THE RELATIONSHIP BETWEEN ANXIETY AND RESILIENCE IN YOUNG ADULTS OF COVID-19 SURVIVOR IN JAKARTA

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ABSTRACT

The Covid-19 pandemic has had a major impact and changed many aspects of human life. More than 50% of the number of people infected with COVID-19 in Jakarta are young adults. Therefore, young adult Covid-19 survivors are one of the groups who feel the impact of the Covid-19 pandemic. The high stigma of society towards Covid-19 has further worsened public acceptance of Covid-19 survivors. In addition, their self-productivity and career development are hampered due to social restrictions. This also results in the difficulty of finding work and even layoffs in various places. The condition and presence of Covid-19 survivors can cause anxiety and this anxiety greatly disrupts the lives of Covid-19 survivors. Prolonged and untreated anxiety can lead to self-defeating actions such as the emergence of suicidal intentions, so anxiety needs to be addressed as early as possible. Keye and Pidgeon (2013) called resilience as the mental capacity that can help and maintain a person's psychological stability in dealing with anxiety. The purpose of this study was to determine the relationship between resilience and anxiety in young adult Covid-19 survivors. This study involved 310 Covid-19 survivors aged 18 to 40. The measuring instruments used in this study were the Beck Anxiety Inventory (BAI) and The Connor Davidson Resilience Scale (DC-RISC). The data were analyzed using quantitative analysis methods, namely the spearman correlation technique. Based on the results of data processing, the correlation coefficient or r = -0.313 with significance or p = 0.000 < 0.05. This means that there is a significant negative relationship between anxiety and resilience in young adult Covid-19 survivors in Jakarta.

Keywords: Anxiety, Resilience, Young adult, Covid-19 survivor

1. PREFACE

The world was shocked by a disaster that has claimed many lives to date. This disaster was caused by a virus that was discovered in December 2019 called Corona Virus Disease 19 (Covid-19) in China's Wuhan [1] and quickly spread to various countries including Indonesia. Due to the rapid spread of Covid-19 almost all over the world, the World Health Organization (WHO) announced the disaster was designated as Covid-19 pandemic [2]. The number of confirmed Covid-19 cases in the world up to March 8, 2022 was 446,511,318 million, with the number of deaths reaching 6,004,421 [3].

In Indonesia alone, the number of confirmed cases of Covid-19 up to February 28, 2022 was 5,564,448 with a death toll of 148,335 (Ministry of Health of the Republic of Indonesia, 2022). Of the 143,744 deaths, 12.8% were aged 31 to 45 years (Ministry of Health of the Republic of Indonesia, 2021). As reported on CNN [4] the delta variant was a new variant of Covid-19; the death toll aged 30-59 years, has even reached a 5-fold event. Jakarta, the capital city of Indonesia, is in the first rank of confirmed cases of Covid-19 from 34 provinces [5]. Thus, Jakarta has become one of the cities with red zone status for a long time. The confirmed positive Covid-19 cases in Jakarta up to March 8, 2022, were 1,204,055 people, and 14,852 have died (Jakarta.co.id, 2022). In terms of age category, there are 247,225 persons aged 19-28 years; 270,802 persons aged 29-38 years, and 208,602 persons aged 39-48 (Jakarta.co.id, 2022). Meanwhile, the 0–18-year age group had confirmed positive cases for as many as

288,778, while the age group above 49 years had as many as 216,557 people (Jakarta.co.id, 2022). From the number of case findings based on the age category above, it shows that more than 50% of the total number of confirmed cases of Covid-19 in Jakarta were found in the young adult group. According to Papalia and Martorell [6], the age of 20-40 years is in the young adulthood period. Meanwhile, according to Hurlock [7], the period of young adulthood is aged from 18-40 years. So, it can be said that the young adult group is the age group that has experienced the most impact of Covid-19 from the health aspect compared to other age groups.

The Covid-19 pandemic not only threatens the health of the young adult group but also hampers the development of self-productivity and careers. Mobility was strictly monitored and limited by the government during the Covid-19 pandemic by implementing social distancing. Mariah (2020) said that the negative impact caused by the Covid-19 pandemic has threatened the economy of several people, namely around 50 million workers in various companies and industries on the verge of losing their jobs. Many people experienced a decrease in income. Many workers were laid off, increasing unemployment and making it difficult to seek new employment laid off.

