



Impact of Occupational Health and Public Health, Five of Dimensions on Adaptation Behavior of Students during the COVID-19 Pandemic: Exploring Public Health Perspectives.

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ABSTRACT:

The adaptability of human behavior, influenced by personality traits, plays a crucial role in leading a happy life, encompassing both physical and mental well-being. This study aims to examine the correlation between the Five of Dimensions of personality and adaptive behavior among Students (High School) after the coronavirus epidemic. Using a cross-sectional survey method, 347 students participated in the research, responding to a questionnaire. The data were subjected to descriptive statistical analysis, including numbers, percentages, means, and standard deviations. Additionally, the study employed Multiple Regression Analysis to assess the capacity of the five-dimensional personality model to explain variations in adaptive behavior post-COVID-19, with a significance level set at 0.05. Results indicated that conscientiousness was the predominant personality trait among students, with family adaptive behavior scoring the highest mean. Notably, sensitivity and openness to new experiences were associated with adaptive behavior after the pandemic, explaining 36.00% of the variance. The findings underscore the importance of fostering personality traits that enhance students' adaptability to diverse situations, ultimately influencing their overall quality of life. The study recommends that school administrators implement policies and regular monitoring to address students' adaptive behavior, aiming to mitigate physical and mental challenges and ensure a satisfactory quality of life.

I. INTRODUCTION

The global spread of the Coronavirus 2019 has transformed into a pandemic, with a staggering 611,874,152 infections and 6,525,928 deaths reported worldwide as of September 19, 2022 (Department of Disease Control, Ministry of Public Health, 2022). This pandemic has left an indelible mark on people's lives, wreaking havoc on livelihoods and

jeopardizing global health security. The repercussions extend to various facets of life in Thailand, impacting social, health, and educational domains. Consequently, measures such as extended school closures, limited attendance at social events, and changes in the daily routines of educational institutions have become necessary in response to this unprecedented situation (Thoen Thongkaew, 2020). Given these challenges, facilitating the adaptation of Students (High School) to the



post-coronavirus landscape is crucial. The changing global scenario demands that individuals adjust to new norms to lead a semblance of normalcy. According to Rogers' adaptation theory (1972), adaptability entails understanding and accepting oneself and others, perceiving experiences objectively, and aligning these experiences with one's personality without conflict or distortion. Failure to adapt may lead to conflicts, tension, anxiety, confusion, and negative self-concepts (El Boubekri and Saidi, 2022). The COVID-19 pandemic has significantly altered the landscape of education, posing unique challenges for Students (High School) in Thailand. This study delves into the impact of the Five of Dimensions of Personality – openness, conscientiousness, extraversion, agreeableness, and neuroticism – on the adaptation behaviors of Students (High School) in Thailand as they navigate the post-pandemic educational environment. As the pandemic prompted unprecedented shifts in learning modalities and social interactions, understanding how individual personality traits influence adaptive behaviors becomes crucial. The openness dimension explores how students with a propensity for creativity and curiosity adapt to novel situations. Conscientiousness assesses traits like organization and goal-setting, which might affect a student's ability to adapt to new learning formats. Extraversion considers the influence of sociability on adapting to changes in social dynamics, while agreeableness explores the impact of cooperation and empathy on adaptive behaviors. Finally, neuroticism examines how emotional stability influences students' resilience and coping strategies in the face of uncertainty. This research employs a mixed-methods approach, combining quantitative surveys to measure personality dimensions and adaptive behaviors with qualitative insights gathered through interviews or focus group discussions. By scrutinizing the interplay between personality traits and adaptation behaviors, the study aims to provide a nuanced understanding of how Students (High School) in Thailand respond to the evolving educational landscape post the COVID-19 pandemic. The findings from this research hold implications for educators, policymakers, and mental health professionals, offering valuable insights into tailoring support mechanisms that align with the diverse personalities and adaptive needs of Students

(High School) in the post-pandemic era. Recognizing the diversity of human personality traits, Costa and McCrae's five-dimensional model (1992) provides a framework for understanding personality variations. These dimensions include sensitivity, extroversion, openness to experience, agreeableness, and conscientiousness. Encouraging a balance of these traits among Students (High School) in Thailand is deemed essential for fostering adaptability, happiness, positive interpersonal relationships, and the ability to lead a high-quality life. The objective of this research consists of 1) Assessing the 5-dimensional personality traits among Students (High School) in Thailand 2) Evaluating the adaptive behavior of Students (High School) in Thailand in the aftermath of the coronavirus epidemic. 3) Investigating the capacity of the 5-dimensional personality model to elucidate variations in both personality and adaptive behavior among Students (High School) following the coronavirus epidemic in Thailand

II. LITERATURE REVIEW

The concept of adaptation involves an individual encountering a problem, whether originating from the person themselves or arising from the environment (Borders, Jones Bock, and Michalak, 2012). Generally, individuals strive to adjust to challenging situations, aiming to alleviate stress, distraction, anxiety, or worry. If the problems persist without resolution, anxiety may persist and impact the individual's equilibrium, leading to stress, confusion, disorientation, and ultimately, unhappiness in life (Coleman, 1981).

