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Learners' Health Status in Relation to Resilience and Academic Performance

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Abstract— Learners' health status is vital in fostering resilience and enhancing academic performance. This study determined the learners' health status regarding stability and educational performance after the flooding incident. The researchers used a descriptive-correlational research design. The respondents included 152 learners chosen by purposive sampling. The researchers used the Student Health Questionnaire and Resilience Scale Questionnaire, as well as students' records of grades, as instruments. Mean, standard deviation, frequency and percentage, and Pearson product-moment correlation coefficient were the statistical tools used in the study. Results showed that learners had good health status with high levels of resilience and fair academic performance. Significant positive correlations existed between learners' health status and their resilience levels. The positive relationship between learners' health status was not related to their academic performance. Health status alone may not directly impact academic performance. Various aspects of health, including health behavior, safety, feeling/well-being, and development, positively contribute to the learners' competence, meaningfulness, and acceptance. The teacher educates learners on maintaining good health behaviors, safety measures, and well-being to enhance their resilience and academic performance.

Keywords— health status, resilience, academic performance, flood incident

I. INTRODUCTION

A healthy community is one where all residents, regardless of their color, ethnicity, gender, income, age, ability, or any other socially defined status, have access to healthy built, social, economic, and environmental settings that allow them to live up to their maximum potential (Borja et al., 2022). However, natural disasters keep occurring in different places in the province. The most frequent extreme weather event is flooding, which disproportionately affects populations who are already marginalized (Rosinger et al., 2023). Natural and human forces have extraordinarily influenced the Earth's climate system, generating worldwide changes and mandating climate-related measures (Akanwa et al., 2023).

Climate change is the most crucial public health issue of the twenty-first century. The planet people live on is increasing in temperature by 1.1°C. These recordbreaking temperatures and floods are not abnormal. Instead, they mark the start of new norms, and fresh records will be broken yearly (Hagelberg, 2020). Adolescents and children are thought to be more sensitive to the psychological consequences of climate change, such as extreme weather occurrences. Flooding is the most common (Hieronimi et al., 2023). There is a global underappreciation of climate change's mental health implications. Maslow's Hierarchy of Needs is introduced as a framework for thinking about and conceptualizing mental health issues related to climate change (Brown et al., 2022).

Severe extreme weather events can produce intense dread and painful experiences. This trauma and the protracted tension that follows the occurrence can significantly impact one's mental health. Children and adolescents are susceptible since they have fewer coping methods than adults and rely mainly on their surroundings (Mambrey& Wermuth, 2019). Flood survivors frequently have long-term psychosocial impacts such as discomfort, anxiety, pain, learned helplessness, and social dysfunctions that eventually progress to depression. Due to these unfavorable outcomes, flood victims develop psychopathologies like illogical beliefs (Ede et al., 2022). After floods, urban poor people have increased in acute morbidity and depression symptoms, and the negative mental health consequences endure longer, while the urban rich experience no health effects (Escobar et al., 2022).

Because of the large number of flood victims, COVID-19 infection has the potential to spread among flood victims and flood rescue personnel. (Kumareswaran et al., 2023). The COVID-19 pandemic has also had an



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impact on climate change. As a result, the significant risk of transmission is evident, given the rising incidence of cases. Due to climatic hazards like cyclones, floods, landslides, heat waves, and the advent of infectious diseases like dengue, cholera, and diarrhea, a multiple hazards scenario could arise in this nation (Rahman et al., 2021). Urban flooding is more likely a result of rapid urbanization and climate change, putting significant economic and human losses at risk (Zhu et al., 2021). Floods directly damage people through health and life loss (drowning, injury) and flooding communities and agricultural land. Indirect impacts include chemical and biological water contamination, which leads to an increase in the number of illnesses, particularly infectious diseases (Grigorieva & Livenets, 2022)

Likewise, natural disasters, particularly floods, severely affect children's mental health and can cause sleep disturbances, regression in behavior, sadness, aggression, somatization, and pessimistic thinking (Cheema et al., 2023). Adolescent mental health and resilience were negatively impacted, and the presence of mental health problems, employment difficulties, school-related problems, and a lack of understanding of disasters and readiness for them. Considering the social, cultural, and economic factors they were linked to the social, cognitive, and psychological situations the participants were in (Philip, 2022). Individual Resilience is generally related to positive emotions, whereas community resilience in appraisal support is related to positive emotions and personal strength (Atterado et al., 2022).

Although floods impact every aspect of life-economic, social, cultural, and environmental, floods also influence students' academic performance in flood-affected communities (AnuraJayasinghe et al., 2022). Students experienced stress because of having to acclimate to remote learning, fulfill academic requirements, and use technology for online learning amid pandemic lockdowns and natural disasters (Cueto & Agaton, 2021). In the likely flooding events, delayed effects on children's academic performance in post-disaster settings would be damaging. More extensive research suggests that effective multilevel school policies might help minimize detrimental impacts on children's academic progress (Gibbs et al., 2019).

Schools provide a center for education, participation in disaster relief efforts, and community interaction for kids (Shah et al., 2020). Its Resilience is risk

management strategies that create a safe learning environment (Shah et al., 2020). Students' disaster mitigation literacy skills are critical for analyzing the profile of students' emergency preparedness literacy abilities in tidal flood-prone schools (Meliana et al., 2020). Children spend more than two-thirds of their waking hours in school, and schools are becoming more convincing in protecting them from possible threats. Schools must safeguard kids in a crisis and develop a culture of readiness by keeping them informed and prepared.

