



# “Sincere Despite Being Disabled:” A Phenomenological Study on Victims of Natural Disasters in Palu and Sigi in Achieving Resilience

Matilda Martha Paseno<sup>1</sup>, Wirmando Wirmando<sup>1\*</sup> , Fandro Armando Tasijawa<sup>2</sup> , Asrijal Bakri<sup>1</sup>

<sup>1</sup>Stella Maris School of Health Sciences of Higher Education, Makassar, Indonesia; <sup>2</sup>Faculty of Health, Universitas Kristen Indonesia Maluku, Indonesia

## Abstract

**Edited by:** Branislav Filipović  
**Citation:** Paseno MM, Wirmando W, Tasijawa FA, Bakri A. “Sincere Despite Being Disabled:” A Phenomenological Study on Victims of Natural Disasters in Palu and Sigi in Achieving Resilience. Open-Access Maced J Med Sci. 2022 Mar 21; 10(G):375-381.  
<https://doi.org/10.3889/oamjms.2022.8803>  
**Keywords:** Disabled; Natural disasters; Resilience; Phenomenology study  
**\*Correspondence:** Wirmando Wirmando, Jl. Maipa No. 19, Kec. Ujung Pandang, Kel. Losari, Kota Makassar, Prov. Sulawesi Selatan, Indonesia.  
E-mail: [wirmando29@gmail.com](mailto:wirmando29@gmail.com)  
**Received:** 29-Jan-2022  
**Revised:** 01-Mar-2022  
**Accepted:** 11-Mar-2022  
**Copyright:** © 2022 Matilda Martha Paseno, Wirmando Wirmando, Fandro Armando Tasijawa, Asrijal Bakri  
**Funding:** This study was supported by the Ministry of Education, Culture, Research, and Technology Republic of Indonesia  
**Competing Interest:** The authors have declared that no competing interest exists  
**Open Access:** This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0)

**BACKGROUND:** A case of being disabled from birth is a very different thing compared to being disabled as an adult and it is not easy for them to live a new life and adapt to limited conditions. They need many adaptations such as psychological self-acceptance, adaptation to the use of assistive devices, social adaptation, and economic adaptation. A person can adapt well if he has high resilience in himself.

**AIM:** The objective of the study was to explore the experiences of victims of natural disasters in Palu and Sigi who experienced physical disabilities in achieving resilience.

**METHODS:** This study is qualitative research with a phenomenological approach. Data were collected through in-depth interviews using semi-structured interview guidelines. The total number of participants in this study was eight participants who were victims of natural disasters in Palu and Sigi and experienced physical disabilities and had achieved resilience based on the resilience scale.

**RESULTS:** The study found four main themes that explain why participants can achieve resilience, namely, sincerely accept reality, have a high fighting spirit, family and community become the support system, and make limitations as strengths.

**CONCLUSION:** Having increasing resilience is an important element in life because it can provide experience for a person who is facing a challenge or difficulty in life. Therefore, it is important for each individual to increase the resilience so that they can help individuals to adapt, survive overcome problems in difficult conditions, and bounce back from adversity.

## Introduction

Natural disasters are still a global problem and concern. One of the countries most affected by natural disasters is Indonesia. From 1983 to 2021, there have been 37 major disasters in Indonesia and the three biggest ones are the Aceh disaster in 2004 which resulted in 37,000 deaths, the Yogyakarta disaster in 2006 which resulted in 6234 deaths, and the last disaster in Palu and Sigi which occurred on September 28, 2018, which involved three natural disasters at once and occurred at the same time, namely, earthquake, tsunami, and liquefaction.

An earthquake with a magnitude of 7.4 SR occurred throughout the city of Palu, Sigi Regency, and the surrounding area. The tsunami occurred on the coast of Tondo Village, East Palu, and Palu City with a height of 11.2 m. Meanwhile, liquefaction occurred in Sigi Regency (Jono Oge Village, Pombewe Village, Sibalaya Village, and Rogo Village), Donggala Regency, and Palu City (Petobo Village and South Palu). The total area subject to liquefaction is approximately 430.82 hectares [1].