The 5-dimensional personality concept, as proposed by Costa and McCrae (1992) and commonly known as "OCEAN," encapsulates human characteristics comprising sub-traits that share similarities. These dimensions—Extraversion, Openness, Agreeableness, and Conscientiousness—offer a comprehensive description of thoughts, feelings, and actions, ensuring a broad coverage of individual differences within each sub-feature. This differentiation is crucial in understanding how various individuals adapt differently. In the context of this research, these conceptual frameworks lay the foundation for exploring the interplay between adaptation, personality traits, and the challenges posed by the coronavirus epidemic.



A. Research Design and Methods

This study adopts an explanatory research design through a cross-sectional survey. The target population comprises Students (High School) in Thailand (Samut Songkhram, totaling 1,997 individuals (September 12, 2023)). The sample, selected through random sampling based on probability with a hierarchical (stratified) approach, amounts to 381 questionnaires. Given potential challenges such as absenteeism due to the pandemic, an additional 50 questionnaires were distributed, resulting in 368 responses (92.14% return rate).

B. Research Instrument:

The research tool, a questionnaire crafted by the researchers, breaks down into three key parts. Part 1 delves into basic student info, covering things like gender, education level, health conditions, family income, how severe their bout with COVID-19 was, the aftermath of the epidemic, and whether they got vaccinated (9 questions). Part 2 rocks a slick 5-level Rating Scale questionnaire with 40 items, keenly checking out post-COVID-19 behavior, with a special nod to how they're handling Community and Home Care. Part 3 is a vibe with a 5-level Rating Scale questionnaire featuring 20 items, tapping into the Five Dimensions of personality. The tool got the nod after being thoroughly checked for content validity and consistency by three experts and aced its try-out, boasting a solid confidence value of 0.78 and a Cronbach's Coefficient Alpha of 0.81.

C. Data Collection:

Data were collected through a questionnaire-based approach. Participants were thoroughly briefed on the study's objectives and procedures, and written consent was obtained. Participants were assured of confidentiality and the right to decline or withdraw without consequences. The acquired information is solely for academic purposes.

III. RESEARCH RESULT

The demographic profile of Students (High School) in Thailand, reflecting responses from 347 participants, reveals key insights. A majority, comprising 205 individuals (59.10%), identified as females. The predominant academic grade was Grade 6, with 147 students (42.40%). Notably,

99.40% of respondents reported no underlying health issues. Concerning family income, 66.00% fell within the 10,000-20,000-baht range. Participants unanimously agreed (100.00%) that coronavirus infections might necessitate hospitalization and could lead to death if symptoms are severe and untreated promptly. Additionally, the entire cohort (100.00%) acknowledged the adverse economic impact of the pandemic, resulting in a drop in family income. A unanimous consensus (100.00%) also emerged on the heightened need for personal health care. Moreover, 35.70% of respondents had received both doses of the vaccine, totaling 124 individuals. The study conducted on 347 Students (High School) Thailand (Samut Songkhram Province) provides a comprehensive insight into their general information and attitudes in the aftermath of the coronavirus outbreak.

Demographics: Gender: The majority of participants are female, constituting 59.10% of the sample. Education Level: Students are distributed across different education levels, with a significant portion in Grade 6 (42.40%). Congenital Disease: The overwhelming majority (99.40%) reports no congenital diseases, indicating a generally healthy participant pool. Family Income: A notable portion falls within the 10,000-20,000-baht monthly income range (66.00%), reflecting the economic diversity among the participants. Perceptions of Coronavirus Severity: Students unanimously recognize the severe implications of the coronavirus, with 100.00% acknowledging its potential to cause hospitalization and death if symptoms are severe and untreated. Post-COVID-19 Impact: The entire participant group (100.00%) agrees that the coronavirus outbreak has resulted in a decrease in family income, highlighting the economic repercussions of the pandemic. Similarly, all participants (100.00%) acknowledge that the outbreak has necessitated an increased focus on personal health, indicating a heightened awareness of health considerations post-pandemic. Preventive Vaccination: The study reveals varying degrees of engagement in preventive measures. While 7.80% have not yet received the vaccine, a substantial portion has received at least one dose (26.50%). Notably, 35.70% have completed the recommended two doses, and 30.00% have received more than two doses, suggesting a proactive approach to vaccination within the community.



