

## THE EFFECT DURATION OF INTERNET USAGE ON THE PHYSICAL DEVELOPMENT IN ADOLESCENT DURING COVID-19 PANDEMIC IN MALANG CITY

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### ABSTRACT

*The world is currently experiencing a Covid-19 pandemic including in Indonesia. The Government of Indonesia implements Social distancing to prevent the spread of Covid-19, this also applies to all individuals including teenagers, the educational process that must be carried out remotely will make teenagers use the internet or technology as a means. Continuous internet use will also have an impact on a teenager's physical or health. This study aims to analyze the effect of the duration of internet use on the physical development of adolescents during the covid-19 pandemic. The research method used is analytics with a Cross sectional approach. Respondn consists of 236 teenagers in 2 villages namely Tanjung rejo village and Kasin Kota Malang. Sampling with simple random sampling. The results of the study found that of adolescents who used the internet for more than 7 hours, the impact of physical development was expressed according to or experienced health impacts of 67 adolescents and from the Chi Square test a  $p= 0.000$  value which means there is an influence or effect on the duration of internet use with physical development. So the longer internet use increasingly affects the physical development of adolescents, therefore the parents of teenagers should be wiser and limit in internet use so as not to occur in the case of physical development or health.*

**Keywords:** *Duration of Internet usage, Physical Development, Adolescent, Covid-19.*

### INTRODUCTION

Currently the world is being hit by the Covid-19 pandemic, the spread of the virus is quite high in various countries including Indonesia. Severe Acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection that clinically manifests in the respiratory system causes respiratory failure and leads to death. Therefore, who establishes pandemic status for infection of this disease. Several countries in the world are encouraged to make lockdown policies in preventing the widespread spread of the virus (Ministry of Health of the Republic of Indonesia, 2020). Covid-19 pandemic in the World including in Indonesia impacts various sectors in the World. From the economy to the education sector. In the education sector, face-to-face learning is not carried out in education in both schools and campuses because the transmission of covid-19 spread can occur through crowds or gatherings, therefore, the government provides policies for Social Distancing that have implications for the wider community namely working from home, school from home to worship at home. The education sector also provides face-to-face learning and switching with distance or online learning that requires an ongoing internet connection (Ministry of Health of the Republic of Indonesia, 2020).

For maximizing the use of the internet in learning, this method can be an alternative to the delivery of face-to-face learning materials, internet use can also be used to evaluate the learning achievements of students. Continuous use of the internet will have an impact on its users, positive and negative impacts in the future (Nugraha, 2013). Online learning is conducted by all students, especially teenagers. Teenagers in the digital age have been exposed to digital technology since the beginning of his life that will have a tendency towards the internet. In education teenagers use the internet to the fullest extent possible, and the use of the internet is not limited to being a practical primary solution in order to meet the needs of academic problem solving, but also as a recreational means amid the dense daily cognitive burden (Kurniasanti *et al.*, 2019). Technological advances make it easy for teens to get information or messages through media available both offline and online about adolescent health behaviors that prove effective for teens to accept and absorb. Biologically, emotionally and mentally teenagers are ready to accept and engage with the world outside the family environment, proving they can use social media intensively (Bundy et al, 2017).

The largest internet users in Indonesia are vulnerable teenagers aged 15-24 with a percentage gain of about 26.7% - 30%, nearly 80% of teenagers aged 10-19 in 11 provinces experience sister on the internet, internet access is not always positive and some teens use the internet to interact with unknown people which is 24%, access pornography as much as 14% and the rest for online games and other purposes (Hapsari & Ariana, 2015; Adiarsi, Stellarosa & Silaban, 2015).

Internet use in adolescents has both an impact or risk on adolescent development. Some of the concerns are the increase in aggressive behavior due to harsh media content, a higher risk of depression for users who have high levels of self-harm, self-esteem through online, cyberbullying, and increased attention through body image, lying in cyberspace as well as decreased sleep quality that will affect adolescent health. While the benefits obtained from internet use are that teenagers have good social connections, foster good creativity, have engagement with the community, are insightful and are able to get useful information such as about health (Bundy et al; Carson et al, 2017)

## **RESEARCH DESIGN AND METHODOLOGY**

This research uses analytical methods, with cross sectional research design. The subjects in this study were young men and women in Tanjung Rejo Village sukun sub-district and Kasin Village of Klojen Sub-District of Malang which numbered 235 teenagers according to using simple random Sampling. The study was conducted from July to August 2020 during

the Covid-19 pandemic and the data was obtained by spreading questionnaires through google form. Data collected, tabulated, coded and analyzed using SPSS with Chi Square test.