Natural disasters in the cities of Palu and Sigi have had a huge impact and loss. There were 2830 people who died, 114 people were declared missing, 1016 were mass buried, 2549 people were seriously injured, and 113 of them were disabled. This disability is a physical disability caused by 15% due to spinal cord injury, 12% due to amputation, and 73% due to fractures. The victims with disabilities are now living as persons with disabilities [1].

Persons with disabilities are people with certain limitations [2]. There are several classifications of types of persons with disabilities including physical disabilities, deafness, speech disabilities, and mental disabilities, but in this study, the limitations taken only discussed physical disabilities. Physical disabilities are generally normal people who only experience movement/mobility barriers caused by amputations, fractures of bones, joints, muscles, arms, legs, paraplegia, spinal trauma, and other physical trauma. Physical disabilities are usually experienced by a person after becoming an adult. A case of birth defect is a very different matter compared to a disability as an adult and it is not easy for them to live a new life and adapt to limited conditions [3]. They will need many adaptations such

as psychological self-acceptance, adaptation to the use of assistive devices, social adaptation, and other adaptations [4], [5].

Resilience is the ability to adapt, survive and overcome problems in difficult conditions, and bounce back from crises [6]. A person is said to have resilience if he is able to adapt successfully and achieve balance in life, for example, he is still able to carry out his roles and functions well even in difficult times [7]. Having increasing resilience is an important element in life because it can provide experience for a person who is facing a challenge or difficulty in life [8]. With resilience, a person can develop life skills such as how to communicate, a realistic ability to make new life plans, and be able to take the right steps for his life. They will find ways to turn stressful and difficult life circumstances into an opportunity for personal development [9], [10].

Based on primary data from the Palu City Social Service, it was found that there were around 40% of the victims of the Palu and Sigi disasters which had disabilities and had not yet achieved resilience. However, there are 60% of victims of the Palu disaster which have disabilities but have achieved resilience. This is based on the ability to be independent, return to playing their role (work or go to school), and be able to take advantage of public facilities. Meanwhile, based on a literature review, it was found that not all disaster victims developed symptoms of depression or other psychological problems. Some of them will adjust to achieve good quality and balance of life [11].

Individual resilience abilities are influenced by strong self-efficacy, social support, and mood and can vary dynamically between individuals [12]. In addition, individual resilience depends on age, activity, demographics, chronic conditions, and culture [13]. This shows that resilience can vary according to the type of difficulty and cultural context. Several studies have been conducted previously on individual resilience in disaster victims [11], [13], [14]. However, all of these studies only focused on victims who experienced spinal cord injury and were conducted in developed countries with different cultures from Indonesia. Therefore, this study aims to explore the experiences of disaster victims in Palu and Sigi who experienced physical disabilities in achieving resilience.

## Methods

This study employed a phenomenological approach in accordance with Cresswell's theory, namely, a research design that comes from philosophy and psychology where researchers describe individual experiences of a phenomenon based on stories from participants and look for the essence of the experiences told by participants [15]. In this study, the researcher

provided an opportunity for participants to explore their subjective experiences in achieving resilience through in-depth interviews. It aims to find the basic essence of the conscious meaning of participants' experiences, as well as describe, analyze, and interpret data in-depth, complete, and structured. The data generated are the essence of the experience of participants in achieving resilience in the form of stories or narratives so as to form a meaning.

The participant selection technique in this study used snowball sampling, namely, participants were selected in a rolling fashion from one participant to another [16]. Participants in this study were victims of natural disasters in Palu and Sigi who now live as persons with disabilities. Inclusion criteria in this study were victims who experienced physical disability due to spinal cord injury (paraplegia), fracture, or amputation and had achieved resilience. In determining whether the participants had achieved resilience, the researcher used the resilience scale developed by Grail Wagnild and had been adapted to the Indonesian context. This questionnaire has been through expert judgment, validity, and reliability tests. The reason the researcher uses the resilience scale is that this questionnaire consists of two subfactors, namely, the personal competence factor and the acceptance of self and life factor. The items on the personal competence factor measure the components of perseverance and self-reliance, while the items on the acceptance of self and life factor measure the components of meaningfulness, equity, and existential aloneness. Based on the consideration of time effectiveness, filling, and reliability coefficient, the researcher finally decided to use the resilience scale in this study. The questionnaire consists of 32 statements. The total score is 128, if the participant scores >64, then, it is considered to have reached resilience. The number of participants in this study who met the research criteria was eight participants.