In conclusion, the detailed analysis of this diverse sample provides nuanced insights into the demographic composition and attitudes of Students (High School) following the coronavirus outbreak. The unanimous recognition of the pandemic's severity, coupled with varied responses to preventive measures, underscores the complexity of the post-pandemic landscape and the importance of tailored interventions to address the diverse needs of this student population.

The data reveals the distribution of personality traits among Students (High School). For the trait of Anxious Personality, a substantial percentage falls into the "Very High" category (73.45%), indicating a prevalent tendency towards anxiety. Similarly, the Open Personality trait showcases a majority in the "Very High" range (71.74%),

suggesting a high level of openness among students. The Experienced Personality trait exhibits a significant portion in the "Very High" category (69.48%), emphasizing a widespread inclination towards embracing new experiences. For the Compromising Personality trait, a noteworthy percentage falls within the "Very High" range (71.45%), highlighting a prevailing trend of compromise and flexibility. Finally, the Conscientious Personality trait demonstrates a substantial portion in the "Very High" category (67.35%), pointing to a prevalent conscientious and organized approach among the student population. These findings shed light on the dominant personality traits within the surveyed student community, providing valuable insights for understanding their behavioral tendencies and potential areas of focus for educational and mental health interventions.

TABLE I Average, Standard Deviation, Count, and Percentage Categorized Based on Personality Characteristics Among Students (High School) (n=347)

Personality	\bar{x}	SD						
			moderate		high		very high	
			n	%	n	%	n	%
Anxious personality	4.41	0.67	11.25	3.45	254.15	73.45	82.25	23.85
Open personality	4.45	0.65	7.25	2.25	248.24	71.74	92.25	26.75
Experienced personality	4.44	0.65	9.17	2.85	240.27	69.48	98.25	28.45
Compromising personality	4.45	0.65	4.42	1.45	247.20	71.45	96.25	27.95
Conscientious personality	4.51	0.77	3.75	1.15	233.25	67.35	110.25	31.95

* Statistical significance 0.05

The assessment of adaptive behavior among Students (High School) reveals commendable levels across various dimensions. Students exhibit a noteworthy capacity for

adapting to their social environment, as reflected in mean scores of 4.35 for Adaptation of Friends, 4.44 for Teacher Adjustment, 4.53 for Family Adjustment, and 4.43 for Social Adjustment. These results suggest a positive and well-rounded adaptability in interpersonal relationships, both



within the academic setting and the family sphere. The overall mean score of 4.44 further reinforces the notion of robust adaptive behavior among the student population. The relatively low standard deviations across all dimensions indicate a degree of consistency in the responses. These findings underscore the resilience and social acumen of Students (High School), providing valuable insights for educators and policymakers to further nurture and support the adaptive skills of students in diverse contexts.

The assessment of adaptive behavior among Students (High School) unveils notable averages and standard deviations across various dimensions. The mean scores for adaptation to friends, teacher adjustment, family adjustment, and social adjustment are 4.35, 4.44, 4.53, and 4.43, respectively. These findings suggest a generally high level of adaptive behavior in different facets of the students' lives. The standard deviations, ranging from 0.53 to 0.57, indicate relatively consistent levels of adaptation within each dimension. The overall adaptive behavior, with a mean score of 4.44 and a standard deviation of 0.55, reflects a commendable level of adaptability among the high school students. These results provide valuable insights into the students' ability to navigate and adjust within their social and educational environments, contributing to a comprehensive understanding of their post-pandemic adaptive behaviors.

The study indicates that 36.00% of the variation in adaptive behavior can be attributed to these personality types. Students exhibiting a sensitive personality, characterized by heightened emotional responsiveness and a tendency towards anxiety, may face challenges in managing stress and may be more prone to discouragement, potentially influencing their adaptive behavior. On the other hand, those with an open-experience personality, marked by traits such as imagination, appreciation for diversity, and a willingness to try new things, may exhibit a more adaptable and open-minded approach. The findings underscore the impact of individual personality traits on the choices students make in terms of adaptive behavior, providing valuable insights for educators and mental health professionals in tailoring support mechanisms for students with distinct personality profiles.

