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Anxiety of Indonesian Society During COVID-19 Outbreak



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Abstract: COVID-19 (Corona Virus Disease 2019) is an epidemic infectious disease that infects the human respiratory system. An increase in the number of positive cases has a psychological impact on society, especially in terms of anxiety. This research, therefore, aims to analyze the anxiety condition for COVID-19 society in Indonesia. This study used anxiety scale modified from Depression, Anxiety, and Stress Scale-21 (DASS-21). The survey was set up using Survey Monkey® (www.surveymonkey.com). Data were obtained from a total of 627 people through the distribution of online questionnaires and analyzed using JASP (Jeffrey's Amazing Statistics Program). The research showed that the Central Java region has the highest level of female anxiety, with the tendency of occurrence at all age levels. The results of this study can be a reference for institutions, universities, governments, counselor, psychiatrist, psychologist, social worker, and the professional relevant, to provide mental health services for contributing to quality client care.

Key Words: COVID-19 in Indonesia, anxiety of covid-19

INTRODUCTION

Corona Virus Disease 2019, commonly known as COVID-19, is a virus that attacks the human respiratory system (Y. Huang & Zhao, 2020; Zhu et al., 2020). Corona virus was discovered as Coronaviridae which was recognized as a new virus family in 1968. (Holmes, 1999). A second report on coronavirus research in 1978 (Tyrrell et al., 1978) on the structure and replication of corona viruses has been published and new reports can be justified (Siddell et al., 1983). The coronaviridae family consists of 11 groups of monogenetic viruses that infect vertebrates (Siddell et al., 1983). Corona virus is replicated efficiently in tertiary monkey kidney cells and Vero cells, in contrast to human coronaviruses (HCoV) 229E and OC43 (Fouchier et al., 2004). One replication of this virus group that infects humans was identified in 2015 as the SHC014 (SARS-CoV) virus published by the Nature Medicine article (Menachery et al., 2015), in December 2019 this virus emerged as the SARS-Cov-2 virus in Wuhan China (Dong & Zheng, 2020; Heymann & Shindo, 2020; Lipsitch, Swerdlow, & Finelli, 2020; Liu & Saif, 2020; Wu & McGoogan, 2020; Zhu et al., 2020) and has since infected more than 76,000 people in Indonesia (Huang & Liu, 2020). It is highly contagious with fatal cases in

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patients that have underlying congenital diseases. According to studies, 87% of patients with this virus are between the ages of 30-79 years (Wu & McGoogan, 2020).

In March 2020, the World Health Organization (WHO) declared the COVID-19 virus as a Global Pandemic due to its rapid spread in nearly 187 countries and regions (WHO, 2020). By April 2020, there were over 2,965 positive confirmed cases of COVID-19 in Indonesia (Moriarty, 2020). This condition has a substantial psychological impact on individuals, the community, and medical personnel (Huang & Liu, 2020). The news on COVID-19, related to a specific country or region struggling against this pandemic, tends to raise anxiety indirectly (Sorokowski et al., 2020).

Analysis of the psychological condition due to the spread of this virus has not been fully carried out in every country (L. Huang & rong Liu, 2020; McKibbin & Fernando, 2020; Sorokowski et al., 2020). However, the psychological condition experienced by individuals gives rise to a variety of attitudes and behaviors, which rises due to the stress of pathogens (Inbar et al., 2016).

The spread of this virus and the news passed through social media have increased anxiety in various communities (Dong & Zheng, 2020). Public panic occurred not only due to the spread of COVID-19, but it was also experienced during the outbreak of Ebola in 2014 (Kilgo, Yoo, & Johnson, 2019) and previous viruses. The news conveyed through smartphones, or the media caused adverse psychological reactions called headline stress disorder (Dong & Zheng, 2020). Public panic and anxiety occur because many reports are dramatized and contain sensational elements (Innes, 2015). The continuous report by media outlets creates feelings of anxiety and stress, which leads to psychosomatic such as physical dysfunction, chest tightness, insomnia, palpitation, post-traumatic disorder, etc. (Batelaan et al., 2016; Liu et al., 2017). In Indonesia, people are also filled with anxiety about the spread of COVID-19. Therefore, this research examines the anxiety conditions experienced by Indonesians due to this virus by varied of the cluster, gender, region, and ages. Comparison of anxiety from gender factors is predicted to be necessary because it is a robust social construct with roles and behaviors that are culturally bounded, under the relationship amongst women, men, boys, and girls (Grills-Taquechel, Norton, & Ollendick, 2010; Krieger, 2003; Tannenbaum, Greaves, & Graham, 2016).

