From Educational Semblance to Medical Hodgepodge: Unraveling the Vectors of Virtual Education and Simulation-Based Technology to Filipino Medical Students

Noemi F. Formaran EdD[1], Safia Lucille B. Barbacena[2], Hanna Zealu Ysabel V.Apolinar[3], Antoinette Jannah A. Ilagan[4],
Arman G. Inso Jr.[5], Lea Therese C. Irac[6], Ember EliyahM. Rueda[7]
Philippine School Doha, Qatar

Abstract:

Background: To better comprehend the perspectives of Filipino virtual medical students who deviated from the traditional method of learning medicine, this study focuses on their experiences.

Methods: This study utilized the phenomenological research design. Conceptualizations of the respondents' articulations, which were obtained through a semi-structured interview via Zoom, have been discovered using phenomenology as the research design. Transcribing the replies from emic to etic and then conducting a cold to warm analysis of the data helped uncover the emerging themes. The member-checking technique was used to ensure the validity of the data.

Findings: The outcomes were the following variables: Personal Productivity, Educational Wellbeing, and Academic Challenge. Personal Productivity of Filipino Medical Students, which comprises the subthemes self-motivation, self-evaluation, and self-imposition, is being affected by virtual learning through various aspirations and lack of patient interaction. Virtual learning also has an impact on the Educational Wellbeing of Filipino medical students, particularly in the areas of stress management, support system management, and mental health management. It was found that while students experienced the lack of social support, they also relied on physical fitness and other reflective activities to become more emotionally and mentally stable. Academic Challenges in virtual learning, such as self-adaptation, simulative immersion, and technical application, are faced by Filipino medical students. In overcoming difficulties with virtual learning, such as power shortages, students have shown innovation and adaptability. Students have also discovered other methods to complete medical simulation tasks. Pupils that use technology effectively have had success in a virtual environment.

Conclusion: This research shows that the pandemic has had a big impact on medical students' lives. Many students were able to learn some coping skills and persisted in their pursuit of becoming doctors. The environment that virtual medical students are exposed to and how they adjust to sudden changes with the support of their lovedones, friends, and teachers form the basis of their success.

Recommendations: This study is recommended to institutions because it highlights the real-world experiences of virtual medical students and enlightens them about what has to be modified or improved in their own curriculum.

Keywords:- Clinical Clerkship, Filipino Medical Students, Pandemic, Patient Interaction, Virtual Medical Learning

I. INTRODUCTION

Preventive actions have been taken as a result of the current epidemic, where COVID-19 cases are on the rise, including the imposition of travel restrictions, the implementation of community quarantines, and the closing of schools and universities. As a result, a system that prioritizes predominantly digital teaching and learning underwent an unexpected transition from traditional learning. The move to virtual learning compromises the application of theoretical information because medical education is focused primarily on conventional procedures carried out with actual face-to-face patient contact. AlQhtani (2021) noted that the medical abilities that must be touched, heard, and seen — all of which must be tangible to train the clinical eye — are limited by online learning. The use of theoretical information without clinical expertise may reduce future doctors' ability and preparedness to give successful interventions in emergency situations.

To make up for the lack of in-person instruction, medical students who are learning electronically have been taught how to do medical procedures using a variety of strategies and techniques. Examples of these techniques, according to Cedeño et al. (2021), including dressing up plush toys as patients, simulating a patient's arm with towels, and practicing suturing on chicken meat. Additionally, online simulations of patient encounters were carried out using a variety of video-communication tools, including Zoom and Google Meet. The quick transition to an online curriculum has benefited both students and teachers by enabling them to be clever, inventive, and adaptive. Baltà-Salvador et al. (2021) found that students experienced less peace and trust in their online education and more despair, boredom, bewilderment, and fear. This indicates that strain in the educational environment during the COVID-19 pandemic may have harmed students' mental health.

As a result of curriculum modifications made by educational departments to suit the online teaching and learning environment. They encountered situations while they were students in the COVID-19 era that compelled them to alter their scholarly, social, and psychological lives (Real et al., 2021). This is where students found it difficult to manage in-depth learning, meet obligations, and still perform well academically in the virtual environment. The COVID-19 outbreak, according to research by Oducado (2021), impacted respondents' online academic performance, resulting in poor to barely passable marks compared to medical courses. The kids' struggles in life as a result of these situations caused them to get caught in a vicious cycle that adversely affected their academic performance.

There have been significant rises in various mental health conditions, such as anxiety and depression, since COVID-19 was proclaimed a pandemic. These conditions have numerous psychological effects on public health emergencies. Medical students now have reason to doubt their belief in their capacity to practice ethical medicine. In addition, Barrot et al. (2021) assert that, in addition to the risks offered by COVID-19, students' worry is also a result of social and physical restrictions, a lack of experience with new learning platforms, technological issues, and concerns about their capacity to pay for school. Low-income families in the Philippines, a developing country, also have restricted access to high-speed Internet, online learning materials, and at-home study space. Medical students have also reported more stress due to disruptions and changes to their educational programs. Due to these factors, medical students need educational programs to improve their COVID-19 coping mechanisms.

Despite their commitment to seeking the greatest possible medical education, technology has an impact on medical students' confidence in their capacity to put their knowledge into practice. Rajab et al. (2020) claim that when students do not have access to laptops or high-speed Internet at home, online education cannot be equitable in terms of access and teaching quality. Problems might occur because instructors and learners are unfamiliar with online teaching strategies, claim Hong et al (2021). Despite this, Rhee and Seung-hee (2011) discovered that technology-assisted teaching was 8.4% more successful than conventional teaching techniques at increasing student learning.

