

THE RELATION BETWEEN ADVERSITY QUOTIENT (AQ) LEVEL AND MOTIVATION FOR PREVENTIVE BEHAVIOR OF DENGUE HAEMORRHAGIC FEVER (DHF) CASES IN STUDENTS OF MA'ARIF 02 ISLAMIC JUNIOR HIGH SCHOOL, MALANG CITY

Grecia Caroline^{1*}, Swaidatul Masluhiya², Hilda Mazarina Putri³

^{1,2,3}University of Tribhuwana Tunggadewi Malang (INDONESIA)

*Corresponding author: greciacaroline.unitri@gmail.com

Abstract

Dengue Haemorrhagic Fever (DHF) is a disease that is transmitted through the bite of Aedes albopictus and Aedes aegypti mosquitoes which carry the Dengue virus. A person's behavior in preventing DHF is influenced by their motivation. The purpose of this study was to determine the relationship between the level of Adversity Quotient (AQ) with the motivation of DHF preventive behavior among students of Ma'arif 02 Islamic Junior High School Sukun, Malang City. The research design used correlation with a cross sectional approach. The study population was 134 students with a sample size of 100 students. Samples were taken using proportional stratified random sampling technique. The independent variable is the level of AQ and the dependent variable is the motivation for preventive behavior of DHF events. The instruments used were the Adversity Response Profile (ARP) questionnaire and the motivation level Likert scale questionnaire. Data analysis used Spearman rank test. The results of this study showed that the AQ level of Ma'arif Islamic 02 Sukun Junior High School students, Malang City was almost entirely Campers and the motivation level was mostly low. The results of data analysis show quite significant results with a p – value = 0.004 (< 0.05). These results prove the relation between the level of AQ with the motivation to prevent DHF in students of Ma'arif 02 Islamic Junior High School Sukun, Malang City. It is recommended for future researchers to examine more deeply the factors that influence the level of AQ and the level of motivation.

Keywords: Adversity Quotient (AQ), Dengue Haemorrhagic Fever (DHF), Motivation of DHF Preventive Behavior.

1. INTRODUCTION

Dengue Haemorrhagic Fever (DHF) is a disease transmitted through the bite of Aedes albopictus and aedes aegypti mosquitoes that carry the Dengue virus. Signs and symptoms that will be experienced by DHF sufferers are high fever, headache, pain behind the eyes, joint and muscle pain, nausea accompanied by vomiting, and the appearance of a rash on the skin [1]. The World Health Organization (WHO) states that the number of DHF cases worldwide has increased. Until 2019, there were around 5,200,000 cases worldwide [1]. In Indonesia, DHF is endemic and spread throughout the country. Between January and May 2023, there were 35,694 DHF cases recorded across Indonesia [2]. In July 2020, the mortality rate due to DHF was 0.64%, with a total of 71,633 cases and 459 deaths. East Java Province had the third highest DHF incidence rate with 5,948 cases. The incidence rate (IR) of DHF in 2021 in East Java was 17 per 100,000 population. Malang Regency ranked third with a total of 386 cases [3]. Based on the data, ages 15-44 years (37.45%) ranked first for the highest incidence of DHF and ages 5-14 years ranked second (33.97%). Meanwhile, those aged 5-14 years ranked first in the highest mortality rate due to DHF with a percentage of 34.13% [4]. Based on these data, it can be concluded that early adolescents are vulnerable to DHF.

The increase in DHF cases is because people often do not care and do not implement programs that have been prepared by the government regularly and continuously [5]. A person's

behavior in preventing DHF is influenced by their motivation [6]. Until now, the community has not implemented DHF prevention consistently and continuously [7]. Motivation has an important role for the community in carrying out their role in overcoming the DHF problem. Motivation is the urge that arises from the self consciously or unconsciously to take action with a specific goal. Motivation is a requirement for community participation. Without motivation, it is difficult for the community to participate in all programs. Motivation must come from the community itself and external parties only provide support [8]. Motivation is part of Adversity Quotient (AQ). AQ or adversity intelligence is the ability a person has in the process of facing difficulties and can be measured [9].

2. METHODOLOGY

Adversity Quotient (AQ) or adversity intelligence is the ability a person has in the process of facing difficulties and can be measured [9]. Adversity comes from the word "adversity" which means an unpleasant situation, difficulty, distress, misfortune, misery, misfortune, or difficulty [10]. AQ is the ability of individuals to survive in difficulties until they finally get a way out, solve the problem, reduce obstacles and obstacles by improving their way of thinking and attitude towards these difficulties [11]. There are three levels of AQ, namely Quitters (low level AQ), Campers (medium level AQ), and Climbers (high level AQ). AQ has five dimensions, namely Control, Origin, Ownership, Reach, and Endurance (CO2RE) [9].