The roles between men and women are still clear; for example, child care and household activities are considered the responsibility of women, family leadership, and the provision of finance are attributed to men. Repeated Stem, as well as the education of girls and boys during childhood, lead to socialization (Heise et al., 2019). Age is an essential factor to consider in terms of anxiety exposure, and this is because an increase in age tends to have a good level of resilience (Lu et al., 2020; Suranata, Atmoko, & Hidayah, 2017). Therefore, this research intends to analyze of anxiety of Indonesian society during COVID-19 outbreak.

METHOD

This is a descriptive, quantitative, and online survey research conducted to determine the anxiety levels of Indonesians on COVID-19. This research used a cross-sectional study. This was a snowball sampling technique. This study used anxiety scale modified from Depression, Anxiety, and Stress Scale-21 (DASS-21). The survey was set up using SurveyMonkey® (www.surveymonkey.com, San Mateo, CA, USA). The link of the survey was sent through WhatsApp, e-mails, and other social media to the contacts of the participant. The participants were encouraged to roll out the survey to as many people as possible. Thus, the link was forwarded to people apart from the first point of contact and so on. On receiving and clicking the link, the participants got auto directed to the information about the study and informed consent. After they agreed to take the survey, they filled up the demographic details. Then a set of several questions appeared sequentially, which the participants were to answer.

This research was an online study. Participants with access to the internet could participate in the study. Participants with age < 17 years more than 17 years. The data collection was from March 20, 2020, to March 30, 2020. Data were collected from across the various region of Indonesia. The socio-demographic variables included gender, region, ages, longtime internet access, ethnicity, domicile, number of social media accounts, and extended internet access per day.

The online self-reported questionnaire developed by the investigator contained the following three sections related to listening (audio), reading (kinesthetic/visual), imagine (visual). This questionnaire consists of three parts, namely listening related to Covid-19, seeing/reading related to Covid-19, and imagining related to Covid-19. This questionnaire consists of 14 items in each section, so the total items were 42. Each part of this statement uses a scale of 0-3, which is 0 (never at all), 1 (rarely), 2 (often), 3 (very often).

The population of this study consists of several clusters, namely Sumatra, Riau Islands, Bangka Belitung Islands, Kalimantan, Java, Bali, Lombok, Sulawesi, Maluku, and Papua. Data were collected online from 627 people consisting of 194 men, and 443 women between the ages of 17 to 60 years. This research data was analyzed using JASP (Jeffrey's Amazing Statistics Program), with the data accessible at <https://osf.io/65syj>.

RESULTS AND DISCUSSION

The online survey conducted related to the anxiety of Indonesian people during the Covid-19 outbreak. This survey identifies related anxiety caused by hearing related to Covid-19, reading/ seeing related to Covid-19, and imagining related to Covid-19. Based on the results of a survey filled by 627 people spread throughout Indonesia (Table 1). The research respondents were 17 years old. Respondents, on average, have more than one number of social media accounts, and respondents have the intensity of accessing the internet longer.

Based on Table 1 it can be identified that the condition of Indonesian people's anxiety during the Covid-19 outbreak on average had the most anxiety levels in the very heaviness category of 67%. Furthermore, the heaviness category with a percentage of 17.5%, moderate level anxiety level with a percentage of 15%. As for the low and normal categories have the lowest percentage. These results can be concluded that the condition of the anxiety of Indonesia society during the covid-19 outbreak tends to be heaviness.

Figure 1 and 2 it can be seen that the average value of the data is in the range of 30-40 scores. Kurtil 25% is in the range of 10-40, and quartiles of 75% are in the range of scores 40-70. The range of values between quartiles is in the score 30-50. Based on the picture of anxiety levels of the Indonesian people during the Covid-19 outbreak, on average, it was in a range of scores of 20 to 60. In Figure 2, the level of anxiety of the Indonesian people during the Covid-19 outbreak was identified to be very severe. If this condition is not immediately addressed, then the Indonesian people will experience prolonged psychological disorders during the COVID-19 outbreak.

Table 3 explains that women's anxiety conditions in the very severe category had a higher percentage of anxiety scores at 70.2% than the percentage of men's anxiety scores. The average female anxiety score had a higher average than the average male anxiety score (table 4 and Figure 3). As for the heaviness category, the percentage of male anxiety scores was higher at 8.6% than the percentage of female anxiety scores. Then in the moderate category, the percentage of male anxiety scores was also higher at 20.6% than the percentage of female anxiety scores. This finding shows that women are more likely to have an average anxiety score in the very heaviness category, and men have an average anxiety score in the heaviness and moderate categories.