Medical knowledge is insufficient without first-hand experience, threatening the healthcare system. As the need for skilled healthcare practitioners grows, students are anticipated to enter the industry as such. Despite Miller et al. (2020)'s assertion that doing so puts patients and other doctors in danger, medical students have been advised to avoid inpatient and outpatient settings during the COVID-19 pandemic viral transmission to reduce shortages of personal protective equipment and lower the risk of student infection. As these students begin their last year of medical school, Hilburg et al. (2020) pointed out that they might not have finished all of the requirements for giving acceptable patient care due to the pandemic. to equip aspiring doctors with the skills needed to respond to these urgent demands.

This study explores the circumstances that impact the education of Filipino medical students who use virtual learning in an effort to address the key question: "How do virtual learning affect Filipino medical students during the COVID-19 Pandemic?" The sub-question that follows the main one is: "What are the challenges faced by Filipino medical students with virtual learning during the COVID-19 pandemic?" related to the substitute methods and tactics that the pupils have adopted to make up for the absence of in-person instruction. These queries are meant to focus on the core inquiry and elicit more detailed answers. To gain insights and a comprehensive picture of Filipino medical students' lives in virtual learning, including their academic lifestyle, changes, relationships, and perspectives, the researchers will use a phenomenological qualitative technique. This phenomenological study intends to explore the real-life interactions that Filipino medical students had with virtual instruction during the COVID-19 epidemic. In order to illustrate the changes that Filipino medical students have gone through with virtual learning in the midst of the pandemic, a structured approach was employed to develop the main topic and its sub-questions. The researchers will be in a position to assess the suitability and viability of the deployment of online learning in medical education and training by doing this. Additionally, this study can help other medical schools adapt their curricula in the future.

II. METHOD

A. Research Design

This study used a qualitative phenomenological research design, which emphasizes a person's experiences, beliefs, and perceptions. Creswell (2021) asserts that qualitative research involves exploring and understanding the meaning of individuals or groups associated with a social human issue. Data collection in the participants' environment, inductive data analysis, which builds from specifics to broad themes, and data interpretation are all components of the research process. In order to better understand the perspectives of Filipino medical students who were exposed to virtual learning during the COVID-19 pandemic, this study employs a phenomenological approach. A qualitative research technique called phenomenology focuses on the commonalities of a group's lived experiences. The approach's primary goal is to come up with a description of the nature of the occurrence.

B. Research Locus and Sample

The study was carried out at Philippine School Doha, a non-profit community school whose mission is to educate Filipino students in Doha, Qatar, who are becoming an increasingly large population. Ten medical students from the Philippines were selected to take part in this study. The researchers employed a purposeful sampling strategy to choose the ten participants. This is distinguished by the inclusion of specific requirements satisfied by the candidates during selection (Padilla- Diaz, 2018). The participants were selected based on their experience as Filipino medical students who had to deal with virtual learning while addressing the pandemic in 2020. Based on the participants' availability, the interview times and places were selected. Using the Zoom program, the interviews were conducted.
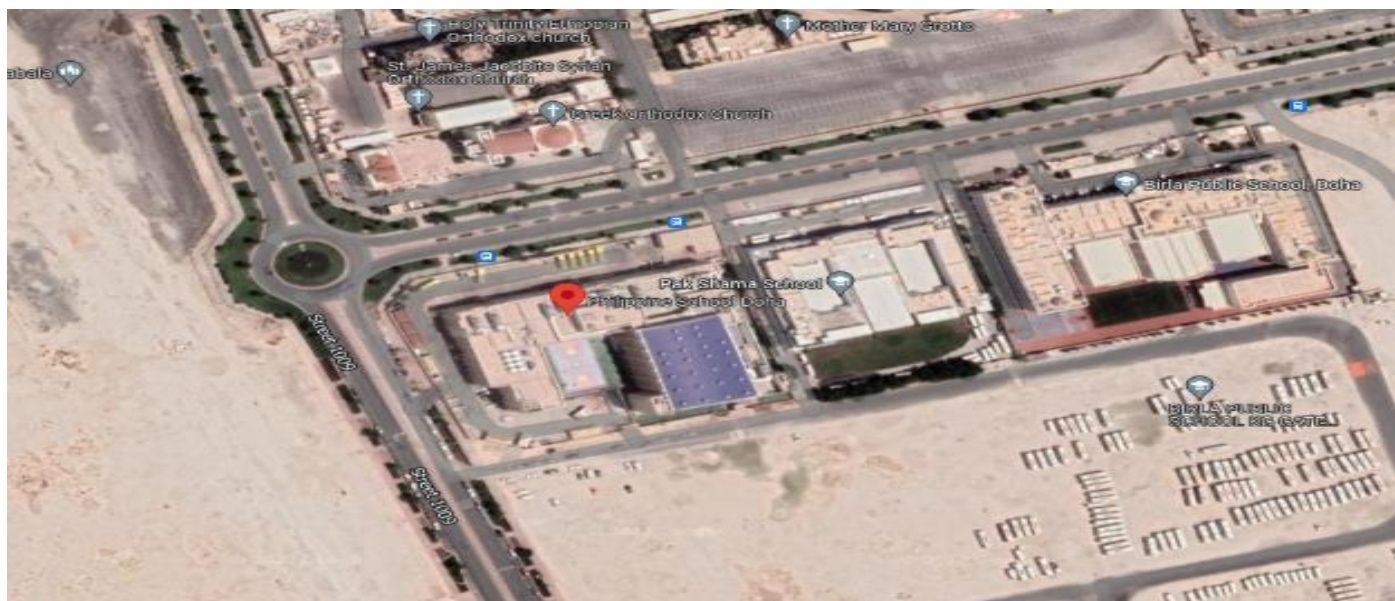
Fig. 1: Location of Philippine School Doha (PSD)

C. Data Collection and Ethical Consideration

A structured, three-part instrument was used by the researchers to gather pertinent data for this study. The participants were given a robotfoto containing the qualifications for participants in the study before the personal interview. Second, the central question and specific questions were used to organize and review the interview guide. The developmental questions underwent validation in order to ensure their reliability and validity. During the validation process, the researchers also made modifications and added new developmental questions. In order to (a) collect more data with greater depth, (b) have the flexibility to reorder the questions as necessary, and (c) make it simple to collect personal information, the researchers chose a twenty-seven-item semi-structured interview. The participant gave consent via a consent form to participate in a personal interview.