Data collection in this study used in-depth interview techniques which were conducted on all participants. Before conducting in-depth interviews, the researcher made a contract and provided an explanation of the research procedure. All participants conducted two in-depth interviews within 40–60 min with each participant. The researcher conducted in-depth interviews based on the semi-structured interview guidelines that had been made by providing open-ended questions to each participant. There are four main questions asked by the researcher but these questions develop during the interview process which depends on the answers and responses of the participants. The questions are (1) questions about the participants' backgrounds and how events occurred when the disaster occurred, (2) questions about the participants' experiences of being a person with disabilities, (3) questions about how participants experience and feel in achieving resilience, and (4) questions about how barriers exist found by participants

in achieving resilience. Researchers used a voice recorder to record all conversations from participants and field notes to document non-verbal responses from participants. All interview recordings were then made into verbatim transcripts and participants were given a copy of the verbatim transcripts including the themes that were raised and given the opportunity to provide suggestions or clarifications.

The data analysis used in this study used the Interpretative Analysis Phenomenology (IPA) technique which was used to determine the meaning of each participant's statement starting with selecting keywords, determining categories, and finding a theme. This is done starting from the first participant to the last participant to form a unified meaning that represents the meaning of the experience of all participants. Data analysis used the IPA technique proposed by Smith and Osborn in 2007 [17], which is one of the data analysis methods for a phenomenological approach that analyzes in detail how participants understand and interpret their experiences and are widely used for data analysis collected through in-depth interviews semi-structure. The analysis started after the first interview and was carried out in collaboration with the research team. The steps of data analysis carried out by researchers based on science techniques are as follows: (1) Reading and re-reading, (2) initial noting, (3) developing emergent themes, (4) searching for connection across emergent themes, (5) moving the next cases, and (6) looking for patterns across cases. The researcher also considers non-verbal expression and intonation in conducting data analysis.

This research has also received recommendations, approvals, and research feasibility from the Regional Planning, Research, and Development Agency of Sigi Regency with letter number 045.2/15/BP3D/2021.

## Results

### Analytical findings

This study found four main themes presented in the form of narrative descriptions along with fragments of expressions from each participant.

#### Theme 1: Sincerely accept the reality

Participants revealed that the physical condition experienced is God's will. Participants can only surrender and sincerely accept their current condition. This theme consists of two categories, namely:

1. Believing that this is God's will  
The participant believed that what happened to him was his destiny and his way of life. They believe that it is all God's will and believe that

God has a beautiful plan for them. This was stated by several participants below:

*"What is happening right now, I believe that God already has a purpose for me, everything happened not by chance but something that God has planned in my life" (P6, 30 years old)*

*"My way of life may be like this from God" (P5, 15 years old)*

*"I believe what is happening to me right now is the way of my life, God has ordained it for me" (P4, 30 years old)*

2. Sincere, despite being disabled  
Participants expressed that they could only surrender to the reality of what happened. They have been sincere in their current condition and have accepted their condition. Through this self-acceptance, they can achieve resilience. It was expressed by several participants that:

*"I'm sincere about what happened, I'm sincere, I accept my condition like this, I think if I feel guilty, maybe I can't get up" (P1, 43 years old)*

*"I can only be sincere, meaning surrender on the basis of surrender to the existing reality" (P2, 55 years old)*

*"It is indeed a difficult situation for me, but I can accept it now, well, it can't be helped, everything has happened, I can only surrender" (P3, 25 years old)*

#### Theme 2: Have a high fighting spirit

The fighting spirit meant by the participants is a feeling of optimism, wanting to live independently without help, and having a great desire to recover. Participants have a high fighting spirit because they feel they have to continue their life even with limited physical conditions. This theme consists of three categories, namely:

1. Enthusiasm even though life is hard.  
Participants stated that even though they are currently experiencing physical limitations, they are still enthusiastic and optimistic in continuing their life even though it is difficult for them. They still have high hopes so that they can achieve resilience. This was expressed by most of the participants below:

*"I am already disabled, but this is not a barrier for me. At first, I couldn't accept my condition, but I had to be enthusiastic, I had to endure, I still have children that I have to support, if I give up on the situation, what will my children eat" (P1, 43 years old)*