Motivation is an impulse that arises in a person consciously or unconsciously to take an action with a specific purpose [12]. Motivation is a condition that exists within a person that encourages him to carry out certain activities to achieve certain goals [13]. Motivation is a process in which needs encourage a person to carry out a series of activities that lead to the achievement of certain goals [14]. Based on this description, it can be concluded that motivation is a process that occurs in a person and encourages him to do something to achieve a certain goal.

AQ is closely related to motivation. Individuals who have low AQ will be followed by low motivation. Individuals who have moderate AQ will be followed by less than maximum motivation, and individuals who have high AQ will be followed by high motivation as well [15]. One of the factors that influence AQ is desire or willpower. Motivation is described by a person's desire or willingness to succeed in completing the task completely. In addition, with the encouragement and need to complete a task, a person will complete the task or desire to succeed because encouragement and success are caused by stimuli from outside himself. Desire can be a trigger for enthusiasm and motivation to move forward and develop one's potential. According to him, one of the indicators of motivation is the presence of desire and desire to succeed. It can be concluded, AQ is related to motivation [16].

The research method used in this study is the Cross Sectional approach. Cross Sectional is a research design with a data collection approach at one time [17]. The independent variable in this study is the level of AQ. While the dependent variable in this study is the motivation of preventive behavior of DHF events. The population in this study were students of Ma'arif 02 Islamic Junior High School, Malang City, grades VII and VIII as many as 134 students. The sample size obtained was 100 samples from 134 populations. The sample size was obtained based on calculations using the Slovin formula. The sampling technique used was stratified random sampling. The instruments used were two types of questionnaires: Adversity Response Profile (ARP) Quick Take [9] and Likert scale motivation questionnaire [18].

3. RESULTS

3.1 Validity and Reliability Test

3.1.1 ARP Validity Test

In the validity test, the ARP consists of 40 alternative events. Based on the validity test results for ARP by comparing the calculated r and the table r , it was found that 35 items were valid, while the remaining five items were invalid, specifically items 7a, 12a, 16b, 26a, and 29b. However, these five invalid items are essential for measuring student AQ levels. Therefore, all 40 items were still used when collecting research data.

3.1.2 Motivation Validity Test

The motivation level questionnaire consists of 10 statements about motivation using an ordinal scale (strongly agree, agree, neutral, disagree, and strongly disagree). Based on the validity test results for the motivation level questionnaire by comparing the calculated r and the table r , it was found that all ten statements in the motivation level questionnaire were valid.

3.1.3 ARP Reliability Test

The ARP reliability test was determined using Cronbach's alpha coefficient. A questionnaire statement is considered reliable if the Cronbach's alpha value is greater than 0.06. The reliability test results for the research instrument in ARP showed a total Cronbach's alpha value of 0.868, indicating that all statements in the questionnaire are reliable for use.

3.1.4 Motivation Reliability Test

The reliability test conducted by the author was determined using the Cronbach's alpha coefficient. A questionnaire statement is considered reliable if the Cronbach's alpha value is greater than 0.06. The reliability test results for the research instrument in the motivation questionnaire showed a total Cronbach's alpha value of 0.798, indicating that all statements in the questionnaire are reliable for use.

3.2 Univariate Analysis

Based on Table 1, it can be seen that most (67%) respondents were aged 14-15 years, most (67%) respondents were in class VIII, most (52%) were female, and most (59%) had never experienced DHF. It can also be seen that almost all (92%) respondents have the AQ level of Campers and most (53%) respondents have low DHF preventive behavior motivation.

Table 1. Research Variable Distribution

Variabel	f	%
Age		
12-13 years old	33	33,0
14-15 years old	67	67,0
Grade		
VII	33	33,0
VIII	67	67,0
Gender		
Male	48	48,0
Female	52	52,0
History of DHF		
Ever	41	41,0
Never	59	59,0
AQ Level		
Climbers	2	2,0
Campers	92	92,0
Quitters	6	6,0
Motivation		
High	47	47,0
Low	53	53,0
Total		100
		100,0

3.3 Bivariate Analysis

Based on Table 2, it can be seen that the motivation and AQ normally distributed, almost all respondents (92%) have the AQ level of Campers and almost all (47%) have a low level of motivation. The results of the Spearman Rank test showed significant results with a p -value = 0.004 (<0.05), so it can be concluded that there is a relationship between the level of AQ and motivation for DHF preventive behavior among students of Ma'arif 02 Islamic Junior High School, Malang City. Based on the data analysis results, the correlation coefficient value is 0.283. This value indicates a moderate correlation strength and a positive relationship. It can be concluded

that the AQ level and motivation level have a moderate correlation strength and a positive correlation.

