

Original Research Article

A qualitative study on self-efficacy beliefs, self-regulation, and persistence of dentistry students

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ABSTRACT

Objectives: One of the crucial stages in the journey of Philippine dentistry students is the dynamic transition from the two years of preparatory phase to the next four years of dentistry proper. Students initially have a firm commitment to finish their program. Unfortunately, multitudinous factors can drive them to drop out. Aside from knowing if self-efficacy and self-regulation beliefs play a significant role in students' persistence, it behooves them to identify other factors of persistence.

Material and Methods: A qualitative method using focus group discussion (FGD) was employed to gain a more in-depth understanding of the other factors of persistence that might be present in the students. Ten respondents representing the different subtypes of regular and irregular students were invited to be part of the FGD. Those enrolled in the clinics were excluded from the study. Questions were carefully constructed with exploratory open-ended questions to probe respondents.

Results: Four themes were extracted from the content of the FGD on factors of persistence. They included (1) obedience to parents, (2) personal dreams, (3) social support, and (4) positive mindset.

Conclusion: Dentistry is a challenging program. Self-regulation and self-efficacy play a significant role in students' persistence and knowing the factors why they persist is important for educators and guidance counselors. Interventions can be designed to improve students' self-regulation and increase students' perceptions of their academic capabilities by guiding them through strategies that can improve their performances.

Keywords: Self-efficacy, Self-regulation, Persistence, Regular students, Irregular students

INTRODUCTION

One of the crucial stages in the journey of Philippine dentistry students is the dynamic transition from the two years of preparatory phase to the next four years of dentistry proper. This adjustment can be challenging as college life ushers in a whole new environment that would require students to be more independent, initiative, and self-regulated.^[1] Students initially have a firm commitment to finish their program. Unfortunately, multitudinous factors can drive them to drop out. Retention of college students is a critical issue in higher education.^[2,3] Dentistry is considered a challenging program, and identifying why and when students consider dropping out is of key importance.^[4]

In a Philippine dental university, the University Academic Council sets a retention policy regarding the academic standing of the students. The College of Dentistry adopted this policy with the exception that there is no minimum

grade point average (GPA) required from all the different courses enrolled; it is only either pass or fail. A student who obtains a failing grade or "D" mark in 25–49% of the total number of academic units enrolled in gets a warning from the Dean. The student has to enroll the following semester and pass the failed courses. On the other hand, a student is under probation the next semester under any of the following conditions: (a) A failing grade or "D" mark in 50–75% of the total number of academic units enrolled in a given semester; (b) a failing grade or "D" mark in 25–49% of the total number of academic units enrolled in for two consecutive semesters; or (c) non-compliance during their "warning" status. Students who pass all courses are categorized as "regular," whereas students who are given warnings or are under probation are "irregular."

Situations such as failing despite exhausting hours of study could drive some students to quit. However surprisingly, some stayed even if it meant re-enrolling and becoming irregular students.

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Self-efficacy and self-regulation play a factor in the university.^[5] Self-efficacy is a significant predictor of persistence. It represents an individual's confidence in their ability to successfully carry out specific actions to achieve desired outcomes.^[6,7] In case of setbacks, people with low self-efficacy tend to give up, whereas those with high self-efficacy intensify their efforts until they succeed.^[8] Self-regulation involves learners methodically guiding their thoughts, emotions, and behaviors toward achieving their objectives.^[9,10] Self-regulated learners are self-starters – confident, strategic, resourceful, and self-reactive to performance outcomes.^[10] The lack of self-regulation is one of the major causes of students' failure in their learning and persistence. Persistence refers to a student who continues enrollment by participating in any form of higher education.^[2] It is the re-enrollment of students from one semester to another.^[11] Failure to persist is exhibited when a student drops and discontinues his study.

Aside from knowing if self-efficacy and self-regulation beliefs play a significant role in students' persistence, it behooves them to identify other factors of persistence.

MATERIAL AND METHODS

During the first semester, the students were classified whether they are regular or irregular students. In the following semester, the status of these students was revisited, and they were reclassified as: Regular student subtype 1 (R1; regular for the 2 semesters), regular student subtype 2 (R2; from regular to irregular), irregular student subtype 1 (IR1; irregular for the 2 semesters), and irregular student subtype 2 (IR2; from irregular to regular). A qualitative method using focus group discussion (FGD) was employed to gain a more in-depth understanding of the other factors of persistence that might be present in the students.

A total of ten respondents representing the different subtypes of regular and irregular students were invited to be part of the FGD. Those enrolled in the clinics were excluded. The questions were carefully constructed with exploratory open-ended questions to probe respondents who had gone through any of the possible phenomena: Did irregular students' progress to become regular, or did they remain irregular? Did the regular students regress to being irregular, or did they maintain their regular status? Reasons behind these possible phenomena (irregular to regular, regular to irregular; or status quo) were explored. These questions were reviewed and analyzed for their use within the context of the study by five registered guidance counselors. Before the FGD, students were informed about the objectives and relevance of the study. Confidentiality was assured, and they may opt out of the FGD at any time without penalty. The FGD protocol was done in a rigorous and methodical manner to yield meaningful and useful results. Data saturation was achieved when no new aspect emerged during the FGD.

During the FGD, the respondents were briefed thoroughly for a noteworthy output. For anonymity, each respondent was assigned a particular code for identification before sharing a particular question. For example, one respondent was assigned the 1-R1 code, where 1 refers to respondent 1 and R1 refers to the subtype regular-regular. Everyone was requested not to speak at the same time to have a clear recording of the proceeding. The FGD lasted for an hour and 30 min. The recorded data were transcribed verbatim. Vague areas from the recording were checked by the respondents to correct the encoded transcription. A small token of gratitude was given to each respondent after the FGD for their participation.