D. Data Analysis

The relationship between the data groups in this phenomenological study was ascertained by the researchers using Colaizzi's phenomenological data analysis methodology. The complexity of the process was decreased by using a technique that instructed the researchers to develop themes for categorized responses.

Based on these stages, this strategy created an appropriate argument and interpretation of the responses (Suryani, Welch, and Cox, 2018):

- Interview transcription and translation (emic-etic transcription),
- classifying claims that are connected to the phenomenological subject that was covered (cool-warm analysis)
- creating thought units based on the identified statements and developing the study's main themes using a dendrogram.

III. RESULTS

This phenomenological study covers the experiences of virtual medical learners, specifically, Filipino medical students. In order to answer the central question, "How does virtual learning affect Filipino medical students during the COVID-19 Pandemic?" Moreover, this study was specifically focused on the issue of "What are the difficulties encountered by Filipino medical students who are studying through virtual learning during the COVID-19 pandemic?" Due to their experiences with virtual learning, Filipino medical students have had to make adjustments in their learning journey to adapt to their situation.

Fig. 2: Simulacrum

A. Simulacrum

Fig. 1 shows the simulacrum focusing on the three major themes: **Personal Productivity, Educational Wellbeing, and Academic Challenge.** These themes represent the significant life aspects of the medical students experiences during their learning and training of medicinal knowledge through a virtual platform. The first major theme is the **Personal Productivity** of medical students amidst an unconventional and virtual environment of medical training. This productivity is a result of the students demonstrating the sub-themes of *Self-motivation* through their personal goals and determination, *Self-evaluation* by assessing themselves and their academic efficiency, and *Self-imposition* by being attentive and avoiding distractions. Secondly, the student's **Educational Wellbeing** relates to their coping strategies for managing their quality of life as well as their social and emotional stability during the epidemic. The aforementioned highlights in particular *Stress Management* wherein students have their own coping mechanisms for their stressors, *Support System Management* from people they interact or share a special bond with, and *Mental Health Management* to reflect their psychological soundness and holistic wellbeing. The third major theme reflects sub-topics that illustrate how students and academic institutions overcame inevitable **Academic Challenges** in virtual medical learning, made adjustments, and gained new abilities as a result of virtual medical learning. This has three sub-themes: *Self-Adaptations* by reconfiguring itself accordingly with the virtual learning, *Simulative Immersion* that make up for medical students' lack of real-life experiences as a result of virtual learning, and *Technical Application* as a result of virtual medical learning that enhanced their technical and critical skills.

B. Personal Productivity

The first major theme shows the personal productivity of virtual learners. *Personal Productivity* is defined as how students organize their responsibilities, goals, and routines. It is further divided into three sub-themes which are Self-motivation, Self-evaluation and Self-discipline.

C. Self-motivation

In pursuing a medical career in the midst of the pandemic, the medical students need to have a goal and great determination to overcome the obstacles in their medical education. They replied:

"I stay motivated in online learning by always thinking of the sacrifices my parents made and also the goals that I want to reach." (P2)

"I stay motivated by thinking of my clerkship. There are no more books during clerkship, and I need to study hard because a patient could die if I do not know what disease I am handling." (P5)

"I draw my motivations from the stories of my lecturers. I listen to their experiences and I take into consideration the things that I will expect in my career. Physical activities also motivate me. The third one is my family." (P6)

Based on the presented responses, each of the medical students had their own inspiration for their goals. P2 gets their motivation from lecturers, physical activity, and family in which P6 shares similar sentiments in being family-oriented. P5 differs from the previous responses with their objective perspective and their future patients in mind.

D. Self-evaluation

In the time of the pandemic, medical students evaluated their ability to continue in the medical field and they had to assess how they perceive virtual medical learning. They replied:

"We are supposed to be seeing patients right now in the outpatient department but we could not. I am not really fond of online learning, it is more difficult." (P1)

"My passion for pursuing medicine burned brighter because I got to really see the needs of the community, of the Filipino, in need of help in these times of pandemic." (P8)

"It affected my decision to pursue medicine because I felt like virtual medical learning dehumanized my medical journey. I did not see the point in studying medicine if I could not apply it to real humans, and I thought that I could have been working to support my family given the pandemic. However, I was already enrolled, and so I had no choice but to continue to study medicine." (P6)

Based on the responses of the participants, two of the participants, P1 and P6, are not fond of virtual medical learning because they lacked interest in studying medicine if they could not do it on actual patients. Meanwhile, P8 stated that their passion for pursuing a medical career is stronger than before.

E. Self-imposition

Medical students have access to their devices during online classes which act as distractions. In order to stay focus on classes, they looked for different means that will help them pay attention:

"Yes, I felt less focused. Simple things like placing my table near the window or changing my table cover for a specific day help me to focus more." (P5)

"Yes, I felt less focused. I sometimes cannot stop using Facebook like chatting while doing online class. I was able to manage by making sure I never opened the facebook app and even used my phone to take notes so all my attention was on the class." (P9)

"During virtual classes, at first it was hard to manage because there are distractions like Google and Facebook unlike in face-to-face where phones are not allowed in order to maximize your time and focus. Now, I use a schedule, usually it is written down in my phone, and I try to squeeze it in the day." (P10)

Based on the presented responses, two of the responses, P9 and P10, dealt with the distractions by lessening their social media exposure as well as using their phones for schedules and notes. On the other hand, P5 had a more physical approach by changing the layout of their things within the room.