A total of 3,611 employees from various companies in the city of Jakarta were terminated (Department of Manpower, Transmigration and Energy). In addition, from 3,633 companies, 21,797 employees were dismissed as workers [8]. A research by Yamali and Putri [9] found that the Indonesian economy experienced a lot of decline. Based on the health and economic conditions that have collapsed due to Covid-19 above, young adults who already have a family or are married will have difficulty in meeting various family needs; husband, wife and family members. This condition is a burden and a heavier burden for Covid-19 survivors when compared to other age groups who are not included as Covid-19 survivors.

The word survivor comes from the word survival, which means that a person can maintain and sustain a good health condition after recovering (KBBI). Survivors describe that a person still maintains good and healthy condition after battling certain diseases. Covid-19 survivors are individuals who have been infected with Covid-19 or patients diagnosed as positive for Covid-19 through credible laboratory tests and declared cured [10]. Even though the survivors have tested negative for Covid-19 and recovered, they still have a fear of infecting or spreading the Covid-19 virus to other people, such as family, friends, and are also afraid of getting infected again. Negative stigma that comes from the community is not uncommon, including the rejection of the bodies of Covid-19 patients. This bad view also adds to the fear of Covid-19 survivors in socializing and opening up. As a result, they feel alone and outcaste. Reported from Liputan6.com (2020), Covid-19 survivors in Central Jakarta were evicted by the community from their rental homes and were bullied for a long time.

Republika.co.id (2021) also reported that several people in Bekasi had refused to bury the body of a Covid-19 patient in Bekasi. Based on the previous explanation, it can be said that Covid-19 survivors are sometimes considered a disgrace in the family and community environment. Research relevant to the two events above is highlighted by Novita and Elon [11] which state that the stigma given by several communities in several areas, both instrumentally and symbolically to Covid-19 was high. Therefore, the higher the stigma given by the community to Covid-19, the worse the public's acceptance of Covid-19 survivors. Daly et al. [12] concluded that social impacts and changes in society, economic and financial instability, health problems, and education contribute to the psychological stress of the wider community. One of the effects of psychological pressure is the emergence of anxiety (13).. Anxiety really needs to be addressed and emphasized to maintain and improve the welfare of life. It is also important to avoid harmful

actions, as stated Sher [14] that stress, fear, and loneliness need to be addressed immediately to reduce suicide. Based on the above risk, a person is in a state of anxiety and requires mental capacity to cope with disruptive changes and also as an effort to recover from a condition that is detrimental to mental health [15]. The existence of this mental capacity makes a person survive in various changes and even difficulties that can cause anxiety and even recover from stressful conditions [16]. Keye and Pidgeon [16] explain that mental capacities that can help in dealing with anxiety is resilience.

Related Work

According to the generation type of assumptions, we divided the existed work into two categories.

Covid-19 Survivor and Resilience

Covid-19 survivors are those who test negative Covid-19 and recovered [17]. Although Covid-19 survivors are said to have recovered, not a few Covid-19 survivors need toughness or resilience. Resilience is readiness to face change and adversity [18]. Resilience is a personal quality that encourages a person to continue to be competent and grow in the face of various difficulties [18]. Connor and Davidson [18] also add that resilience can provide an opportunity for a person to continue to develop in the face of various changes and pressures, become a benchmark for the ability to reduce stress and even become a priority for treatment in anxiety, stress, and depression through tenacity as well as perseverance.

Anxiety and Resilience

Anxiety is a negative state experienced by a person and is indicated by the appearance of stimulation to nerves, muscles, and anxiety that occurs based on a very unpleasant subjective situation [13]. In the study of Barros et al. [20] showed that 43.5% of 45,161 participants experienced anxiety in Brazil. These findings are like those found by Liu et al. [21] in the United States (US) where out of 898 participants, 45.5% of participants had anxiety during the Covid-19 pandemic. For the South Asian region, participants with anxiety were found to be 41.3% through 31 studies representing 28,877 participants. While in Indonesia alone, from 1215 participants, 20.2% were found with significant symptoms of anxiety [22]. Apriani et al. [23] concluded in their research that their five participants who were survivors of Covid-19 in Jakarta avoided communicating with their surroundings because they were worried about people's attitudes, they looked down on them and assumed that people around them would distance and chase them away. Keye and Pidgeon [16] explain that mental capacities that can help in dealing with anxiety is resilience. Resilience is readiness to face change and adversity [24]. Resilience is a personal quality that encourages a person to continue to be competent and grow in the face of various difficulties [18]. Connor and Davidson [18] also add that resilience can provide an opportunity for a person to continue to develop in the face of various changes and pressures, become a benchmark for the ability to reduce stress and even become a priority for treatment in anxiety, stress, and depression through tenacity as well as perseverance.