Table 3 shows that respondents who have an age range <17 years have a higher average anxiety score. Next in table 4 shows that respondents who have internet access > 5 hours have an average anxiety score higher. This condition explains that adolescents <17 years old who have internet access > 5 hours have higher anxiety scores (picture 4 and picture 5).

Table 5 and picture 6 shows that Indonesian people's anxiety scores during the Covid-19 outbreak average anxiety scores in the Central of Sulawesi, North Sumatra, and South Sumatra regions were three regions that had high rates of 52%, 45.5%, 43.1%. The area mentioned above is a red zone area where the regions of Sulawesi and Sumatra have positive confirmed data Covid-19. Public anxiety experienced by the community related to the spread and transmission of Covid-19 outbreaks. This anxiety condition is higher in the area because the population of the area is less dense. Why do urban communities in pandemic red zones have average anxiety scores below other regions because urban areas are more observant of social precautions such as social distancing? This is because they

know that cities with a dense population can speed up the spread of the Covid-19 outbreak (Messner, 2020). We consider anxiety in Sulawesi to increase because Sulawesi is a cluster of Covid-19 epidemics where the IjtimaTablighevent in Gowawas held. The North Sumatra region has the second-highest level of anxiety because it bases this area on data from the distribution of the Covid-19 outbreak as of April 17, 2020. It ranks this region 9th of the entire territory of Indonesia. In the third position, the average percentage of anxiety scores in the South Sumatra region was because this area had reached the position of 14 positive cases of Covid-19. Several studies support this that an increase in Covid-19 positive cases causes psychological disorders for individuals (Xiao, 2020) such as stress, anxiety, depression and PTS. The anxiety that occurs in certain areas is caused by “infodemik” (Gao et al., 2020), as well as negative and incorrect circulating in the community. In addition, anxiety amid society is increasing due to the constant news dramatized by the media.

The COVID-19 outbreak has led to lots of concerns in various countries, including Indonesia. Tables 1 to 5, and figures 1 to 6, show the ranging population from Sumatra to Papua affected by COVID-19 anxiety. There is no age tendency to distinguish the anxiety levels of COVID-19 pandemic condition, at all age distribution. However, these findings have shown that during the outbreak, women tend to be more anxious average than men. This finding is supported by research that explains that women are more likely to experience anxiety than men (Gao, Ping, & Liu, 2020; Guo et al., 2016). The previous epidemiological research explains that women suffer more mentally than men (Gao et al., 2020). There are several causes for this to happen because there are physiological differences between women and men (e.g., genetic susceptibility, hormone and cortisol levels, etc.) and can be reflected emotionally and behaviorally (Hankin & Abramson, 1999).

Men and women will respond to each psychological disorder differently because they both have different sensitivity to events (Afifi, 2007). Women are very susceptible to stress and pain, so it is possible to experience more anxiety and sadness (Chaplin, Hong, Bergquist, & Sinha, 2008). Anxiety can increase because women are more identical feminism, which is manifested to have a sensitivity (Gibson, Baker, & Milner, 2016). Other findings also explain why women’s anxiety is higher than men because women are more likely to struggle with internalizing disorders such as stress, anxiety, depression. In contrast, men have more external disorders such as substance drug abuse (Rosenfield & Mouzon, 2013), alcohol abuse (Vu et al., 2019), and internet addiction (Zhang, Lim, Lee, & Ho, 2018). When viewed in terms of personality, women are more likely to have borderline personalities characterized by emotional instability experienced by women (Keng et al., 2019). The explanation above shows that many factors are causing why women have high levels of anxiety.

Anxiety is a psychological reaction caused by stress symptoms, which results in an individual being frightened, with shaky hands and cold sweat, which leads to psychosomatic due to prolonged non-treatment (Sin, Fadli, & Ifdil, 2020). Anxiety during COVID-19 is higher in women, especially when children interfere with the occurrence (Daharnis et al., 2019). According to research, women’s anxiety during the COVID-19 outbreak was higher because they prioritized feelings over logic due to the news presented by the media. This finding is also supported by studies from affected countries where female anxiety is higher in medical personnel (Dong et al., 2020; Siyu et al., 2020; Ying et al., 2020). The findings of this study were gathered from the empirical studies on women’s social media posts.

