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STUDENT ENGAGEMENT, EXPERIENCE, & SUPPORT AMONG PRE- PHARMACY STUDENTS

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STUDENT ENGAGEMENT, EXPERIENCE, & SUPPORT AMONG PRE-PHARMACY
STUDENTS

By

James John Stack

A Dissertation Submitted to the
Graduate School

In Partial Fulfillment for the Degree of
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Educational and Organizational Leadership

University of the Pacific
Sacramento, California

2022

STUDENT ENGAGEMENT, EXPERIENCE, & SUPPORT AMONG PRE-PHARMACY
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By

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STUDENTS

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By

James John Stack

DEDICATION

This is dedicated to everyone who against all odds decided to, with grit, determination, who continue to show those who doubted you, silenced you. Let them be the light for your success to victory.

ACKNOWLEDGEMENTS

I want to acknowledge my sincere appreciation for the key role played by my family and those who helped me reach where I needed to go. Had it not been for all of them, I would not be who I am today. I also want all of the students/peers who have taught me the importance of engagement to know that I have not forgotten any of them. More importantly, to all the mothers out there who are the ultimate support. Thank you.

STUDENT ENGAGEMENT, EXPERIENCE, & SUPPORT AMONG PRE-PHARMACY STUDENTS

Abstract

By James John Stack

University of the Pacific

2022

This study was guided by Astin's Student Involvement theory which explored student's needs in a demanding program amongst 12 pre-pharmacy students at the University of the Pacific. This qualitative study looked to uncover the engagement, experiences, and support of pre-pharmacy students in order to learn what students want from their learning experiences; to aid in student success and retention. Qualitative interviews provided detailed stories to their pre-pharmacy experiences. Through a thorough analysis of the data seven themes emerged: (a) peer support (b) time management (c) exam structure (d) increased faculty support (e) housing placement (f) coping with stress (g) core classes. Students who were interviewed often-mentioned that their peers, who once were in situations similar to those that they found themselves in, helped them stay in the program. Many of the students had mentioned the importance of time management in a pre-pharmacy course. The students also mentioned that they had exams back-to-back, and it was a challenge for many of them to be prepared for all of them. The faculty has been associated with student success, and their being available for the students is important in fostering better outcomes for students. Learning how students are impacted by their housing experiences is important to understand because

it connects to their classroom behaviors. Coping with stress was mentioned through many themes, and the ability of the students to deal with that stress was important to their success. It was important to understand what the students find useful from their non-science courses to learn what they desire from their learning experiences. The results from this study provide improvements to the students experiences and needs. The recommendations include the University of the Pacific adjusting the current curriculum when they are developing their exam schedules. Adding a course that aids in support for students focusing on time management, and as well preparation for students to encourage their school and social life balance. Having faculty available after class Q&A and providing online or in-person office hour sessions will aid in the student's success. This will allow flexibility for interactions between faculty and students. Housing facilities should have more late-night study areas, like in the Chan Hall Apartments that the PharmD students currently have. There should also be housing placements that are specifically designated for STEM students.

Keywords: engagement; disengagement; higher education; retention; pre-pharmacy; 2+3; 3+3; support; student-centered; undergraduates; faculty; staff; student involvement theory

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CHAPTER 1. INTRODUCTION

“All I insist on, and nothing else, is that you should show the whole world that you are not afraid. Be silent, if you choose; but when it is necessary, speak – and speak in such a way that people will remember it.”

— Wolfgang Amadeus Mozart, 1938

To know the term student engagement and what fosters students’ needs, it is vital to review its most pertinent definitions. Newmann, Wehlage, and Lamborn (1992) stated that student engagement was “the students’ psychological investment in an effort directed toward learning, understanding or mastering the knowledge, skills or crafts that academic work is intended to promote” (p. 12). If a student is not engaged, then Krause (2005) explains that they possess “inertia, apathy, disillusionment or engagement in other pursuits” (p. 7). Due to the high cost of pharmacy school and jeopardy of graduation delay and attrition, an improved understanding of aspects encouraging student success after academic adversity is needed (Chisholm-Burns, Berg-Poppe, Spivey, Karges-Brown, & Pithan, 2020). One might think that the faculty members and administrators would understand student engagement and know if students are engaged or not, yet it is much more difficult to conceptualize students needs. There has been a disparity among environmental characteristics and students’ needs that causes the apparent decline in students’ adaptive motivation in learning (Eccles et al., 1993). It is crucial for the faculty members and administrators to ask big questions about their students’ engagement and pursue research on student engagement. Measuring students’ engagement will encourage the faculty members and administrators to learn how to engage more students.

Background

Research on pre-pharmacy student engagement in academics is of great importance in understanding student needs and experiences. Rizkallah and Seitz (2017) stated the following “understanding the needs and wants and the motivation of both prospective and current students is the cornerstone of satisfying them throughout their years in the institution and probably keeping them for life as alumni” (p. 45). These are the fundamentals for achieving student success.

Throughout a student’s time in pharmacy school, students might be challenged with several particular and academic issues that aid as barriers to success and might jeopardize achievement of the Doctor of Pharmacy, PharmD, program (Chisholm-Burns, Berg-Poppe, Spivey, 2020). It is imperative to recognize pre-pharmacy students’ needs and supports at an early stage before they enter the PharmD program. If achievement rates are to improve, it would show that the quality of the course would allow for better resources and administrators might plan the finances for the future fiscal years to be more proficiently used (Banna et al., 2015). Having a well-structured course will produce better outcomes and lead to motivation in the classroom. The students who are not motivated to do their work, who do not show interest in the curriculum or believe it is meaningful and feel less supported by their peers also feel less motivated to put forth the effort, time, and vigor to thrive in school. Moreover, teachers cannot force enthusiasm, but they can construct classroom settings that foster motivation that exists already inside of the students (Reeve, 2012). Engagement drives the learning that enables the students to develop the skills needed for academic success. This does not mean, however, that success is equal to engagement. School practices can reduce students’ interest in commitment to understanding (Lawson & Lawson, 2013). Even if a

student can successfully meet educational standards, if they are not engaged, then the standard of their learning may not be high enough.

Engagement is not just connected to success; it is a result of education. Engaged students go beyond the realm of performing well in academics. They also excel in effort and persistence and enjoy the challenge of the learning material. All this serves them well in the future (Hidi & Renninger, 2006). Additionally, educating to achieve engagement allows for students to see that the effect of their learning has meaning.

Providing meaning to a student's education is important to keep students engaged with the work that they do. Enabling these skills will bridge the gap for students to continue when they face new challenges and will help them achieve a lasting pledge to learning. Engagement is critical for all students, not just the disengaged. It helps them, for instance, in developing beyond the mindset of only finishing coursework to pass and fosters conceptualized learning (Dweck, 2006).

When discussing student engagement, it is also crucial to recognize the significance of the faculty members' interactions with students. When the faculty helps their students take an interest in the coursework, the students can feel more engaged, and when the faculty members interact with their students, they promote engagement. If the faculty members do not engage with their students or make them feel unworthy of being successful, they can cause the students to feel disconnected from their classrooms (Klem & Connell, 2004; National Research Council, 2004).

Description of the Problem

Student disengagement can lead to lower retention, which impacts the university's commitment to pre-pharmacy success and directly impacts its retention (Caruth, 2018). The goal of this study is to fill the gap on what pre-pharmacy students

require from their learning experiences and for the University of the Pacific to learn what will keep students engaged, supported, and make them successful. This study is looking to provide a voice to the pre-pharmacy students who have felt disengaged in their educational experiences and to learn about their student experiences. It is important to know the meaningful role student engagement plays in academic success to prevent higher dropout rates. There is a significant connection between engagement and academic success that can have long-lasting repercussions for disengaged students (Prensky, 2001; Tapscott, 1998; Gilbert, 2007; Willms, 2003, p. 56; Claxton, 2007).

There are educators that believe engaging students who are not engaged to be one of the greatest issues in education. “Some educationists consider engaging disengaged pupils to be one of the biggest challenges facing educators, as between 25% (Willms, 2003) and over 66% (Cothran & Ennis, 2000) of students are considered to be disengaged” (as cited in Harris, 2008, p. 57). Around 32% of students explained that their colleges emphasized interactions with other students, but that these expectations were never put into practice (Núñez & Elizondo, 2013). According to Núñez and Elizondo, “Only 54% of first-year and 61% of senior students were highly challenged to do their best work” (2013). As of now, there is still a lack of understanding of how undergraduate students’ feelings contribute to their accomplishments or university experiences (Stelnicki & Nordstokke, 2015). Educators need to find out why there is a disconnect between the faculty and students in the classrooms to help prevent lower retention.

There is a need for research that asks undergraduate students how what they believe and feel adds to their success, including research that asks students to use their own words when reflecting on their experiences on campus and in the classrooms. Furthermore, student engagement provides a lot of areas of research. Researchers on

this subject need to look for innovative ways to help strengthen student engagement and academic success.

Most current measures are not intended to look at variations during class and do not give instant data on student engagement. There are also a lot of areas to create more efficient ways of understanding what the students are experiencing in the classroom that is not widely used yet. It is important to harbor an environment where students will feel protected enough to report honest, tangible feedback at the end of their coursework. It is time for educators to move beyond the simple surveys of coursework to add tangible feedback. The School of Pharmacy needs to consider what is important to the pre-pharmacy students to retain them and for them to successfully advance into the PharmD program.