Our Contribution

The purpose of this study was to determine the relationship between anxiety with resilience in young adults with Covid-19 survivors.

Paper Structure

This paper is divided into four parts. Section 1 consists of background and research objectives. Section 2 (Method) consists of research participants, measurements used, and data analysis.

Section 3 presents the results of the analysis and research findings, and its implication. Section 4 presents conclusions and suggestions for future research.

2. RESEARCH METHOD

Participants

In general, the participants included in this study were participants who had contracted Covid-19 from 2019 to 2022 and were declared negative through an antigen swab examination or PCR (Polymerase Chain Reaction) in a health care laboratory, living or working in Jakarta, aged 18 -40 years. Researchers do not limit to ethnicity, race, culture, religion, and gender. All participants are taken based on the suitability of the participants that have been determined. Based on data obtained from 310 participants, there were 140 (42.2%) male and 170 (54.8%) female

Meansurements

There are two measuring tools used in this study. The first is the Beck Anxiety Inventory (BAI) from Beck et al [25] to measure anxiety. BAI has five dimensions and 21 items. The second measuring instrument is The Cannor Davidson Resilience Scale (DC-RISC) from Connor and Davidson [26] to measure resilience. DC-RISC has 5 dimensions and 25 items

Beck Anxiety Inventory (BAI)

The measuring instrument used to measure anxiety is Beck Anxiety Inventory (BAI) created by Beck et al. (1993) and adapted by Fazmi [27] BAI consists of four dimensions, namely the subjective, neurophysiological, autonomic, and panic-related. The subjective dimension consists of 7 tems, the dimension neurophysiological consists of 4 items, the autonomic dimension consists of 8 items, and the panic-retaled dimension consists of 2 items. Each item has 4 possible answers, namely never = 0, almost never=1, sometimes=2, often=3. Value for each item summed yields a total or total score for all 21 symptoms will be interpreted as low, moderate, and high levels of anxiety. Internal consistency (Cronbach's alpha) Beck et al (1993) is 0.92, and The corrected total item correlation of the 21 items ranges from 0.41 for the first item (numb) to 0.68 for item nine (fear). All item correlations total corrected is significant beyond the 0.001 level, one-tailed test, even after adjustment Bonferroni is used to control the error rate experiment. Internal consistent results of the latest research conducted by Fazmi (2021) is 0.91. The two scores above indicate that BAI is psychometric is very good.

The reliability test in this study showed that anxiety and also all of its dimensions have a Cronbach Alpha efficient which is good, too. Cronbach's alpha of anxiety was found to be 0.948, and no items below 0.2. Likewise with Cronbach's Alpha for each dimension. Dimension Subjective was found to be 0.888 and there were no items below 0.2. Neurophysiologic dimensions were found to be 0.729, also there were no items below 0.2. The autonomic dimension was found to be 0.888 with no items below 0.2. The panic-related dimension was found to be 0.831, and there were no items below 0.2. Thus all items from each dimension are used

The Connor Davidson Resilience Scale (DC-RISC)

To measure resilience is The Connor Davidson Resilience Scale (DC-RISC) created by Cannor and Davidson [18]) and adapted by Asfiyah (2014). This measuring tool has five dimensions consisting of 25 items and all items are positive.

Internal consistent results of resilience conducted by researchers from 310 participants are also very good at 0.973. Likewise with the five dimensions resilience. The first dimension is the dimension of personal competence, high standards, and ductility has an internal consistency of 0.869, the second dimension is trust in one's instincts and tolerance for negative effects of 0.861, the third dimension is positive acceptance of change and good relationship with people is 0.898, the fourth dimension is control self is 0.881, and the fifth dimension is spiritual influence of 0.882. All items from each dimension totalling 25 items are not discarded because all items are above 0.2.