Table 2. Relationship between AQ level and DHF preventive behavior motivation

Variable	Motivation Level				Total	p-value
	High		Low			
	n	%	n	%	n	%
AQ Level						
Quitters	1	1,0	5	5,0	6	6,0
Campers	45	45,0	47	47,0	92	92,0
Climbers	1	1,0	1	1,0	2	2,0
Total	47	47,0	53	53,0	100	100,0

3.4 Discussion

The higher the AQ level, the higher the DHF preventive behavior motivation, and vice versa, the lower the AQ level, the lower the DHF preventive behavior motivation. In accordance with Sugiarti's theory, one of the internal factors that influence achievement motivation (DHF preventive action motivation) is adversity intelligence (AQ) [19]. DHF preventive action motivation can be referred to as achievement motivation, because DHF preventive action is a form of achievement. The level of students' AQ has a relationship with achievement motivation, so the level of AQ is related to DHF preventive action motivation. Individual success is not only determined by the level of Intelligence Quotient (IQ) and Emotional Quotient (EQ), but also AQ. How individuals overcome their problems is a reflection of AQ. The results of this study are also in line with Noram's opinion, students' AQ determines the response to difficulties in achieving achievement. After students are able to overcome difficulties, AQ will stimulate the emergence of achievement motivation in students [20]. AQ is considered to support student success in increasing achievement motivation. Students who have high AQ are certainly better able to overcome the difficulties they are facing. However, students with lower levels of AQ tend to consider difficulties as the end of the struggle and cause students' achievement motivation to be low.

AQ affects achievement motivation by 54.1%, while the remaining 45.9% is influenced by other variables such as biological factors, attitudes, interests, talents [19]. AQ can be used to increase achievement motivation. Individuals can develop their potential and can motivate themselves to face existing problems and can achieve maximum achievement. When individuals have high AQ, they will be able to solve the problems they face, so that achievement motivation will arise to achieve the achievements they want to achieve.

Stoltz stated that in responding to a difficulty or problem, there are three types of people in terms of their AQ [9]. First, Quitters (low AQ) are a group of people who lack the willingness to accept challenges in their lives, in this case the lack of willingness to take preventive measures against DHF. Second, Campers (moderate AQ) are people who have the willingness to try to face problems and challenges, but they stop because they feel they are no longer able to face problems and challenges in implementing DHF preventive measures. Finally, Climbers (high AQ) are a group of people who choose to continue to survive and fight against various kinds of things that will continue to hit, be it in the form of problems, challenges, or obstacles that come every day. Climbers remain consistent in taking DHF preventive measures despite the obstacles that come their way.

The difference between low AQ and high AQ is significant. Individuals who have higher AQ feel more control over events in their lives than individuals who have lower AQ. Individuals with higher AQ will take more actions so that they will provide more control over the events experienced [21]. Thus, students with higher AQ will have higher motivation because they take more action. Students with lower AQ tend to avoid action and therefore have low motivation, in this case, motivation for DHF preventive behavior.

4. CONCLUSIONS

Based on the results of the Rank Spearman statistical test conducted to determine the relationship between the level of AQ and motivation for DHF preventive behavior, the p-value =

0.004 (<0.05) was obtained. This indicates that there is a statistically significant relationship between the level of AQ and the motivation for DHF preventive behavior.

ACKNOWLEDGEMENTS

With this research, it is expected that future researchers can deepen the factors that influence the level of AQ and DHF preventive motivation and further develop the scope of research. In addition, future researchers are also expected to examine more deeply the efforts to increase DHF preventive motivation in students with AQ Campers.

