies have confirmed an increase in mental health symptoms (anxiety, depression, stress) during the Covid-19 pandemic (Janet Diaz-Martines, et. al., 2021).

4. Social Determinant

In the context of the social environment, social resources such as; social support, social cohesion, strong social networks activate resilience attributes so that they can maintain stable physical health, mental health, social wellbeing during the Covid-19 Pandemic (Hurriyet Babacan, and Narayan Gopalkrishnan, 2021).



Picture E.1. Determinant of Health Resilience

5. Economic Determinant

Economic determinants due to disasters have direct and indirect impacts that can disrupt the resilience of both individuals and communities. As a result of the Covid-19 pandemic, the ILO estimates that nearly half of the global workforce is at risk of losing their livelihoods through reduced working hours, job losses and loss of employers. Meanwhile, the World Bank says that 71 million people will experience extreme poverty in 2020 eliminating the progress that has been made since 2017 (Hurriyet Babacan, and Narayan Gopal krishnan, 2021).

6. Health System

As a form of community resilience development, a healthy population is needed so that communities can thrive, survive and recover from emergencies and disasters. A healthy population is influenced by the health system in the form of; health care services, the availability of health facilities and infrastructure, and the quality of care services, all of which contribute to increasing individual and community resilience. During the Covid-19 Pandemic, WHO stated that around half of the world's population did not have access to basic health care, there was an estimated shortage of 18 million health workers worldwide (Hurriyet Babacan, and Narayan Gopal krishnan, 2021).

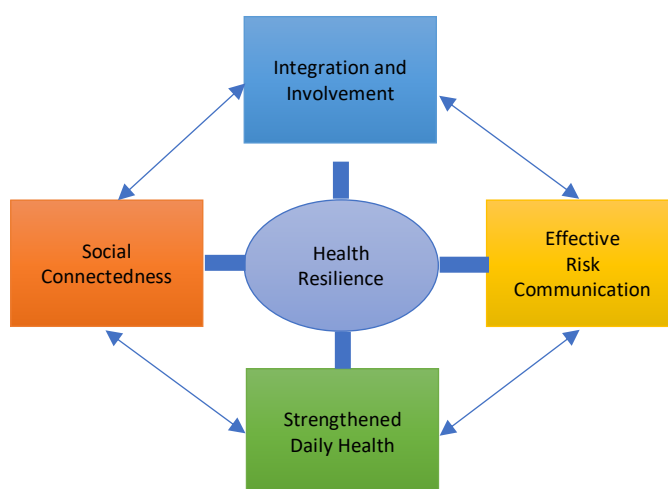
The main goal of health resilience is to develop physical, behavioral, and well-being (social and economic wellbeing) in daily life. With this, humans can function to be able to withstand, recover, adapt from emergency, and disaster. To achieve these goals and functions, there are 4 components of working principles or processes in building health resilience which are described in detail as follows:

1. Social Connectedness

The main principle in building health resilience is to build social connectedness (social capital). Social connectedness is critical to the ability of individuals and communities to survive, recover and adapt from emergencies and disasters. The essence of building social connectedness (social capital) is the strong social bonds of the community. In social connectedness, humans are more empowered, where individuals in society are actively involved in helping each other's lives both under normal circumstances, and in the event of an emergency, disaster.

2. Integration and Involvement

In addition to strong interpersonal ties, bridging social cohesion by developing network capacity through integration and engagement are fundamental elements of community resilience. Therefore, integration builds partnerships, and involvement of entire networks that include at-risk individuals, community organizations, businesses, academics, government organizations contribute to increasing community resilience.



Picture E.2 Component for Developing Health Resilience

3. Effective Risk Communication

Effective risk communication is essential for resilience. Because it provides accurate information about hazards and mitigation behavior options to ensure that individuals and communities are aware of health security risks, know how to prepare for, know how to respond to, and recover from threats, disturbances, hazards as a result of emergencies, or disasters. In addition, what must be considered in effective risk communication is how to choose the message, the right media to convey the message, and an effective delivery strategy to be successful in disseminating risk information throughout all stages of an emergency, disaster.

4. Strengthened Daily Health

Developing health resilience is a strengthening action in improving human health that is carried out every day, where this action is connected to the health system. The importance of health strengthening actions in humans is based on the fact that a healthy population is needed by society to be able to thrive in normal situations, survive, recover, and adapt better from emergencies, disasters. To that end, ensuring that people have access to a high-quality health system contributes to increasing individual and community health resilience.

Furthermore, to assist the work process in building health resilience, and in order to achieve the goal of health resilience itself, it requires strengthening tools for health resilience. The strengthening tools are as follows:

1. Access to the Health System.

Efforts to strengthen and improve the health system greatly contribute to health resilience. Therefore, it is an urgency and priority so that humans have access to the greatest affordability of health care services, the availability of health facilities and infrastructure, and the quality of health care services.

