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6 **Author names:**
7   1. Adriel Agunod Cheng
8   2. Ysabelle Bianca Andan
9   3. Kristine Go
10   4. Yeoj Luces
11   5. Jeanne Peralta
12   6. Jeremy Sumang
13   7. Manuel M. Dayrit
14
15 **Degrees and Affiliations:**
16   1. MD. Graduate. Ateneo School of Medicine and Public Health, Pasig City, Metro Manila, Philippines
17   2. MD. Graduate. Ateneo School of Medicine and Public Health, Pasig City, Metro Manila, Philippines
18   3. MD. Graduate. Ateneo School of Medicine and Public Health, Pasig City, Metro Manila, Philippines
19   4. MD. Graduate. Ateneo School of Medicine and Public Health, Pasig City, Metro Manila, Philippines
20   5. MD. Graduate. Ateneo School of Medicine and Public Health, Pasig City, Metro Manila, Philippines
21   6. MD. Graduate. Ateneo School of Medicine and Public Health, Pasig City, Metro Manila, Philippines
22   7. MD, MSc. Dean, Ateneo School of Medicine and Public Health, Pasig City, Metro Manila (2013-2019).
23   Secretary of Health, Republic of the Philippines (2001-2005). Director, Department of Human
24   Resources for Health, World Health Organization, Geneva, Switzerland (2005-2012)
25
26 **ORCID (Open Researcher and Contributor Identifier):**
27   1. https://orcid.org/0009-0008-3055-2259
28   2. https://orcid.org/0009-0003-5947-6273
29   3. https://orcid.org/0009-0003-9285-9620
30   4. https://orcid.org/0009-0008-0317-6243
31   5. https://orcid.org/0009-0003-7892-4756
32   6. https://orcid.org/0009-0007-7285-7715
33   7. https://orcid.org/0000-0002-3406-8789
34
35 **About the author:** Adriel Agunod Cheng is a graduate of the Ateneo School of Medicine and Public Health,
36 Pasig City, Metro Manila, Philippines of a 5 year dual-degree MD-MBA program. He is also a recipient of the
37 First Runner Up Award for Poster Presentation in Medical Education Research in the International Medical
38 Research Conference (IMRC) 2022, held on December 10-11, 2022 at the Phramongkutklao College of
39 Medicine, Bangkok, Thailand, as a representative of the current research group.
40 **Corresponding author email:** aacheng2012@gmail.com

8

9   **Authors Contribution Statement:** Conceptualization: AAC, YBMA, KJPG, YNCL, JCCP, JITS, and MMD.

10   Methodology: AAC, YBMA, KJPG, YNCL, JCCP, JITS, and MMD. Validation: AAC, YBMA, YNCL, JCCP, and

11   MMD. Formal Analysis: AAC, YBMA, KJPG, YNCL, JCCP, and JITS. Data Curation: AAC, YBMA, KJPG, YNCL,

12   JCCP, and JITS. Investigation: AAC, YNCL, JCCP, and JITS. Resources: YNCL. Writing – Original Draft: AAC,

13   YBMA, KJPG, YNCL, JCCP, and JITS. Writing – Review & Editing: AAC, YBMA, KJPG, YNCL, JCCP, JITS,

14   and MMD. Visualization: AAC, YNCL, and JITS. Supervision: AAC, YBMA, KJPG, JCCP, JITS, and MMD.

15   Project Administration: AAC, YBMA, KJPG, and JITS.

16

17

18

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22

23   **Personal, Professional, and Institutional Social Network accounts.**

24   • **Facebook:**

25   o   1. Adriel Agunod Cheng: https://www.facebook.com/aaadrielcheng/

26   o   Ateneo School of Medicine and Public Health: https://web.facebook.com/theasmph

27   • **Instagram:**

28   o   1. Adriel Agunod Cheng: https://www.instagram.com/aaadunod

29   o   Ateneo School of Medicine and Public Health: https://www.instagram.com/theasmph

30   • **Linkedin:**

31   o   1. Adriel Agunod Cheng: https://www.linkedin.com/in/adriel-a-cheng-0108532b3/

32   o   7. Manuel M. Dayrit: https://www.linkedin.com/in/manuel-m-dayrit-94256173/

33

34

35

36   **Discussion Points:**

37   • Ever wondered what drove medical students in the Philippines to push on with their studies despite the

38   challenges of online learning and the COVID-19 pandemic when it first came out in 2020? Read on to

39   find out more! #medicaleducation #onlinelearning #COVID-19 #motivation #Philippines

40

1   **ABSTRACT.**

2

3   **Background:** Because the Coronavirus disease 2019 (COVID-19) pandemic forced Philippine medical

4   education to shift online, the loss of practical skills and face-to-face clinical interactions affected many students

5   to cope with lifestyle and learning changes. This study aimed to assess the strength and nature of motivations

6   of medical students to pursue their studies during the pandemic, and to propose recommendations to support

7   them through the pandemic and beyond.

