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The Influence of *e-Health Literacy* and Anxiety on *Cyberchondria* In Early Adulthood Internet Users at the Pulogadung Police Dormitory

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Abstract: This study aims to determine whether there is an influence of e-health literacy and anxiety on cyberchondria in early adult internet users at the Pulogadung Police Dormitory. This study uses a quantitative method with a purposive sampling technique with predetermined respondent criteria. The questionnaire was distributed to 202 respondents who had entered early adulthood with an age range of 18-40 years, domiciled at the Pulogadung Police Dormitory, internet or social media users, and had searched for health information on the internet. The instruments used in this study were the electronic-Health Literacy Scale (e-HLS), Beck Anxiety Inventory (BAI), and Cyberchondria Severity Scale (CSS). Data processing in this study used the Kolmogorov-Smirnov normality test and hypothesis testing used multiple linear regression tests. Based on the test results of the e- health literacy variable on cyberchondria, the p value = <0.001 (p <0.05) with an R^2 value = 31.5%, which means that the first hypothesis is accepted and there is a significant influence. On the anxiety variable on cyberchondria , the P value = <0.001 (P <0.05) with an R^2 value = 35.9%, which means that the second hypothesis is accepted and there is a significant influence. In addition, the results of the multiple linear regression test show that e-health literacy and anxiety have an effect on cyberchondria in early adult internet users at the Pulogadung Police Dormitory.

Keywords: E-Health Literacy, Anxiety, And Cyberchondria.

INTRODUCTION

The rapid development of information and telecommunications technology has enabled the internet to reach various aspects of people's lives in Indonesia. This condition actually makes it easier for individuals to access excessive information about a particular topic on the internet (Dhir, et al., 2018). Based on a survey by the Indonesian Internet Service Providers Association (APJII) in 2024, the internet penetration rate in Indonesia reached 79.50% with the number of internet users in Indonesia as many as 221.56 million people out of a total population of 278.69 million people. This figure shows that there was an increase of 5.94 million people compared to 2023 which amounted to 215.62 million people. Meanwhile, DKI

Jakarta itself, the number of internet users reached 271.62 million people with a penetration rate of 87.51%.

Currently, people in Indonesia have the convenience of accessing and searching for information via the internet and social media. Especially individuals who have entered adulthood, including early adulthood. According to the results of a survey conducted by the Indonesian Internet Service Providers Association (APJII) in 2024, the internet penetration rate in the 18-40 age group reached 93.17%. This data indicates that individuals in the early adult age range are the largest group of internet users exposed to various information from the internet.

Hurlock (2021) classifies early adulthood as being in the age range of 18-40 years. In this phase, individuals tend to experience a stage known as a *quarter-life crisis* , which is a phase in which an individual feels afraid and anxious due to uncertainty regarding their future life, such as relationships, careers, and other social aspects. This is in line with the statement expressed by Fischer (2008) that *quarter-life crisis* generally occurs and is experienced by individuals aged 20 years. Then, data obtained from The Guardian shows that *quarter-life crisis* has the potential to be experienced by 86% of the millennial generation worldwide (Ramadhan, 2020). In addition, according to the results of a survey conducted by GenSINDO on individuals aged 18-25 years, there are five main aspects that individuals are most worried about when they enter adulthood, namely work, education, partners, health, and global competition (Nurdifa, 2020). The problems that arise at this stage are what often drive individuals to seek information about certain issues on the internet, including information about physical and mental health.

With the advancement of information and telecommunication technology, several community organizations, especially health organizations, have taken steps to reduce the gap in accessing information, especially health information. As is known, currently there is a variety of health information that can be accessed by the Indonesian people online , either through websites, health applications, and video platforms such as *YouTube, TikTok, Instagram,* and *Facebook* . In addition, access to health information can also be accessed through *non-mainstream media* , although the accuracy of the information cannot always be ascertained. Therefore, with the advancement of information and telecommunication technology today, it has had many impacts on changes in an individual's lifestyle (Mesko et al., 2017).

The ease of individuals in searching for health information on the internet can increase the tendency of individuals to diagnose themselves or what is known as *self-diagnosis* . This is supported by research conducted by Bajcar, Babiak, and Olchowska-Kotala (2019), which found that around 75% of internet users worldwide have searched for health information through websites to find symptoms of the disease they are experiencing. Then, Beiley et al (2015) revealed that around 20-30% of *smartphone users* download health-related applications. So those who have health applications are more likely to use the internet and social media to search for health information (Tennant et al., 2015).

The habit of doing *self-diagnosis* can trigger the emergence of *cyberchondria behavior* and can increase excessive anxiety. *Cyberchondria* refers to a person's habit of continuously searching for information about their health on the internet. This *self-diagnosis process* generally begins with searching for information through *a search engine* that directs its users to access various information that can be confusing and less accountable for the truth of the information. Excessive dependence on health information from this can create uncertainty and can also increase excessive anxiety. As a result, it can increase a bad cycle of failed attempts to reduce anxiety about the search for health information that is carried out.