*"I must be enthusiastic, I must continue to live because life must go on, I must not give up, this is not the end of everything" (P4, 30 years old)*

*"I have to be strong, I can't give up because there are still many people who support me" (P7, 31 years old)*

2. Want to live independently.  
The high fighting spirit of the participants was shown through a great desire to be able to live independently and not depend on others. They do not want to continue to use assistive devices or be a burden to their families. Their desire to live independently enables them to achieve resilience. This was expressed by most of the participants below:

*"I am already disabled, I have to use a stick all the time but I think if I use a stick then I won't be able to be independent, I keep bothering other people, later I hope to continue to be with other people"* (P6, 30 years old)

*"I don't want to depend on other people, I want to be independent, I don't want to be a burden to others"* (F8, 27 years old)

3. Trying to get up  
Participants stated that they have a great desire to get well and be able to return to their normal activities. This was expressed by most of the participants below:

*"I still hope that I can still recover and be able to walk again as before. I practice walking slowly every day, sometimes I try to stand up by myself from a wheelchair, walking slowly, basically, I practice walking every day"* (P7, 31 years old)

*"I keep thinking about how to get up, how to get better recovered, I can walk again, so I practice walking every day, I regularly participate in physiotherapy, I take all the drugs"* (P2, 55 years old)

### **Theme 3: Family and community as a support system**

The support system is defined by participants as people around who always provide support, motivation, respect, and attention. Participants feel grateful because they have people around them, both families and communities, and the government who always care, give attention, and support. This becomes the spirit and motivation of the participants to survive, rise, and achieve resilience. This theme consists of two categories, namely:

1. Family support is a trigger to get up.  
Participants stated that their families are the people who make them survive. Support from the family becomes the spirit in the participants to be able to get back up and achieve resilience. This was expressed by most of the participants below:

*"I am grateful that my family always supports me to continue to rise. Sometimes when I am sad with my current situation, they are the only ones who make my mood happy"* (P1, 43 years old)

*"I believe that I am not alone, and I am not doing this alone. I'm sure there are still families who*

*accept my condition as it is. They always take care of me, they really love me"* (P2, 55 years old)

*"Grateful because my family always supports me, they say they can't give up"* (P5, 15 years old)

2. Grateful to have support from the community and government

Participants are aware that they are now people with disabilities but are grateful that the community around them still accepts and provide opportunities for them to be able to work and play their role which is one of the factors so that they can achieve resilience. This was expressed by most of the participants below:

*"I am grateful that my neighbors have not isolated me. They always visit me, sometimes they even bring me food"* (P6, 30 years old)

*"I attended financial management training for 3 months called the 'school for fostering' which was made by the government and everything was free. From there I learned a lot and the government also provided assistance to me so that I could open a kiosk"* (P3, 25 years old)

*"I am currently participating in sewing training organized by the government. The government has also helped me so now I am opening a tilapia farming business"* (P4, 30 years old)

*"In the past, there was assistance from the poor who gave me business capital, so now I have opened a brick-and-mortar business whose profits I have used to rebuild my house which was destroyed by the tsunami"* (P2, 55 years old)

### **Theme 4: Making limitations as strengths**

The physical limitations experienced by participants do not make participants despair. These limitations are used as something that triggers them to keep trying and getting rich. Through these physical limitations, they give their own strength that they are capable and can be more useful to others. This theme consists of two categories, namely:

1. Confidence in self-potential  
Participants expressed that they believed in their own abilities or strengths. Even though they are disabled, it does not make them feel inferior or ashamed of their condition. This can be seen in the excerpts of the participants' expressions below:

*"Never feel inferior or feel excluded as a person with a disability, because we are only slightly different from normal people. If asked to choose, I also don't want to be disabled like this, but I always think positively and motivate my friends as people with disabilities that we shouldn't look weak in the eyes of others, we'll end up being even more ostracized"* (P2, 55 years old)