8

9   **Methods**: Inductive thematic analysis was done of semi-structured interviews with 17 medical students selected

10   through purposive convenience, purposive and stratified sampling. Recruitment was carried out through the

11   Association of Philippine Medical Colleges. Eligible respondents were pre-clinical and clinical medical students

12   enrolled in School Year (SY) 2020-2021 who experienced the transition to an online setting.

13

14   **Results:** The desire to serve motivated most pre-clinical medical students, while financial reward was a factor

15   for clinical medical students. Despite the limitations of online education, lack of social interaction and skills

16   training, medical students had strengthened motivations to continue as the pandemic highlighted the need for

17   physicians, reinforcing their intrinsic desire to serve others despite mental health and financial issues.

18

19   **Conclusions:** While most medical students felt more motivated in pursuing their studies during the pandemic,

20   there was a desire and call for more support in their studies and training. Their personal stories suggested there

21   is room for improvement in certain aspects of local medical education. Addressing concerns through financial

22   and educational support, and bridging clinical skills with online learning would help create quality healthcare

23   beyond the pandemic context.

24

25

26   **Key Words**: Education, Medical; Education, Distance; COVID-19; Motivation; Philippines.

27

1 **INTRODUCTION.**
2
3 The declaration of COVID-19 pandemic by the World Health Organization in March 2020 resulted in government
4 lockdowns throughout the Philippines, causing suspension of onsite work and classes lasting for several
5 months.[1-4] The abrupt transition proved to be challenging for students and medical learning institutions, as
6 modules had to be delivered online. Some did not have access to necessary gadgets and stable internet
7 connectivity.[5]
8
9 Although there have been studies on coping mechanisms and motivations of pre-clinical and clinical medical
10 students during the pandemic, it is still poorly understood and there is currently a gap in qualitative literature for
11 third-world countries such as the Philippines with online learning as a variable of concern.[6-9] This qualitative
12 study aimed to assess the strength and nature of motivations of pre-clinical and clinical medical students through
13 a study questionnaire that delves into how the pandemic affected their learning, personal experiences, as well
14 as baseline and current motivations to pursue medicine. Another objective was to determine the impact of online
15 learning on these medical students in lieu of face-to-face classes.[10,11] It was hypothesized that the pandemic
16 strengthened their motivations, negatively impacted their learning, and challenged their personal experiences
17 and coping mechanisms in pursuing their studies.
18
19 Through an inductive thematic analysis of the personal stories and key experiences of selected medical
20 students, the study aimed to assess their motivational changes and propose recommendations to improve
21 instructional methods and provide morale, encouragement, and support during the pandemic and beyond.
22

1   **METHODS**

2

3   **Study design**

4   The study uses inductive thematic analysis of data from semi-structured interviews of pre-clinical and clinical

5   medical students in answering a pre-tested study questionnaire as shown in ***Table 1***. Using the Self-

6   Determination Theory to assess motivation. Under the theory, extrinsic motivation is defined as engaging in

7   behaviors or actions for the sake of an external cause (i.e. financial reward, social acceptance), while intrinsic

8   motivation is the engagement in behaviors or actions for one's own sake - for an inherent personal reward (i.e.

9   desire to serve, skill development).[15-17]

10

11   The study questionnaire was formed to compare students' baseline and current motivations to pursue medicine,

12   to discover the impact of the pandemic on their learning and perceptions, and to get students' input on how they

13   believe their medical education can be better supported. This methodology is similar to a Greek study that had

14   local medical students answer a qualitative questionnaire based on the Self-Determination Theory adapted to

15   their local context.[18] Informed consent was secured, and assurance of confidentiality was given to the

16   respondents prior to the interviews.

17

18   As the COVID-19 pandemic and the shift to online medical education were novel phenomena, an inductive

19   approach to thematic analysis was chosen to code interview data. This methodology structurally captures the

20   narratives of respondents and increases validity as it is known to be exploratory and transparent in qualitative

21   studies. Bias is reduced from prior preconceptions as the data itself determines the themes through several

22   rounds of refinement and analysis of interview transcripts.[19-20] A study in the UK also used thematic analysis to

23   assess medical student perceptions responding to the COVID-19 pandemic and created themes based on

24   students' concerns, worries, and recommendations.[21]

25

26   **Participants & Variables**

27   Through a combination of convenience, purposive and stratified sampling, recruitment of participants was

28   coursed through the social media platforms of the Association of Philippine Medical Colleges-Student Network

29   (APMC-SN) – the largest body of medical students across the Philippines. Out of a total of 71 volunteers

30   garnered from across the country, students were chosen to be interviewed based on a pre-determined

31   demographic profile matrix with six personal background variables to maximize yield of the inductive thematic

32   analysis: 1) public/private schools, 2) male/female, 3) financial aid scholars/non-scholars, 4) with/without doctor

33   relatives, 5) different pre-medical degrees, and 6) living at home/dormitory (***Table 2***).