Data Analysis

Researcher collect data by distributing questionnaire links online through social media in the form of WhatsApp, Instagram, Facebook, and Facebook Email that has been started in December 2021. Researchers also request personal assistance to the closest people and family to distribute the questionnaire. In addition, researchers visited several community, institution or agency such as Puskesmas, Nurses Association Indonesian National Team, the Covid-19 Task Force, and the Police.

This study uses a non-experimental quantitative approach. Method Quantitative research is often referred to as a research method based on positivism which refers to a particular population or sample; data collection using research instruments, quantitative/statistical data analysis to test hypotheses that have been formulated. While the hypothesis test is carried out with using correlation technique.

The research sample was taken using a non-probability sampling method with a purposive sampling technique. The researcher chooses the purposive sampling technique based on considerations or criteria according to the research objectives that can answer research problems. Data collection is done online through various types of social media.

Table 1. Description of participants by gender

Description	Amount	Percentage
Man	140	45.2%
Woman	170	54.8%

Table 2. Description of Research Participants by Year of Infected

Description	Amount	Percentage
2019	16	5.2%
2020	67	21.6%
2021	164	52.9%
2022	62	20.3%
Total	310	100%

Table 3. Correlation of anxiety with resilience

	R	P
Correlation of -0 anxiety with resilience	.313	0.0000

3. RESULTS AND DISCUSSIONS

The results of the main data analysis in this study indicate that anxiety has a significant relationship with resilience. The results of this analysis are similar to the results of several previous studies conducted by [28] and Setiawatii et al. [29], even the direction of the research relationship is also the same, namely negative, meaning that the higher a person's resilience, the lower the level of anxiety. Vice versa, the lower the level of resilience of the participants, the higher the level of anxiety of the participants. However, not all the results of previous studies related to the relationship between resilience and anxiety were significant, as research by Ebrahimi et al. [30] that resilience and anxiety do not have a significant relationship. It can be said that the results of previous studies have differences or are inconsistent. The main results above which state that there is a significant relationship between resilience and anxiety are also in line with what Keye and Pidgeon [16] said that resilience as a mental capacity is able to help and maintain one's psychological stability in dealing with anxiety. Likewise, what Connor and Davisdon [26] say that resilience provides an opportunity for a person to continue to develop through perseverance, tenacity, positive acceptance that is owned in suppressing anxiety. In this case, resilience can also be said to be a predictor of anxiety. Based on the results of the category of resilience and anxiety variables, it was found that participants with low level of resilience were 32 (10.3%) people, 2 were moderate (0.6%), and 276 (89.0%) were high. While the results of the category of anxiety variables found participants with low anxiety as many as 282 (91.0%) people, medium 2 (0.6%) people, and high as many as 26 (8.4%) people. In this case, it can be said that the number of participants with low anxiety levels is more than the number of participants with moderate and high anxiety levels. Likewise, when viewed from the hypothetical mean score and the empirical mean where the hypothetical mean is lower than the empirical mean on the resilience variable, which means that the image of the resilience variable is high. Meanwhile, the hypothetical mean is higher than the empirical mean on the anxiety variable, which means that the description of the anxiety variable is low. According to Herman et al. [36], the factors that affect the level of resilience are personal, biological, and environmental factors.

Personal is associated with an internal locul of control which explains that the belief in oneself has great potential or is often referred to as self-efficacy. While biological factors show that changes that occur in the brain are able to moderate negative emotions and can affect resilience to stress and adversity. The third factor is the environmental factor which includes social support including relationships with friends and family and other people. Researchers suspect that these environmental factors greatly affect the high level of resilience of research participants as Covid-19 survivors. Although the stigma towards survivors is high in some community groups as written in the background of the research, however, the amount of support and even good relations with family, friends, and the government while they are exposed to Covid-19 and even when they have recovered makes them more resilient in facing the impact of Covid -19. Family and even friends continue to accompany from far and near. The government provides a lot of health insurance in getting support and assistance, both assistance medicine, nutritious food, and consultation in person and online. The government has created a health system to control Covid-19 (Ministry of Health, 2021). Then, the number of participants who were at low anxiety levels found by the researchers was 282 out of 310 participants, plus a comparison of the hypothetical and empirical mean scores which showed low participant anxiety, possibly because they were more infected in 2021 and 2020, which were 231, so that participants have experience and resilience in how to deal with the impacts of the Covid-19 pandemic, including stigma and discrimination. Even though to this day the Covid-19 pandemic still exists, the participants are even more aware of how to cope and also the atmosphere of the Covid-19 pandemic is normal for them. That is why, the anxiety of a number of 282 participants and in general the Indonesian people at this time is probably not about the impact of the Covid-19 pandemic anymore, but their anxiety about other things, namely one of the uncertainties of the future.