Qualitative data were evaluated using the inductive thematic approach. Content analysis was performed to come up with various themes. The process first involved familiarization with the transcribed data followed by highlighting important keywords or phrases from the preliminary coding of the data. Thereafter, grouping, re-grouping, reviewing, defining, and naming the themes ensued. The respondents' answers were subjected to thematic analysis to come up with emerging themes that may shed light to the other factors of persistence present. Data obtained from the FGD on the experiences of the students were used to gain a deeper understanding of their persistence in the program.

RESULTS

During the succeeding semester, of the 52 regular students, only 37 remained successful in maintaining their status by not failing any course. They are classified as R1. Fifteen of the regular students had failures in the year and semester level when the research study was conducted and had regressed in their status to become irregular or R2. Seventy-seven students were irregular on both successive semesters since they were not permitted to enroll in all the courses offered because of previous failure/s. Some courses require passing the prerequisite course first before enrolling in a particular course of the next level (IR1). Nine of the irregular students who successfully passed all their failures in one or more courses in the previous semester were subsequently able to enroll in all the courses offered by the college in the next year's level and semester to become a regular student (IR2). Recruiting respondents representing the different subtypes of students were needed for purposive sampling. The FGD was composed of five regular students (two R1 and three R2) and five irregular students (three IR1 and two IR2).

It was observed that the institution was able to successfully retain all the respondents as they persisted in the subsequent semester. However, 24 students were excluded from being part of the respondents for the FGD. They became 3rd-year students who enrolled in the clinics because their experience in the clinics was unlike those of the purely preclinical students.

Four themes were extracted from the content of the FGD on factors of persistence. They included (i) obedience to parents, (ii) personal dreams, (iii) social support, and (iv) positive mindset.

DISCUSSION

Theme 1. Obedience to parents

Students who experience failures as regular students sometimes have a disturbed feeling that makes them doubt whether they were indeed enrolled in the program they really wanted. Parents wanting them to persist give them the encouragement to stay and sometimes even to fulfill the deprived dream of a parent. Two students persisted despite constant failure and being in irregular status because their mothers are dentists and the latter hope to transfer their dental clinic practice to the former. A mother even went to the extent of making decisions as to the program and institution of choice her child must take. Most of the respondents in the FGD attributed their persistence to their mothers. In a study, maternal involvement and strictness were positively associated with the GPA of college students.^[12] Literature supports the direct positive impact of compassionate and supportive parenting styles on the academic success of students.^[12,13] Authoritative parents can boost one's self-efficacy and self-esteem^[14,15] and decrease academic procrastination^[16,17] which in turn can improve academic success.^[18,19] Despite the negative connotation, parental guidance and sound advice have been rated highly as a common reason for persistence.

Theme 2. Personal dream

This theme happens to be the exact opposite of the previous one. Here, the students got the chance to choose the profession of their dreams without any suggestion from their parents. The very reason attributed for their ability to rise above the challenges was their determination to pursue their own dream.

Being a dentist is equated with better financial gains, improving one's standard of living over time while enjoying high prestige in society. Sometimes, reaffirmation of their dreams from the words of important people in their lives is very helpful to keep them going in the program. This motivation is an important contributor to academic success and a student's retention in higher education.^[20]

Theme 3. Social support

Just as family, friends, or faculty can be one's source of pressure, they can also be one's source of strength. One particular student (IR1), aside from an inherent learning disability, also has physical and mental health issues. Dyslexia, a type of learning disability, is something one copes with from childhood. It comes and goes and gets worse whenever she gets nervous. The state of wellness, being

physically sick often, could affect a student's attendance and participation in class that could lead to poor grades. She courageously revealed her mental health issue, which commenced during her 1st year, first-semester dentistry proper days. No medications, only talks, were used for her therapy. The presence of all these unfortunate circumstances on a student would certainly add more difficulties on top of the usual challenges already existing in the program.

Students can join organizations in the college with similar missions and visions as theirs. The people in the organization, particularly the senior members or faculty advisers, serve as catalysts for some students through advice and shared experiences. The organization gives the students a sense of belongingness, and because of the empathy shared, stress is lessened. Sometimes, the recognition and appreciation from the organization for their selfless, valuable contribution to any activity boosts their self-esteem. It seemed common for students to be motivated to persist, especially when they learned that people of value and influence to them shared their personal stories of failure and later success. At this point, these role models they look up to and their shared vicarious experiences prodded them to continue to pursue their own dreams. Literature supports the positive impact of social support on both well-being and academic success of students.^[21-24]

Theme 4. Positive mindset

The irregular students' pursuit of the study of dentistry was brought about by their own state of thinking and tenacity to work harder and smarter over time. The respondents' self-regulation skills shaped what and who they are today. Three of the respondents credited their own self-regulation skills. Some students live near the university, thus becoming more independent. Those who commute daily try to manage their limited time, which also requires time management. Respondents prioritize the things they need to do and how they increase their self-efficacy and self-regulation when they get overwhelmed by their academic workload.

It is indeed important for students to have high self-regulation skills to be able to come up with adequate strategies to enhance the management and effective use of their study time. In fact, there is a robust relationship between self-determined types of regulation and persistence.^[25]

CONCLUSION

Dentistry is a challenging program. Self-regulation and self-efficacy play a significant role in students' persistence and knowing the factors why they persist is important for educators and guidance counselors. Interventions can be designed to improve students' self-regulation and increase students' perceptions of their academic capabilities by guiding them through strategies that can improve their performances.

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Ethical approval

The research/study complied with the Helsinki Declaration of 1964.

Declaration of patient consent

Patient's consent not required as patient's identity is not disclosed or compromised.

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Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

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