When schools fail to manage emergencies efficiently, the instructional process is disrupted, and children face the consequences. This prepares schools to deal with external threats (Shah et al., 2021). Disaster education is one of the most successful disaster management strategies. Traditional instructional approaches, on the other hand, are insufficient for passing on prior experiences and arousing student interest. As a result, serious game-based learning is a potential route for disaster prevention education since it is a more engaging instructional tool (Tsai et al., 2020).

Undoubtedly, the risk of flooding in urban areas has increased due to rapid urbanization and climate change. Flood risk management and risk communication are critically dependent on risk perception. Understanding risk perception is crucial for developing effective disaster mitigation methods (Rana et al., 2020).

Flood prevention is a crucial strategy in reducing flood risks. Governments worldwide have been working tirelessly to prevent floods in major urban areas. Flood prevention, though frequently accomplished through flood control infrastructure and frequently seen as a technical exercise, can result in environmental injustice (Liao et al.,2019).

Despite various analyses and investigations, a lack of research has been conducted on the health status of Misamis University learners who were flood victims. To close this knowledge gap, this study sought to explore the effects of floods on students' health status concerning their Resilience and academic performance at a private university of Misamis Occidental. Students at this private University of Misamis Occidental who live in the coastal area were also significantly devastated by the flood during the third week of December and the first week of January 2023.



Objectives:

This study determined the learners' health status concerning their Resilience and academic performance after the flooding incident.

It will specifically strive to address the following objectives.

- 1. Determine learners' health status in terms of health behavior, safety, feeling or well-being and development;
- 2. Determine learners' Resilience in terms of personal competency, meaningfulness, and acceptance of self and life;
- 3. Determine learners' academic performance;
- 4. Explore the significant relationship between learners' health status and their Resilience after the flood incident;
- 5. Explore the significant relationship between learners' health status and their academic performance;

II. METHODOLOGY

Research Design

The research design that fits this quantitative study is descriptive-correlational. The descriptive design is the most basic of the observational study types. It allows the researcher to examine and clarify the distribution of one or more variables without being constrained by any causal or other hypothesis. (Aggarwal & Ranganathan, 2019). Correlational studies evaluate whether the characteristics of a population differ depending on whether individuals have been exposed to a notable occurrence in a naturalistic situation. (Lau, 2017). The descriptive correlational design is appropriate to this study because it describes the variables and the relationships that occur naturally between the health status and resilience of the student and how these two affect their academic performance.

Research Setting

The research was conducted at a particular tertiary education institution in Misamis Occidental. It is the first University in Northwestern Mindanao to have been given "Autonomous Status" by the Commission on Higher Education (CHED). The 12 colleges of this University provide 29 programs, including graduate programs and complete Basic Education programs. The University received an exceptional rating from DNV for its ISO 9001: 2015 certification. For two years running, it has been recognized by PACUCOA (The Philippine Association of Colleges and Universities Commission on Accreditation) as having the most accredited programs in Region X. The University also passed the Institutional Sustainability Assessment or ISA and recognized the information technology, CHED criminology, and teacher education programs as Centers of Development (COD). Many students were affected during the flood incident last December 25, 2022. The floods caused widespread damage to homes, businesses, and infrastructure. Many people were displaced and forced to seek shelter in evacuation centers. Thus, every student in their respective college department affected by flooding in December 2022 was highly encouraged to participate in this study.

Respondents of the Study

The 152 college students who participated in the study conducted in a selected tertiary school of Ozamiz City were determined using the Raosoft calculator and were chosen through purposive sampling. The respondents were chosen using the following criteria: a) learners affected by the flood last December 25, 2022; b) learners who should give their general weighted average; c) learners who are willing to participate in the study.

Research Instrument

The study used two questionnaires and students' grades to gather data.

A. Students Health Questionnaire (Appendix A). This survey was adapted and modified from (Richardson et al., 2010). The statements were rated by the students on a scale of Strongly Agree (five), Agree (four), Neutral (three), Disagree (two), and Strongly Disagree (one). The items were created using a 4-point Likert scale style.

The instrument has 20 items that are divided into four constructs: development (5 items), safety (5 items), feeling/well-being (5 items), and health behavior (5 items). The fact that the items strongly emphasized students' health made them pertinent to our investigation.

Responses	Continuum	Interpretation
5- Strongly Agree (SA)	4.21-5.00	Very High
4- Agree (A)	3.41-4.20	High
3- Neutral (N)	2.61-3.40	Moderately High



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2- Disagree (D)	1.81-2.60	Low
1-Strongly Disagree (SD)	1.00-1.80	Very Low

B. Resilience Scale (Appendix B). This survey was changed and adapted by (Shi et al., 2021). The students answered strongly agree (5), agree (4), neutral (3), disagree (2), and severely disagree (1). The items were created with the use of a 5-point Likert scale. Likert scale items with a 5-point scale were developed. The test consists of 23 questions covering three (3) constructs:

personal competency (12 questions), meaningfulness (5 questions), acceptance of oneself and one's life (5 questions), and development (5 questions). The fact that the items emphasized students' Resilience made them significant to this study. In determining the student's Resilience, the following scales were used;

Responses	Continuum	Interpretation
5- Strongly Agree (SA)	4.21-5.00	Very High
4- Agree (A)	3.41-4.20	High
3- Neutral (N)	2.61-3.40	Moderately High
2- Disagree (D)	1.81-2.60	Low
1-Strongly Disagree (SD)	1.00-1.80	Very Low

C. Student's Academic Performance. The researcher used documentary analysis using the overall semester grades of the learners from their teacher last semester. In

determining the academic performance of the learners, the following scale is based on the Misamis University grading system:

Continuum	Interpretation
1.00-1.25	Excellent
1.26-1.5	Very Good
1.51-2.00	Fair
2.01-2.50	Poor
2.51-5.00	Very Poor

Data Collection

Before gathering data, the researchers submitted a letter of permission to the college dean, obtaining consent to conduct the study. The researchers then obtained approval from the program head and the research teacher. After the approval, researchers prepared a consent letter for the participants. The responders were given a brief explanation of the study's objectives and an ethical discussion. Subsequently, the researchers developed three Google Forms for the three research instruments and shared the Google Form links with the students. Once the questionnaires were completed, the data was tallied using the Microsoft Excel application and subjected to statistical computations using the Minitab software. The results were presented in tabular form for analysis and subsequent interpretation of the data.