In conclusion, the Personal Productivity of Filipino Medical Students, which comprises the subthemes self-motivation, self-evaluation, and self-imposition, is one of the affected factors in virtual learning. In the gathered data, the students gained inspiration as they pursue their medical education because of their loved ones and role models yet most do not prefer the online set-up with the lack of patient interaction which hampered their dedication to the course. Additionally, they deterred distractions brought about by the new set-up through lessened social media exposure and a changed environment.

F. Educational Wellbeing

The second major theme shows the educational experiences of virtual medical learners. Educational Wellbeing is defined as a student's overall progress and quality of life. Furthermore, this theme elaborates the effects of virtual medical learning to the student's mental, emotional, social, and physical health; and explains ways on how the students were able to discover ways on how to cope throughout the pandemic. It is further divided into three sub-themes which are Stress Management, Support System Management, and Mental Health Management.

G. Stress Management

Medical students are confronted with various types of stressors with virtual medical learning. They have had to find ways to manage stress in different aspects of life. Despite the restrictions of the pandemic and the workload of medical education, students were still able to prioritize their holistic well-being through developing ways to stay physically, mentally, emotionally, and socially active. They replied:

"Usually I do home exercises like basic boxing drill, Muay Thai drills, and in the morning I run five kilometers or go to the gym. When I feel down or anxious, I tend to sleep and eat as if I have let go of myself so I prefer not to stay still." (P10)

"I set a certain day in which I stay away from academic work, kind of like a detox. I do my self-care routine and I just try to relax by doing yoga in the day." (P6)

"I would close the door, write in my journal, and cry. I feel better after crying." (P4)

Based on the presented responses, two of the participants, P10 and P6, are doing physical exercise to manage their stress. Meanwhile, P4 prefers to cope with stress by emotional engagement and self-reflection through journaling.

H. Support System Management

Parents, teachers, peers, and classmates influence the educational wellbeing of a virtual medical learner. Most of the time, medical students relied on their parents and peers for emotional reassurance and approached teachers and classmates for academic assistance. Since the pandemic had caused limited interactions, it is possible that they experienced less social support:

"I did feel a sense of isolation during virtual medical learning because you only study by yourself contrary to studying with your friends and it is saddening but I eventually adapted to it." (P2)

"Definitely, especially with my batchmates, since we are just at home and we are not really talking with anyone. And while there is Messenger, it is mixed between work and non-work related things. The way I handled it was not the best approach. Since I did not want to talk about work again when I am done with it, I sometimes avoid Messenger and this also avoids me to talk with peers." (P1)

"Yes, it is more convenient to connect with my professors in Messenger and Telegram. However, not everyone is online all the time, and so it is hard to brainstorm about topics and activities." (P6)

The data presented showed that the two participants, P2 and P1, stated that they had less social support because of virtual medical learning. P6 stated that while it is more

convenient to communicate with peers through social media, it is still difficult to conceptualize tasks because of virtual unavailability for some.

I. Mental Health Management

Throughout the course of the pandemic, self-discovery on ways to mentally overcome the difficulties of the new learning method arose. The ample time allowed the medical students to reflect not only on their mental health but also their holistic well-being.

"Yes, I had more time to reflect on my health because I have online classes, and being stuck in the same place can get boring. I usually search for tips on how I can improve myself. Overall, I did improve my holistic health during the pandemic." (P9)

"Yes, because I had more time for myself. There are times when I just stare into one place and think of a lot of things like how I am doing right now and what I am feeling so I get to check on myself." (P8)

"Yes, it made me realize that I have to be physically fit, emotionally and mentally stable, as well as spiritually prepared." (P7)

Based on the data gathered, P8 and P9 had more time to self-reflect which improved their mental health. Additionally, P7 mentioned that the pandemic enabled self-realizations that holistic wellness requires physical fitness, mental and emotional stability, and spiritual preparedness.

In conclusion, virtual learning has an impact on the Educational Wellbeing of Filipino medical students, particularly in the areas of stress management, support system management, and mental health management. Students relied on personal exercises and journaling to manage stress, and experienced the lack of social support due to virtual learning. However, virtual learning has enabled students to reflect more and in doing so they became more emotionally and mentally stable.

J. Academic Challenge

The third major theme displays the academic challenges of virtual medical learners. *Academic Challenge* is defined as hardships experienced within the virtual medical learning as it has been taught virtually through the four corners of the medical student's screen. Such hardships are technical difficulties, power interruptions, and lack of technical proficiency in online applications. However, despite the adversities were positive aspects brought upon the virtual learning such as flexibility of schedule and enhanced technical knowledge. This central theme of Academic Challenge is further divided into three sub-themes which are Self-adaptations, Simulative Immersion, and Technical Application.

K. Self-adaptations

Adversities are inevitable especially when learning is contained virtually. Students needed to change a part of their academic lifestyle or routine and adjust accordingly, specially with the limitations of virtual medical learning. They were also opened to a new venture of medicine, such as telemedicine that is exhibited through the help of virtual platforms. Furthermore, they needed to learn to rely on online platforms and applications that can aid them in learning medicine virtually. As a result, students learned to adapt in their own ways:

"We got to do college telemedicine, as it was introduced since the pandemic started and it does not seem to be that it will disappear. It brings out our creativity when we need to find solutions to the difficulties of virtual consults." (P1)

"I was able to learn and try different modes of online presentation and became flexible in making online reports. I was also able to study at my own pace which was a double-edged sword situation for me." (P8)

"The unannounced power interruptions are stressful because I spend time studying for my weekly exams and I would panic over the loss of electricity. My professors would let me retake the exam the next day when there were unannounced power interruptions in my area. However, if the power interruptions were announced, I had to prepare to take the exam." (P3)

The data reflected positive traits such as creativity and flexibility as mentioned by P1 and P8 respectively, which were brought upon self-adaptation to virtual learning. On the other hand, self-adaptation with adversity was also reflected such as how virtual learning relied upon electronic devices, and when announced or unannounced power interruptions occurred, students still had to take their exams by any possible means, as P3 stated.

