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Original Article

Differences in Early Adult Anxiety during COVID-19 Pandemic: Analysis Rasch Model

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Abstract. Since COVID-19 pandemic entered Indonesia, maletal health experts have also investigated the increase in psychological problems, one of which is anxiety. The fear of being infected or unknowingly infecting other people is a major source of anxiety during COVID-19 pandemic. This study aims to describe the differences in early adult anxiety during COVID-19 in terms of gender. This study is a comparative study at the early adult developmalet stage in Indonesia, obtained through random sampling. The sample of this study was 206 people (male, n = 66, M = -2.00, SD = +2.30; female, n = 140, M = -1.87, SD = +1.83). The analysis technique used is the Welch Test on the Rasch model with the help of WINSTEPS Version 3.7.3. The results show that the tendency for male and female to be in the moderate category and there is no significant difference in anxiety of COVID-19 between male and female early adulthood. The implemaletation of guidance and counseling is discussed further.

Keywords: Anxiety, Early Adult, Gender, COVID-19, Pandemic.

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Introduction

The Corona virus (COVID-19) outbreak has been a year since it was first identified in mainland China on 31 December 2019, now spreading across the globe. As of December 28, 2020, the number of reported international cases has jumped to more than 81 million (WHO, 2020). Positive cases of COVID-19 in Indonesia were first detected on March 2, 2020 and on April 9, the pandemic has spread to 34 provinces with DKI Jakarta, West Java and Central Java as the provinces most exposed to the corona virus in Indonesia, with a total of 1,2 million positive cases, it is ranked first in Southeast Asia. Psychological problems began to be a serious topic of discussion for psychologists during COVID-19 pandemic, such as causing symptoms of fear (Ahorsu et al., 2020), anxiety (Lee, 2020), stress (Taylor et al., 2020), and marked anxiety syndrome with avoidance, inspection and worry (Nikčević & Spada, 2020).

Data shows that anxiety among healthcare workers during COVID-19 pandemic is significantly higher than that of the general population, ranging from 22.6% to 36.3% (Liu, Gayle, Wilder-Smith, & Rocklöv, 2020). Among healthcare workers, nurses reported experiencing the highest levels of anxiety and the highest prevalence of anxiety, ranging from 15% to 92% (Alwani et al., 2020; Luo, Guo, Yu, & Wang, 2020). The fear of being infected or unconsciously infecting other people is a major source of anxiety in nurses during COVID-19 pandemic (Mo et al., 2020). In addition, there are other factors that cause increased anxiety in nurses, namely: lack of personal protective equipmalet (PPE), lack of access to COVID-19 testing, fear of transmitting the virus in the workplace, doubt that their agency will support
them if they become infected, lack of access to child care facilities during lockdown, fear of being placed in unfamiliar wards or units and lack of accurate information about COVID-19 (Shanafelt, Ripp, & Trockel, 2020). Likewise, the negative effects arising from heavier levels of anxiety, such as loss of appetite, dizziness, sleep disturbances and vomiting / nausea (Lee, 2020). In fact, decreased body function, stress, depression, and increased suicidal thoughts are associated with negative effects resulting from more severe levels of anxiety (Lee, Jobe, Mathis, & Gibbons, 2020). The COVID-19 pandemic has also raised concerns regarding finances, jobs and economic stability (Pew Research Center, 2020). Home quarantine and social distancing also increase anxiety and negative emotions widely in society (Gao et al., 2020; Qiu et al., 2020; Wang et al., 2020).

Based on the description of the above conditions, The National Health Commission of China (NHCC, 2020) issued a notification on January 26, 2020, providing guidance on the principles of psychological crisis intervention to reduce the psychosocial effects of the COVID-19 outbreak. This notification stipulates that psychological crisis interventions must be part of the public health response to the COVID-19 outbreak, through joint prevention and control mechanisms at the village, city and provincial levels, and interventions must be differentiated by group. The social service workforce for maeltal health began to intervene, consisting of a psychological outreach team led by psychiatrists and maeltal health professionals, as well as a psychological support hotline team (Dong & Bouey, 2020). As the virus spreads globally, governmalets must meet the maeltal health needs of the public by developing and implementing a well-coordinated strategic plan to meet the needs during COVID-19 pandemic (Dong & Bouey, 2020).