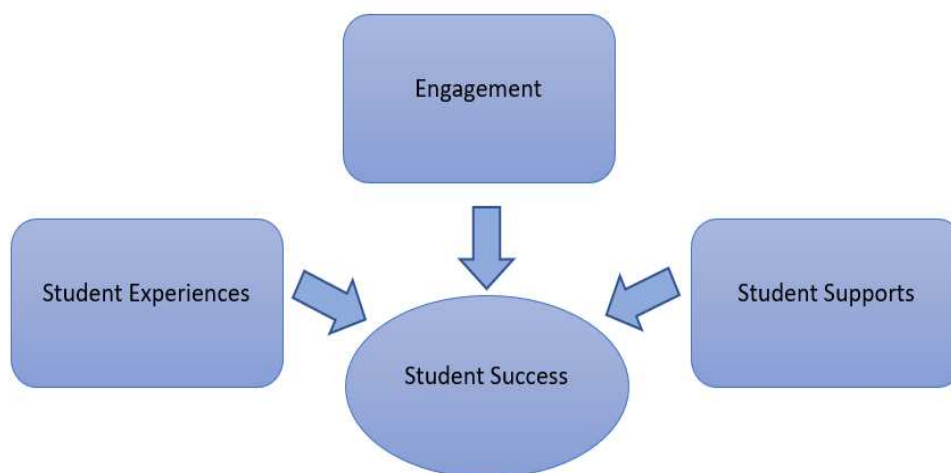


Figure 1. Student success model.

Purpose of the Proposed Study

The purpose of this generic qualitative study is to investigate pre-pharmacy students' experiences at the University of the Pacific and learn about their learning needs.

Research Questions

This study will be guided by the following research questions:

1. What additional support do students need from their classroom settings, the faculty members, and their institution?
2. How might academic programs aid in fostering learning experience needs in and outside of the classroom?

Description of the Potential Study

In this study, student interviews will provide information leading to needed supports and create possible solutions to increase engagement. Semi-structured interviews might prove to be beneficial for academic educating staff in refining and assessing their activities and active learning. The participants in this study will consist of pre-pharmacy undergraduate students from the University of the Pacific. All participants will be enrolled in a pre-pharmacy program.

The selection will be based on students who have experienced at least two or more years at the university to conduct qualitative research utilizing pre-pharmacy students. Students are at an undergraduate level. Additionally, students before they transfer into the PharmD program will reflect on their university experience and be able to express what makes them feel the most vulnerable in their interactions and securely expand upon their needs. As a result, pre-pharmacy students are the best participants for this study based on the student profile.

Significance of the Study

How does one collect valuable information on student engagement, support, and experiences? To date, few systematic studies have examined how the method of reporting student engagement might influence the needs of students' experiences. Therefore, the focus of my research is to hold qualitative interviews and to pull meaningful data to understand their needs and how they are related to their experiences. For instance, the interviews will measure not just engaged, but also disengaged students. This approach will provide significant details about student engagement and academic success.

This study will help to define what makes a student engaged or disengaged in the classroom and help improve the faculty members' and administrators' understanding of engagement. Many surveys have been established for practice with K-12 learners and have been amended into practice in higher education. These consist of Mainstream Code intended for "Instructional Structure and Student Academic Response [MS-CISSAR], Engagement versus Disaffection with Learning [EvsD], and the Motivation and Engagement Scale [MES]" (Gasiewski, Eagan, Garcia, Hurtado, & Chang, 2011). The Motivated Strategies for Learning Questionnaire (MSLQ) was established and designed for university students, as per the National Survey of Student Engagement (NSSE). That is why interviews will help in narrowing the focus to what the students report, specifically to what they are feeling during their program.

These are some examples on how students are not feeling engaged inside the classrooms. The University of the Pacific's faculty and administrators will benefit from understanding what their students desire from their educators and not what is forcibly taught to them. With the learners of today, it is essential that their learning is connected

to their daily life situations as much as it can be and based less on textbook learning. Being able to address problems or real-world issues motivates students and gives them a purpose to develop their learning skills (Claxton, 2007; Dunleavy & Milton 2009; Willms, Friesen, & Milton, 2009). Providing students with a purpose inside the classrooms will be beneficial in preventing negative outcomes from the curriculum being the reason that leads to students dropping out (Claxton, 2007; Dunleavy & Milton 2009; Willms, Friesen, & Milton, 2009).

Theoretical Framework

I will use a student involvement (SI) theory to assess change: According to Astin (1999), the SI theory states that a student will have more success as the student becomes more involved. Students' needs are examined in this research to understand what they want from their education, and what can their institutions learn to keep them. Student engagement is described as the physical energy that college students have in their experience and the quality of energy they have (Astin, 1999). I will use a general causal model as well. This model is the General Model for Assessing Change. This looks deeply into the characteristics of the campus structure and surroundings. Many traits are examined, and the variables include the background of the students, the structure of the organization, and the environment surrounding the students. These variables address the students' efforts in their coursework and interactions on campus and the development of their learning skills. Looking at the students' backgrounds is crucial for understanding the continuation of student engagement amongst a student's environments.

Further studies on how students' needs are connected to the faculty and the institution will be discussed in Chapter II. These methods examine similarities and

variances in the data, before looking at the connections between other parts of qualitative data looking to create descriptive deductions grouped to form themes. I will use the I-E-O to analyze the interviews that will be performed, to understand student needs.

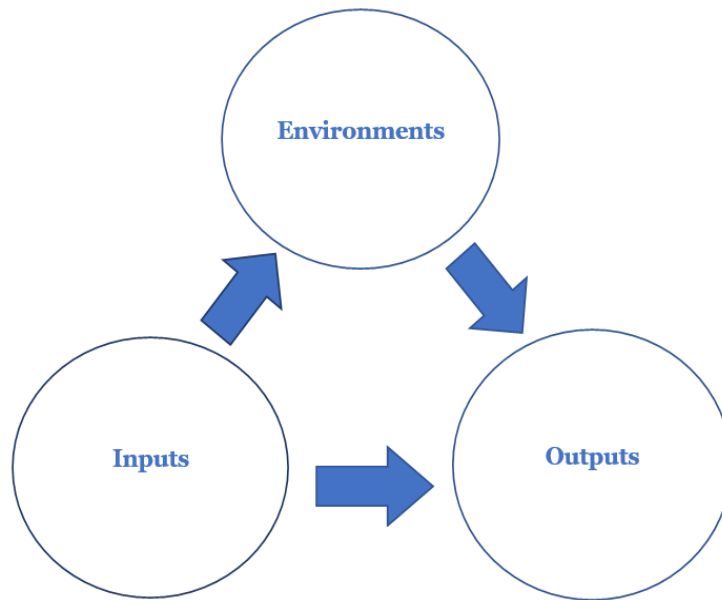


Figure 1. I-E-O model (adapted from Astin, 1999).

Summary

Engagement is one of the most important terms in education, and it has consequences that reach into many different portions of a students' experiences and needs. Therefore, it is important that educators and researchers alike try to deconstruct this term and continue asking students about their investment in learning and academic success. It appears student engagement is just now becoming more important because of student retention goals, fewer high school graduates applying for college, and more

career opportunities becoming available without a college degree. As stated earlier, it is crucial to ask the big questions and see if there is a way to uncover the answers that might seem impossible to know. If there is a way to reach disengaged students and improve their engagement, experiences, and support educators can empower a group of new learners to succeed. The idea of having the students being open and honest in their interviews to provide information back to their faculty members will provide insight into what is happening in the classrooms, and what is being overlooked. You cannot hope to uncover the tough answers without asking the big questions.

CHAPTER 2: REVIEW OF THE LITERATURE

Review of the Literature

The purpose of this review is to evaluate studies that affect the relationship between what students feel is important to their educational experience and understanding how it impacts retention. Furthermore, there is a want for an additional holistic study of engagement that reflects on the experiences of students'. It similarly makes a significant practical impact by inspecting existing students' and from qualitative answers learning through questions that are open-ended, instead of replies to items constructed on preliminary psychological concepts.

Research Questions

This study will be guided by the following research questions:

1. What additional support do students need from their classroom settings, the faculty members, and their institution?
2. How might academic programs aid in fostering learning experience needs in and outside of the classroom?

Universities have long been interested in investing in students so they can keep them enrolled and complete their education. Through this study, I focused on undergraduate students in a pre-pharmacy program to uncover their levels of engagement to find links to what might be of most importance to their learning experiences. Literature on student engagement concerning this is limited. While several studies relate engagement and retention, there is less to link the needs of the students and their experiences.

This chapter will start by exploring the literature that is connected to the history behind retention and student engagement. It will then explore student engagement,

student needs, faculty engagement, and institutional engagement. Finally, this study will look to structure a theory in the framework of involvement and a summary to understand the focus of student learning experiences.

History of Retention and Engagement

Retention and engagement are issues that have been of key importance to educators and administrators for the last 30 years (strategies for, 2014). It has become of great importance, as enrollment numbers have subsequently been on the decline at institutions. More importantly, what interests the students and what do students want in terms of their learning experiences. There has been an increase in student retention over the past 30 years even though graduation rates have steadily remained the same in the United States (strategies for, 2014). Many institutions understand that there is an issue with student retention, but administrators find it more of a challenge to apply new retention efforts. Moreover, there are long lasting issues that can impact a university financially due to improper planning, lack of implementation and retention policies. Furthermore, it became an incentivize need for educators to not dismiss the students but become interested in keeping them. It would be more applicable to study the research into student engagement as institutions relied more on retention (Bean & Metzner, 1985). Student engagement was broken down into two fundamental ideas: the engagement of the student and the engagement of the institution itself. The idea of students being solely responsible was no longer seen as a reasonable argument (Pearson, 2012).