Ethical Consideration

The ethical aspect of the study was maintained by adhering to the ethical considerations emphasized by the

Republic Act No. 10173, otherwise known as the Data Privacy Act of 2021, which highlights the importance of safeguarding individuals' personal information and respecting their rights to privacy and data protection. Also, the study maintained its ethical aspect by following the ethical considerations of Bryman, Bell, and Harley (2022).

The respondents were not harmed throughout the study, and their permission was obtained before data collection. Accepting the informed consent form showed that the participants wanted to participate in the study. Furthermore, the research's objectives, advantages, and possible risks were conveyed to the respondents. Participants can opt out of the survey anytime, and we will keep their responses private. Throughout the study, maintaining anonymity and secrecy was of the highest importance. Any misleading information, as well as biased depiction of main data results, was avoided.



Data Analysis

The study used the following tools in analyzing the data gathered with the use of a computer statistical software called Minitab:

- Mean and standard deviation. This was used in determining the learners' health status in health behavior, safety, feeling or well-being, and development, and also determined learners' Resilience in personal competency, meaningfulness, and acceptance of self and life.
- Frequency and percentage were used in determining students' performance. This provides a complete picture of the distribution of academic performance levels among learners. It facilitates comparison and comprehension of the number of students in each performance category and provides insights into the relative prevalence of different performance levels within the sample. The frequency and percentage values help to summarize the data and provide a clear snapshot of the distribution of academic performance among the students in the study.
- Pearson r Product Moment Correlation Coefficient. This was used in exploring the significant relationship between learners' health status and Resilience to their academic performance after the flood incident.

III. RESULTS AND DISCUSSION Learners' Health Status

The learners' overall health status was measured in health behavior, safety, feeling/well-being, and development (Table 1). The data revealed a high overall health status (M = 3.86; SD = 0.67). The data imply that

the learners have a positive overall health status, implying that they likely feel well and satisfied regarding their health and well-being.

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The data indicate that the learners participate well in physical activities, manage their screen time, consume adequate fruits and vegetables, and ensure they get sufficient sleep. The learners do not report experiencing physical or emotional ill-treatment and feel safe and secure in their environment. Medical treatment for flood-related health issues helps learners have health and safety procedures and be aware of public organization warnings and alarms. Learners express feelings of calm and optimism, experience relaxation and relief, demonstrate interest and pleasure in activities, and encourage themselves to do things that make them happy. Learners also display a sense of gratitude towards their body size and physical appearance, a liking for themselves overall, and a sense of self-responsibility.

A favorable health status, which includes good health behaviors and emotions of well-being, is likely to contribute to their physical and mental well-being, which can improve their capacity to engage in academic activities and achieve higher academic outcomes. Physical infirmities, mental health concerns, or chronic diseases can all impact a student's ability to focus, engage, and perform well academically. Healthy students learn better, and academic accomplishment has long-term health benefits. According to recent studies, higher academic grades are related to students' better individual and cumulative health behaviors.

Constructs	Mean	StDev	Remarks
Health Behavior	3.68	0.69	High
Safety	3.52	0.73	High
Feeling/Well-Being	4.18	0.61	High
Development	4.05	0.64	High
Overall Health Status	3.86	0.67	High

Note: 4.21-5.00 (Very High); 3.41-4.20 (High); 2.61-3.40 (Moderately High); 1.81-2.60 (Low), 1.00-1.80 (Very Low)

Students' Resilience

Learners' resilience was measured in personal competence, meaningfulness, and acceptance of self and life (Table 2). The level of resilience toward learners was high, as revealed by the data (M=4.20; SD=0.60). This high level of resilience can have positive implications for their ability to cope with adversity, bounce back from setbacks, and maintain their wellbeing in the face of challenges.

It underscores the importance of nurturing and supporting resilience in students, as it can contribute to their ability to navigate difficulties and thrive academically and personally.



Based on the results, learners have a high sense of determination, self-reliance, and the ability to navigate difficult times. This suggests that they have confidence in their abilities and can draw upon their past experiences of overcoming challenges. A strong sense of direction, goals, and interests can provide learners with a sense of motivation and drive to overcome obstacles. Learners accept themselves, including their strengths and limitations, and are resilient in adversity. This acceptance can contribute to their ability to cope with stress, maintain emotional well-being, and adapt to difficult circumstances.

Educators and school professionals can capitalize on students' high level of resilience by fostering a supportive learning environment. Teachers can foster a healthy learning environment by encouraging compassion, comprehension, and open communication. By implementing targeted interventions, such as teaching coping skills and promoting well-being, educators can equip students with tools to navigate challenges effectively. Providing personalized support and recognizing individual strengths can enhance students' resilience, overall well-being, and academic success, ultimately empowering them to thrive in their educational journey. Mental health symposiums can also help to promote resilience among students. The ability to recover from hardship is referred to as resilience. Resilient students can better cope with stress and challenges, leading to improved academic performance. Guidance counseling helps students to develop resilience, which is the ability to bounce back from adversity. Counselors can teach students coping skills, such as problem-solving, stress management, and selfcare.