The age of most of the participants was 18-25 years old; the age at which a person prepares to choose the right major in the world of education and even starts looking for work. The number of acts of termination of employment has made the availability of job vacancies less and less available for them, even almost none at all. This is supported by research conducted by Maharani et al. [31] where a number of students have anxiety about the future and their attitude towards the chosen academic major, whether it can help them to get suitable jobs in the future. To add information, the researcher conducted interviews with three of the 310 participants; one participant was married and the other two were unmarried. The results of the researchers' interviews with the three participants were that they had anxiety about the future; whether their future is as good as the present they have; whether their current job is able to provide welfare in their future; there is still time to see the growth of children to adults. In addition, two of them feel anxious about their mate; do they have a soul mate in the future. Thus, it can be said that there is participant anxiety about future uncertainty. Although the level of anxiety is low in Covid-19 survivors, the relationship between resilience and anxiety was not only found in patients with the disease and health workers, but also found a relationship between resilience and anxiety in Covid-19 survivors. This finding prompted researchers to find out what percentage of resilience contributes to anxiety.

Based on the results of the study, researchers found the contribution of resilience to anxiety. Although its contribution is less than previous research, this proves that the contribution of resilience to anxiety is not only found in individuals with illness and health workers but also in Covid-19 survivors. In this study, the percentage of the role of resilience to anxiety is 6.1%. This means that there is a 6.1% contribution of resilience to anxiety, the rest is the contribution of other variables that were not tested in this study. Meanwhile, according to previous research, namely the results of research by Mosheva [32] in a group of medical personnel, resilience

contributed 43%. While the research results Setianingsih et al. [33] in a number of cancer patients had a contribution of 29.1%. The researcher also found the percentage of contribution based on dimensions, where of the five dimensions of resilience, the dimension of self-control has a greater contribution of 8.6% compared to the other four dimensions of anxiety. It should be noted that there have been no previous studies that measure the contribution of each of the resilience dimensions above; but only in general. A person with good self-control is able to handle things that are a source of anxiety and stressful situations until he gets his goal, even he/she likes challenging things. Someone with good self-control, he/she will be able to overcome feelings of anxiety. This is supported by Asih and Fauziah [34] in their research that with high self-control, the participants have low anxiety, and the self-control in question makes an effective contribution of 4.3%. This contribution is also smaller than the contribution found by the researcher.

4. CONCLUSION AND RECOMMENDATIONS

Based on the results obtained from data analysis in this study, it can be concluded that anxiety has a significant relationship with resilience in young adult Covid-19 survivors. Through these findings, it can be said that the research hypothesis is accepted. The direction of the relationship between resilience and anxiety is negative. This shows that the higher the resilience of the participants, the lower the anxiety of the participants, and vice versa, the lower the level of resilience of the participants, the higher the level of anxiety of the participants.

This research can be a reference for other research that related to resilience and anxiety. For this reason, researchers suggest that future researchers can conduct more in-depth research linking other variables can even do related research anxiety about future uncertainty as well as experience some research participants and the results of previous studies.

In addition, it is known that resilience is significantly associated with anxiety even has a contribution to suppress anxiety. Therefore, this research can be used as a reference for the general public when experiencing concerns, especially due to the various impacts of Covid-19. For help with anxiety. Individuals can do things that 108 increase resilience, especially through the dimension of self-control. Train yourself to controlling life such as changing the point of view, rhythm, and doing activities that are liked for the thoughts of the mind currently. In addition, the self-control dimension invites people with persistent anxiety to learn to deal with unpleasant feelings so that what is lived can be achieved well, even ready to face the things that challenge or suppress.