In contrast to China which still has great challenges to successfully implement psychological crisis interventions, the shortage of maeltal health service providers is a source of problems in implementing psychological crisis interventions, the number of psychiatrists in China is around 1.49 / 100,000 population, and half have not obtained a medical degree, sadly, health care such as nurses is still uneven (Liang, Mays, & Hwang, 2018). For this reason, many volunteers set up psychological support hotlines in various places such as: hospitals, universities, organizations, and various institutions with various levels of qualifications and experience (NHCC, 2020). However, psychological support hotlines still create confusion for people who are in need of services because they are not coordinated and not adequately supervised (Dong & Bouey, 2020).

For this reason, the need for guidance and counseling services to reduce adult feelings of anxiety during COVID-19, and to make it easier for counselors to reduce anxiety, counselors need data on early adult anxiety conditions. The purpose of this study was to describe the differences in anxiety during COVID-19 between male and female early adulthood in Indonesia. The importance of testing anxiety during COVID-19 conditions is to plan a counseling and guidance service program that focuses on treating the maeltal health of early adult individuals in Indonesia, especially anxiety during COVID-19 pandemic.

### Method

This study is a comparative study of early adult individuals, obtained through random sampling.

#### Participant

The sample in this study amounted to 206 people (male, n = 66, M = -2.00, SD = ±2.30; female, n = 140, M = -1.87, SD = ±1.83), individuals who were the samples of the study were aged 25-40 years (commonly called early adulthood) spread across Indonesia.
Measure

The results of the RASCH model analysis show that the person reliability score is 0.94, meaning that the quality of the answers given by the respondents is good. And the item reliability score is 0.98 which indicates the quality of the anxiety instrumelaet related to COVID-19 is very good. Meanwhile, the reliability score based on Cronbach's alpha value (KR-20) is 0.95, indicating that the interaction between person and item is good. Besides, the instrumelaet sensitivity value +1.02 logit (INFIT MNSQ); and the overall instrumelaet sensitivity value +1.01 logit (OUTFIT MNSQ) shows that it is still in the ideal range (+0.5> MNSQ <-1.5; Bond & Fox, 2015b; Boone, Stever, & Yale, 2014; Sandaja, Syahputra, & Erwinda, 2020; Syahputra, Rangka, Solihatun, Folastri, & Oktasari, 2020). This indicates that the items on the anxiety instrumelaet have very good quality for measuremael conditions carried out during COVID-19 pandemic.

Procedur

Early adults were given an anxiety instrumelaet consisting of 21 items related to COVID-19 that were provided online. Each respondent can choose one of the four alternative answers (starting from 5 = always to 1 = never) provided and 30 minutes of time given to fill in the instrumelaet.

Data Analysis

The analysis technique used is the Welch Test on the Rasch model (Bond & Fox, 2015a; Erwinda, Syahputra, Fadli, & Zola, 2018; Hariyani & Syahputra, 2019; Syahputra, Sandaja, Afdal, & Ardi, 2019) with the help of WINSTEPS Version 3.73 (Linacre, 2011).

Result and Discussion

The discussion of the results of this study is about the differences in male and female early adult anxiety. Furthermore, the results of the analysis of the difference test for male and female early adult anxiety are presented in Table 1 below.

| Table 1. The results of the Welch Test for Early Adult Anxiety in terms of Gender |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|
| Reliability Person | Welch | Mean Difference Measure | t | d. f. | Prob. |
|-------------------|-----------------|-----------------|-----------------|-----------------|
| L | P | .94 | .94 | -.13 | -.40 | 104 | .691 |
| Information: L = Male; P = Female |