Table 2: Learners' Resilience (n=152)

Constructs	Μ	StDev	Remarks
P <mark>ersonal Compet</mark> ence	3.97	0.57	High
Meaningfulness	4.33	0.60	Very High
Acceptance	4.29	0.56	Very High
Overall Resilience	4.20	0.60	High

Note: 4.21-5.00 (Very High); 3.41-4.20 (High); 2.61-3.40 (Moderately High); 1.81-2.60 (Low); 1.00-1.80 (Very Low)

Students' Academic Performance

The learners' academic performance was measured by general their previous point average last semester (Table 3). The teachers evaluated learners' scholastic performance during teaching. The overall evaluation of learners' academic performance was fair enough. The overall performance of students' academic achievement last semester was fair Table 3, M=1.86). Also, most students performed fairly (N=72, %=47.37, M=1.81, SD = 0.16). A large group also demonstrated poor performance levels (N=36, %=23.68, M= 2.29, SD = 0.15). A small group demonstrated an outstanding performance (N = 22, % = 14.47, M = 1.46, SD = 0.05). Another small group demonstrates an excellent performance (N = 14,% = 9.21, M = 1.16, SD = 0.06), a negligible verv number (N=8,%=5.26, M=2.61,SD=0.07) has very poor performance.

This distribution highlights the need for targeted interventions and support to improve student performance, particularly for those in the lower categories. It underscores the importance of early identification of struggling students and the implementation of effective interventions to prevent further decline. Additionally, the presence of students in the Excellent and Very Good categories indicates the presence of high achievers who can serve as positive examples and inspire their peers. The results emphasize the need for comprehensive approaches that address the diverse needs of students, enhance teaching quality, provide adequate resources, and foster a supportive learning environment to promote overall academic performance and equitable educational outcomes.

It is crucial to implement personalized academic support, remedial programs, and interventions that address students' specific challenges in these categories to enhance student performance. Additionally, providing access to quality educational resources, effective teaching methodologies, and a supportive learning environment can improve student performance across all categories. By addressing these areas of improvement, educational institutions can strive to foster an environment that promotes academic excellence, supports struggling students, and ensures equitable educational opportunities for all students.



Table 3: Learners' Academic Performance							
Constructs	FreQ	%	Μ	SD	Min	Max	
Excellent	14	9.21	1.16	0.06	1.04	1.22	
Very Good	22	14.47	1.46	0.05	1.32	1.50	
Fair	72	47.37	1.81	0.16	1.52	2.00	
Poor	36	23.68	2.29	0.15	2.05	2.50	
Very Poor	8	5.26	2.61	0.07	2.52	2.75	
Overall Performance	152	100	1.86	- Fair			

Note: Performance Scale: 1.0-1.25 (Excellent); 1.26-1.50 (Very Good); 1.51-2.0 (Fair); 2.01-2.5 (Poor); 2.51-5.0 (Very Poor)

Relationship Between Learner's Health Status and their Resilience after the Flood Incident

People who are physically and mentally healthy are more likely to be resilient in the face of adversity. In order to shed light on the links between different aspects of health status and the three dimensions of Resilience and their effects on academic accomplishment, the Pearson correlation coefficient was used (Table 4). Personal competency (r = 0.347, p = 0.000) and meaningfulness (r = 0.27, p = 0.010) of Resilience positively connected with learners' health behavior. This suggests that students who engage in healthier behaviors demonstrate higher levels of personal competence and a greater sense of meaningfulness.

The data revealed that safety was significantly associated with personal competence (r = 0.424, p = 0.000). Safety was also significantly related to personal competence meaningfulness (r = 0.296, p = 0.000). Moreover, acceptance of self and life (r = 0.287, p = 0.000) of Resilience has a significant relationship to safety. This shows that students are likelier to exhibit better personal competency, meaningfulness, and acceptability if they prioritize safety precautions and establish a secure atmosphere.

Additionally, the findings indicated that feeling/wellbeing was strongly correlated with personal competence (r = 0.506, p = 0.000). The data also showed that feeling/well-being has a profound correlation to meaningfulness (r = 0.436, p = 0.000) and acceptance of self and life (r = 0.458, p = 0.000) of Resilience. This indicates that students who experience higher levels of well-being are more likely to exhibit greater personal competence, meaningfulness, and acceptance.

Moreover, the table indicated that development was highly significant in association with personal competence (r = 0.520, p = 0.000). The table based on the results also indicates that development strongly

relates to meaningfulness (r = 0.533, p = 0.000). and acceptance of self and life (r = 0.471, p) of resilience. This shows that children who show better personal competency, meaningfulness, and acceptability are likelier to show higher degrees of growth in many areas of their lives.

The data overall suggests a significant and positive relationship between learners' health status and their Resilience after the flood incident. Specifically, higher levels of personal competence in health behavior and a sense of meaningfulness are associated with greater Resilience. Learners who exhibit acceptance of self and life also tend to display higher levels of Resilience. These findings emphasize the importance of promoting positive health behaviors, fostering a sense of meaning, and encouraging self-acceptance to enhance Resilience in learners facing the aftermath of a flood incident.

However, the data also indicates no significant relationship exists between health behavior and acceptance of self and life with Resilience after the flood incident. The correlation study results show a positive association between healthy behavior and self- and life-acceptance (r = 0.120, p = 0.19), specifying that the relationship is not statistically significant. This suggests that while their health behavior and acceptance of self and life may be independent variables, additional factors or experiences could impact their overall emotional well-being and outlook. These factors could include personal circumstances, social relationships, academic stress, or external stressors not captured by the measured variables in the study.