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REFERENCES

- A.T. Asih, N. Fauziah, N, Hubungan antara kontrol diri dengan kecemasan jauh dari smartphone (nomophobia) pada mahasiswa jurusan ilmu komunikasi fakultas ilmu sosial dan politik Universitas Diponegoro Semarang. EMPATI, 6 (2), (2017) pp. 15-20.
- A.T. Beck, D.A. Clark, R.A. Steer, W.F. Ranieri, W. F, Further evidence for the validity of the beck anxiety inventory with psychiatric outpatients. Journal of Anxiety Disorders, 7(3)

- (1993) 195–205. doi:10.1016/0887-6185(93)90002-3
- B.E. Hurlock, Psikologi perkembangan. Terjemahan Istiwidayanti & Soedjarwo. Erlangga, 2009
- C.H. Liu, E. Zhang, G.T.F. Wong, S. Hyun, H.C. Hahm, Factors associated with depression, anxiety, and PTSD symptomatology during the COVID-19 pandemic: Clinical implication for U.S. young adult mental health. Psychiatry Research. (2020). https://doi.org/10.1016/j.psychres.2020.113172
- CNN, Kemenkes: Varian Delta percepat kematian usia 30-59 tahun. https://www.cnnindonesia.com/nasional/20210805130831-20-676761/kemenkes-varian-delta-percepat-kematian-usia-30-59-tahun, 2020
- D. Koesno, Arti penyintas Covid-19 dan kisah mereka melawanvirus corona. Tirto.id, (2021). https://tirto.id/arti-penyintas-covid-19-dan-kisah- mereka-melawan-virus-corona-f9z5
- D.E. Papalia, G. Martorell, G, Experience human development. McGraw-Hill Education, 2009
- F.D. Setyaninfsih, Makmuroch, T.R. Andayani, Hubungan antara dukungan emosional keluarga dan resiliensi dengan kecemasan menghdapai kemoterapi pada pasien kanker di RS Doktor Moewardi surakarta. Wacana,3(2) (2021) pp. 60-85. DOI: https://doi.org/10.13057/wacana.v3i2.38
- F.P. Maharani, D. Karmiyati, D.C. Widyasawi, Kecemasan masa depan dan sikap mahasiswa terhadap jurusan akademik. Cognicia, 9(1) (2021) pp. 11-16
- F.R. Yamali, R.N. Putri, Dampak Covid-19 terhadap ekonomi Indonesia. Journal of Economics and Business, 4(2) (2020) pp. 384-388. http://ekonomis.unbari.ac.id/index.php/ojsekonomis/article/view/179/139
- G. Anindyajati, T. Wiguna, B. J. Murtani, H. Christian, N.A. Wigantara, A.A. Putra, E. Hanafi, K. Minayati, R. Ismail, I. F. Kaligis, A.I. Savitri, M.U. Uiterwaal, H. Diatri, Anxiety and its association factors during the initial phase of the COVID-19 pandemic in Indonesia. 2020. https://doi.org/10.3389/fpsyt.2021.634585
- G. Anindyajati, T. Wiguna, B.J. Murtani, H. Christian, N.A. Wigantara, A.A. Putra, E.
- H.I. McCubin, A.I. Thompson, M. McCubbin, Family measures: Stress, coping, and resiliency. Kamehameha Schools, 2001
- H.K. Ebrahimi, M. Amirmohamad, S. Esmaeilian, S Sohrabi, S. Iranmanesh, S. Jafarnejad, The relationship between resilience and anxiety of coronavirus diseases (Covid-19) in the Nurse of Ali Asghar children hospital in Tehran, 2020. Pakistan Journal of Medical Science, 14(3) (2020) pp. 1426-1432
- Hanafi, K. Minayati, R.I. Ismail, F. Kaliigis, A.I. Savitri, M.U. Uiterwaal, H. Diatri, H, Anxiety and its association factors during the initial phase of the COVID-19 pandemic in Indonesia, (2020). https://doi.org/10.3389/fpsyt.2021.634585
- J. Ducharme, World health organization declares COVID-17 a pandemic. Here's what that means. Time, 2020. https://time.com/5791661/who-coronavirus-pandemic-declaration/
- K. Reivich, A. Shatté, The resilience factor: 7 essential skills for overcoming life's inevitable obstacles. Broadway Books, 2002
- K. Reivich, A. Shatté, The resilience factor: 7 essential skills for overcoming life's inevitable obstacles. Broadway Books, 2002
- K. Reivich, A. Shatté, The resilience factor: 7 essential skills for overcoming life's inevitable obstacles. Broadway Books, 2002
- K.M. Connor, J.R. TDavidson, Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). Depression and Anxiety, 18(2) (2003) 76–82. doi:10.1002/da.10113
- K.M. Connor, J.R. TDavidson, Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). Depression and Anxiety, 18(2) (2003) 76–82. doi:10.1002/da.10113