The results of reliability show that male and womale have the same score, 0.94, meaning that early adulthood, male and womale both provide good quality answers when answering the anxiety instrumelaet related to COVID-19. Furthermore, Welch's results showed sig = .691, or p-value> 0.05, meaning that there was no significant difference between male's and womale's early adult anxiety during COVID-19 pandemic. All individuals carry out quarantine at home, all activities are transferred online, this is what causes individuals, especially early adults, to access all information via smartphones to find information about the development of COVID-19. This is supported by (Elhai, Levine, & Hall, 2019; Yang, Fu, Liao, & Li, 2020) that smartphone addiction is positively correlated with depression and anxiety. People seek emotional assistance from smartphones and internet devices (Brand et al., 2019; Kardefelt-
Winther, 2014). This condition causes smartphone and internet addiction to also increase during COVID-19 Pandemic (Brand et al., 2019; Li et al., 2020). The research results (Syahputra & Erwinda, 2020) reveal that there is no difference in nomophobia between male and female students, students who also use a lot of internet access (> 8 hours). In contrast to Carli et al. (2013) revealed that female use the internet excessively (66.4%) compared to male (54.9%) and a study in Norway found differences in internet addiction between male and female (Johansson & Göttestam, 2004).

Based on the explanation above, the researcher clarifies by looking at how the anxious conditions of early adult individuals during COVID-19 pandemic are presented in Figure 1 below.

**Figure 1. Variable Maps of Differences Anxiety COVID-19 in terms of Gender**
Information: L = Male; P = Female

Figure 1 shows that there is no difference in COVID-19 anxiety between male and female early adulthood, the tendency for male and female to be in the moderate category. The impact
of the COVID-19 pandemic raises concerns regarding finance, jobs and economic stability (Pew Research Center, 2020). Home quarantine and social distancing also increase anxiety and negative emotions widely in society (Gao et al., 2020; Qiu et al., 2020; Wang et al., 2020). Research on anxiety before and during social distancing in adults in southern Brazil (Feter et al., 2020) reveals the impact of the COVID-19 pandemic on work-related activities and the economic situation examined with the following question: “Does social distancing affect your monthly income? ”If there is a firm response, participants report whether expectations have decreased or increased during COVID-19 pandemic (Feter et al., 2020). In addition, anxiety related to news of death from COVID-19 is mitigated by playing smartphones excessively (Elhai, Yang, McKay, & Asmundson, 2020), this has caused smartphone addiction to increase during COVID-19 pandemic.

**Figure 2. Most Unexpected Person Measure Anxiety COVID-19**

Unexpected results showed that the person code on the left, male and female, there was no difference in COVID-19 anxiety, which was indicated by male and female representatives at each level of COVID-19 anxiety ranging from low -4.80 to high +3.77 logit. Based on these
results it is stated that the anxiety of COVID-19 can affect anyone, both male and womale who have entered early adulthood. maetal health experts (Bloom, Black, & Rappolu, 2017; Kim & Park, 2017) reveal important factors that protect social workers from the risk of anxiety and stress, namely personal resilience, social support, and organizational support. Research in the health sector (Hart, Brannan, & De Chesnay, 2014) shows resilience helps nurses deal with stress, by bouncing back or recovering quickly from stressful events. In addition, there is a positive effect of social support on nurses’ job satisfaction, work commitimalet, health and well-being (Choi, 2018). Social support is an important factor to help health workers manage stressful events, including emergency situations, catastrophic events and infectious disease outbreaks (Kim & Park, 2017). In addition, the role of counselors, psychologists, and psychiatrists is needed to reduce feelings of stress and anxiety (Dong & Bouey, 2020) during COVID-19 pandemic and post-pandemic. Das (2020) suggests three main problems that must be overcome by fellow psychiatrists: (1) conducting research to produce new findings, (2) generating awareness and psychological readiness among the community and essential service providers, (3) providing active psychological and psychiatric interventions to those in need. Based on these conditions, there is a need for a program of guidance and counseling services on how to reduce anxiety during the COVID-19 pandemic through ten guidance and counseling services, and several therapeutic techniques such as art therapy, hypnotherapy, and chromotheraphy, as well as the need for further research related to anxiety of COVID-19 to be reviewed from other developmaletal stages, namely: children, adolescents, middle adults and early adults.

Conclusion

The results show that the tendency for male and female to be in the moderate category and there is no significant difference in anxiety of COVID-19 between male and female early adulthood. In this condition, there is a need for guidance and counseling service programs on how to reduce anxiety during COVID-19 pandemic through ten guidance and counseling services, and several therapeutic techniques such as art therapy, hypnotherapy, and chromotheraphy, as well as the need for further research related to anxiety during COVID-19 to be reviewed from other developmaletal stages, namely: children, adolescents, middle adults and early adults.

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