REFERENCES

- [1] WHO, "Dengue and Severe Dengue," World Health Organization. Accessed: Sep. 09, 2023. [Online]. Available: <https://www.who.int/news-room/fact-sheets/detail/dengue-and-severe-dengue>
- [2] Kemenkes RI, "Kementerian Kesehatan Republik Indonesia." Accessed: Sep. 09, 2023. [Online]. Available: www.kemkes.go.id
- [3] Dinkes Jatim, "Profil Kesehatan 2021 Jatim," 2021.
- [4] Kemkes RI, "Siklus Hidup Kelompok Usia," Kementerian Kesehatan RI. Accessed: Sep. 26, 2023. [Online]. Available: <https://ayosehat.kemkes.go.id/kategori-usia/>
- [5] J. Juniastuti et al., "PENYULUHAN DAN PELATIHAN DENGUE PADA IBU SERTA DETEKSI DINI INFEKSI DENGUE PADA PASIEN DENGAN SUSPEK INFEKSI DENGUE DI TULUNGAGUNG, JAWA TIMUR," *Jurnal Layanan Masyarakat (Journal of Public Services)*, vol. 4, no. 1, p. 230, Jun. 2020, doi: 10.20473/jlm.v4i1.2020.230-236.
- [6] M. Frsilia, Stik. Eka Harap Palangka Raya, P. Raya, and K. Tengah, "HUBUNGAN MOTIVASI TERHADAP PERILAKU PEMBERANTASAN SARANG NYAMUK DEMAM BERDARAH DENGUE (DBD) Relationship Of Motivation To Conduct The Suppression Of Dengue Mosquito Nest Dengue (DBD)," *Jurnal Surya Medika*, vol. 8, no. 1, pp. 151–155, 2022, doi: 10.33084/jsm.vxix.xxx.
- [7] Kemkes RI, KEMENTERIAN KESEHATAN REPUBLIK INDONESIA, Jakarta. Jakarta: Kementerian Kesehatan RI, 2021.
- [8] P. A. Siregar and Y. K. Ashar, "Analisis Pengetahuan, Motivasi Dan Tindakan Masyarakat Dalam Pencegahan Demam Berdarah Dengue," *JURNAL KESEHATAN LINGKUNGAN: Jurnal dan Aplikasi Teknik Kesehatan Lingkungan*, vol. 18, no. 2, pp. 87–96, Jun. 2021, doi: 10.31964/jkl.v18i2.303.
- [9] P. G. Stoltz, *Adversity Quotient: Turning Obstacles Into Opportunities*. Jakarta: Gramedia, 2000.
- [10] Oxford, *Oxford Learner's Dictionary*. Oxford University Press, 2024.
- [11] W. Gusta, N. Gistituati, and A. Bentri, "Analisis Adversity Quotient (AQ) Terhadap Motivasi Belajar Siswa Dalam Pembelajaran Daring," *PEMBELAJAR: Jurnal Ilmu Pendidikan, Keguruan, dan Pembelajaran*, vol. 6, no. 1, p. 64, May 2022, doi: 10.26858/pembelajar.v6i1.26748.
- [12] KBBI, "Kamus Besar Bahasa Indonesia (KBBI) Kemdikbud," Badan Pengembangan dan Pembinaan Bahasa. Accessed: Sep. 09, 2023. [Online]. Available: <https://kbbi.kemdikbud.go.id/>
- [13] S. Suryabrata, *Psikologi Pendidikan*. Jakarta: Raja Grafindo Persada, 2004.
- [14] S. Munandar, *Psikologi Industri dan Organisasi*. Jakarta: UI-Press, 2001.

[15] R. Susanti, G. Purwanto Putra, K. Riau, and C. Rini Susanti, "THE RELATIONSHIP BETWEEN ADVERSITY QUOTIENT WITH ACHIEVEMENT MOTIVATION IN STUDENTS OF CLASS XII IPS II SMA N 8 BATAM YEAR 2018," *Jurnal Ilmiah Zona Psikologi*, vol. 1, no. 3, pp. 54–62, 2019, [Online]. Available: <http://ejurnal.univbatam.ac.id/index.php/zonapsikologi>

[16] H. B. Uno, *Teori Motivasi dan Pengukurannya: Analisis di Bidang Pendidikan*. Jakarta: PT. Bumi Aksara, 2016.

[17] Notoatmodjo, *Metode Penelitian Kesehatan*. Jakarta: Rineka Cipta, 2012.

[18] P. D. Putri, "Motivasi dan Partisipasi Warga dalam Mencegah Angka Kejadian DBD di RW 09 Kelurahan Pondok Cina Kecamatan Beji, Depok," *Universitas Indonesia*, Depok, 2012.

[19] R. Sugiarti, A. Nurlaili, U. F. Febriani, F. Psikologi, and U. Semarang, "PENGARUH ADVERSITY QUOTIENT TERHADAP MOTIVASI BERPRESTASI PADA SISWA CERDAS ISTIMEWA," Online, 2020. [Online]. Available: <http://journals.usm.ac.id/index.php/philanthropy82>

[20] N. Noram Fajrianti, "PENGARUH ADVERSITY QUOTIENT (AQ) DAN MOTIVASI BERPRESTASI TERHADAP PRESTASI BELAJAR MATEMATIKA," 2019.

[21] Muh. Heriyanto, *What Type of Your Personality*. Moeh Media Digital, 2020., "General theory of relativity," *Annalen der Physik*, vol. 49, no. 7, pp. 769–822, 1916.