**Table 1 : Participants' characteristics**

Participants	Age (years)	Sex	Type of disaster	Brief description of participant
P1	43	Female	Liquefaction	P1 was a trader before the disaster occurred. She experienced paraplegia due to part of her body being buried into the ground during liquefaction. She was able to achieve resilience after 7 months of paralysis. Now, she got up and opened a kiosk business
P2	55	Male	Tsunami	P2 was a trader before the disaster occurred. He left leg was amputated due to the tsunami and now he lives as a person with a disability and uses a prosthetic leg. He is able to achieve resilience within 7 months. He is now starting a brick business and has rebuilt his house which was destroyed by the tsunami
P3	25	Female	Liquefaction	P3 was a cashier before the disaster. She was paralyzed for 4 months due to part of his body being buried in the ground during the liquefaction incident. She is now able to walk again although his is still using an assistive device. She is also now back working as a cashier
P4	30	Female	Liquefaction	P4 was a housewife before the disaster. She now has to use a wheelchair due to a fracture during liquefaction. She was able to return to resilience after 6 months of being a disabled person. Now, she started work as a tailor and started a tilapia business
P5	15	Female	Earthquake	P5 is a student in junior high school. When the disaster occurred, his body was crushed by a concrete fence which caused her to experience paraplegia due to spinal cord injury. Now, she is completely paralyzed and has to use a wheelchair. She was able to achieve resilience after 16 months of experiencing paraplegia. She is also now active in the disabled community and has won several writing competitions
P6	30	Female	Tsunami	P6 was a private employee before the disaster occurred. She fractured leg during the tsunami which resulted in her now having to use crutches when walking. She was able to return to resilience after 8 months of fracture and has now returned to work as a private employee
P7	31	Male	Liquefaction	P7 was a trader before the disaster occurred. He suffered a fracture due to liquefaction so he now has to walk using crutches. He was able to achieve resilience after 8 months and now he is opening a kiosk business
P8	27	Male	Earthquake	P8 was a private employee before the disaster. He body suffered a spinal cord injury as a result of being crushed by the concrete of the house during the earthquake. Now, he has paraplegia or paralysis which causes him to be unable to walk. He was able to achieve resilience after 7 months. Now, he is opening an online shop

*"People look down on people with disabilities, but I can prove that I can work, not just talk" (P8, 27 years old)*

*"I am indeed disabled, but I feel there is still potential in me that I can develop, the proof is that now I can earn my own money, I can help the family economy" (P7, 31 years old)*

2. Make the situation an opportunity  
Participants in this study felt that circumstances should not make them give up, but used it as an opportunity to gather with family and friends. Some expressions can be seen below:

*"I just feel that this is an opportunity for me to motivate my other friends in the disabled community that we must not give up on the situation, we must be useful to others" (P5, 15 years old)*

*"So far I have been busy working until I have little time for my family, maybe it's time for me to stay at home a lot and spend a lot of time hanging out with my family, especially when I am still sick" (P6, 30 years old).*

The following is a summary of the themes and categories that will be shown in Table 2.

**Table 2: Summary of the themes and categories**

Category	Themes
Believing that this is God's will Sincere, despite being disabled Enthusiasm even though life is hard Want to live independently	Sincerely accept the reality Have a high fighting spirit
Trying to get up Family support is a trigger to get up Grateful to have support from the community and government Confidence in self-potential	Family and community as a support system Making limitations as strengths
Make the situation an opportunity	

## Discussion

The results of this study indicate that participants experience an event that makes them

disabled but it does not make them continue to sink and give up. On the other hand, they continue to rise and are able to achieve resilience as evidenced by their ability to be independent, return to work, and play their role in society again. The four themes found in this study answer the question of why they can rise up and achieve resilience. The four themes are they accept the reality of what happened, they have a high fighting spirit, have family and community that become a support system for them, and they make their limitations (disability) a strength. This is in line with the resilience theory which states that resilience can be increased through three factors, namely, "I am, I can and I have." "I am" is when internal strengths such as self-confidence, optimism, respect, and empathy are developed, "I have" is when support is given, and "I can" is when interpersonal and problem-solving skills are acquired [18].

The first theme that makes participants able to achieve resilience is that they accept the reality that is happening. Acceptance of conditions including self-acceptance is an element that can strengthen, raise sincerity, and interpret life more positively [19]. Participants have high spirituality by surrendering and interpreting the events experienced as God's will and ability to overcome weaknesses and obstacles in themselves so as to make their lives more meaningful. They believe that they have physical limitations but not spiritual limitations. All the limitations they have are a blessing as well as a test from God.