34

35   **Study size**

36   A total of 17 students (7 clinical and 10 pre-clinical) were chosen to be interviewed. Pre-clinical students are

37   those in years 1 to 3 of their medical studies and are not yet exposed to hospital work, while clinical students

38   are medical clerks and interns. Eligible respondents must have been enrolled during School Year (SY) 2020-

39   2021 in a Philippine medical school. The sample size was deemed sufficient as other qualitative studies that

40   measured student motivations in studying medicine had similar sample sizes based on pre-determined selection

41   criteria.[22]

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> **Commented [A2]:** Introduce abbreviation

1 To approximate the geographic distribution of Philippine medical schools, the sample selection was stratified
2 according to density per major geographic location/island group with 3 participants from the National Capital
3 Region (NCR/Metro Manila) where most medical schools are located at, 3 from Luzon, 3 from Visayas, and 1
4 from Mindanao which has the least number of medical schools (***Table 3***).
5
6 Inductive thematic analysis benefits from unique data sets, hence interviewees were chosen based on a
7 combination of the student profile matrix and respective geographic distributions. Purely random sample
8 selection would compromise quality due to the chance of recurring or omitted profiles.
9
10 **Data sources/measurement**
11 Interviews were conducted online through Google Meet, with each session lasting roughly 45 minutes from June
12 to July 2021. Each participant was given the study questionnaire a day prior, and two researchers (1 male, 1
13 female) conducted each interview. The researchers were third year medical student co-authors from the Ateneo
14 School of Medicine and Public Health (ASMPH) based in NCR. To minimize selection bias, researchers were
15 randomly assigned to their respective interviewees. Interviews were then transcribed from July to September
16 2021, and inductive thematic analysis was conducted from October to December 2021 for finalization of
17 manuscript.
18
19 The general outline/flow of the inductive thematic analysis process involves conducting interviews, transcribing
20 the raw data, creating codes out of the data, theme generation, and several rounds of data analysis. Transcribed
21 interviews were analyzed and ideas from important recurring patterns shared among respondents' answers
22 were made in the form of codes and then themes. Codes are words/phrases derived from participants' interviews
23 that are assigned to data fragments that share a common relationship within the transcript. Themes are a
24 methodology to interpret and make sense of coded data, both unique and generalizable across student groups.
25 The difference between codes and themes is that codes tend to be shorter and simpler, while themes are longer
26 and involve higher-level analysis. An inductive approach means to analyze data without any initial assumptions,
27 letting the codes and themes come out from the raw data.[19-20,23]
28
29 To ensure reliability of code generation, the researchers read through and generate codes from transcripts of
30 interviews not conducted personally by them. These were tabulated and discussed by the researchers to check
31 for misinterpretations. Similar codes were grouped together and tallied to find the most common recurring
32 theme. Identifiable features from quotes were removed prior to minimize bias and themes were then validated
33 through several rounds of refinement and analysis amongst the researchers.[23] Reporting of data involved going
34 beyond organizing each narration, by making a coherent story across respondents through the creation of
35 Thematic Analysis Maps. Since respondents discussed using a mix of English and the local language (Filipino),
36 statistical software was not used to avoid any possible errors in translation.
37

RESULTS.

1
2
3 Out of 71 students across the country who signed up to be a part of the study population, 17 were chosen to be
4 interviewed based on their demographic and personal profiles. Out of the 17 medical students (7 clinical, 10
5 pre-clinical) who fit the profile matrix (***Table 2***) and were chosen for one-on-one interviews, 6 came from NCR
6 (3 pre-clinical, 3 clinical), 5 from Luzon (3 pre-clinical, 2 clinical), 4 from Visayas (3 pre-clinical, 1 clinical), and
7 2 from Mindanao (1 pre-clinical, 1 clinical) (***Table 3)***, which allowed for representatives from medical schools
8 within each major island group in the Philippines.
9
10 ***Table 4*** shows the demographics of the 17 chosen students whose individual profiles served to diversify and
11 maximize the potential yield of thematic analysis from different contextual, cultural and socioeconomic
12 backgrounds in the pandemic setting.
13
14 Codes were made for each student based on his/her individual transcripts and six themes were generated via
15 Inductive thematic analysis. ***Tables 5 and 6*** show the process of creating codes and themes from the raw
16 transcripts, using the direct quotations from the respondents as data for analysis.
17
18 The following themes were established: 1) how the pandemic highlighted the differences in outlook between
19 pre-clinical and clinical medical students, 2) the challenges of online learning, 3) desiring a lived experience, 4)
20 the loss of boundary between the home and the school environment, 5) processing grit driven by a desire to
21 serve, and 6) the fallacy of sunk cost.
22
23 Thematic Analysis Maps (***Figures 1*** and ***Figure 2***) were made based on codes from the interplay of the six
24 recurring themes and different motivational factors found from the interview transcripts. Major patterns found
25 within each student group are highlighted in gray boxes while supporting codes are coded in white boxes. Codes
26 were arranged in the diagrams based on whether they were intrinsic or extrinsic in nature, and arrows were
27 placed in-between showing the dynamics between codes – how some factors lead to certain changes in
28 motivation.
29