L. Simulative Immersion

Devoid of an opportunity to practice the theoretical knowledge that medical students had learned, simulations were applied in the virtual environment to compensate for the deficit of real-life experiences for medical students caused by virtual learning. These simulative immersions were not the exact medical tools and equipment used in the medical setting. Hence, it was things that were available in their own homes that reflected innovativeness and resiliency. Moreover, online platforms that offered virtual simulations were also utilized:

"I had to purchase an online platform like Lecturio, Osmosis, and Amboss to help me with my learning." (P7)

"Medical tools and equipment were not available for me and so I had to come up with alternatives, like using a real fork in lieu for a tuning fork." (P4)

"Instead of performing physical exams on patients, we virtually performed it with our relatives in our devices. Additionally, we also used plush toys like a teddy bear as well as pillows." (P6)

"In practicing my suturing skills, I suture a sponge as if I am hand sewing to learn the knotting, the locks, and the different kinds of stitches." (P1)

The responses exhibited students learning and performing physical exams on patients through online platforms and devices as mentioned by P7 and P6. Furthermore, enhancing their medical skills and dexterity

were prerequisites in the medical field yet as medical tools were not readily at hand, they made use of things in their home such as fork in alternative to tuning fork, pillows and plush toys to perform physical exams, and sponge to suture as stated by P4, P6, and P1 respectively.

M. Technical Application

In spite of its shortcomings, learning in a virtual setting shows it can accelerate to improvements in critical and technical skills for students that otherwise may not have been able to be cultivated without the virtual medical environment that may have closed doors for some opportunities, but has opened other paths for medical students to discover and develop. Examples of the aforementioned are learning more about technical proficiency with online platforms and applications that can aid in their medicinal learning. In addition, they would also be able to cultivate with their critical abilities that are prerequisites in the emerging and dynamic field of medicinal knowledge.

"Yes, it did. Before the pandemic hit, I knew nothing about laptop models, but when we had to have online classes, I caught myself looking for laptops with the highest quality. I also learned how to make attractive presentations using Canva, as well as how to edit videos. I also became familiar with applications like Discord and platforms like Zoom and Google Meet." (P4)

"Yes, it improved everyone's technical skills because we were forced to learn how applications like Zoom worked. We also had to learn how to use computers, iPads, and other platforms that we would need in online classes." (P2)

"I can say it still did through our case discussions where we discuss with a doctor as if we are a team. We bring up interventions and information based on our research and you could be called out if your research is outdated so you need to be critical with researching in medicine." (P1)

The data showed how technical skills were developed through virtual learning as learners had to be more engaged and efficient in working with technology. P2 and P4 mentioned how understanding online applications was a necessary part in virtual medical learning and how to properly maneuver it brought out positive outcomes to their outputs as a student. Furthermore, critical skills especially in researching were improved as medicinal research evolves and is not a fixed knowledge. Thus, medical students learned to be critical with things they research and assimilate as mentioned by P1.

In conclusion, Filipino medical students face Academic Challenges in virtual learning, including self-adaptation, simulative immersion, and technical application. Students have demonstrated creativity and flexibility in adapting to power outages and other challenges in virtual learning. In the process, students have also found alternative ways to perform medical exercises in simulative immersion. Students who engage efficiently with technology have been successful in the virtual setting.

IV. DISCUSSION

Filipino medical students are obliged to adapt to the various difficulties that are brought about by virtual learning. These adaptations are reflected in their personal productivity, educational wellbeing, and academic challenge. The primary goal of this study is to unravel the experiences of Filipino medical students with virtual learning. The participants have imparted profuse observations, challenges, and changes throughout the process. Thus, they have emphasized the following aspects:

A. Personal Productivity

Personal Productivity is associated with the participants' self-improvement where they deal with the online set-up in their distinct ways. Virtual medical learning has a number of effects on their personal productivity in both positive and negative ways. Due to the sudden change in learning approach, engaging in it caused multiple stressors such as fear for one's and their family's health and growing concerns about academics. Keeping up with their medical education while bombarded with many worries contributed to their overall stress and anxiety (Son et al., 2020).

Medical students during the pandemic need to adapt to many challenges posed by virtual learning. One of them is personal productivity, where students must maintain motivation for themselves. During the pandemic, it was difficult to keep students motivated and on task with curriculum-driven education, even while they were learning remotely. (Tabatabai, 2020). As said by the participants, there was a lack of patient interaction, an experience they had anticipated, which disengaged them from learning medicine. Simulation was also vital to one's medical education and has the goal of imitating or amplifying a real experience yet students do not get many chances to experience it due to the pandemic (El Miedany, 2018).

Self-evaluation is one of the sub-themes of personal productivity. Self-evaluation may significantly improve a student's learning experience. For instance, a student who thinks critically and objectively grows; can determine where they lack and can make students improve their learning experience. Additionally, it gives the students a chance to understand how to study and improve their academic performance. According to Chapman and Sammons (2019), the school self-evaluation process allows staff members to take stock of their performance and pinpoint areas that might improve student and professional development.

Furthermore, medical students assess themselves in different aspects of their daily lives such as their health and academic performance. According to Baticulon et al. (2021), students are confronted with technological and individual barriers as they try to adapt to online learning. Additionally, it was surveyed that 60% of the respondents disagreed with being physically and mentally capable of studying the remaining subjects in the semester. Factors such as having difficulty in adjusting and having responsibilities at home contribute to the distressed situation of medical students.