The phenomenon of searching for information related to health information online can be seen during the Covid-19 pandemic, where there are various news about Covid-19 spread across various media and platforms that cause an increase in anxiety and trigger cyberchondria

behavior . News about Covid-19 information spread across various media and platforms not only has an impact on physical health, but also has an impact on mental and psychological health, such as the emergence of anxiety and fear of health during the Covid- 19 pandemic. This is reinforced by the results of a study conducted by Dennis et al (2020) which explains that the Covid-19 pandemic causes a very significant increase in anxiety, especially for individuals who have anxiety disorders and fear of health. Until the time of the spread of information about Covid-19 through various platforms, it also contributed to an increase in cyberchondria behavior .

Cyberchondria behavior in a person is triggered by the large amount of electronic information available and easily accessible by the public in searching for and reading certain topics, such as the spread of the Covid-19 virus infection and other health problems. Then, the need for clarity, completeness, and accuracy of health information obtained from the internet is an important factor in preventing cyberchondria behavior (Aiken et al., 2012). In addition, the large amount of health information available online is very necessary for increasing e-health literacy, especially among internet users. Norman and Skinner (2006) define that e-health literacy as Wrong One form ability a individual in search , find , understand , and evaluate information health that comes from from electronics , as well as apply knowledge the For overcome or finish related problem health . Then , the World Health Organization (WHO) explained that ability e-health literacy is Wrong One factor social role important in problem health . Although Thus , there are non- medical factors others that can influence health someone , like condition since birth , environment place grow And developing , and factor economy And more social the area that forms condition life daily

In the relation with behavior cybrchondria ,e-health literacy is very play a role important in overcome overexposure to information health from the internet that has the potential trigger emergence behavior cyberchondria . According to Zheng et al (2020), individuals who have level literacy high health tend more aware that the internet is just tools that provide information based on the symptoms sought , however No can provide a more accurate media diagnosis objective And scientific . However , for individuals who tend to do cyberchondria often experience difficulty in differentiate information valid health and can trusted with misinformation or No accurate . This is will make they tend depends on source that is not credible so that can to worsen anxiety as well as increase afraid to condition health they do not only that , individuals who have literacy low digital health own trend in make decision about his health , such as dangerous behavior health more bad , cost maintenance better health height , and health status that becomes more bad (Ghanbaru et al., 2016; Guo et al., 2018).

This matter in line with results research conducted by Baumgartner and Hartmann (2011) who proved that existence connection between anxiety with search information health , where individuals with level more anxiety tall on generally will often do search information health via the internet. Also strengthened by results research conducted by Liu (2020) that individual with level more anxiety tall will more often look for information his health as action look for certainty information in effort reduce anxiety that is actually can increase anxiety in term long Because existence strengthening negative from behavior said . While that , based on results research conducted by Han Zheng Xiaoyu Chen, Shaoxiong Fu (2020) entitled Exploring the Determinants of Cyberchondria : Moderate Mediation Analysis show that e-health literacy has role in reduce impact consequence reaction emotional on behavior cyberchindria And can reduce impact cool and cool to health on a individual . By Because that 's interesting For researching more carry on about role e-health literacy on internet users in Indonesia, especially among individuals who have enter phase mature the beginning of the domicile in the dormitory Indonesian National Police Pulogadung , East Jakarta .

Based on problem above , then researcher own interest For do study about Influence e-Health Literacy and Anxiety To Cyberchondria On Mature Beginning Internet Users in Dormitories Indonesian National Police Pulogadung.

METHOD

This study was conducted using quantitative methods. Then, the population used was early adult internet users at the Pulogadung Police Dormitory. The research sample of this study was early adult internet or social media users with an age range of 18-40 years, domiciled at the Pulogadung Police Dormitory, and had searched for health information on the internet or social media. In addition, the sample collection technique used in this study was non-probability sampling with a purposive sampling technique .

In determining the number of respondents in this study, the researcher used several established criteria so that a research sample of 202 respondents was obtained from a total of 350 residents living in the Pulogadung Police Dormitory.

The data collection technique used a questionnaire. The questionnaires used in this study were the electronic-Health Literacy Scale (e-HLS) by Seckin et al (2016), Beck Anxiety Inventory (BAI) by Aaron Beck (1988), and Cyberchondria Severity Scale (CSS) by McElroy and Shevlin (2014) which have been translated into Indonesian by Aulia (2019). In addition, in this study, the researcher's data analysis process used JASP version 19.0 software. The analysis technique used is multiple linear regression analysis, where this analysis aims to predict the value of the influence of two or more independent variables on the dependent variable (Sugiyono, 2015).