Moreover, Tinto had explained that universities were a major factor in the loss and gain of students (2012). Mainly, students are a major factor in funding through tuition which impacts universities to retain students (Astin 1975, Spady 1970, 1971,

Tinto 1975). Tinto's study (1993) concerning student integration explained that theories are a social and academic combination about a student's responsibility toward the institution and their other efforts. As seen in Figure 2, students' experiences regarding schooling, skills, and abilities concerning their university experience can impact their decision to dropout (Tinto, 1993). When these three are combined, they add to the obligation, goals, and intentions from and to an institution. Moreover, students understand what they know their needs before their entrance in their first year of school. This shows that institutions must set out student expectations, which allows for aid in student success. Tinto's (1993) model looked at specific ideas: academic hurdles, the lack of resolve from individual students, and their lack of ability to have incorporated in the intellectual and social commitments of the college. Tinto's theory, as seen in Figure 3, has been shown to be related to students' experiences of academic difficulties. The students' stories show that identifying students' needs at an earlier stage can help support pharmacy programs and students' needs to improve student retention (Choi, Curran, Morris, Salem, Curry, & Flowers, 2019).

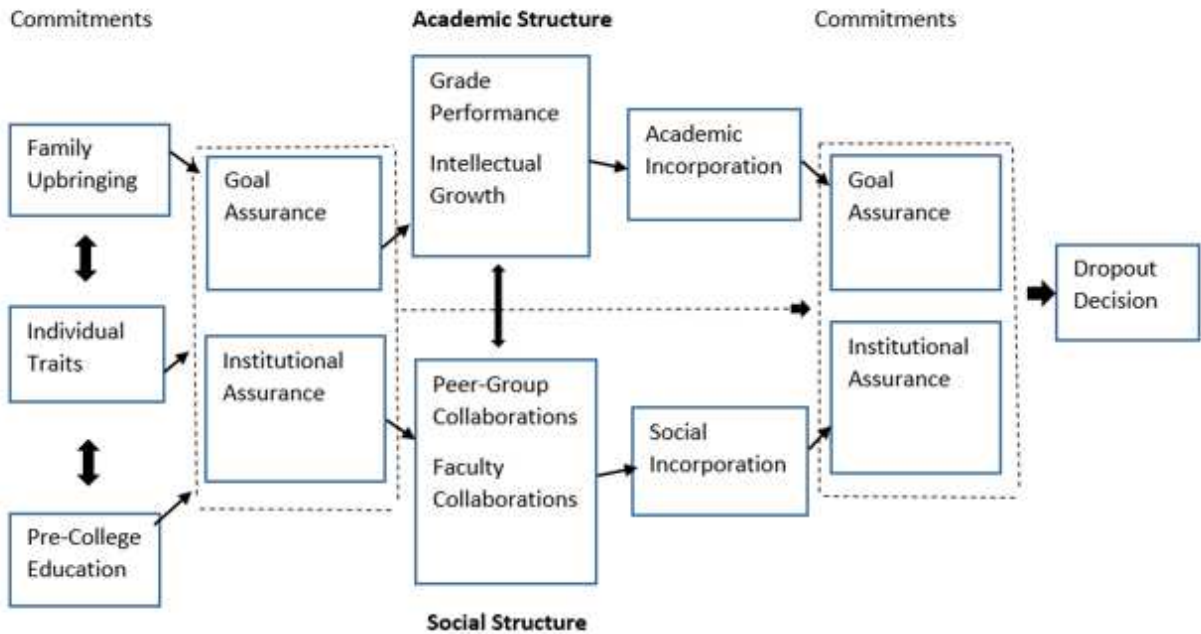


Figure 2. Student integration model (adapted from Tinto, 1975).

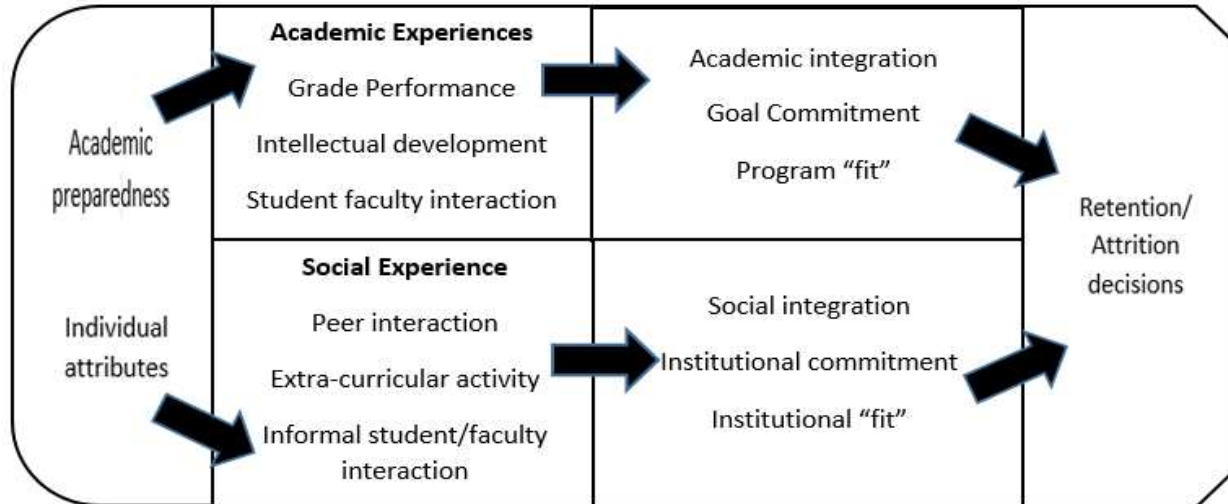


Figure 3. Student departure model (adapted from Tinto, 1999).

Several terms relate retention and engagement to each other. These are community experience and partnerships, not just attrition, departure, and dropout, but

also fulfillment, performance, and achievement. Educators also relate to student change and transition; from the university's perspective, their concerns are centered on diversity and mission. Providing information on the complexity of just some of the issues that students face in terms of their engagement and why institutions have issues keeping them is of significance.

Historically, there have been a lot of common measures to understand if students are engaged in their education. These procedures have been mostly fixated on quantitative research that have looked at test scores, attendance, retention, and graduation rates. Furthermore, retention does not offer as a motivation for advancing students, but are the measures that are often used for measuring university success (Caruth, 2018). These types of studies look more into achievement than learning. Currently, educators have seen the value of being able to measure students' engagement and psychological investment in learning. As a result, this has led to new ideas that have uncovered some interesting qualitative research questions to define engaged learning that has not been done in previous years. Trying to understand engaged learning has revealed a gap between the ways that the faculty members and students perceive engagement in learning. Prior research has identified age as a factor relevant to engagement, with declines evident as students move further into adolescence (Jacobs, Lanza, Osgood, Eccles, & Wigfield, 2002; Martin, 2009). Perceptions of student engagement from the college faculty are predisposed by their own educational experiences (Thoms, 2010). Teachers' knowledge of student engagement is based on their own classroom experiences and their forms of engagement, as they have learned (Thoms, 2010). As students, today's teachers are taught to be more reserved, take notes, listen closely, and respond when spoken to. This pattern of behavior exemplified quality

teaching in the classroom (Quate & McDermott, 2009). While students of today need work that lets them express their independence and uniqueness, permits them to be who they want to be, or who they are, and lets them pursue their needs. Regrettably, the ways the universities look and focus on originality disrupts the determination toward individualism. There are many explanations for this. First, schools are designed with entire programs about tasks that explain techniques rather than expression.

Additionally, students who show promising skills have access to audiences, which impacts students' sense of purpose and feedback. Lastly, universities regularly view originality as not a serious part of education and fail to uphold the values and importance that make original work meaningful (Marzano et al., 1992). That is why it is of key importance to look at students' needs and what contributed to their engagement and experiences.

Essentially, there is a link between the hopes that students have had their needs met, it is crucial to know what students want and to aid in opportunities for them to recognize those needs. Having the needs of students met will lead to rich institutional evidence about the educational strengths.

Research from 2018 has shown that an important key emergent group of students' answers might apply, even though the designs of replies are expected to differ by university. Therefore, they offer a stage for additional research founded on larger origins of student motivation. To recognize why students may select certain kinds of social engagement, it might be beneficial to comprehend the unique worth "intrinsic, attainment, or utility value" students see desired activities "peer interaction" (Wilson-Kennedy, Huang, Kennedy, Tang, Kanipes, & Byrd, 2019). As a study based on reliable

replies from knowledgeable students, it would be beneficial to authenticate it in contrast to a survey of incoming students.

Student Engagement

Earlier studies have been recognized from Snijders et al. (2017), and have observed the idea and necessity of engagement at length in educational settings (e.g., Bakker, Sanz Vergel, & Kuntze, 2015; Betts, Appleton, Reschly, Christenson, & Huebner, 2010; Fredricks & McColskey, 2012; Jang, Reeve, & Deci, 2010) and administration backgrounds (e.g., Bowden, 2009; Jarvis, Halvorson, Sadeque, & Johnston, 2014; Van Doorn et al., 2010; Verhoef, Reinartz, & Krafft, 2010). However, Kahu stated, “The theoretical understanding and conceptualizations of engagement remain fragmented and untested” (2013). Student engagement in higher education is described as an encouraging, rewarding, on-the-job state of awareness that is related to absorption, commitment, and vigor (Bakker et al., 2015; Schaufeli, Martinez, Marques Pinto, Salanova, & Bakker, 2002).