1 **DISCUSSION.**
2
3 **Motivations**
4 Medical education and training in the Philippines is costly for the average Filipino with tuition fees being the
5 highest among post-graduate programs. Medical programs are also considered full-time for the entirety of the
6 four or five years, requiring great time and commitment to complete.
7
8 The goal of finishing medical school (Expectancy) comes with hard work, and the rewards (Instrumentality) and
9 perceived value (Valence) as explained by Vroom's Expectancy Theory, may flux throughout each medical
10 student's journey.[24] Students learn how to overcome trials through grit, defined as the perseverance, passion,
11 and sustained commitment to completing specific long-term goals despite setbacks.[25] Personal qualities such
12 as empathy, disliking helplessness, and intellectual curiosity contributed to students pursuing medicine.
13 Recognition and the financial benefits that come with the profession were also of great influence despite
14 possible financial setbacks.
15
16 There were differences in outlook between pre-clinical and clinical medical students, as the COVID-19 pandemic
17 became a major point of decision-making for both groups. Clinical students leaned more towards pragmatism,
18 financial independence, and recognition as physicians. Pre-clinical students shared the same desire but with
19 emphasis on contributing to pandemic efforts. "It must be a rewarding feeling to graduate already, because I
20 can finally be of help to people." according to a student from the Visayas region.
21
22 **Challenges**
23 It was found that online learning increased medical students' autonomy in their engagement with the material
24 but compromised the application of skills and knowledge in cases. This decreased the motivations of some
25 students as they believed they were not receiving education in line with what is expected from a full-fledged
26 physician.[26] A similar study conducted on medical students from Romania revealed that students enjoyed online
27 learning due to convenience and flexibility of tasks, but noted the disadvantage of lack of direct communication
28 and human interaction with the teachers.[27] It is important to note however that in the Philippines, material
29 inequalities heightened in the pandemic and not all students had access to stable internet and optimal working
30 conditions at home. A local Philippine research on medical students revealed that only 41% of their respondents
31 felt mentally and physically capable to engage in online learning due to difficulty in adjusting learning styles,
32 performing responsibilities at home, and poor communication.[28] The difficulty in adjusting to online medical
33 education for both teachers and students had also been observed in other developing countries.[29]
34
35 The perception of being left behind contributed to decreased motivation through an increased sense of
36 resignation that one may not be able to cope with the demands of online learning. The Triangular Feedback
37 Loop of Motivation explains that this phenomenon coupled with home environment stressors may lead to poor
38 academic performance and subsequent stress, as they had to balance obligations of student and family life.[30]
39
40 As one intern explained, "There is a big difference in having virtual duty because I find myself becoming so lazy
41 and just wanting the virtual conferences to end. But when I was exposed to the hospital, I was so excited to

8

1 study what was happening to the patient or what management was done by the doctors." When lockdown
2 protocols in the country were momentarily lifted, pre-clinical students found the limited interactions with peers
3 difficult but still appreciated the increasing availability of study materials at home. Questions of sustainability in
4 were raised as well by students, quoting "But I'm not sure if it will be sustainable, because you know, not
5 everyone is privileged enough to have laptops and internet connection that's stable. So for me, this shouldn't
6 happen until the end of med school, so I don't really recommend to continue this online learning."

8 These challenges brought about a greater desire for lived experience. This was particularly true for clinical
9 medical students who had to do their clinical rotations online, which translated to a lack of skills and less
10 opportunity to practice confidence and empathy in patient care. Pre-clinical medical students shared a similar
11 desire but for a return to onsite classes, which they felt improved their learning through application of theoretical
12 knowledge with the guidance of their teachers. Some shared that online learning made it difficult to perform
13 given that concepts could not directly be translated. In both cases, their self-efficacy was affected by these
14 limitations and the perceived inability to meet expectations of actual medical practice.

16 A unique challenge to motivation is mental health, as conditions such as ADHD, depression, and anxiety make
17 it difficult to perform student tasks. As one student explained, "It gives a hindrance to my being a doctor.
18 Depression. It's like you're dragging yourself anywhere, the lack of motivation for things." This is in direct conflict
19 with the notions of intrinsic motivation as a poor mental health may hinder an interest in the subject matter, a
20 desire to serve others, and the self-aware capacity to learn. Mental health concerns contribute to attrition and
21 decreased academic performance which increases a student's sense of self-doubt in one's ability to be a
22 doctor.[30] Some schools attempted to have mentors connect with students and perform routine check-ups, but
23 some students still expressed that there was a lack of empathy towards them citing increased workload,
24 increased screentime, and a lack of exam result confidentiality. This lead to comparison and feelings of
25 inadequacy.

27 There is a causality dilemma between students' discipline and motivation in attempting to maximize learning
28 throughout the COVID-19 pandemic, given their respective emotional, social and financial contexts. Despite
29 varying levels of self-doubt, students were ultimately fueled by their personal reasons for pursuing medicine.
30 These intrinsic motivational reasons complemented by extrinsic motivational factors such as the fear of getting
31 left behind by their peers and the desire for financial independence were what stopped them from filing a leave
32 of absence and made them carry on with their medical education.