2. Promotion

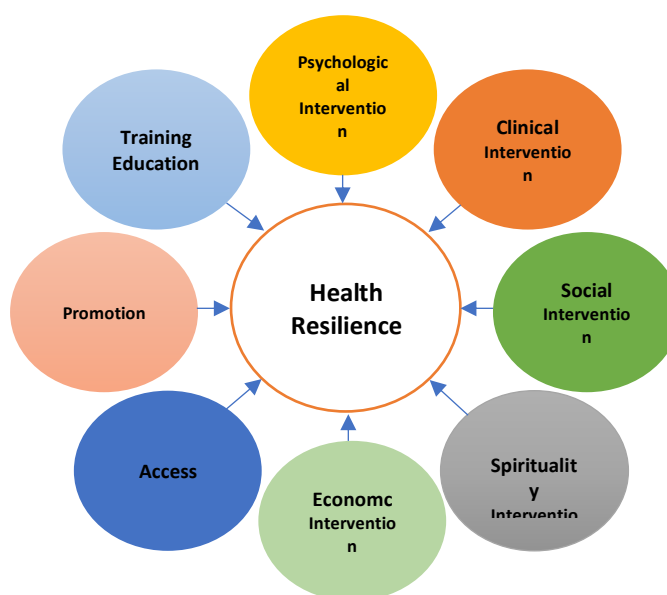
Promotion of physical health, behavioral health, and wellbeing in daily life. Become one of the tools in building health resilience. During the Covid-19 pandemic, promotional efforts can be carried out every day through mass channels such as; posters, mass media, public service places, schools and colleges.

3. Training and Education

Public health education and training is an important lever for resilience. The provision of education and training to the community on an ongoing basis aims to provide individuals and communities with knowledge and skills about health risks, how to prepare, how to respond, and recover when an emergency or disaster occurs.

4. Psychological Intervention

During the Covid-19 pandemic, mental health problems have increased in the form of anxiety, stress, and trauma. As is well known psychological factors are the building blocks of developing health resilience. Therefore, to overcome this psychological intervention is the solution. Psychological interventions that have proven successful in dealing with mental health, and other psychological disorders are Psychological First Aid, Psycho-education, Crisis Counseling.



Picture E.3 Tools Strengthened of Health Resilience

5. Clinical Intervention

Interventions in the form of providing medicines, vaccinations and improving the professional skills of health workers in dealing with the Covid-19 pandemic also contribute to community resilience.

6. Social Intervention

Large-Scale Social Restrictions (PSPB) or the Enforcement of Restrictions (PPKM) for Community Activities is one of the social interventions carried out in the context of preventing the susceptibility to transmission of Covid-19 in the community.

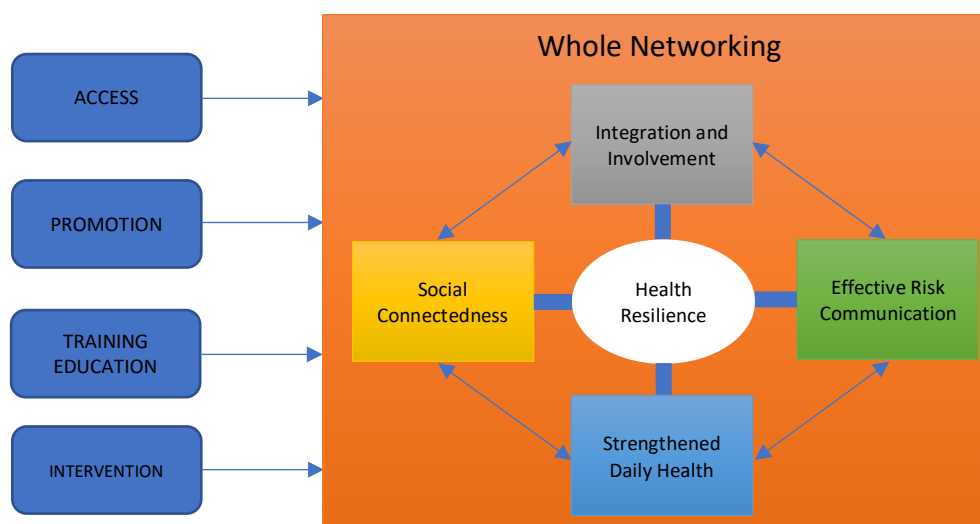
7. Spiritual Intervention

Diverse religious practices such as; prayers, as well as support from religious leaders in the form of spiritual showers contribute to building community resilience.

8. Economic Intervention

Community empowerment interventions in the economic field are very much needed. Economic empowerment programs such as; such as social safety nets intended for communities affected by the Covid-19 pandemic. The program helps empower the community's economy to contribute to community resilience in the face of this Covid-19 pandemic.

Summarizing the above explanation, the conceptual framework for developing health resilience is based on aspects of resilience for both individuals and communities which include physical health, behavioral health, and social and economic wellbeing in a holistic framework as a process of social connectedness, integration. and involvement of the entire network (at risk individuals, communities, government, business, academia), effective risk communication to strengthen day-to-day health through efforts; maximum access to the health system, health promotion, continuing training and education to the community, as well as interventions that support the development of health resilience.



Picture E.3 Conceptual Framework for Developing Health Resilience

F. CONCLUSION

The central point of the concept of health resilience is to develop comprehensive human health including physical health, behavioral health, and well-being (social and economic wellbeing). Although internally health resilience focuses on humans related to their health, external factors greatly influence the development of health resilience, such as; social environment, health system, and economic factors. Therefore, the conceptual framework for building health resilience is multidimensional, multi-factorial, holistic, and whole networking.

At the implementation level, how to develop health resilience during the Covid-19 pandemic is a holistic and comprehensive policy urgency from the government, both at the central level and at the lowest level, such as the RT/RW in developing health resilience through the role of participation, collaboration, partnership with Individuals, communities, businesses, academics and government are vital factors so that physical health, behavioral health, and wellbeing can be achieved.

CONFLICT OF INTEREST

The authors declare no conflict of interest

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