RESULT AND DISCUSSION

Based on the results of the first hypothesis, the results obtained are that the p value = 0.001 <0.05, which means that there is a significant influence of e-health literacy on cyberchondria and these results also indicate that the first hypothesis (Ha 1) in this study is accepted. Then, the results of the test also showed that there was a positive influence of 31.5%, where the increasing e-health literacy will cause an increase in cyberchondria in early adult internet users at the Pulogadung Police Dormitory. The results of the test that have been carried out by the researcher are in line with the results obtained from the study conducted by Rachma and Oktaviana (2024) which stated that there was a significant influence between e- health literacy and cyberchondria so that it was concluded that the higher the e-health literacy in an individual, the more it causes an increase in cyberchondria in that individual.

Table 1. Results of *e-Health Literacy Analysis* with *Cyberchondria*

Model Summary – TOTAL CYBERCHONDRIA

Model	R	R2	Adjusted R2	RMSE
H_0	0,000	0,000	0,000	21,967
H_1	0.561	0.315	0.311	18,320

Source: *JASP Version 19.0*

Model	Understandarized	Standard Error	Standardized	T	*P*	Collinearity Statistics	
						Tolerance	VIP
H0 (Intercept)	91,119	1,546		58,953	< ,001		
H_1 (Intercept)	33,320	6,165		5,404	< ,001		
Total e-HLS	1,108	0.116	0.561	9,584	< ,001	1,000	1,000

Source: *JASP Version 19.0*

Based on the results of the second hypothesis, the results obtained are that the p value = 0.001 <0.05, which means that there is a significant influence of anxiety on cyberchondria and this result also shows that the second hypothesis (Ha2) in this study is accepted. Then, the results of the test also showed that there was a positive influence of 35.9%, where the increasing anxiety will cause an increase in cyberchondria in early adult internet users at the Pulogadung Police Dormitory. The results of the test that have been carried out by the researcher are in line with the research conducted by Princen and Julianti (2022) which states that there is a significant influence between anxiety and cyberchondria so that it can be concluded that the higher the level of anxiety experienced by an individual, the higher the cyberchondria in that individual.

Table 2. Results of Analysis of Anxiety with *Cyberchondria*

Model Summary – TOTAL CYBECHONDRIA

Model	R	R2	Adjusted R2	RMSE
H 0	0,000	0,000	0,000	21,967
H 1	0.600	0.359	0.356	17,626

Source: *JASP Version 19.0*

Model	Understandarized	Standard Error	Standardized	T	*P*	Collinearity Statistics	
						Tolerance	VIP
H0 (Intercept)	91,119	1,546		58,953	< ,001		
H 1 (Intercept)	64,881	2,770		27,423	< ,001		
Total BAI	0.906	0.086	0.600	10,593	< ,001	1,000	1,000

Source: *JASP Version 19.0*

Based on the results of the third hypothesis, it was found that the e-health literacy value was 0.001 <0.05 and the anxiety value was 0.001 <0.05, so it can be interpreted that there is a significant influence between e-health literacy and anxiety on cyberchondria and these results also indicate that the third hypothesis (Ha3) in this study is accepted. Then, the results obtained can also be seen that there is a positive influence of 52.1%, where the higher the e-health literacy and anxiety in early adult internet users, the higher the cyberchondria in early adult internet users at the Pulogadung Police Dormitory.

Table 3. Results of the Regression Test of *e-Health Literacy* and Anxiety with *Cyberchondria*

Model Summary – TOTAL CYBERCHONDRIA

Model	R	R2	Adjusted R2	RMSE
H 0	0,000	0,000	0,000	21,967
H 1	0.725	0.525	0.521	15,210

Source: *JASP Version 19.0*

Model	Understandarized	Standard Error	Standardized	T	*P*	Collinearity Statistics	
						Tolerance	VIP
H0 (Intercept)	91,119	1,546		58,953	< ,001		
H 1 (Intercept)	26,390	5,197		5,078	< ,001		
Total e-HLS	0.839	0.101	0.425	8,342	< ,001	0.919	1,088
Total BAI	0.723	0.077	0.479	9,398	< ,001	0.919	1,088

Source: *JASP Version 19.0*

CONCLUSION

Based on the results of the data analysis and discussion presented above, it can be concluded that:

There is a significant influence between e-health literacy and cyberchondria in early adult internet users at the Pulogadung Police Dormitory. This can be seen in the results obtained showing that there is a positive influence between e-health literacy and cyberchondria , where the increasing e-health literacy in an individual will also increase cyberchondria in that individual.

There is a significant influence between anxiety and cyberchondria in early adult internet users at the Pulogadung Police Dormitory. This can be seen from the results obtained showing a positive influence between anxiety and cyberchondria so that the higher the anxiety in an individual, the higher the cyberchondria in that individual will be.

There is a significant influence between e-health literacy and anxiety towards cyberchondria in early adult internet users at the Pulogadung Police Dormitory. This can be seen from the results obtained showing that e-health literacy increases and anxiety increases, causing *cyberchondria* in a person to also increase.

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