34 **Limitations**
35 The study aimed to provide a narrative of medical education in the Philippines throughout the COVID-19
36 pandemic through select students and their personal stories based on a profile matrix that aimed to get unique
37 viewpoints from different contexts and socioeconomic backgrounds.

39 Due to the lockdowns in the country and the lack of internet access of some students, it was not possible to get
40 a larger sample size at the time of data gathering. An ideal target sample size would have been 20, with 10
41 interviewees each for pre-clinical and clinical groups. To improve sample selection, the researchers made sure

9

1   to select students from different key geographic locations in the country where most medical schools are located

2   in to simulate geographic distribution.

3

4   It is important to note that as this is a qualitative study, the results cannot be generalized to the entire population

5   of medical students in the Philippines. Potential selection bias from profiles are reduced through multiple rounds

6   of internal discussion and code/theme analysis.

7

8   **Recommendations**

9   Different individuals have different stories and thus a larger sample size may be recommended for future

10   researches to gain more input from other geographic locations. The use of surveys with the addition of Likert

11   scales may also supplement the data from interviews and add a quantitative aspect to the study. As for potential

12   research questions, future research can delve into the current state of medical students' motivations post-

13   COVID-19 pandemic. Students may also be asked about their preferences on the use of online and onsite forms

14   of learning medicine.

15

16   The interviews gave different perspectives on the changing personal motivations of medical students throughout

17   the COVID-19 pandemic. It was made clear that the motivational foundation of the majority was the desire to

18   serve given the state of Philippine healthcare at the time. Extrinsic factors of financial stability, social recognition,

19   and not wanting to be left behind by peers, were other personal motivators. While not perfect, online learning

20   platforms were a pragmatic means to this end goal.

21

22   Motivation came in both intrinsic and extrinsic forms, with both students' personal goals respondents suggesting

23   that faculty maintain constant communication to ensure the effectiveness of the workload and online learning

24   as a whole. Reevaluation of the curriculum rollout and considerations for face-to-face classes or other means

25   of providing skills training and patient interaction may also be discussed between the student body and learning

26   institutions. The hope is to refine online learning methods such that it remains a viable option in the future of

27   medical education and to strike a balance between online learning and sufficient skills training.

28

29   These stories have the potential to bring about positive change in local medical education methods applicable

30   to other developing countries if provided with enough data quantifying the experiences of medical students

31   during the pandemic. The insights gathered from the experiences of the students in the study can hopefully start

32   discussions among local school administrators that seek to answer questions such as "How can we help the

33   students cope with online learning given the situation?", "How do we support the students psychologically given

34   that they remain committed to finishing medical school?", "How can we adjust the workload or innovate learning

35   methods so as to make the most out of a difficult situation?" etc.

36

37   Similar to previous research conducted on medical students in first world countries, most medical students in

38   the study felt more motivated to continue with their education but desired for more support. Suggested

39   recommendations from them include student wellness programs, increased scholarships withless tuition

40   burden, dedicated faculty to maintain constant communication with students, active discussion between student

41   bodies and learning institutions, and considerations for other means of skills training and patient interaction.

10

Conclusion

The study provides valuable insights into the motivations of medical students of select students in the Philippines during the COVID-19 pandemic and supplements existing literature on online learning during this period. Despite poor communication infrastructure and having to adjust learning styles, pre-clinical and clinical medical students from selected medical schools in the Philippines found ways to persevere. The state of healthcare in the country strengthened their motivations to pursue their studies despite a shift to online learning and changes in socioeconomic contexts. The motivation to serve their country as doctors helped overcome their own personal challenges.

The study serves as a springboard to raise awareness on the need to improve medical education both locally and internationally to better support medical students. Discussions on how to address their concerns are encouraged among school administrators and faculty to help this next generation of healthcare workers. The hope is to refine online learning methods such that it remains a viable option in the future of medical education, and to find ways to strike a balance between online learning and sufficient skills training for quality healthcare even during states of calamity such as the COVID-19 pandemic and beyond.

SUMMARY - ACCELERATING TRANSLATION

Frontlines and Crossroads: The Impact of COVID-19 on the Motivations of Medical Students from Selected Philippine Medical Schools in Pursuing Their Medical Studies sought to assess the motivations of medical students to pursue their studies during the COVID-19 pandemic, and to propose recommendations to support them. This was a qualitative study involving semi-structured interviews and inductive thematic analysis of select medical students from across the Philippines. We found that despite the limitations of online education, lack of social interaction and skills training, more students were motivated to continue as the pandemic highlighted the need for physicians. The desire to serve motivated most pre-clinical medical students while financial reward was a factor for clinical medical students. Their personal stories suggest room for improvement in medical education. Addressing their concerns through financial and educational support, and bridging clinical skills with online learning would thus help create quality healthcare beyond the pandemic context.