The second theme that enabled participants to achieve resilience was that they had a high fighting spirit because they were optimistic that they could continue their life, had a strong will to recover, and were able to live independently. Individuals who have a high fighting spirit will respond to difficulties more constructively. In addition, with a high fighting spirit, the individual will be able to solve every problem and always build the highest possible motivation to change the previous

situation into a better situation so that the individual can fulfill his needs [20].

The third theme that makes participants able to achieve resilience is that they have families and communities that become support systems. The results of this study indicate that social support can increase the resilience of the participants. Social support occurs when the presence of others is not only a spectator but also feels empathy. The support provided is in the form of encouragement to get up, interaction, attention, care, involvement, and other social support [21]. Social support provided by others can reduce stress levels which have an impact on increasing individual resilience [22], [23].

The fourth theme that enables participants to achieve resilience is to make the limitations they experience to become a strength. Being a person with a disability does have many limitations and makes them different and their roles and functions will change completely from what was originally normal, but these limitations do not make them continue to suffer. They use these limitations as an excuse to be strong, tough, and resurrected. They believe in their potential and are not ashamed or ashamed of their shortcomings. This is in line with Soelch and Schnyder's research in 2019 [24] which also found that to achieve resilience, people with disabilities must develop all their business potential. With attention to this potential, it can make a person develop more optimally. Therefore, one must identify the potential that exists within him to continue to grow and the drive to continue learning [25], [26].

Having increasing resilience is an important element in life because it can provide experience for a person who is facing a challenge or difficulty in life. By increasing resilience, a person can develop life skills such as how to communicate, a realistic ability to make new life plans, and be able to take the right steps for his life. They will find ways to turn stressful and difficult life circumstances into opportunities for personal development [27], [28].

### Limitations

This study might not represent the whole context of natural disasters in Palu and Sigi in achieving resilience. Results of the study may not generalize to the general population of individuals with disabilities. A participant's memory before the trauma event and significant loss of memory of the event after the event may strongly limit the accuracy of the participants' recollection of their experiences.

### Conclusion

Having increasing resilience is an important element in life because it can help individuals in

dealing with life's difficulties and challenges. Being disabled is one of the unpleasant situations and life experiences for the respondent but this does not make the respondent continue to suffer and experience psychological pressure continuously. The results of this study indicate that the respondents sincerely accept their condition even though they are disabled, have a high fighting spirit, have a very supportive family and community, and become a support system and they take their limitations (disability) as an opportunity to keep working. They are able to achieve resilience and adapt by turning adversity into an opportunity to rise up and increase the ability to deal with change.

### Data Availability Statement

All data generated or analyzed during this study are included in this published article (and its supplementary information files).

### Acknowledgments

The researcher would like to thank the Ministry of Education, Culture, Research, and Technology Republic of Indonesia for providing funds to implement this research. Researchers also thank the Stella Maris School of Health Sciences of Higher Education for facilitating the implementation of this research.

### References

1. National Disaster Management Authority. Central Sulawesi Earthquake and Tsunami Infographic. National Disaster Management Authority; 2018.
2. Kartika G, Perdana A, Dewi KS. Happiness in mothers with children with disabilities. *J Empati*. 2015;4(4):66-72.
3. Hanjarwati A, Marfai MA, Hadi MP, Rijanta R. Life story of persons with paraplegia in achieving post-earthquake resilience in the Bantul District. *Adv Soc Sci Educ Humanit Res*. 2020;452:137-40.
4. Idris I. Accessibility of persons with disabilities to public buildings. *Stud Perenc Lingkungan Binaan*. 2015;10(1):1-10.
5. Alexander D. Disability and Disaster. *ResarchGate*; 2012. p. 384-94.
6. Poegoeh DP. The role of social support and emotional regulation on the resilience of families with schizophrenia. *Insa J Psikol Kesehatan Ment*. 2016;1(1):12-21.
7. Apostelina E. Family resilience in families with autistic children. *J Penelit Pengukuran Psikol*. 2012;1(1):164-76.
8. Connor K, Davidson J. Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). *Depress*