- L. Sher, The impact of the Covid-19 pandemic on suicide rates, 2020
- M. Daly, A. Sutin, E. Robinson, Longitudinal changes in mental health and the COVID-19 pandemic: Evidence from the UK household longitudinal study. Psychological Medicine, 2020, pp 1-7. DOI: 10.1017/S0033291720004432
- M. Daly, A. Sutin, E. Robinson, Longitudinal changes in mental health and the COVID-19 pandemic: Evidence from the UK household longitudinal study. Psychological Medicine, (2020) pp. 1-7. DOI: 10.1017/S0033291720004432
- M. Mosheva, N. Hertz-Palmor, S.D.Ilan, N. Matalon, I.M. Pessach, A. Afek, A. Ziv, Y. Kreis, R. Gross, D. Gothelf, Anxiety, pandemic-related stress and resiliencw among physicians duting the covid-19 pandemic. Deppression and Anxiett, (2020) 1 7. DOI: 10.1002/da.23085
- M. Mosheva, N. Hertz-Palmor, S.D.Ilan, N. Matalon, I.M. Pessach, A. Afek, A. Ziv, Y. Kreis, R. Gross, D. Gothelf, Anxiety, pandemic-related stress and resiliencw among physicians duting the covid-19 pandemic. Deppression and Anxiett, (2020) 1 7. DOI: 10.1002/da.23085
- M.B. Barros, M.G. Lima, D.C. Malta, C/L. Szwarcwald, R.C.S. Azevedo, D. Romero, P.R.B de SJunior, L.O. Azevedo, I.E. Machado, G.N. Damacena, C.S. Gomes, A.de O. Werneck, D.R.P. Silva, M. F. Pina, R. Gracie, R, Report on sadness/depression, nervousness/anxiety and sleep problems in the Brazilian adult population during the COVID-19 pandemic. Epidemiologia e Serviços de Saúde, 29(4) (2020). doi:10.1590/s1679-49742020000400018
- Mustakim, Syafrida, Pandemi Covid-19 sebagi alasan force majeure dalam melakukan penutusan hubungan kerja di Indonesia. Jurnal Sosial & Budaya Syar-1, 7(8) (2020) 695-706. DOI: 10.15408/sjsbs. v7i8.16552
- N. Fazmi, Hubungan antara problem focused coping dan kecemasan pada mahasiswa di masa pandemi Covid-19. Universitas Islam Indonesia. 2021
- S. Novita, Y. Elon, Y. Stigma masyarakat terhadap penderita Covid-19, (2021)
- V. Apriani, W. Utamidewi, Nurkinan, Konstruksi realitas sosial dan makna diri penyintas Covid-19 di Jakarta, (2021)
- WHO, Comparative analysis of national pandemic influenza reparedness Plans.pdf, 2011
- World Health Organization Global, 2021. situation. https://covid19.who.int/
- Y. Setiawati, J. Wahyuhadi, F. Joestandari, M.M. Maramis, A. Atika, Anxiety and resiliensi of healthcare workers during Covid-19 pandemic in Indonesia. Journal of Nultidisciplinary Healthcare, 14 (2021) 1-8. Doi. 10.2147/JMDH.S276655
- Y.Zheng, C. Xiong, C, Y. Liu, X. Qian, X., Tang, Y., & Liu, L, Epidemiological and clinical characteristics analysis of COVID-19 in the surrounding areas of Wuhan, Hubei province in 2020. Pharmacological Research, 2020 doi: 10.1016/j.phrs.2020.104821