Self-imposition is wherein the students are required to be organized and focused during their online classes. According to Choudhary (2020), students will be more disciplined and have better time management if they stick to an organized or well-planned schedule. In order for a student to be self-disciplined students should push themselves forward and urge themselves to take action. Choudhary (2020) also stated that students can achieve their goals as quickly and efficiently as possible by remaining organized. Furthermore, being able to create or plan such activities could improve not only the student's self-discipline but also their organization and productivity skills.

Self-imposition affects one's daily routines, academic achievement, and health behavior. It is also a significant trait that many want to develop within their psychological state. A survey conducted by Bączek et al. (2021) on Polish medical students stated that maintaining self-discipline when engaging in self-learning might be challenging without the teacher's direct supervision. The learning process can be hampered by poor interaction between participants and facilitators as well as by a lack of understanding of the learning's purpose and objectives.

Personal productivity is **self-motivation**. It is the force that propels students forward and drives them to achieve their goals in the face of difficulty. According to Toimitus (2017), there are internal, external, and personal factors that affect students' motivation for online learning. Internal factors include cognitive overload and perceived difficulty in learning coursework. Meanwhile, the external factor refers to the learning environment where the student is studying. Lastly, the personal factor talks about the learner's own motivational influences. In a study by Bolatov et al. (2021) on first-year medical students' academic motivation, it was found that in the second semester, there was a greater level of academic motivation; this was particularly apparent in the group of students who used blended learning. In the association between the learning format and academic motivation, college belongingness and academic life satisfaction played a major mediation function. As a result, the switch from online to blended education was better for students in terms of their desire to learn.

B. Educational Wellbeing

Educational wellbeing refers to the psychological, cognitive, social, and physical capabilities of a student to have a better quality of life. The participants showed virtual medical learning has various effects in their educational journey. According to knowledge development, student involvement, and student feedback, interactive virtual clinical education has been found to be among the most successful virtual teaching methods (Wilcha, 2020).

The pandemic has had a significant impact on a large portion of the population and negatively impacted society, especially developing countries. As the world can currently observe, it has resulted in a number of developments where the new normal now plays a unique role in people's daily lives. Filipino medical students were one of the affected groups of people during the pandemic. According to Acta Medica Philippina (2021), the barriers that were consistent with online learning among Filipino medical students were time limitations; lack of technical expertise; bad infrastructure; lack of institutional strategy and support; and negative attitudes on the part of all parties involved.

Virtual medical learning is accompanied with various types of stressors. These stressors can affect a student's mental, emotional, social, and physical health. Positive **stress management** must be implemented by students to ensure optimum quality education. According to Rotas and Cahapay (2021), the categories of coping strategies that emerged in Filipino virtual learners are: looking for good space and time; borrowing learning resources, seeking support from peers; approaching the teachers; practicing time management; doing learning tasks ahead; extending the time for learning tasks; diverting attention; and regulating the self. By actively managing stress, virtual medical learners can enhance their academic performance (Brobbey, 2021).

On the other hand, the inability of students to cope with stress has a direct effect on their academic performance. In a survey conducted by Baticulon et al. (2021), the psychological stress brought on by the pandemic made it challenging for the students to concentrate on their studies. They described their sentiments of stress, exhaustion, loneliness, homesickness, grief, and hopelessness. The students were concerned about COVID-19, their upcoming plans for medical school, potential training delays, and the safety of their families. In total, 86% of the students said they were having some sort of mental health issue. Hence, it is essential that virtual medical students learn how to manage their stress to ensure an optimum quality education.

Students' emotional well-being, social life, and academic performance can all be impacted by their mental welfare and their **mental health management**. During the outbreak, medical students in various nations were restricted to a clinical internship. Medical students' traditional training methods were affected by abrupt changes (Abbasi et al., 2020; Keskin and Ozkan, 2021). These unprecedented changes had a significant impact on medical students' health.

Faced with doubts of the school's preparedness during the rapid transition of medical education from face-to-face to online, medical students lost belief within themselves to become skillfully equipped physicians. According to Chakladar et al. (2022), it is not surprising that the majority of students felt their clinical experience was lacking, given that clinical rotations' effectiveness is determined by contact with patients and members of the medical team. As a result of how limited encounters were, students are less prepared to apply for and attend residency programs. Additionally, this led to a number of psychological impacts which resulted in a loss of self-dependence and self-confidence.

Moreover, as the pandemic progresses, academic burnout among medical students has been adversely affected by online learning and long-term isolation from social and clinical settings. This shift from classroom learning to virtual learning led to individual isolation and a lack of

social support. According to Szemik (2022), evidence that medical students are exposed to an increased level of mental illness and psychological distress may be related to factors identifying the study environment, such as self-esteem and social support from medical school colleagues, partners, or other family members. **Support System Management** served as the students' protective factor for burnout and being online made it difficult for them to gain support from teachers and classmates.

C. Academic Challenge

Virtual medical learning has the potential to hinder interpersonal contact and interaction between medical students and faculty members. Moreover, it limits the students' opportunities to practice interviewing and develop the necessary communication and empathy skills for interacting with patients and their colleagues. These aforementioned are in sync with the study of Rallis and Tejerina (2020), and Papapanou et al. (2021) respectively. Thus, different methods and platforms were exemplified by students to combat the challenges of virtual learning, and even developing skills despite its adversity.

One of which is **Self-adaptation**, that requires students to be more resilient, flexible, and creative on what virtual learning can offer. Interestingly, numerous studies found that students could help improve their clinical and communication skills despite online learning (Rodrigues & Vethamani, 2018). Results from Gormley et al. (2019) revealed that online education improved students' clinical skills. The majority of students who participated in the study's survey agreed that the clinical competencies courses they receive online are comparable to those they receive in a traditional physical setting.