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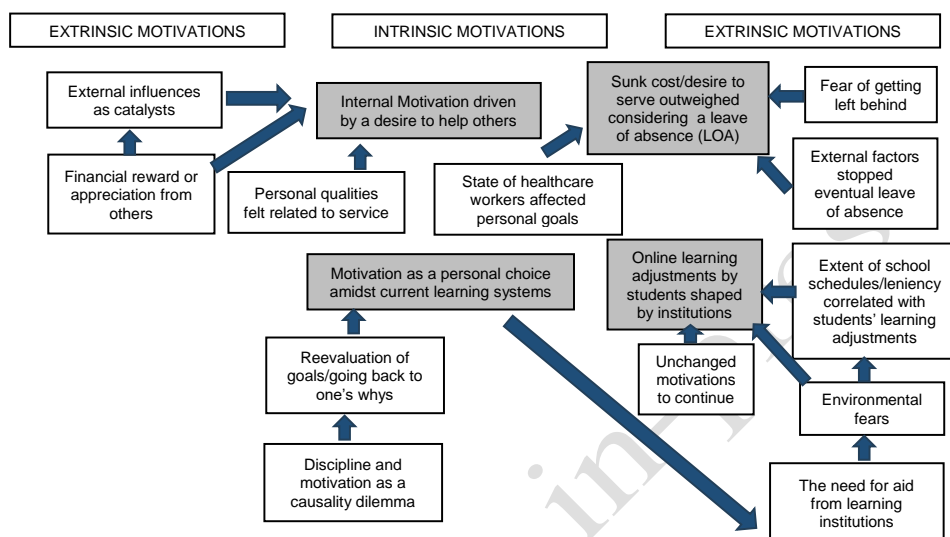
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1 **FIGURES AND TABLES**

2 *Figure 1.* Thematic Analysis Map of Pre-Clinical Students.

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| EXTRINSIC MOTIVATIONS | INTRINSIC MOTIVATIONS | EXTRINSIC MOTIVATIONS |

External influences as catalysts

Internal Motivation driven by a desire to help others

Sunk cost/desire to serve outweighed considering a leave of absence (LOA)

Fear of getting left behind

Financial reward or appreciation from others

Personal qualities felt related to service

State of healthcare workers affected personal goals

External factors stopped eventual leave of absence

Motivation as a personal choice amidst current learning systems

Online learning adjustments by students shaped by institutions

Extent of school schedules/leniency correlated with students' learning adjustments

Reevaluation of goals/going back to one's whys

Unchanged motivations to continue

Environmental fears

Discipline and motivation as a causality dilemma

The need for aid from learning institutions

24 *Legend:* In the analysis of the pre-clinical group, being driven by a desire to help others and the belief in
25 motivation as a personal choice amidst current learning systems were the major intrinsic motivations. Multiple
26 external factors such as the fear of getting left behind by peers and dynamics in relation to learning institutions,
27 lead to students having to adjust to online learning despite their respective personal backgrounds. Financial
28 reward and external influences however were only secondary to each students' own reevaluation of personal
29 goals to help the healthcare system.
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Figure 2. **Thematic Analysis Map of Clinical Students.**
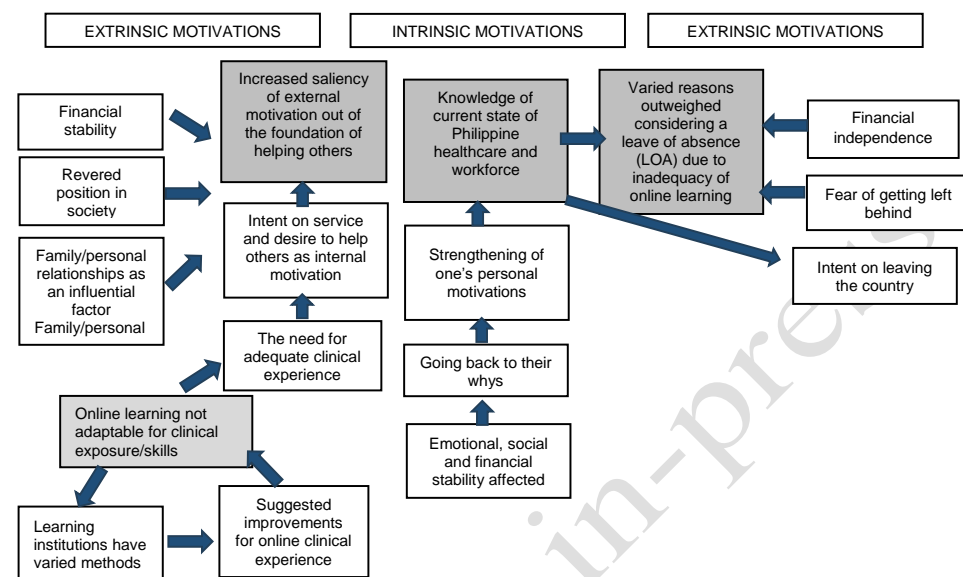
Legend: In the analysis of the clinical group, the students' knowledge of the current state of Philippine healthcare fueled their intrinsic motivations whether or not to continue their medical studies. As they were already in their clinical years but not stationed physically in the hospitals, majority felt that online learning was not adaptable for clinical exposure/skills. Despite this, several students wanted to finish as soon as possible to finance themselves and their families.