To guarantee total student growth, providing a welcoming and inclusive atmosphere that prioritizes their well-being and holistic development is essential. This involves providing a safe and nurturing space, promoting social-emotional learning, and fostering resilience-building skills. By emphasizing a



comprehensive approach that addresses academic, emotional, and social needs, we can empower students to thrive and reach their full potential. Encouraging students to develop self-compassion, embrace their strengths and weaknesses, and cultivate a resilient attitude toward challenges will contribute to their Resilience in adversity. By focusing on these areas, educators and policymakers can support students in their post-flood recovery and empower them to navigate future challenges with Resilience and strength.

Table 4: Test of Relationship between the Learner's Health Status and Students' Resilier	ісе
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Variables	r-value	p-value	Remarks
Health Behavior and			
Personal Competence	0.35**	0.00	Highly Significant
Meaningfulness	0.21**	0.01	Highly Significant
Acceptance	0.12	0.14	Not Significant
Safety and			
Personal Competence	0.42**	0.00	Highly Significant
Meaningfulness	0.30**	0.00	Highly Significant
Acceptance	0.29**	0.00	Highly Significant
Feeling/Well-Being and			
Personal Competence	0.51**	0.00	Highly Significant
Meaningfulness	0.44**	0.00	Highly Significant
Acceptance	0.46**	0.00	Highly Significant
Development and			
Personal Competence	0.52**	0.00	Highly Significant
Meaningfulness	0.53**	0.00	Highly Significant
Acc <mark>eptance</mark>	0.47**	0.00	Highly Significant

Note: ***p*<0.01 (*Highly Significant*); **p*<0.05 (*Significant*); *p*>0.05 (*Not significant*)

Relationship Between Learner's Health Status and Their Academic Performance After the Flood Incident.

The relationship between well-being and academic success is complex and impacted by several variables. The Pearson correlation value is used to analyze the data, which provides insights into the relationships between students' health status and academic performance (Table 5). According to the findings, there is no substantial association between students' general health and academic achievement. Health behavior (r = 0.142, p = 0.080) and safety (r = 0.037, p = 0.649) have no significant correlation with academic performance. Their feeling and well-being (r = -0.001, p = 0.992) and development (r = 0.096, p = 0.240) also have no significant correlation with academic performance.

The data indicates that while maintaining good health behavior, safety measures, emotional well-being, and developmental aspects are essential for overall students' well-being, these may not directly translate into improved academic performance during the flood incident. Other factors beyond health status may play a more prominent role in determining academic performance in this particular situation. Further investigation and research of these other factors are necessary to understand the complex dynamics influencing students' academic outcomes in the aftermath of the flood incident.

Factors unrelated to health may have an enormous impact on academic achievement. Aspects like study habits, teaching pedagogy, learning environment, and teacher effectiveness may more significantly influence students' academic performance. The circumstances surrounding the flood incident may also add to the complexity. Students can experience various difficulties and disruptions in their academic routine, which could lessen the impact of their health on their performance. Furthermore, it is critical to recognize the complexity of academic performance and how various elements, such as cognitive capabilities, socioeconomic status, and outside support systems, affect it. Future research should investigate these additional aspects and include a wider variety of variables to understand better the complicated link between academic performance and health in the specific context of the flood catastrophe.



Table 5: Test of Relationship between the Learner's Health Status and their Academic Performance
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Variables		p-value	Remarks
Health Behavior and Academic Performance		0.08	Not significant
Safety and Academic Performance		0.65	Not significant
Feeling/Well-Being and Academic Performance		0.99	Not significant
Development and Academic Performance	0.10	0.24	Not significant

Note: ***p*<0.01 (*Highly Significant*); **p*<0.05 (*Significant*); *p*>0.05 (*Not significant*)

IV. SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Physical fitness, mental and psychological well-being, and learners' health are crucial for developing Resilience and boosting academic achievement because they lay the framework for optimal cognitive functioning and the ability to adapt and thrive in educational situations. This study looks at the health status of the learners in relation to Resilience and academic performance. The research design that fits this quantitative study is a descriptive correlational design. A total of 152 college learners enrolled in a private university in the Ozamiz City campus for the academic year 2022–2023 participated in the study. These college learners were involved in the flood incident last December 25. 2022. Records, documents, and questionnaires are collected to collect the study's data. To assist the data analysis in the study, the data was collected by survey and analyzed using a statistical software tool called Minitab. The statistical tools employed in the study were Mean, Standard Deviation, Frequency, Percentage, and Pearson Product Moment Correlation Coefficient from the software tool.

Findings

The learners' health status was generally high across different constructs, including health behavior, safety, feeling/well-being, and development. Learners demonstrated high levels of Resilience in personal competency, meaningfulness, and acceptance of self and life. The overall resilience level of the earners was rated as high. Most learners fell into the fair category regarding academic performance, followed by poor and excellent categories. Only a tiny percentage of Learners achieved excellent and inferior performance levels. Significant positive correlations existed between learners' health status and resilience levels. No significant relationships were found between Learners' health status (health behavior, safety, feeling/welldevelopment) and their academic being, and performance. Health status alone may not directly impact academic performance.

Conclusions

Learners prioritize their physical and mental health, engage in healthy behaviors, experience a sense of safety, possess emotional well-being, and demonstrate a commitment to personal development. Learners possess remarkable levels of Resilience, characterized by their ability to navigate challenges, adapt to setbacks, and maintain a positive outlook. Learners are in an average academic performance, as they fell into the fair category. Various aspects of health, including health behavior, safety, feeling/well-being, and development, positively contribute to the learners' competence, meaningfulness, and acceptance. While learners' health status, encompassing various dimensions such as health behavior, safety, feeling/well-being, and development, is essential for overall well-being, it does not affect their academic performance directly.