Vigor is defined as a level of higher mental fortitude in a work environment, time invested in one’s effort, and the ability to persist in the midst of struggles. Dedication refers to one’s strong involvement in one’s work and enjoying the meaningfulness, motivation, inspiration, joy, and difficulties. Absorption is being involved in your work with heavy concentration and engrossed in one’s work where one finds it hard to get away from their work, and time passes quickly (Schaufeli, Bakker, & Salanova, 2006). These ideas captured all facets of engagement: behavior, engagement, and emotion (Fredricks, Filsecker, & Lawson, 2016). The supposition made is the more improved educational understanding through greater relationships, the extra engagement they will have in their studies. Engagement can have a positive influence on students’

participation in academia, social, and extracurricular activities. That is why engagement is important for having encouraging results in their academia along with degree completion and showing positive connections between the students and the faculty as the outcome. Specifically, student engagement matters for student involvement and formation of supportive relationships outside of the classroom (Connell & Wellborn, 1991).

Several scholars (Cajiao & Burke, 2016; Durant, Carlon, & Downs, 2017; Gross-Loh, 2016; Jaschik, 2018;) have discussed that the college lecture is connected to a past that no longer exist for learners. The lecturer who just speaks to the students who absorb the information might be related to student disengagement and may not be as promising as new learning habits. There is an argument to say that the older style of lecturing could use a restructuring in the future.

Pre-Pharmacy Students

While academic difficulty has been analyzed in health professions student voices on their experience on their academic difficulties is missing. It has been shown that early identification of diverse backgrounds may help student success and student retention by understanding the significance of social and academic integration (Choi, Curran, Morris, Salem, Curry, & Flowers, 2019). There is further analysis needed on student experiences in professional programs to understand the complexity of student success (Choi, Curran, Morris, 2019). Early identification is important to help students in their first year who otherwise might spend their first year without seeking help.

There has been well documented literature on retention and living and learning communities in connection with grade point average and retention (Mayhew, Rockenbach, Bowman, Seifert & Wolniak, 2016). Living learning communities are

described as fostering deeper learning (Upcraft, 2005). This happens when students live together take at least one class together and have integrated course curricula with student experiences that are tangible outside of the classroom (Vincent, Marsh, Goodwin, Farr, 2020). A study conducted by Stassen (2003) looked at three unique kinds of educational communities in a large public institution. All three communities showed an increase in their first-semester academic performance and first-to-second-year retention despite student selection (Stassen, 2003) These results show that learning communities can foster long-lasting benefits that have an impact on GPA (Stassen, 2003). These communities foster connection support and transformative learning experiences and allow for students to become connected with the university, their major, and community which creates a pattern of involvement in the beginning of their academic career (Upcraft, 2005). LLCs help to connect the students and the faculty members together may relate to student success (Pascarella, Terenzini, 2005). Having different types of support for students seems imperative to aid their success.

Searching for unique ways to engage students and understand more from their learning experiences is key to understanding how to make them more successful. In a study focusing on Telehealth-related with real world experiences showed an improvement in pharmacy students' attitudes, social norms and self-efficacy beliefs (Research and education, 2021). Other studies show a connection between team building types of learning to help improve communication by looking at interviews and focus groups (Research and education, 2021).

There is a connection in regard to accreditation standards and how co-curricular is incorporated within pharmacy curriculum. However, there is no roadmap on how to incorporate these co-curricular programs to engage pre-pharmacy students' needs. It is

valuable to know what these students are in search of from their learning experiences, so that the faculty can implement these into their curriculum (Maerten-Rivera, Chen, Augustine, D'Assalenaux, Lindsey, Malcom, & Zeszotarski, 2021). Educators have long had trouble with creating unique experiences that do not take away or interfere with student groups, student participation, and funding and resources (Maerten-Rivera, Chen, Augustine, 2021). A study from a few years back discussed how the implementation of co-curriculum with pharmacy programs in the United States looked at those patient and non-patient activities that met students' co-curricular requirements (Maerten-Rivera, Chen, Augustine, 2021). There was no information on the student perspective in relation to the co-curriculum. This seems to be a reoccurring issue that faces college students and understanding what they want from their learning experience needs.

Students' Needs

The primary goal of education is centered on student knowledge and understanding the influence of the backing that teachers have on knowledge has been well-thought-out as a key indicator of worth with teaching in higher education universities. This is shown when students' improved understanding and abilities are shown from their experiences (Zenawi et al., 2012). There are claims that lecturing students in science courses are an effective teaching experience (Charlton, 2006). Charlton (2006) noted the reasoning for lectures is the ability that they engage human capacities and connect to the student needs. Charlton (2006) discussed that classroom socialization and the ability for spontaneity are directly affected by lectures. Charlton (2006) also mentions that the lecturer will establish a relationship with the students, which aids in their learning. However, some issues about lecturing are the inability to

be aware of alternative teaching styles, not embracing new learning styles, following methods that have been done continually over years and beliefs that have been established for years about the students' experiences (Jaschik, 2018).

Although, it does seem to be true that what students obtain in knowledge is not always related to teachers' support. Rather, students' understanding of teachers' behavior is related to the quality of the teaching experience. These character traits are shown as one who is well versed in the subjects, can articulate this well, and is available (Zenawi et al, 2012). However, the gaps in trying to receive descriptions of who is involved in student learning, tasks that help in student learning, or what directs student learning are needed. This can be related to the notion that teachers' responsibilities are to teach the students and as result have them learn (Zenawi et al, 2012). For example, a teacher's process has an impact on the students' learning (Hattie, 2003; McKeachie, 2007). Learning is more likely to happen from what the students can accomplish with the teacher's support and is less related to the teacher's process of educating the students. Students need to be the major factor in creating meaningful learning experiences. There are arguments in support of student engagement in the learning process being made a key component of a student's learning experiences (e.g., Biggs 1999; Chickering & Gamson 1987; Shuell 1986). Similarly, students' success has a connection with how successfully they are engaged by their teachers.

There is some contention of the evidence that reveals improvements in learning outcomes based on feedback received (Kember et al. 2002; Olivares, 2003). Some issues that have come from evaluating the effectiveness of teaching are related to the way the data is captured (Kember et al., 2002, p. 421). Questionnaires that are providing judgmental instead of developmental feedback, could affect the feedback.

How the feedback could be presented might have issues and what would work or what does not work for students and what will need to be worked on that relates to the teacher's performance. Working on the way the feedback and evaluation works could help determine a student's experience.

Understanding the students' needs helps develop content and learning outcomes that will be met and that meet the needs of the student-learner (Alastal, 2012). What is of importance is the creation of teaching materials that will have learning strategies (Conole, 2013). Similarly, analyzing the influence of teachers' support on education has a connection to teacher quality in college institutions. Students' experiences are impacted by having increased skills and knowledge. However, students' knowledge and skills can not solely be attributed to teachers and their support. Assessing teachers on students' feedback can provide input into the quality of teaching. Moreover, students' descriptions of how their teachers' quality of teaching and engagement is used as a measurement. The needs of all learners if fulfilling their success and aiding in their development.

Loyalty

Student Loyalty has become increasingly important to measure the success of higher education institutions (Rojas-Mendez, Vasquez-Parraga, Kara, & Cerda-Urrutia, 2009). Loyalty will have long-lasting connections to retention. Student loyalty describes how students feel toward the university and how behaviors and attitudes epitomize this structure (Nesset & Helgesen, 2009). Being loyal involves two types: behavior and temperament (Hallowell, 1996). With higher education, the approach might reference positive feelings that students develop with their staff, faculty, or institution. Student loyalty remains represented in how a student behaves during or

after their enrollment. The involvement from students who are engaged and loyal benefits the institutions greatly. There is research that shows that students who spread positive word-of-mouth to other prospective students do so out of their loyalty to the institution (Alves & Raposo, 2007), and they are committed to the university (Perin, Sampaio, Simões, & de Pólvara, 2012). Additional studies looked at other motivators of loyalty such as the university they attend, the value of education, the value of the institution, services received, and the image of the university (Brown & Mazzarol, 2009; Carvalho & de Oliveira Mota, 2010; Nettet & Helgesen, 2009).

Relationships

Many important outcomes can come from a positive student-faculty connection. According to the research the classification of quality is different. The quality of literature currently “suggests that relationship quality is widely used to describe how healthy a relationship is based on the evaluation or assessment of the parties within that relationship” (Osobajo & Moore, 2017 p. 4). With this understanding of how the relationships are considered when looking at the student’s perception, or judgment of the quality of the connections they are in. The relationship quality is related to long-term connections which are like the student-faculty connections in education.

According to the relationship quality research by Snijders et al. (2017), Roberts et al. (2003) used certain measurements in correlation with higher education to signify: “students’ trust in educational faculty/staff’s honesty, students’ trust in educational faculty/staff’s benevolence, students’ affective conflict, students’ affective commitment, and students’ overall satisfaction related to their educational faculty/staff’s performance” (Snijders et al., 2017). Relationship quality is centered on understanding the important relationships, which are the student and faculty interactions in higher

education. This concept contains five quality dimensions connections (Roberts et al., 2003). They related trust to two fundamentals: “honesty and benevolence” (Kumar, Scheer, & Steenkamp, 1995). Similarly, it connected honesty and trust to the university’s credibility. The ideas that the students have about the university are based on the interpretations of the faculty and the staff and whether they will execute their roles. Also, the student’s understanding of staff being honest is based on their beliefs that the staff and the faculty are reliable. Trust and benevolence are related to the belief that students have in the staff and the faculty and how they care for the student’s best interests and avoid acting in ways that harm students. The conflict that can happen between the students, staff, and faculty can harm the value of the connections. The quality of the relationships can be affected by the way the students perceive these conflicts. This is an indicator of the conflicts that the students feel within their relationships with the university faculty and staff.