1 *Table 1.* **Study Questionnaire for Interviews.**

I. DETERMINING MOTIVATIONS FOR PURSUING A DEGREE IN MEDICINE
1. What about being a doctor attracted you to the profession? 2. What are qualities you have that made you want to pursue becoming a physician? 3. What were your expectations of medical school and becoming a physician? 4. What were your personal goals for this journey (or for pursuing medicine)? 5. When you decided to pursue medicine, what kind of rewards did you look for? 6. How much did you value these rewards and goals?

II. LOOKING AT THE IMPACT OF THE PANDEMIC

A. Challenges in Online Learning

Preclinical	Clinical
1. How did your school handle the shift to online learning? 2. Can you provide us with a brief description on how you are currently being assessed by your school? (e.g. grading, deliverables, platform, lectures, etc.) a. How are you guys graded? b. How do you have lectures? 3. Is there a difference in your performance from when school was face-to-face and now? Why or why not? 4. How do you feel about online learning? 5. What measures from online learning helped with the adjustment? What can be improved?	1. How did your hospital handle the training of clerks & interns? Was it online, limited face-to-face, etc.? 2. Can you provide us with a brief description on how you are being assessed by your current rotation? How about the assessments of the other rotations you've had so far? 3. Is there a difference in your performance from when duty was purely face-to-face and now? Why or why not? 4. How do you feel about online learning/training? 5. What measures from online learning helped with the adjustment? What can be improved?

B. Personal Factors
1. How has the pandemic affected you personally?
2. Please describe to us your understanding of COVID-19, so, what are the safety measures you take?
3. How do you feel about the virus, do you fear COVID-19? How so?
4. What would you consider were the major challenges posed to you as a medical student by the pandemic?
5. Where do you live now? Are you in your home, or condo?
6. Who do you live with now?
7. How has the pandemic affected the relationships in your home (or within your place of residence)?
8. How has the pandemic affected the relationships outside your home or place of residence?

C. Perceptions of Working in Healthcare
1. Regarding our health workers/
2. Given the plight of our healthcare workers in this pandemic, what do you think of their working situation?
3. What does this mean to you personally?

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III. COMPARING THE MOTIVATIONS OF PRE-CLINICAL AND CLINICAL STUDENTS BEFORE AND DURING THE PANDEMIC	
Preclinical	**Clinical**
1. Given the situation, did you ever consider taking time off of school? Why or why not? 2. If so, how did the thought cross your mind? What are the factors that made you consider taking time off of school? 3. Are you going to continue with your studies? 4. If so, what are the factors that made you decide to continue?	1. Given the situation, did you ever consider taking a leave or time off from duty? Why or why not? 2. If so, how did the thought cross your mind? What are the factors that made you consider taking a leave or time off from duty? 3. Are you going to continue with your clerkship/internship?

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5. Where do you see yourself working in the future? What makes you say so? 6. [Compared to when you first started med school], do you have new expectations, goals, and/or rewards when it comes to becoming a doctor?	4. If so, what are the factors that made you decide to continue? 5. Where do you see yourself working in the future? What makes you say so? 6. [Compared to when you first started med school], do you have new expectations, goals, and/or rewards when it comes to becoming a doctor?
IV. PROPOSING RECOMMENDATIONS TO MOTIVATE STUDENTS	
1. Given the situation and your personal experiences as a medical student in this pandemic, how do you think you and other medical students could be motivated to continue with your studies?	1. Given the situation and your personal experiences as a clerk/intern in this pandemic, how do you think you and other clerks & interns could be motivated to continue with

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2 *Legend:* This study questionnaire was used as the basis for the interviews, arranged according to discussing
3 initial motivations for pursuing medicine, the impact of the pandemic on personal motivations, and proposed
4 recommendations to help motivate other medical students.
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Table 2. **Student Profiles Needed for Inductive Thematic Analysis**

Student Profile Matrix
1) Student from a traditional/medicine-related undergraduate course (i.e. BS Biology, BS Medical Technology, BS Nursing, etc.)
2) Student from a non-traditional undergraduate course (i.e. BS Management, BS Architecture, BS Engineering, etc.)
3) Student from a family of doctors (either one or both parents are doctors)
4) Student who is a first doctor in the family (none of first-degree relatives are doctors)
5) Financial aid scholar (or someone whose family income was affected by pandemic)
6) Student who is part of the country's regionalization program or is required to render compulsory return service after graduating from medical school
7) Foreign student studying in a Philippine medical school or a student living away from family/residing in a dorm or condo unit
8) Student who considers it difficult to cope with the demands of med school
9) Someone who worked before going to med school (i.e. someone who worked in corporate, government, or practiced in their field after graduation)
10) Student who went on Leave of Absence (LOA)
11) Student who contracted COVID-19 or whose family member contracted COVID-19

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4   *Legend:* Interviewees needed to fulfill at least one of the criteria shown above.