Recommendation

Teachers educate learners on the importance of maintaining good health behaviors, safety measures, and well-being to enhance their Resilience and academic performance. Enhance support systems within educational institutions by establishing counseling services, peer support networks, and mentoring programs. These systems should focus on providing guidance and assistance to learners in managing their health, building Resilience, and addressing any academic challenges they may face. Tailor academic interventions to meet the specific needs of learners. Identify struggling learners and provide personalized academic support, including tutoring, study skills workshops, and individualized guidance. This targeted approach can help improve academic performance based on each student's unique circumstances. Foster a holistic approach to student well-being by promoting a positive school environment, encouraging healthy lifestyle choices, and providing resources for mental Collaborate health support. with healthcare professionals and mental health services to create a comprehensive support network that addresses physical and mental well-being. Organize a dedicated guidance counseling symposium for students, parents, and



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educators. This symposium should offer workshops and sessions on guidance counseling, such as academic planning, career exploration, and personal development. It should provide opportunities for attendees to engage in discussions, receive guidance on educational and career goals, and explore strategies for personal growth and well-being.

APPENDIX A STUDENT HEALTH QUESTIONNAIRE (Modified and adapted from Richardson, Rockhill,

Russo, Grossman, Richards, McCarty and Katon, 2010)

Direction: This quiz comprises statements on your health status.

You will be asked to declare your agreement with each statement. There are no "right" or "wrong" replies. Your input is required.

Consider how effectively each sentence expresses your willingness to participate in the class. Please respond using the following scale:

5 - Strongly agree 4 – Agree 3 – Neutral 2 – Disagree 1 – Strongly	y Di	sagr	ee		
Constructs/Indicators	5	4	3	2	1
1. Health Behavior					
1. I participate in physical activities, such as walking, dancing, swimming, or any kind of					
sports, <mark>for a total of 1</mark> h <mark>our</mark> every day.					
2. I watch TV, play video games, or spend time on a computer, tablet or smartphone for more					
tha <mark>n 2 hours per d</mark> ay (not including computer time for school or work)?					
3. I eat 5 or more servings of vegetables and fruits every day.					
4. <mark>I get 8 or more hours o</mark> f sleep every night.					
5. I have been feeling better right now.					
2. Safety					
6. I have never been physically or emotionally ill-treated.					
7. I haven't been feeling afraid, threatened, hurt by someone at home, school, or anywhere.					
8. I received any medical treatment for health issues related to the flood.					
9. I have health and safety procedures for when the time comes.					
10. I am aware of the warnings and alarms released by the public organization.					
3. Feeling/Well-Being		27			

12. I feel relaxed and relieved after overcoming the incident. 13. I have interest or pleasure in doing things.

14. I encouraged myself to do things that make me happy.

11. I calm about or feel like something good might happen.

15. I learned new practices to cope with floods. 4. Development 16. I am grateful about the size or shape of my body or my physical appearance. 17. On the whole, I do like myself. 18. I developed citizens' awareness of self-responsibility. 19. I have place where I can seek shelter after floods.

20. I felt proud that I have accomplished things in life.

APPENDIX B RESILIENCE SCALE

(Modified and adapted from Shi, Wang, S., Wang, Z., and Fan, 2021).

Direction: This quiz comprises statements on your total resilience. You will be asked to declare your agreement with each statement. There are no "right" or "wrong" replies. Your input is required.

Consider how effectively each sentence expresses your willingness to participate in the class. Please respond using the following scale.



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Constructs/Indicators	5	4	3	2	1
Personal Competence					
1. I am determined					
2. I seldom wonder what the point of it all is.					
3. I can get through difficult times because I have experienced difficulty before.					
4. I can be on my own if I have to.					
5. I usually take things in stride.					
6. I take things one day at a time.					
7. I feel that I can handle many things at a time.					
8. I am able to depend on myself more than anyone else.					
9. When I'm in a difficult situation, I can usually find my way out of it.					
10. When I make plans, I follow through with them.					
11. I usually manage on <mark>e way or ano</mark> ther.					
12. I have enough ener <mark>gy to do what I</mark> have to do.					
Meaningfulness					
13. I keep intereste <mark>d in</mark> things.					
14. I can usually find something to laugh about.					
15. Keeping interested in things is important to me.					
16. My life has meaning.					
17. I am friends with myself.					
A <mark>cce</mark> ptan <mark>c</mark> e of self and Life					
20. My belief in myself gets me through whether I want to or not.					
21. It's okay if there are people who don't like me.					
22. I can usually look at me at a situation in a number of ways.					
23. In an emergency, I'm someone people can generally rely on.					

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REFERENCES

- Aggarwal, R., & Ranganathan, P. (2019). Study designs Part 2–descriptive studies. Perspectives in clinical research, 10(1), 34. Retrieved on February 9, 2023, from https://tinyurl.com/bdfx3ufe
- [2] Akanwa, A. O., Joe-Ikechebelu, N., Enweruzor, A. C., Okafor, K. J., Omoruyi, F. A., Oranu, C. B., &Umeh, U. M. (2023). Changing Climate, Flood Footprints, and Climate-Related Actions: Effects on Ecosocial and Health Risks Along Ugbowo-Benin Road, Edo State, Nigeria. In Ecological Footprints of Climate Change: Adaptive



Approaches and Sustainability (pp. 749-771). Cham: Springer International Publishing. Retrieved on February 9, 2023, from https://tinyurl.com/5cfy4bxj