Affective commitment is about the connection students want with their staff or faculty and how they want to belong with them. Students’ commitment matures over some time as they develop a positive connection with the faculty and staff, which makes them feel more comfortable in the connection they take with the staff and faculty. Satisfaction represents the total fulfilment of the student-faculty connection, such as a student’s understanding of their own experiences dealing with multiple educational services. Educational studies specify that students who identify a quality relationship with their faculty will cultivate positive student improvement and outcomes (Astin, 1993; Kuh & Hu, 2001). A major factor used a relationship management style and looked at the relationship quality between the students and the faculty contributed to a higher level of loyalty. This was shown in student recommendations. Finally, the

relationships were a major factor in the relationship with engagement (Pianta, Hamre, & Allen, 2012, p. 366).

Faculty Engagement

Mentorships

Faculty engagement is essential in helping students to prosper through mentorships that improve their personal and intellectual growth. The main interaction that students have in their education is the student-faculty interaction. In the undergraduate experience, faculty interaction with the students is the key component of student motivation and involvement (Chickering & Gamson 1987). These key relationships build the foundations for student confidence to guide their educational experiences (Fuentes et al., 2014). Furthermore, these mentor-type relationships create important lessons to help them with their future career plans. They help students in their fields of study and interest. They provide them with important networking and provide them with resources to others who will help them be successful. Mentored students have a higher graduation rate and academic success, and they finish their degree at a greater percentage than the students who are not mentored (Tuttle, 2000). The importance of mentorships for students is key to successful outcomes in their experiences.

While students gain great value in terms of interactions with their faculty, mentoring relationships provide benefits for the faculty as well. The reward that the faculty gain from working directly with students and encouraging them and then seeing them complete their educational goals provides them with great gratification and value (Davis & Jacobsen, 2014). This type of value encourages faculty retention and satisfaction, and it promotes the feeling of being in a routine career (Clark, 1997).

Working with students broadens their ideas and allows them to add to their work experiences, too. The ability of the faculty to publish their work while engaging students is significant in a research experience. The importance of mentoring students allows for the faculty to learn and relate with their students and helps them to learn about the future students they will work with (Laursen et al. 2012; Potter et al., 2011). Building lasting relationships plays an important role for students to be more successful and the faculty who engage them.

IPEDS is an arrangement of interconnected surveys collected through the National Center for Education Statistics each year. Data is collected from IPEDS from universities, colleges, vocational, and technical colleges that are connected through financial federal aid programs (Caruth, 2018). There is a requirement by the Higher Education Act of 1965 for institutions that are connected with student aid programs to provide their data on admission, graduation rates, program completion, staff and faculty, funds, financial aid, and prices from the institution (Caruth, 2018). All of this information is easily accessible through IPEDS Data Center and available to the public. Having this type of information readily available puts pressure on these institutions to retain and seek new ways to meet student needs. As an example of access in the University of the Pacific's completion rates, please see Figure 4. Figure 5 shows the 2019–2020 graduation rates for full-time students at 87% and overall graduation rates at 70%.

Table 1
Completion (Number of Awards Conferred) 2019–2020
Completion Based on the Number of Awards Conferred by Program and Award Level

Program	Bachelors	Masters	Doctor
Pharmacy	-	-	191
Dentistry	-	-	161
Pharmaceutics and Drug Design	-	5	11
Physical Therapy/Therapist	-	-	36
Dental Hygiene/Hygienist	3	-	-
Physician Assistant	-	40	-
Communication Sciences and Disorders, General	21	34	-
Orthodontics	-	8	-
Endodontics	-	3	-
Athletic Training and Trainer	4	2	-
Music Therapy/Therapist	11	3	-
Category Total	39	95	427

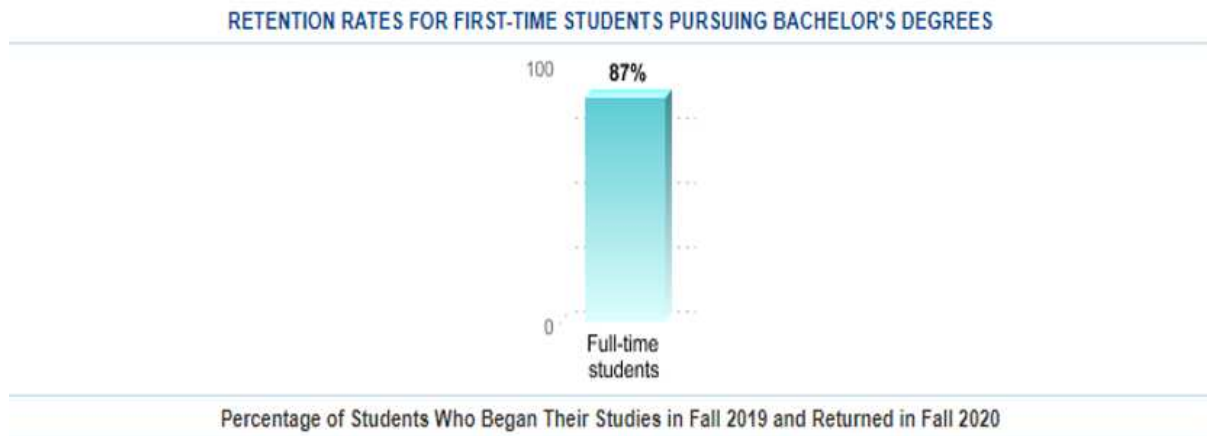


Figure 4. IPED completion rates of health science programs.

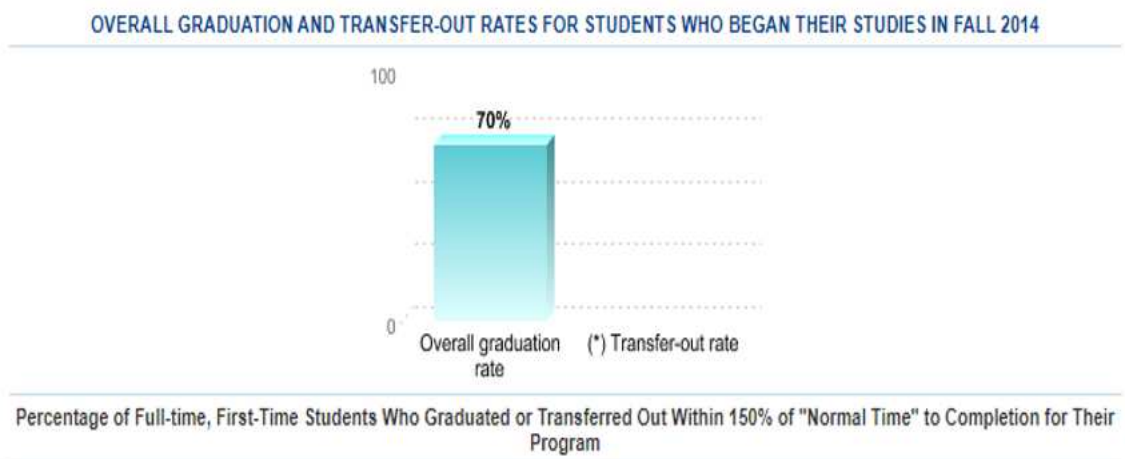


Figure 5. 2019–2020 IPED completion rates.

Retention and Psychologically Invested Faculty

The faculty play a key role in engaging students, but engaging the faculty and keeping them is as crucial as keeping the students. While there are assumptions about student retention being of key importance, faculty retention is equally important in student outcomes. Organizations have understood that to keep up with other

competitors it is important to keep these skilled employees. Retention of the faculty poses a threat to the amount of cost and effort spent on replacing and retraining. These faculty types are loyal and committed. They bring profits to the business and are less likely to leave (Macey & Schnieder, 2008).

Having psychologically functional teachers, teachers who can invest beyond lecture but provide emotional support has become an essential focus to student success. The number of turnover rates and early retirements has elevated the impact on motivation, and emotion has a significant impact on classroom experience (Ramsay & Finney, 2006). Recently, the concept of academic engagement and psychological functions has been brought into a prominent way. Those that are highly engaged are also significant assets to their companies and disengaged are extreme liabilities (Wilson-Kennedy, Huang, Kennedy, Tang, Kanipes, & Byrd, 2019). What has been represented by disengaged faculty are early retirement, absences from their job, and the high turnover rate which represents all of the factors of their disengagement (Albrecht, 2016). When it comes to academia, the faculty must be engaged. The faculty should specialize in their fields and be engaged in their roles. In western nations, they have an emphasis on the developmental research of the faculty. According to Wefald and Downey (2009), “there is a difference between academic and industry engagement.”

Institutional Engagement

There is a lot of information regarding engagement in education because it correlates with development and learning skills (Astin, 1993; Pascarella & Terenzini, 2005). Faculty and student interactions have also been an important discussed topic in learning collaboratively. There is less research regarding the institutional role in the development of engagement. The researchers suggest that there is little research on the

development of institutional engagement. With the costs associated and with a college education on the rise, it is important for institutions now more than ever to take interest in student outcomes. There are many reasons institutional engagement is limited.

Support

High attrition rates for students have adverse monetary consequences for higher-education colleges that are reliant on tuition. The existence of institutions are now dependent on student success and the completion of student degrees. Tinto stated (2012) “some institutions, primarily the smaller tuition-driven colleges, have teetered on the brink of financial collapse. Indeed, many have closed their doors in recent years with many more predicted to follow suit” (p. 2). The government, mainly state and federal and accrediting groups are requiring that institutions now learn about the quality of students persisting through college to obtain their degrees (Strayhorn, 2018). Having standards that are reasonable and ambitious in order to have students complete their degree is a criteria amongst accreditation by most regional accreditors.