- Anxiety. 2003;18(7):76-82. <https://doi.org/10.1002/da.10113>  
PMid:12964174
9. Utami CT, Helm AF. Self-efficacy and resiliensi: A meta-analysis review. *Bul Psikol.* 2017;25(1):54-65.
  10. Rojas LF. Factors affecting academic resilience in middle school students: A case study. *Gist Educ Learn Res J.* 2015;11:63-78.
  11. Guest R, Craig A, Tran Y, Middleton J. Factors predicting resilience in people with spinal cord injury during transition from inpatient rehabilitation to the community. *Spinal Cord.* 2015;53(1):682-6. <https://doi.org/10.1038/sc.2015.32>  
PMid:25708666
  12. Dodd Z, Driver S, Warren A, Riggs S, Clark M. Effects of adult romantic attachment and social support on resilience and depression in individuals with spinal cord injuries. *Top Spinal Cord Inj Rehabil.* 2015;21(2):156-65. <https://doi.org/10.1310/sci2102-156>  
PMid:26364285
  13. Driver S, Warren AM, Reynolds MC, Agtarap S, Hamilton R, Trost Z, et al. Identifying predictors of resilience at inpatient and 3-month post-spinal cord injury. *J Spinal Cord Med.* 2016;39(1):77-84. <https://doi.org/10.1179/2045772314Y.0000000270>  
PMid:25297474
  14. Killic S, Dorstyn D, Guiver N. Examining factors that contribute to the process of resilience following spinal cord injury. *Spinal Cord.* 2013;51(7):553-7. <https://doi.org/10.1038/sc.2013.25>  
PMid:23689391
  15. Creswell JW. *Research design: Qualitative, Quantitative, and Mixed Method Approaches.* 4<sup>th</sup> ed. California: SAGE Publication; 2014.
  16. Parker C, Scott S, Geddes A. *Snowball Sampling.* United Kingdom: SAGE Research Methods Foundation; 2019.
  17. Smith J, Osborn M. *Interpretative Phenomenological Analysis: Qualitative Psychology.* 4<sup>th</sup> ed. Washington: SAGE Publication; 2007. p. 53-80.
  18. Grotberg H. *Resiliensi for Today: Gaining Strength from Adversity.* United States: Praeger Publisher; 2003.
  19. Losoi H, Turunen S, Waljas M, Helminen M, Ohman J, Julkunen J, et al. Psychometric properties of the Finnish version of the resilience scale and its short version. *Psychol Community Health.* 2013;2(1):1-10.
  20. Scoltz P. *Adversity Quotient: Transforms Obstacles into Opportunities.* Jakarta: PT Grasindo; 2016.
  21. Hanjarwati A, Marfai MA, Hadi MP, Rijanta R. Resilience of persons with paraplegia for earthquake disaster victims in Bantul regency. *IOP Conf Ser Earth Environ Sci.* 2020;451(1):0120472020. <https://doi.org/10.1088/1755-1315/451/1/012047>
  22. Onyedibe MC, Ugwu L, Mefoh PC, Onuiri C. Parents of children with Down Syndrome: Do resilience and social support matter to their experience of carer stress? *J Psychol Afr.* 2018;28(2):94-9. <https://doi.org/10.1080/14330237.2018.1455308>
  23. Sippel LM, Pietrzak RH, Charney D, Mayes LC, Southwick S. How does social support enhance resilience in the trauma-exposed individual? *Ecol Soc.* 2015;20(4):10-21.
  24. Martin-Soelch C, Schnyder U. Resilience and vulnerability factors in response to stress. *Front Psychiatry.* 2019;10:732-5.
  25. Greeff AP, Vansteenkeweg A, Gillard J. Resilience in families living with a child with a physical disability. *Rehabil Nurs.* 2012;37(3):97-104. <https://doi.org/10.1002/RNJ.00018>  
PMid:22549626
  26. Everall RD, Altrows KJ, Paulson BL. Creating a future: A study of resilience in suicidal female adolescents. *J Couns Dev.* 2011;84(4):461-70.
  27. de Guzman AB, Tan EL, Tan EF, Tan JR, Tan MC, Tanciano DM, et al. Self-Concept, disposition, and resilience of poststroke Filipino elderly with residual paralysis. *Educ Gerontol.* 2012;38(6):429-42. <https://doi.org/10.1080/03601277.2011.559861>
  28. Machida M, Irwin B, Feltz D. Resilience in competitive athletes with spinal cord injury: The role of sport participation. *Qual Health Res.* 2013;23(8):1054-65. <https://doi.org/10.1177/1049732313493673>  
PMid:23771633