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Table 3. **Tally of Interviewed Respondents from Across the Philippines.**

Groups of Interest	Major Geographic Locations of Medical Schools in the Philippines							
	National Capital Region		Luzon		Visayas		Mindanao	
	Needed	Signed Up	Needed	Signed Up	Needed	Signed Up	Needed	Signed Up
Pre-Clinical 1st-3rd year	3	3	3	3	3	3	3	1
Clinical 4th-5th year	3	3	3	2	3	1	1	1
Total		6		5		4		2

Legend: Listed are the number of interviewed respondents tallied per major geographic location

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1 *Table 4.* Profiles of Interviewed Respondents.

Pre-clinical Students	Clinical Students
National Capital Region	
Private, female, non-scholar A doctor in the family BS Public Health Staying at home	Private, female, non-scholar No doctor in the family BS Psychology Staying at home
Public, female, non-scholar No doctor in the family BS Biology Staying at home	Public, female, non-scholar A doctor in the family BA Speech Communication Staying at home
Private, female, scholar No doctor in the family Bachelor in Medical Laboratory Science Staying at home	Private, male, non-scholar A doctor in the family BS Physical Therapy Staying at home
Luzon	
Private, female, scholar No doctor in the family Bachelor in Medical Laboratory Science Staying at home	Private, female, scholar No doctor in the family Bachelor in Medical Laboratory Science Staying in an apartment
Public, male, scholar A doctor in the family Bachelor in Medical Laboratory Science Staying at home	Private, male, non-scholar A doctor in the family BS Biology Staying in a condo
Private, female, non-scholar A doctor in the family BS Physical Therapy Staying at home	
Visayas	
Public, male, scholar No doctor in the family Bachelor in Medical Laboratory Science Staying at home	Private, male, non-scholar A doctor in the family BS Medical Technology Staying at home
Private, female, non-scholar A doctor in the family Bachelor in Medical Laboratory Science Staying in an apartment	
Public, male, scholar No doctor in the family BS Medical Technology Staying at home	
Mindanao	
Private, male, non-scholar A doctor in the family BS Health Science Staying at home	Private, male, non-scholar A doctor in the family BS Pharmacy Staying at home

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3 **Legend:** Demographics of interviewees based on the student profile matrix, stratified per major geographic
4 location.
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1   *Table 5.* **Sample Code and Theme Generation from Direct Quotes.**

Clinical Medical Students			
Question	**Geographic ID**	**Individual Quotes & Codes**	**Clinical Themes**
1. Given the situation and your personal experiences as a medical student in this pandemic, how do you think you and other medical students could be motivated to continue with your studies?	National Capital Region Student #1	Codes: Internal motivation; Service to others; Faith Quotes: "awareness of the current situation in the public hospitals and healthcare challenges makes me more motivated" "I still have doubts but the realization that doctors are needed now/importance of doctors realization of being on the right track" "the amount of patients that are waiting for you once you finished med school, that should serve as a motivation for us" "adjusting is still a personal choice and effort making the most of the situation as students - finding study style that works best "	Need to be internally motivated/understand goals Recognizing the need for doctors/the needs of the future patients "There is no medical student who isn't motivated because they have to remember they chose this life path" The schools/institutions need to take care of their students at this time
	National Capital Region Student #2	Codes: Internal motivation; Faith; Continuous Learning Quotes: "Country and world needs doctors" "Pursue learning any chance you can get even if it is online Unsure situation in the future so may as well learn now" "Importance of mental health Value of family" "Divine intervention (God) as a reason for motivation to pursue medicine"	

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3   **Legend:** Individual quotes were tallied and initial codes and themes were created, summarizing key ideas from
4   interviewees.
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1   *Table 6.* **Six Over-Arching Themes Generated from Inductive Thematic Analysis.**

Theme	Codes
How the pandemic highlighted the differences in outlook between pre-clinical and clinical medical students	Pre-clinical: ● Serving a higher purpose through medicine ● Committing to the practice will increase motivation ● Increased passion to serve at the plight of healthcare workers Clinical: ● Opportunity to have authority ● Desire to finish on time to move forward in life stages ● Financial motivations—lessen burden on parents, earn money as a doctor ● No other viable alternatives ● Disheartened by plight of healthcare workers
The challenges of online learning	● Autonomy of learning ● Increased accessibility of study materials ● Laziness ● Lack of interaction with peers ● Loss of interest in the content without real application ● Unsustainability of online learning in the global south ● Need to maintain a sense of routine
The desire for a lived experience	● Desire real cadaver dissection ● Desire to go back to the hospital ● Inadequate clinical skills practice at home
The loss of boundary between the home and the school and the school environment	● Problems at home affect ability to learn ● Need for work-life balance ● Intense workload leaves no time for family despite being at home
Grit driven by a desire to serve	● Desire to make changes in the Philippine health care system ● To serve the people not oneself ● Accept the uncertainties of working in medicine
The fallacy of sunk cost	● Desire to finish on time ● Parents' investment going to waste ● Not wanting to be left behind

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3   *Legend:* Final over-arching themes were created from salient codes that recurred across interviewees.