Institutions are now, more than ever before, responsible for students to complete their degrees, and for them to ensure that students will benefit the institution. This means that the institutions need to know how on-campus experiences impact student engagement, and how they can improve student motivation (Owolabi, 2018).

Moreover, they feel they are accepted and that they belong, and the ability to rely on the faculty and staff for support to aid in their educational achievements, social wellbeing, and wants are altogether essential for creating an environment of student engagement and student retention. Students are driven to absorb and thrive in their lessons when they are in a helpful setting (Strayhorn, 2012, p. 20). For instance, having a sense of feeling accepted, the students’ sense of importance, and they have the

encouragement of the staff and faculty who are concerned with their shared interests, educational needs, and wants are all essential fundamentals for developing student retention and student success (Strayhorn, 2012, p. 20).

False Engagement

Trying to learn from students engagement can be difficult to understand through observations and self-reports because of students pretending to engage. In a self-report study performed by the University of North Carolina and Monash, both Pharmacy and Pharmaceutical Science students, measuring class engagement, the following was reported: Independent observers who looked at Pharmacy and Pharmaceutical Science students did not show any relation with a student self-report, because students who were pretending they were engaged and assessed as engaged through a participant (Pierce, 2005). Extraordinarily, students stated they were only pretending to engage 23% of the class time, even concerning the respected instructors. Singular students in 42 of 46 interludes were ranked as engaged for which they recounted if they were pretending to engage, during periods in which students pretended to be engaged the two observers were unable to look at disengagement (Pierce, 2005). Instructors need to know that student signals in terms of eye contact and head nodding might be related to pretending to engage. A self-report revealed, “I tried a new approach or way of thinking about the content”, connected clearly with heart rates, and a skillful replicated study showed this discovery during two happenings that required students to try a different method to understand an idea. Particularly, the main degree of student engagement utilized by Shernoff et al (2008): “How well were you concentrating”; “Did you find the activity interesting”; and “Did you enjoy what you were doing?” What this showed was a smaller self-report tool that uncovered behavioral, thought, and emotional engagement

with a slight number of items offer greater response in engagement without disturbing the learning.

Perceptions of Engagement

Furthermore, student engagement provides a lot of areas of research.

Researchers on this subject need to look for innovative ways to help strengthen student engagement and academic success.

Moreover, having a framework that asks the students about engagement is key to knowing the type of environment that will create an engaged connection. Dunleavy & Milton (2009) posed the question what type of environment fosters engagement. There were certain elements to their question and something important for researchers to note (1) Learn with others in their community to pursue student engagement, (2) Associate with known specialists, and (3) allow for more opportunities to engage in intellectual dialogue and conversation (p. 10). It is important to harbor an environment where their students will feel protected enough to report honest tangible feedback. It is time for educators to move beyond the simple surveys of coursework to add tangible feedback on what student's desire in their learning outcomes.

Student Involvement Theory

According to the SI theory to assess change, Astin (1999), looked at the SI theory from the perspective of the student and how they will have more success when they become more involved in their educational experience. Astin argues that engagement is the physical amount of drive that students have in their college involvement and the ability to have a quality experience (1999). The researcher will use a general causal model to open a clearer understanding of how the students are represented. This model is the General Model for Assessing Change. This looks deeply into the characteristics of

the campus structure and surroundings. Many characteristics are examined and examining the background of students, the relationship with the organization, and the environment surrounding the students. These variables address the student's effort in their coursework and interactions on campus and the development of their learning skills. Understanding the student's background is crucial in understanding the continuation of student engagement amongst a student's environments.

The importance of these ideas explains the commonalities and differences in qualitative data before thoroughly looking at the connections between the data and seeking to draw unique and descriptive conclusions manifested around themes. In this dissertation I will use the I-E-O to analyze the interviews, to see if the outcomes are related to the experiences and behaviors. Astin's I-E-O model shows a connection between input, environment, and output (1999). In this research, the student's educational experiences were the key factors to their educational experiences. These factors are considered with the academic and social connections as seen in Figure 6.

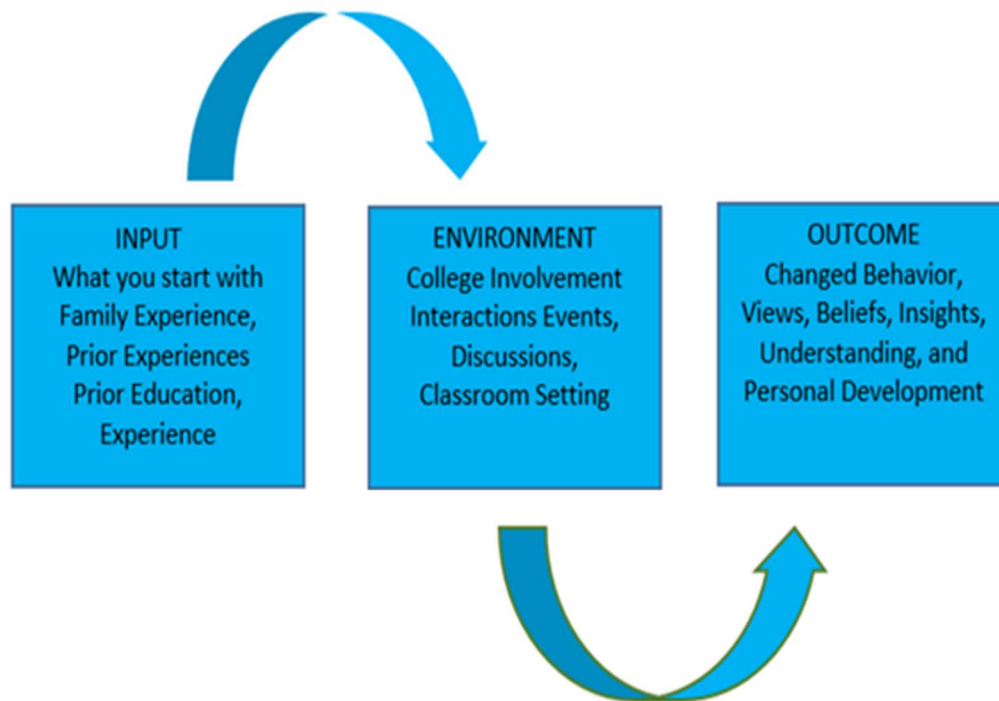


Figure 6. I-E-O model (adaptad from Astin, 1984).

Summary

Currently, the research provided in a broader view on the links between the students, faculty, staff, and institutions and the relation to students needs is needed for an in depth analysis. Furthermore, having a generic qualitative approach will prove valuable in understanding the quality of their learning experience needs.

Moreover, support that comes from administrative leadership is essential to creating a mentoring culture. Previous research has shown that institution power can mold support for good practice, however further research into helping the institutions

realize the role they play in affecting the student's behaviors toward engagement (Chickering & Gamson 1987).

While mentorships and faculty engagement are valuable in engaging students and providing valuable outcomes in retaining students, there is still further research that can be done. Further research in understanding the students' needs in their educational experiences is key to engagement. Exploring these ideas further might aid in future research.

There is further research required in addressing the many complexities of student engagement and how educators can keep students. The issues that are facing students exceed that of any or one solution by educators. While surveying students has been shown to understand where educators can improve it does not always provide a complete story to student issues. When students are provided a voice rather than just an online form to fill out briefly, they can increase and expand upon what keeps them engaged and lack thereof. However, there is still a need for a qualitative interview to examine what motivates students' needs.

Understanding engagement is determined by the knowledge we have of our instructors and those that interact with students daily. That is why it is essential to understand that engagement is not just related to student experience but educators as well. Creating an interactive interview with students will help to understand what educators can learn to make the appropriate steps of increasing campus engagement, and it can lead to changes in the institutions.

Researchers have largely looked at what students think and less at what they feel or how their interactions with students have long-lasting effects on the way students perceive themselves even into their adult life. However, there is little known research in

a qualitative manner of understanding what college students need from their learning experiences. The goal of this study was to interview students to uncover how they feel about their educational experience and how they are engaged. The question that has not been researched to a larger extent is what the students want from their education. If we don't ask these questions, we may never have the answers. This qualitative approach will use the SI theory to find the element of theory and data and will be discussed further in Chapter III.

CHAPTER 3: Methodology

The purpose of this chapter is to elaborate on the methodology of this qualitative study, regarding engagement interventions. This study explores what students perceive to be the key factors that foster students' needs and prevent lower retention rates. The long-term goal is to conduct further research beyond student engagement, including research on faculty and staff engagement in higher education. Oftentimes professors are perceived as the sage on the stage, where they are the one who lectures while students absorb the information and take notes, a nonstop approach to teaching from professor to student. According to Morrison (2014), "The teacher has changed in a significant and positive way: no longer a 'sage on the stage'; the teacher now functions as more of a "guide on the side" (Witkowski, 2015, p. 62). Though, this can embolden student learning if students are engaged. Faculty can serve both as a guide and teacher, to eliminate communal barriers that impact their academic progress (Jack, 2016).

Research Questions

This study will be guided by the following research questions:

1. What additional support do students need from their classroom settings, the faculty members, and their institution?
2. How might academic programs aid in fostering learning experience needs in and outside of the classroom?

Roadmap

The theoretical framework approach for this study is analyzed in this chapter. The research plan, including the methodology, method, description of participants, data collection, data analysis, trustworthiness, and limitations, are the major components in this chapter.