## FINDINGS AND DISCUSSION

This research data is the result of questionnaires distributed through Google Form to young men and women. The analysis consists of two parts, namely descriptive analysis and associative analysis. The analysis techniques used in the analysis of respondent data and research data are descriptive analysis. All data is presented into the table through the calculation of the frequency distribution and its percentage. Berikut tabel 1 Distribusi karakteristik responden remaja putra maupun putri di Kelurahan Tanjung rejo dan Kasin Kota Malang:

Table 1 Distribution of Respondent characteristics

<b>Characteristic</b>	<b>N (236)</b>	<b>Procent (%)</b>
<b>Sex</b>		
Male	77	32,6
Female	159	67,4
Total	236	100
<b>Age</b>		
14 years old	97	41,1
15 years old	48	20,3
16 years old	21	8,9
17 years old	44	18,6
18 years old	22	9,3
19 years old	4	1,6
Total	236	100
<b>Educational Stage</b>		
SMP	148	62,7
SMA	88	37,3
Total	236	100
<b>Duration of internet usage</b>		
1 – 3 hours	49	20,8
3-7 hours	89	37,7
More than 7 hours	98	41,5
Total	236	100
<b>Impact of Physical Development</b>		
Very Inappropriate	6	2,5
Inappropriate	80	34
Appropriate	132	55,9
Very Appropriate	18	7,6
Total	236	100

Based on a table above Gender obtained from the adolescents who were the respondents, consisting of 77 male and 159 adolescents of the female gender. Based on age

data, nearly half of 14-year-olds are 97 teenagers (41.1 %) and a small number of 19-year-olds are 4 adolescents (1.6 %). Based on education level data, the majority of respondents were junior high school students, numbering 148 teenagers (62.7%). In the duration of internet use almost half of the 41.5 % of adolescents pass more than 7 hours per day. Data on the impact of physical development obtained by most of the 55.9% of adolescents was found to be appropriate. Here is a cross-table of the effect of internet use on physical development in Malang:

Table 2 Cross Table of Duration Of Internet Usage with Physical Development

Duration of Internet usage	Physical Development				Total	p
	Very Inappropriate	Inappropriate	Appropriate	Very Appropriate		
1-3 hours	2	25	22	0	49	0,000
3-7 hours	3	35	43	8	89	
More than 7 hours	1	20	67	10	98	
Total	6	80	132	18	236	

Based on the cross-table above obtained by teenagers who use the internet with a duration of more than 7 hours, the impact of physical development is expressed according to the number of 67 adolescents. Chi-Square statistical test results between the duration of internet use and physical development obtained a value of  $p= 0.000$ . So there is an influence between the duration of internet use on physical development.

### Duration of Internet Usage

Based on the results of research that teenagers in Tanjung Rejo Village Sukun Sub-District and Kasin Village of Klojen District Malang city obtained 236 teenagers as respondents, the duration of internet use in adolescents is almost half that of 41.5 % more than 7 hours in a day. Teenagers and early adults are the largest users of technology in Indonesia compared to other age groups. Teenagers occupy a high number in Indonesia (Badan Pusat Statistik, 2018).

### Physical Development

Based on the results of research that the impact of physical development on adolescents using the internet is almost as high as 41.5 % of adolescents experience the impact of appropriate physical development. In the physical development of adolescents affected by internet use there are 4 items consisting of weight gain due to low physical activity, night sleep hours, difficulty getting up early and blurred eyes.

Continuous internet use will have an impact on physical health including eating disorders (increased or weight loss), sleep disorders (insomnia), eye disorders (dry eyes, blurred eyes), back pain, recurrent muscle injuries, and chronic fatigue (Rosenberg KP, 2014). The use of the internet has an impact on adolescent development. Impact on adolescents' physical development leads to health problems that should be preventable.

### **The Effect of Duration Internet Usage on the Physical Development During Covid-19 Pandemic**

Based on the results of research obtained during the Covid-19 pandemic in Malang, internet use among adolescents is increasing. This is in the background by online learning to prevent the spread of covid-19. The increase in internet usage can be seen from the high duration of more than 7 hours passed by 98 teenagers in Tanjung rejo village and Kasin Kota Malang. The results of the SPSS Chi Square statistical test obtained a p value of 0.000 which means there is a relationship or association of the duration of internet use with physical development in the youth of Malang City.

During the Covid-19 pandemic, fears of contagion against him caused stress and anxiety to increase. It affects individuals, families and society at large. Vulnerable conditions in individuals who had a weak mental and physical condition prior to this pandemic. This situation also results in psychological, financial and other circumstances. Therefore, who publishes general health guidelines for the pandemic period of stay at home that include a healthy lifestyle including physical activity, mental health, parenting, healthy eating and quitting smoking (Kiralay et al, 2020)

In accordance with the development of technology that is increasingly advanced and rapid, making teenagers use internet facilities for various kepentigan both educational and entertainment. The presence of the internet in the middle of society is utilized as social media, because with social media can explore the world and search for information and can communicate with the general public without many obstacles in terms of cost, distance and time (Soliha, 2015). Teenagers are unable to filter out good or bad things from the internet, so teenagers are easily negatively affected by their use. There are four negative impacts caused by the internet, namely health, personality, education, family and community impacts (Rini, 2011). Health impacts or physical development of adolescents namely insomnia or difficulty sleeping, the presence of eye health disorders (Hakim & Raj, 2017). The use of the internet with a longer duration of more than 7 hours will affect the physical development of adolescents, namely in the health of insomnia, eye health disorders.

## CONCLUSION

Based on the results of research that the duration of internet use in teenagers in Malang, namely in Kasin and Tanjung rejo villages, shows that the higher the duration of internet use is more than 7 hours and almost half of all respondents will have an impact or effect on the physical development of the teenager. The impact of physical development is notable for insomnia, eye health disorders (exposure to gadgets that have radiation and light or light), back pain and poor sleep quality of course. Duration increases because it is also influenced by government policy to carry out distance learning. From this study, it is hoped that parents can limit internet use without having to take away their rights, to be wiser in internet use and to pay attention to the impact of internet use.

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