On the other hand, adversities of virtual medical learning still had to be dealt with. Some students reported that they did not have enough time to complete online assessments for technical difficulties that arose during the online test, such as weak internet or slow laptops (Abdull Mutalib et al., 2022). Due to these problems, the students were forced to adjust to longer study sessions as they believed that online tests required more time for preparation than their traditional counterparts did, in sync with the study of Ilgaz and Adanir (2020). Moreover, another barrier to online learning was shortage of electricity according to Reyes (2021). Particularly for students who reside in the Philippines' remote regions where there are frequent announced and unannounced power outages that students needed to adapt to as virtual medical learning continued despite lack of electricity.

Along with the setbacks of virtual learning came the innovativeness and resiliency of medical students onto using what was available at their own homes to aid in their learning. The use of sponge was used by medical students for their suturing skills, which was a critical section in the medical school curriculum since it offers students their first opportunity to master proper technique. Currently, the majority of medical schools in America use porcine feet or sponges to replicate human tissue as suture training tools. However, in a study conducted by Boyajian et al. (2019), the majority of medical students reported dissatisfaction with these materials' longevity and quality, stating that the optimum instrument for practicing suturing was a silicone suture pad.

Although there were many online platforms and applications that students utilized for medicinal knowledge, this was mostly for theoretical knowledge. Hence, using plush toys was also a **simulative immersion** that medical students conducted in order to cope up with supposed face-to-face patient interactions. In a study by Nheu et al. (2018), a role play in what was known as Teddy Bear Hospital involved medical students to help with their pediatric skills and patient interactions. As a result, they were able to strengthen their communication abilities and develop confidence interacting with children and patients.

With the inability to gain real-life experience, it was necessary to develop an innovative approach to improve students' quality of life while improving their critical thinking abilities to cope up with the evolving knowledge in medicine. This is in support to the study of Boudoulas (2018) and Bliss (2019), where there will be ongoing transformations as a result of the perpetual evolution of medical knowledge, medical technology, and their clinical applications. Thus, medical students will therefore have a perpetual duty to follow the progression of medicinal knowledge.

Academic institutions had to use e-learning to assist medical students to better adapt to the application of the web-based medical world. As the pandemic resulted in relying more on **technical application**, including the increasing demand in telemedicine, digital health services became increasingly popular in the field (Aron et al., 2020). Thus, this led to medical students being more technologically literate, moving with the globalization's digital advancement.

V. CONCLUSION

This study aims to get insight into a chosen set of Filipino virtual medical students' situations in the Philippines. These students encountered distinctive circumstances that only they had approaches to, although being immersed in the same dire situation—the pandemic—as with the people around the world by the recent years of 2020. Personal productivity refers to the students' capability to manage duties, achieve objectives, and settle into routines. This aspect takes into consideration students' capacity to evaluate, motivate, and discipline themselves. Then, educational wellbeing recognizes the importance of aspects such as stress management, mental health management, and support system management in a virtual medical learner's academic journey. Furthermore, academic challenge refers to the hardships experienced within the virtual medical learning. It also represents the various changes that students had to get accustomed to. With simulative immersion, the students were able to keep up with the technical application led by virtual learning.

The framework for future studies that may potentially examine the experiences of participants from a similar background has been set by this research. The participants have been encouraged to be honest in whatever situation they are in and ask support from anyone they can talk to as a result of the unexpected reality: the pandemic and its aftermath, which evolved from the lived experiences of Filipino virtual medical learners. In addition to receiving social support, the participants must also practice stress management to have a sound mind. Being able to evaluate and conform to abrupt changes in the environment are important to ensure that the participants will be competent physicians in the future.

The major themes and subthemes yielded many different results. The first major theme, Personal Productivity, is about how students set up their obligations, objectives, and routines. For the first subtheme, Self-Motivation, which talks about the factors affecting medical students' determination, it was found that virtual medical students are motivated to perform well in school by various factors: their own goals, their families, and their future patients. Self-Evaluation pertains to students assessing their ability to continue learning despite having to learn medicine virtually. Based on the responses, it can be concluded that the lessened interest of students in becoming future physicians was caused by having limited patient interaction. Although, there are also some students whose passion to pursue a medical career became stronger than before. The last subtheme under Personal Productivity, Self-Imposition, talks about how students were able to pay attention in online classes. Students had several ways in maintaining self-imposition with virtual learning like lessening distractions and managing time wisely.

The second major theme, Educational Wellbeing, refers to students' overall progress and quality of life in relation to their academics. Under this theme, there are three subthemes. The first subtheme, Stress Management, explained the coping strategies of virtual medical students. It was found that taking time for themselves to handle with stress physically or emotionally was one of the most common ways that students managed their stress. The second subtheme, Support System Management, focuses on the social relationships that virtual medical students had experienced and how these relationships influenced them. It was found that students had felt less social support at the time and that some tasks became difficult to conceptualize. Lastly, Mental Health Management indicates the ways that virtual medical learners used to reflect on their holistic health. It was perceived that students needed the mental and emotional support of their parents, friends, and partners. In spite of the difficulties of virtual medical learning on students' mental health, life goals acted as a source of inspiration. It was also found that the pandemic helped people come to the idea that holistic wellbeing necessitates mental and emotional stability, physical fitness, and spiritual readiness.

The last major theme, Academic Challenge, pertains to the hardships that students have had to face in virtual medical learning. Students learned to adapt in their own ways, which is what Self-Adaptation is about. Based on the responses, it was found that creativity and flexibility were developed upon adapting to virtual medical learning. However, there was also evidence of self-adaptation to hardship, as seen in how virtual learning depended on technological resources. The second subtheme, Simulative Immersion, delves into the alternative techniques that students had to perform to apply their theoretical knowledge despite not being able to do it with real patients. These techniques include: using a plush toy as a patient and practicing sutures on a sponge. The last subtheme, Technical Application, highlights the improvements that students were able to achieve which would not have been possible if it were not for virtual learning, namely: enhanced critical thinking and technological skills, as well as increased knowledge about softwares and online applications.