The level of individual anxiety during an outbreak increase due to the quarantine of the region (Liu et al., 2017; Xiao, 2020). Regional quarantine anxiety for women is seen from the existence of panic buying, which occurred under their individual reactions (Qiu et al., 2020). Why quarantines cause an increase in psychological and mental problems (Xiao et al., 2020) because quarantine gradually alienates one person from another. In the absence of communication, depression and anxiety are more likely to occur and even worse (C. Xiao, 2020). On the other hand, quarantine also makes it difficult to intervene psychologically. Psychological counseling is also difficult in this Covid-19 outbreak situation. Therefore, mental health online services are urgently needed to deal with anxiety disorders during the Covid-19 outbreak.

In terms of age, respondents aged <17 years have a higher rate of anxiety. This finding is supported by findings where young people have high anxiety because they spend more time focusing on this Covid-19 pandemic (Huang & Zhao, 2020). In this study also found that respondents access the internet >5 hours per day. The greater individual intensity in using the internet can enable individual

news coverage to be dramatized and hot headlines (Dong & Zheng, 2020). Individuals who have a high intensity of media reports have higher psychological pressure (Wang et al., 2020). Therefore, respondents who have higher average anxiety are those who access the internet excessively every day. If this condition is not treated immediately, it can cause symptoms of depression and sleep problems because of the uncertainty of the development of the COVID-19 outbreak, which causes pressure in the community (Huang & Zhao, 2020). People are afraid, worried, anxious, and depressed because of the ever-changing warnings and media coverage about the spread of the COVID-19 virus (Stankovska, Memedi, & Dimitrovski, 2020).

The research also shows the importance of education related to efforts to improve the mental health of people as part of disaster mitigation. Anxiety condition in communities needs to be addressed because when left unchecked, it leads to psychosomatic and even post-traumatic stress disorder (J. Gao et al., 2020). It also increases in employees unable to work from home or part-time student workers that cannot make monthly income due to quarantine (Cao et al., 2020). This condition occurs in Indonesia and other affected countries all over the world (Liu, Liu, & Zhong, 2020; Qian et al., 2020; Wang, Di, Ye, & Wei, 2020). As for reviewing the experience of global viruses in the past, there must be development, support, intervention, and mental health services to help people deal with anxiety during the Covid-19 outbreak. Therefore, it is essential to make plans to recover public health after COVID-19.

CONCLUSION

In conclusion, the findings of the study showed that the anxiety level of Indonesian society during the COVID-19 outbreak in women is higher than men between the ages of 17 to 60 years. Furthermore, when viewed in terms of regions, Central Java, has the highest level of community anxiety. Therefore, the government, in collaboration with mental health experts, need to carry out recovery plans and treatment for reduction COVID-19 anxiety. The results of this study can be a reference for institutions, universities, governments, counselor, psychiatrist, psychologist, social worker, and the professional relevant, to provide mental health services for contributing to quality client care.

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Tables

Table 1. Frequency of anxiety based on category

Category	Frequency	Percent	Valid Percent	Cumulative Percent
Heaviness	110	17.5	17.5	17.5
Moderate	94	15.0	15.0	32.5
Normal	1	0.2	0.2	32.7
Low	2	0.3	0.3	33.0
Very Heaviness	420	67.0	67.0	100.0
Missing	0	0.0		
Total	627	100.0		

Table 2. Frequencies for category based on gender

Gender	Category	Frequency	Percent	Valid Percent	Cumulative Percent
Men	Heaviness	36	18.557	18.557	18.557
	Low	1	0.515	0.515	19.072
	Moderate	40	20.619	20.619	39.691
	Normal	1	0.515	0.515	40.206
	Very Heaviness	116	59.794	59.794	100.000
	Missing	0	0.000		
	Total	194	100.000		
Women	Heaviness	74	17.090	17.090	17.090
	Low	1	0.231	0.231	17.321
	Moderate	54	12.471	12.471	29.792
	Normal	0	0.000	0.000	29.792
	Very Heaviness	304	70.208	70.208	100.000
	Missing	0	0.000		
	Total	433	100.000		

Table 3. Descriptive statistics of anxiety based on ages

	Score of Anxiety				
	17 to 25 Year	25-40 Year	40 - 60 Year	< 17 Year	>60. Year
Valid	316	160	65	80	4
Missing	0	0	0	0	0
Mean	38.408	38.706	34.969	41.563	36.000
Std. Deviation	11.609	12.115	11.191	13.118	11.136
Minimum	21.000	11.000	18.000	15.000	21.000
Maximum	74.000	79.000	61.000	79.000	47.000