Approach

The researcher will use a generic qualitative method by means of the analysis approach as it provides participant's understanding, personal involvements, and subjects' perspectives.

A generic qualitative approach is described by Caelli from the work of Merriam as studies that "seek to discover and understand a phenomenon, a process, or the perspectives and worldviews of the people involved" (Caelli, Ray, & Mill, 2003; Merriam, 1998). Qualitative research aims to establish the context of human experiences and provide meaning to those experiences. Qualitative researchers take alternate methods when creating knowledge in terms of human experiences (Herr & Anderson, 2015).

Throughout the literature review, a study presented qualitative research related to accumulating students' perceptions. For example, Stelnicki et al. (2015) utilized the technique of content analysis to collect students' perspectives as to what factors added to their learning success. His purpose was similar to that of this study because data will be collected through this study to achieve a better understanding of students', institutions', and professors' engagement and communication. This data will help have more information concerning measuring students' experiences.

Methodology

In this study, semi-structured interviews will measure student engagement. Semi-structured interviews allow for student's responses to provide feedback that they believe is important to them and is derived from their own words.

Semi-structured interviews are established on an interview, that is a demonstration of inquiries or themes that need to be examined by the investigator

(Crabtree & DiCicco-Bloom, 2006). To attain optimal use of interview time, and guides to assist the valuable purpose to keep the interview fixated on the anticipated line of action (Crabtree & DiCicco-Bloom, 2006). These interviews will aid in information that is detailed in uncovering different experiences. Having the interviews recorded will make it easier for the researcher to examine the verbal cues and content and helps to create an exact transcript of the interview.

The interview method will prove useful for the faculty, administration, and institution in assessing and refining their active learning accomplishments. Because the purpose of this study was to examine the needs and experiences of engaged students at the University of the Pacific, a generic qualitative approach was the most appropriate choice.

Student Involvement Theory

This qualitative study will be performed using the SI theory methodology as seen in Figure 7, “Student involvement theory is a respected qualitative view of desirable outcomes being achieved through co-curricular” (Astin, A. W., 1999). This research was brought to the learning community in 1985. Involvement theory is “a theory of student involvement (SI). SI is the quantity and quality of physical and psychological energy that a student invests in the college experience” (Astin, A. W., 1999). Astin (1993) created an I-E-O method where the theory can bring about an understanding of the relationships between different outcomes of motivation, the environment around students, and also their output. Glesne (2006) explained that qualitative interviews help to recognize how and why students develop and change through their involvement experiences.

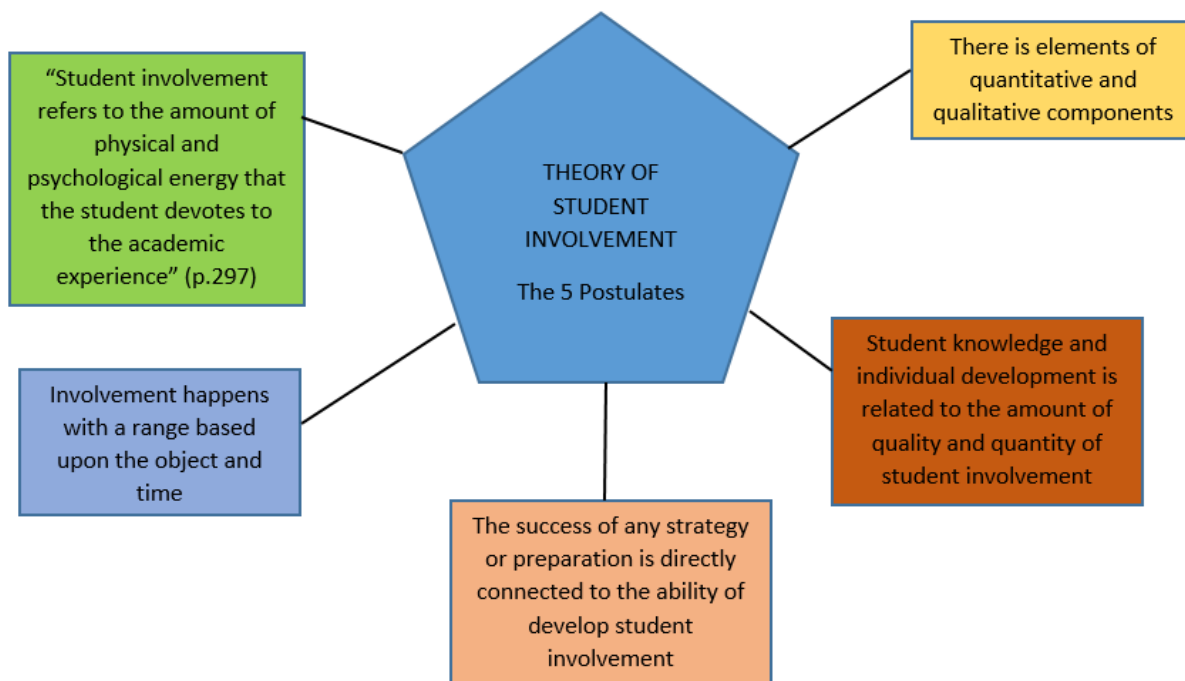


Figure 7. Theory of student involvement (adapted from Astin, 1984).

This study will be conducted using SI theory with a conceptual approach. Astin's (1984) SI theory, which conceptual learning is a part of, aims to: "encourage educators to focus less on what they do and more on what the student does" (p. 522). Therefore, influence is situated with educators as they center their abilities on inspiring students. This research study looks to theorize the experience of each participant's involvement. The objective is to understand in theoretical terms, created by way of coding, the data by conducting interviews and create a theory centered on the understanding of the students' experiences.

This study uses the SI theory to emphasize engagement and the changes that occur as the theory progresses (Astin, 1999). Examining the theory as it changes

throughout the research was essential in aiding in the changing interview questions during the research to understand how the theory has changed. The resulting theory is the interpretation that came from the researcher of the information, consistent with SI theory (Astin, 1999).

Astin's (1999) classic work on the SI developmental theory for higher education formed the basis for this study, outlining the tenets of the SI theory's methodology used in this study. Astin stated, "The theory of involvement, in other words, provides a conceptual substitute for the black box that is implicit in the three traditional pedagogical theories" (1999). These three theories are based on the issue, the source, and the individualized theories. This outlines the study to help with coding, generating themes, analyzing data as it connects to the theory, selecting from outcomes that come from inductive interviews, and creating theory. Together, the procedural steps used in applied involvement theory helped the researcher to look at the data with a different lens to understand the possibility of a new theory derived from the data set (Astin, 1999).

Methods

Qualitative results strengthen generalizability (McMillan & Schumacher, 2010). Consequently, the strategy of this research study was qualitative, allowing the researcher the capacity to recognize the background of engagement and their needs related to their experiences. During the completion of the semester, when the journals were finished being submitted, the interaction was gone between student and professor, consequently, less was understood by the educators. Stelnicki et al. (2015) found when examining the data, "Yield a better understanding of students' own perceptions of the factors contributing to their success while in university" (p. 217). Consequently, I

performed interviews to understand the student's perception of engagement and what fosters students' needs.

Description of Participants

The participants consist of undergraduate students from the University of the Pacific and were enrolled in Pacific's pre-pharmacy program. The sampling type is purposeful because of the partnership with the pre-pharmacy program and Kappa Psi fraternity.

The selection criteria were based on students who are were in different pathways of the program to conduct qualitative research on pre-pharmacy students; students can only register if they are at a pre-pharmacy level and is a requirement for them to enter the PharmD program. Additionally, students reflected on their Pacific experience and were able to express their good or bad experiences with professors. Therefore, pre-pharmacy students were the best applicants for this study constructed on the student profile. Prior to and after the study, the human subject's rights were protected to ensure confidentiality. Approval from the Institutional Review Board (IRB) was sought from the University of the Pacific. During and after the study, the human subject's rights were protected to ensure confidentiality. The researcher had CITI training certification that allowed him to conduct behavioral and social research with human subjects. To guarantee confidentiality, a statement of consent was provided to the subjects prior to the interview, see Appendix A.

As a result, it is essential to gather qualitative research data and examine in what way professors and the institutions can help encourage student engagement and understand students' experiences and needs. I looked at engagement and students' variables and saw their connection between their interactions. Once the information

was gathered, I had a better understanding of engagement from multiple perspectives that students reported.

Data Collection

For this research, 12 pre-pharmacy students were interviewed. Each interview lasted for about 25–60 minutes. The majority of the interviews ranged from 40–60 minutes. Two interviews lasted for 25 minutes each. The homogeneity of the population was helpful, as they were pre-pharmacy students from the same private university which helped to collect detailed sampling data. This allowed for more data to be collected and overall better sampling. The sampling tool that was used was an interview wherein similar questions were asked.

Data Analysis

In qualitative research data analysis and coding are essential. Mertler (2017) defines the issues of guiding an inductive study as a way “to remember that you are trying to reduce the volume of information that you have collected identifying and organizing the data into important patterns and themes to construct some sort of framework.” This framework helped the researcher in coding the data, as the researcher used a combination of inductive and deductive approaches. The deductive approach helped develop a hypothesis related to the theory, gather data to be used to test the hypotheses, and see if the collected data supported the hypotheses (Wilson, 2010). Using a thematic analysis model helped to familiarize the researcher with the data. Coding was undertaken to answer the research questions. This included coding of the entire dataset to provide a thorough understanding of the candidates’ answers. Using this method, the interviews questions were examined and coded using phrases and words. Next, the researcher examined the codes to identify meaningful patterns from

the interviews and review each theme about the candidates. Then the researcher reviewed the themes and constructed a meaningful story with the data comparing the dataset with the themes that arose from the candidates. The researcher also defined and named each of the themes. The researcher then created a unique name for each theme. Interpretivism, uses “text” as symbols that express meaning in humans, and is one of the three approaches to qualitative data analysis (Miles & Huberman, 1994). Interpretivism involves researchers in interpreting elements of the study; thus it integrates human interest into a study (Myers, 2008). Finally, the researcher wrote the analytic narrative and compared it with the existing data for proper completion of the data analysis.