To summarize, the research shows that the pandemic has had a big impact on medical students' lives. Many students were able to learn some coping skills and persisted in their pursuit of becoming doctors. The environment that virtual medical students are exposed to and how they adjust to sudden changes with the support of their loved ones, friends, and teachers form the basis of their success.

One of the study's drawbacks is that all of the participants who volunteered were Filipino medical students who were enrolled in the Philippines at the time. This study advises future researchers to elaborate on their chosen group of participants and include new selection criteria, such as the nationality of the virtual medical students or the specific school year and curriculum that the medical students are currently studying. Additionally, it is recommended for future researchers to read more studies about the developing telemedicine and alternative techniques that were done by virtual medical students for further understanding.

In conclusion, this study is significant for medical learners who are interested in learning about the correlations between virtual medical learning, personal productivity, educational wellbeing, and academic challenges. Future researchers who wish to conduct a comparable study on the lived experiences of medical students with virtual learning may consider this research to be significant. Lastly, this study is recommended to institutions because it highlights the real-world experiences of virtual medical students and enlightens them about what has to be modified or improved in their owncurriculum.

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BIOGRAPHICAL SKETCH

Safia Lucille B. Barbacena is a 12th grader senior high school student under the Science, Technology, Engineering, and Mathematics (STEM) strand in Philippine School Doha. She transferred to Philippine School Doha from the Philippines in her 9th grade, and since then, she has been a consistent academic awardee. Along with her groupmate, she won first place out of 220 schools in the National Scientific Research and Innovation competition held on October 3, 2022 by The Ministry of Education and Higher Education in Qatar with the research title, "The Use of Arduino Interface and Lemon (Citrus Limon) Peels in Making an Improvised Air Ionizer-Purifier", and was also awarded by Qatar Shell. She is interested in forensics and is planning to pursue a career in forensic medicine. She lives by the Charles Dickens' quote, "A loving heart is the truest wisdom."

Hanna Zealu Ysabel V. Apolinar is a senior student under the Science, Technology, Engineering, and Mathematics (STEM) strand. She has been a student in Philippine School Doha since 2017, and has maintained academic excellence ever since. Alongside academics, she actively participated in extra curricular activities such as PSD Hiyaw Chorale, Senior Girl Scouts, Qatar Scouts, and Math Club among others. To exercise her passion for service, she became an officer of the Supreme Student Government Organization as the Business Manager for the school year 2022-2023. She plans on venturing into the medical field and strongly believes in the quote "Today is never too late to be brand new" by Taylor Swift.


Antoinette Jannah A. Ilagan is a senior high school student of Philippine School Doha under the strand of Science, Technology, Engineering, and Mathematics (STEM). She has been a student of Philippine School Doha for over a decade, earning herself a place in the top rankings over the years. Throughout her schooling, she has been a constant achiever and has been participating in multiple extracurriculars involving a pro-environment vision as well as showcasing the performance and arts. She has won champion in swimming, dancing, and entrepreneurship competitions and is part of the Eco-Committee as the Head of Team Dahon for the school year 2022-2023. With great passion and determination, she firmly believes in her capabilities to learn and pursue a career in Physical Therapy and abides by the quote, "Success is the sum of small efforts–repeated day in and day out." by Robert Collier.

Arman G. Inso Jr. is a 12th grade student from Philippine School Doha studying in the Science, Technology, Engineering, and Mathematics (STEM) strand. He has been enrolled at Philippine School Doha for 14 years. He was a member of the Math Club for three consecutive years during his intermediate years, and won awards within the club during that period. Additionally, he has participated in several clubs/activities inside and outside of school, such as Art Club, Glee Club, Piano Class, Language Class, and Judo. He engages in a variety of activities throughout the years to make the most of every opportunity whenever possible and hopes to apply that in work, pursuing the medicinal field in the future. His inspiration comes from the quote from Denzel Washington: "Do what you have to do, to do what you want to do."

Lea Therese C. Irac is a senior high school student under Philippine School Doha's Science, Technology, Engineering, and Mathematics (STEM) strand. She has been a student in Philippine School Doha since 2015, and ever since she got wiser and wiser. She has taken part in a variety of extracurricular activities throughout her academic years. She has furthermore taken part in dancing competitions, business competitions, and math contests. She aspires to work in the field of medicine and abides by Jim Rohn's saying that "Either you run the day or the day runs you."
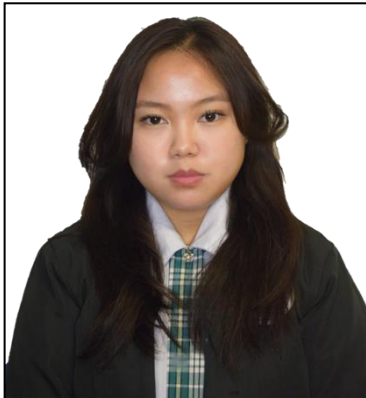
Ember Eliyah M. Rueda is a 12th grade student under Philippine School Doha's Science, Technology, Engineering, and Mathematics (STEM) strand. During her 8th grade, she transferred to Philippine School Doha and continued to be a high academic achiever. She participated in numerous competitions such as the Global Essay Competition held by the Harvard Crimson and the campus' Don't Bait, Debate. She expressed her love for speaking by winning 11 motions in the intermediate debate league organized by Qatar Debate. For 2 consecutive years, she has been an active delegate representative of various countries in the Model United Nations held in Georgetown University, Qatar. She was also a representative of her school for Biology Olympiad, Chemistry Olympiad, and International Physics Olympiad all of which were held by the Ministry of Education and Higher Education Qatar. She is in accord with Brad Montague's quote, "Be somebody who makes everybody feel like a somebody."