Note. Excluded 2 rows from the analysis that correspond to the missing values of the split-by variable Ages

Table 4. Descriptive statistics of anxiety based on longtime internet access

	Score of Anxiety			
	1-2 Hour	3-4 Hour	5- 6 Hour	> 6 Hour
Valid	112	183	132	200
Missing	0	0	0	0
Mean	38.402	37.049	39.652	39.030
Std. Deviation	13.274	11.506	11.217	12.077
Minimum	15.000	11.000	21.000	21.000
Maximum	78.000	79.000	73.000	79.000

Table 5. Descriptive statistics of anxiety based on region

Score of Anxiety																											
Valid	Bali	Bangka Belitung Island	Banten	Bengkulu	Central Java	East Java	East Nusa Tenggara	Jakarta	Jambi	Kalimantan	Timor	Lampung	Nanggroe Aceh Darussalam	North Maluku	North Sumatra	Papua	Riau	Riau Island	South Kalimantan	South Sulawesi	South Sumatra	Central Sulawesi	West Java	West Kalimantan	West Nusa Tenggara	West Sumatra	Yogyakarta
	6	4	7	13	170	39	2	33	32	1	131	12	1	6	3	3	1	4	6	10	1	66	1	27	45	3	
Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean	33.667	36.250	39.714	36.538	38.053	35.487	35.500	36.970	40.844	42.000	38.954	35.833	32.000	45.500	37.000	42.000	34.000	30.250	42.833	43.100	52.000	38.470	35.000	36.741	41.867	36.000	
Std. Deviation	8.238	10.689	9.552	12.427	11.226	9.918	34.648	12.638	12.738	Na	12.798	12.626	Na	8.735	4.583	19.672	Na	10.751	8.519	16.914	Na	12.884	Na	10.762	11.445	14.526	
Minimum	25.000	21.000	23.000	22.000	21.000	18.000	11.000	21.000	21.000	42.000	15.000	23.000	32.000	35.000	33.000	21.000	34.000	21.000	33.000	21.000	52.000	21.000	35.000	21.000	21.000	21.000	
Maximum	47.000	45.000	50.000	60.000	73.000	55.000	60.000	67.000	68.000	42.000	79.000	60.000	32.000	56.000	42.000	60.000	34.000	41.000	58.000	79.000	52.000	74.000	35.000	61.000	70.000	50.000	