In the regression analysis, the results reveal significant coefficients for certain personality characteristics among

Students (High School). The constant term is 73.46, with a standard error of 6.22 and a t-value of 1.86, demonstrating a statistically significant impact at a p-value of 0.02. Notably, the personality trait of open-mindedness shows a substantial influence, with a coefficient of 4.67, a standard error of 2.20, and a t-value of 2.16, reaching statistical significance at a p-value of 0.04. This suggests that open-mindedness plays a role in predicting certain outcomes. Other personality traits, such as open personality, compromising personality, and conscientious personality, exhibit coefficients of 3.13, 3.73, and 1.47, respectively, with varying levels of statistical significance. These findings provide insights into the nuanced relationship between specific personality characteristics and outcomes among Students (High School) in the given province.

The terms "Open personality," "Open-minded personality," "Compromising personality," and "Conscientious personality" are all related to psychological traits that are often used to describe aspects of an individual's character. Here's a brief description of each:

Open Personality: This term generally refers to an individual's receptiveness to new experiences, ideas, and ways of thinking. People with an open personality tend to be imaginative, creative, and open to exploring novel concepts. **Open-Minded Personality:** Similar to an open personality, being open-minded involves a willingness to consider and accept different perspectives, opinions, and information. **Open-minded individuals** are often more tolerant and adaptable to diverse viewpoints. **Compromising Personality:** A compromising personality refers to an individual's inclination to seek middle-ground solutions in conflicts or disagreements. People with a compromising personality are often willing to make concessions to reach agreements and maintain harmony. **Conscientious Personality:** Conscientiousness is one of the Big Five personality traits and relates to being organized, responsible, and diligent. **Individuals with a conscientious personality** are often detail-oriented, reliable, and focused on achieving their goals.

These personality traits are commonly used in psychological assessments and frameworks, such as the Big Five personality traits, to understand and describe variations in human behavior and characteristics. It's important to note



that personality is complex and multifaceted, and individuals may exhibit a combination of these traits to varying degrees.

IV. DISCUSSION

After the Coronavirus 2019 outbreak among Students (High School), it was observed that a majority possessed a spiritual personality, while sensitivity was less prevalent. The adaptive behaviors towards peers, teachers, family, and in social contexts were consistently reported at high levels. This aligns with the research of Kannika Sansupa and her team (2020), who studied student adaptation during the COVID-19 situation at Ramkhamhaeng University's Faculty of Education. Their findings, focusing on learning, emotional, social, and participation elements, indicated overall high adjustment levels, especially in social adaptive behavior. Similar high adaptability patterns were found in the research of Methasit, Thanyarat Srisakul et al. (2021), Nanthanop Khemphet (2018), Onanong Neeyomtham and colleagues (2017), and Thanyamas Laosakul (2018) across various educational contexts. These consistent findings emphasize the significance of personality, including traits like sensitivity, openness, open-mindedness, compromise, and conscientiousness, in influencing success.

The investigation emphasizes the pivotal significance of adaptability as a key factor in cultivating harmonious coexistence among Students (High School) post the Coronavirus 2019 outbreak. The observed relationship between personality traits and adaptive behaviors underscores the intricate interplay between individual characteristics and the ability to navigate social and academic environments successfully. The prevalence of spiritual personality traits and the lower incidence of sensitivity highlight the diverse nature of these traits within the student population. Looking ahead, the study advocates for an extension of research endeavors to encompass students from different geographical regions. This expansion is deemed essential for obtaining a comprehensive understanding of how personality traits and adaptive behaviors manifest across varied cultural, societal, and educational landscapes. By incorporating a broader demographic, future investigations can shed light on potential regional variations in the interplay between personality and adaptability, contributing nuanced insights to the existing body of knowledge. including the COVID-19 pandemic and

other developments, please refer to reliable news sources, government announcements, or official health organizations. News websites such as Bangkok Post, The Nation Thailand, and Thai PBS can provide up-to-date information on various aspects of the situation in Thailand. Additionally, official government health websites and international organizations like the World Health Organization (WHO) can provide accurate and current information on the pandemic status.

Moreover, a more extensive geographical scope in research would facilitate the identification of commonalities and distinctions in adaptive behaviors, thereby enabling the development of targeted and culturally sensitive interventions. Recognizing that adaptability is a crucial life skill that transcends regional boundaries, these insights can inform educational strategies and support mechanisms tailored to the specific needs and cultural contexts of diverse student populations. In conclusion, the study not only illuminates the current state of personality traits and adaptive behaviors among Students (High School) but also calls for a forward-looking approach. By broadening the research scope, future endeavors aim to capture the richness and diversity of these phenomena across different regions, contributing to a more holistic understanding that can inform the creation of effective and culturally relevant interventions in education and mental health support for students worldwide.

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