- [3] Amdur, R. J., & Bankert, E. A. (2010). Institutional review board member handbook. Jones & Bartlett Publishers. Retrieved on February 9, 2023, from https://tinyurl.com/mpwwzdxd
- [4] AnuraJayasinghe, N. M. (2022). Identification of Determinants of Studentsâ€TM Academic Performance in Flood Affected Areas: With Special Reference to Ratnapura District in Sri Lanka. The International Journal of Humanities & Social Studies, 10(1). Retrieved on March 1, 2023, from https://tinyurl.com/2p828xva
- [5] Aterrado, J. R., Aterrado, J. S., Herrera, M. L. T., Alfonso, C. A. B., & Blanquisco, H. R. (2022). The Mediating Effect of Positive Emotions to Community Resilience and Individual Resilience of Flood Survivors in Tanay, Rizal. Journal of Positive School Psychology, 6(3), 9278-9290.
- [6] Baxter, R. J., & Mechanic, R. E. (1997). The status of local health care safety nets. Health Affairs, 16(4), 7-23. Retrieved on May 9, 2023 from https://tinyurl.com/528m7mmb
- Bhuvana, N., & Aram, I. A. (2019). Facebook and Whatsapp as disaster management tools during the Chennai (India) floods of 2015. International journal of disaster risk reduction, 39, 101135. Retrieved on February 2, 2023 from https://tinyurl.com/3jpb4rx9
- [8] Borja, M., Dorsey, K., Garner, T., Greer, E., Harrington, D., Robinson, P., ... & Wilson PhD, J. (2022). HEALTHY COMMUNITIES: FLOODED WITH INJUSTICE?. Retrieved from https://tinyurl.com/2p8cd6d2
- [9] Brown, M. J., White, B. P., & Nicholas, P. K. (2022). Mental health impacts of climate change: Considerations for nurse practitioners. The Journal for Nurse Practitioners, 18(4), 359-363.Retrieved on February 1, 2023, from https://tinyurl.com/5e2a4zyp
- [10] Cheema, H. A., Rehan, S. T., Shahid, A., Head, M. G., Jawad, M. Y., & Shah, J. (2023). The mental health of children in flood-affected areas in Pakistan needs urgent attention. The Lancet Psychiatry, 10(1), 7.Retrieved on February 13, 2023 from https://tinyurl.com/ydxtrf89
- [11] Cueto, L. J., &Agaton, C. B. (2021). Pandemic and typhoon: positive impacts of a double disaster on mental health of female students in the

Volume 05, Issue 04, 2023 / Open Access / ISSN: 2582-6832

Philippines. Behavioral sciences, 11(5), 64. Retrieved on February 9, 2023, from https://tinyurl.com/yc6w3z4e

- [12] Ede, M. O., Adene, F. M., Okeke, C. I., Mezieobi, D. I., Isiwu, E. N., & Abdullahi, Y. (2022). The effect of rational emotive behaviour therapy on post-traumatic depression in flood victims. Journal of Rational-Emotive & Cognitive-Behavior Therapy, 40(1), 124-143. Retrieved on March 1, 2023 from https://tinyurl.com/35p8epnf
- [13] Escobar Carias, M. S., Johnston, D. W., Knott, R., & Sweeney, R. (2022). Flood disasters and health among the urban poor. Health Economics, 31(9), 2072-2089. Retrieved on February 14, 2023, from https://tinyurl.com/55kw5xfj
- [14] Gibbs, Lisa, Jane Nursey, Janette Cook, Greg Ireton, Nathan Alkemade, Michelle Roberts, H. Colin Gallagher et al. "Delayed disaster impacts on academic performance of primary school children." Child development 90, no. 4 (2019): 1402-1412. Retrieved on February 14, 2023 from https://tinyurl.com/2p8z5zuw
- [15] Gochman, D. S. (Ed.). (2013). Handbook of health behavior research II: provider determinants. Springer Science & Business Media. Retrieved on July 8, 2023, from https://tinyurl.com/mv4twkz4
- [16] Grigorieva, E. A., &Livenets, A. S. (2022). Risks to the Health of Russian Population from Floods and Droughts in 2010–2020: A Scoping Review. Climate, 10(3), 37. Retrieved on February 14, 2023, from https://www.mdpi.com/2225-1154/10/3/37
- [17] Hagelberg, N. (2020). How Climate-Change is Making Record-Breaking Floods the New Normal. Retrieved on February 14, 2023 from: https://tinyurl.com/yc6sn8mb
- [18] Halfon, N., & Hochstein, M. (2002). Life course health development: an integrated framework for developing health, policy, and research. The Milbank Quarterly, 80(3), 433-479.. Retrieved on March 4, 2023, from https://tinyurl.com/5n8znzvx
- [19] Hieronimi, A., Elbel, J., Schneider, M., Wermuth, I., Schulte-Körne, G., Nowak, D., & Bose-O'Reilly, S. (2023). A Qualitative Study to Explain the Factors Influencing Mental Health after a Flooding. International Journal of Environmental Research and Public Health, 20(1), 134. Retrieved on February 14, 2023, from https://tinyurl.com/34xaur2
- [20] Hulleman, C. S., &Harackiewicz, J. M. (2009). Promoting interest and performance in high school