Figure

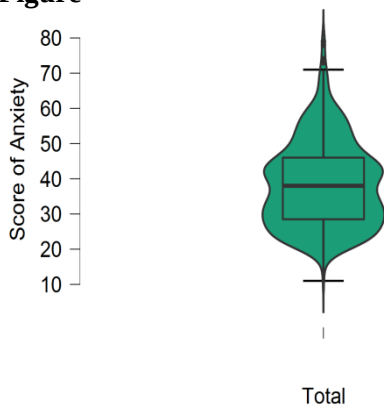


Figure 1 Score of Anxiety

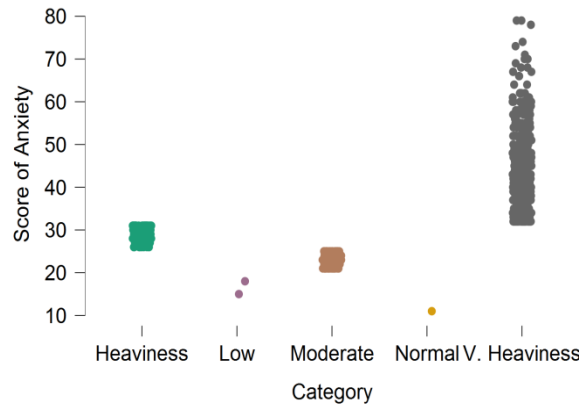


Figure 2 Score of Anxiety Based Category

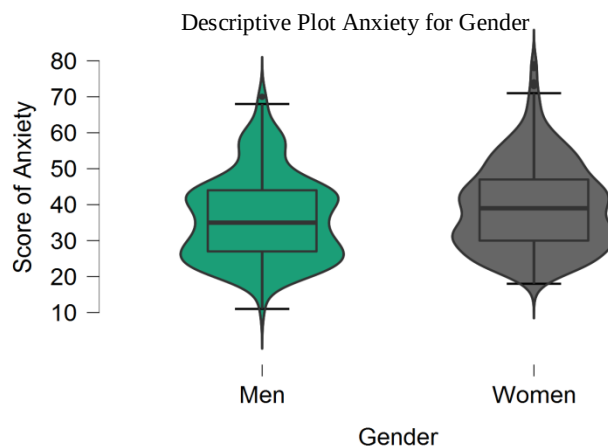


Figure 3 Score of Anxiety Based on Gender

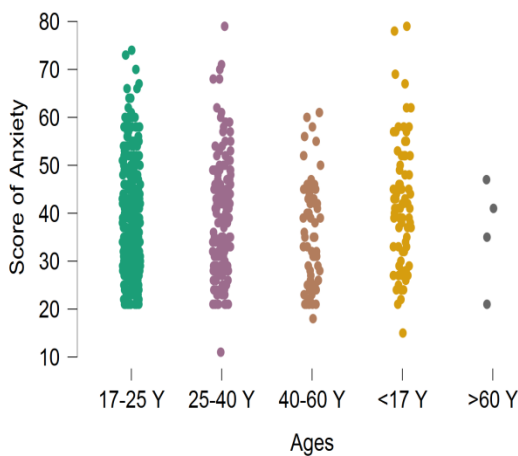


Figure 4 Score of Anxiety Based on Ages

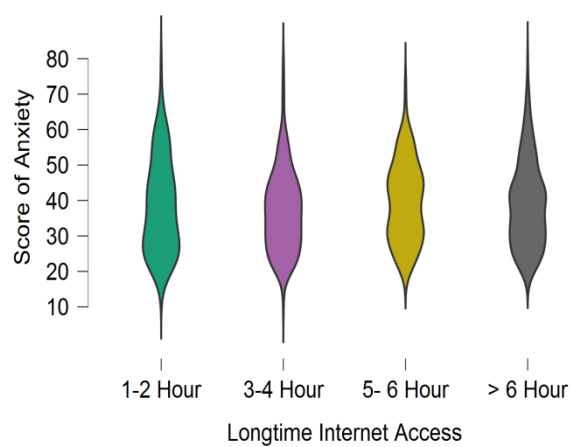
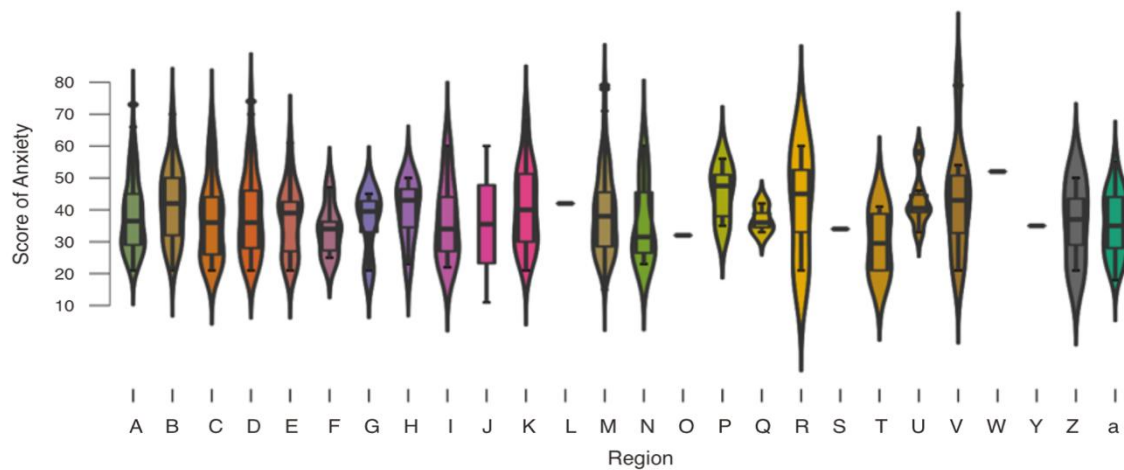


Figure 5 Score of Anxiety Based on Longtime Internet Access



Picture 6 Score of Anxiety

Information:

Central Java	: A	West Sumatera	: B	Jakarta	: C
West Java	: D	West Nusa Tenggara	: E	Bali	: F
Bangka Belitung Island	: G	Banten	: H	Bengkulu	: I
East Nusa Tenggara	: J	Jambi	: K	East Kalimantan	: L
Lampung	: M	Nanggroe Aceh D	: N	North Maluku	: O
North Sumatera	: P	Papua	: Q	Riau	: R
Riau Island	: S	South Kalimantan	: T	South Sulawesi	: U
Central of Sulawesi	: W	West Java	: X	West Kalimantan	: Y
Yogyakarta	: Z	East Java	: a		