science classes. science, 326(5958), 1410-1412. Retrieved from March 23, 2023

- [21] Kumareswaran, S., Muhadi, S. U., Sathasivam, J., &Sundram, B. M. (2023). Prevalence of COVID-19 in flood relief centre. International Journal of Public Health, 12(1), 181-186. Retrieved on January 19, 2021, from https://tinyurl.com/49pd84ef
- [22] Lange, M., Löwe, A., Stassen, G., & Schaller, A. (2021). Health literacy, health status and health behaviors of german students– study protocol for the "Healthy habits" cohort study. BMC Public Health, 21, 1-10. Retrieved on June 12, 2023, from https://doi.org/10.1186/s12889-021-11542-w
- [23] Lau, F. (2017). Methods for correlational studies. In Handbook of eHealth Evaluation: An Evidencebased Approach [Internet]. University of Victoria.. Retrieved on April 3, 2023 from: https://tinyurl.com/42vbnnvb
- [24] Liao, K. H., Chan, J. K. H., & Huang, Y. L. (2019). Environmental justice and flood prevention: The moral cost of floodwater redistribution. Landscape and urban planning, 189, 36-45. Retrieved on April 5, 2023, from https://tinyurl.com/2p82h3bs
- [25] Mambrey, V., Wermuth, I., &Böse-O'Reilly, S. (2019). Extreme weather events and their impact on the mental health of children and adolescents. Bundesgesundheitsblatt-Gesundheitsforschung-Gesundheitsschutz, 62, 599-604. Retrieved on April 6, 2023 from https://tinyurl.com/my6x3zkr
- [26] Meliana, D., Suharini, E., &Sanjoto, T. (2020, January). The Profile Of Disaster Mitigation Literacy Ability By Students In The School Prone To Tidal Floods. In Proceedings of the 5th International Conference on Science, Education and Technology, ISET 2019, 29th June 2019, Semarang, Central Java, Indonesia. Retrieved April 12, 2023, from https://tinyurl.com/yn6dccde
- [27] Muniz-Rodriguez, K., Ofori, S. K., Bayliss, L. C., Schwind, J. S., Diallo, K., Liu, M., ... & Fung, I. C. H. (2020). Social media use in emergency response to natural disasters: a systematic review with a public health perspective. Disaster medicine and public health preparedness, 14(1), 139-149. Retrieved on April 12, 2023 https://tinyurl.com/2x36da6k
- [28] Ameen, A., A Alarape, M., & S Adewole, K. (2019). Students' academic performance and dropout predictions: a review/Ahmed O. Ameen, Moshood A. Alarape and Kayode S. Adewole. Malaysian Journal of Computing (MJoC), 4(2),

Volume 05, Issue 04, 2023 | Open Access | ISSN: 2582-6832

278-303. Retrieved on July 1, 2023, from https://ir.uitm.edu.my/id/eprint/61447/

- [29] Philip, N. A. (2022). Impacts of Repeated Flooding on Mental Health and Resilience of Adolescents in Kerala, India. Retrieved April 2, 2023, from https://tinyurl.com/yc69w2ep
- [30] Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. Journal of educational psychology, 82(1), 33. Retrieved July 1, 2023, from https://tinyurl.com/53jy4deb
- [31] Rahman, M. M., Bodrud-Doza, M., Shammi, M., Islam, A. R. M. T., & Khan, A. S. M. (2021). COVID-19 pandemic, dengue epidemic, and climate change vulnerability in Bangladesh: Scenario assessment for strategic management and policy implications. Environmental research, 192, 110303. Retrieved on April 21, 2023, from https://tinyurl.com/nc43w7n3
- [32] Rana, I. A., Jamshed, A., Younas, Z. I., & Bhatti, S. S. (2020). Characterizing flood risk perception in urban communities of Pakistan. International journal of disaster risk reduction, 46, 101624. Retrieved from https://tinyurl.com/2zrpbv8j
- [33] Richardson, L. P., Rockhill, C., Russo, J. E., Grossman, D. C., Richards, J., McCarty, C., ... &Katon, W. (2010). Evaluation of the PHQ-2 as a brief screen for detecting major depression among adolescents. Pediatrics, 125(5), e1097-e1103. Retrieved on February 25, 2023 from https://tinyurl.com/mps5hdup
- [34] Rosinger, A. Y., Rosinger, K., Barnhart, K., Todd, M., Hamilton, T., Arias Cuellar, K., & Nate, D. (2023). When the flood passes, does health return? A short panelexamining water and food insecurity, nutrition, and disease after an extreme flood in lowland Bolivia. American Journal of Human Biology, 35(1), e23806. Retrieved on February 2, 2023 from://tinyurl.com/4pvexuxt
- [35] Shah, A. A., Gong, Z., Ali, M., Jamshed, A., Naqvi, S. A. A., & Naz, S. (2020). Measuring education sector resilience in the face of flood disasters in Pakistan: an index-based approach. Environmental Science and Pollution Research, 27, 44106-44122. Retrieved on February 13, 2023 from https://tinyurl.com/3d33fu9f
- [36] Shah, A. A., Wu, W., Gong, Z., Pal, I., & Khan, J. (2021). Multidimensional six-stage model for flood emergency response in schools: A case study of Pakistan. Natural Hazards, 105, 1977-2005.



Volume 05, Issue 04, 2023 / Open Access / ISSN: 2582-6832

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Retrieved February 24, 2023 from https://tinyurl.com/p28y9wju

- [37] Shaw, S. R., Gomes, P., Polotskaia, A., &Jankowska, A. M. (2015). The relationship between student health and academic performance: Implications for school psychologists. School Psychology International, 36(2), 115-134. Retrieved January 25, 2023 from https://tinyurl.com/2p8w8xse
- [38] Shi, X., Wang, S., Wang, Z., & Fan, F. (2021). The resilience scale: factorial structure, reliability, validity, and parenting-related factors among disaster-exposed adolescents. BMC psychiatry, 21(1), 1-9. Retrieved February 22, 2023 from: https://tinyurl.com/mtcrhhy8
- [39] Tsai, M. H., Chang, Y. L., Shiau, J. S., & Wang, S. M. (2020). Exploring the effects of a serious game-based learning package for disaster prevention education: The case of Battle of Flooding Protection. International journal of disaster risk reduction, 43, 101393. Retrieved on January 21, 2023 from https://tinyurl.com/3dt2z662
- [40] psychology, 11, 108. Retrieved on June 23, 2023, from https://tinyurl.com/yv3v6cny