The conversations were transcribed using Descript, which has a 95% accuracy rate in transcribing audio. A computer-assisted data analysis software for qualitative research, ATLAS.ti, was utilized to assist the data management and examination processes. This software was also used to bring out keywords for a connection with coded findings and themes. ATLAS.ti was not the main source of coding and was used in the framework of the data analysis. The research was conducted by the researcher, not by the software. The researcher imported the information into Atlas.ti to organize all of the themes and codes. The researcher then re-read the transcripts again and adjusted any codes as needed. Each code was given a specific name, following the thematic analysis format. After all of the codes were named, the researcher looked at the commonalities and started merging the codes to find reoccurring themes. When the codes were merged, more themes started to emerge, and they provided a story to the interviews. All of the codes were exported to an Excel file, and then all of the 12 interviews were linked together to look for patterns across them for the emergence of a final theme. From the data analysis seven themes emerged from reviewing the

transcription and then were narrowed down into seven groups: (a) peer support (b) time management (c) exam structure (d) increased faculty support (e) housing placement (f) coping with stress, and (g) core classes.

Trustworthiness

Accuracy and trustworthiness of data were ensured through methods triangulation. Methods triangulation can expose any weaknesses in a study by choosing more than one method to uncover data (Lather, 2003). The researcher added member checking to the interviews. Having the participants engage with and add to the interviews in addition to interpret the data after the semi-structured interviews helped reinforce trustworthiness (Jones, Torres, & Arminio, 2014). The vulnerable students did sense potential harm from this study fearing confidentiality not being maintained. The researcher ensured that all of the participating students were informed that their information will be kept confidential and that they will be protected from any kind of breach of trust. The researcher will personally code individual data, as it will be important to collect qualitative research data and analyze how professors and the institution can help encourage student engagement. Such an understanding could only come from knowing the students' perceptions through the information that they provided during the proposed interviews.

Limitations

Some limitations arose during the research. The researcher did not have any funding, so the research was restricted to the interviews that could be organized. There were limitations on accessing and using other resources as well. The researcher encountered time constraints that determined how the researcher interviewed the students, the time that was set aside for each interview, and how the researcher

interacted with the pre-pharmacy students. Due to the Covid-19 pandemic, all interviews were limited to Zoom only.

Summary

Constructing partnerships and conducting qualitative research is significant in higher education because there is a need for knowing positive and negative engagement in the classrooms. Moreover, students with an understanding and development of personal interactions in school report more constructive educational approaches, ethics, and greater gratification with the school. The behavior of the faculty members impacts students greatly; the faculty play a critical role in building the students' learning confidence and can influence them positively or negatively.

Qualitative research allows for a theoretical understanding that helps to see through the lens of the perspective study and provides a deeper look into real world issues. Understanding the importance of why students are engaged or not engaged will have meaningful outcomes that can be continued through qualitative research and further expanded upon. It was this researcher's goal to help understand issues that have hindered our academia for many years and contribute to resolving them for future generations. Chapter IV details the study results and shows how the methodology described in Chapter III was applied.

CHAPTER 4: FINDINGS

This chapter outlines the data collected from interviews, which were devised to uncover the engagement, experience, and support of pre-pharmacy students. The purpose of this study was to uncover the experiences, needs, and engagement of pre-pharmacy students. It has been felt necessary to find out these students' needs and what they expect in terms of their learning experiences. This chapter provides the results of the student involvement theory, which was referenced to answer the two research questions determined for this study. These research questions have been discussed in detail in the next section.

Research Questions

This study was guided by the following research questions:

1. What additional support do students need from their classroom settings, the faculty members, and their institution?
2. How might academic programs aid in fostering learning experience needs in and outside of the classroom?

For this qualitative research, a total of 12 pre-pharmacy students were interviewed. Each interview lasted for about 25–60 minutes. The majority of the interviews ranged from 40–60 minutes. Two interviews lasted for 25 minutes each. There was homogeneity of the population that was studied, as they were pre-pharmacy students at the same private university, and this homogeneity helped gather specific sampling data. This allowed for more data to be collected and, overall better, sampling. The sampling tool, interviews, were used wherein similar questions were asked.

In all, 12 participants were interviewed. The participants were pre-pharmacy students. They were along different pathways in different programs, i.e., 2+3 and 3+3.

Some were freshman, and some were sophomore. Seven were female, and five were male. Each student was given a consent form before the interview started, and the consent form was read again before the interview. The goal of the semi-structured interview was to let the conversations happen more organically so that each participant's stories could be heard. Each interview was audio-recorded and then transcribed following the interviews.

The conversations were transcribed using Descript, which has a 95% accuracy rate in transcribing audio. The transcripts were then proofed and edited for addressing grammatical errors. Once the interviews were completed, the researcher started reading the interviews and began coding each of the quotations from the conversations.

After this, the researcher imported the information into Atlas.ti to organize all of the themes and codes. The researcher then re-read the transcripts again and adjusted any codes as needed. Each code was given a specific name, following the thematic analysis format. After all of the codes were named, the researcher looked at the commonalities and started merging the codes to find reoccurring themes. When the codes were merged, more themes started to emerge, and they provided a story to the interviews. All of the codes were exported to an Excel file, and then all of the 12 interviews were linked together to look for patterns across them for the emergence of a final theme. The interpretivism approach, which uses text as symbols to express meaning in humans (Miles & Huberman, 1994) was also adopted. Interpretivism involves the researchers concerned in interpreting elements of the study, thereby integrating human interest into a study (Myers, 2008). Finally, an analytical narrative was created and compared with the existing data for proper completion of the data analysis.

The researcher then sent off the results to the participants to check that everything was accurate, and this served the purpose of members checking. At the end of this process, seven significant themes in the data were identified.

Demographics of Participants

The participants consisted of undergraduate students from the University of the Pacific who were enrolled in Pacific's pre-pharmacy program. The sampling type was purposeful sampling given that it had as its basis the partnership with the pre-pharmacy program and student organization Kappa Psi. Students in the pre-pharmacy program were chosen because of the felt need for understanding their experiences and where they need help to be successful, as well as for retaining them. The students' stories show that identifying students' needs at an earlier stage can help support pharmacy programs' and students' needs to improve student retention (Choi, Curran, Morris, Salem, Curry, & Flowers, 2019).

In this study, student interviews provided information for ascertaining the support needed by them and also helped develop possible solutions to increase student engagement. Semi-structured interviews proved useful for academic teaching staff in evaluating and refining their active learning activities. The participants in this study consisted of pre-pharmacy undergraduate students from the University of the Pacific. All of the participants were enrolled in a pre-pharmacy program.

The selection criteria were based on certain considerations that were thought to be applicable for qualitative research on pre-pharmacy students. Thus, students could only register if they were at an undergraduate level, which is a requirement for them to enter the PharmD program. Students needed to reflect on their experience with the University of the Pacific and express their positive or negative experiences with

professors. So, pre-pharmacy students were thought to be the best participants for this study based on their student profiles. During and after the study, the human subject's rights were protected and necessary confidentiality was ensured.

Therefore, it was important to collect qualitative research data and analyze how professors and the institutions can help foster student engagement and understand students' experiences and their needs. Engagement and certain other student-related variables to see if there is a connection between their interactions. The information collected provided a better understanding of engagement from the multiple perspectives that students reported in the interviews.

Living Away From Home

All of the participants self-identified as living away from home. The students reported that living closer to home affected their decision on attending the University of the Pacific. They also identified themselves as visiting their family and choosing to do so for meals and when they felt homesick. One participant identified as being homesick and missing their family and it being hard on them. Jack recalled, "It's a little rough, not being able to see my family as often. I've only been able to go back a few times to see them." For many freshmen coming from high school, this can be difficult. The amount of coursework added to living away from home can also add to the stress of living away when certain support is absent. However, one student mentioned that the small university at UOP reminded them of high school, and it made the transition easier.

Clint mentioned the following:

I also really like it because of the small size of private colleges; you could say that going to a private school is no different than the transition from high school. No, it's barely a transition from high school.

Jack spoke about his reason for choosing the University of the Pacific because of its closeness to his home. “Had the fastest track for me, and it was financially the best decision I could make, and it was also the closest to home.” Jack added about the connection that he developed when he shared the following:

It makes me feel like UOP was a second home for me. That's how it felt as soon as I went on campus last semester, and I loved it here as soon as I got here, and even online, you meet a lot of friends that before you even meet them in person and those connections just stick.

Pathway. Students identified as being on a certain pre-pharmacy pathway, either 2+3 or 3+3, which means they would spend either two or three years in the pre-pharmacy program and then advance for the final three years in the PharmD program. There is a 4+3 pathway too, but none of the participating students fell into these criteria. The 2+3 pathways are not set, and students can decelerate to a 3+3 pathway. Students can also opt for being in the transfer pool instead of advancing from the pre-pharmacy program if they feel that they are ready to apply earlier.

2+3

Nine students self-identified as being 2+3 students in the program. The students at this level seemed to have more stress and reported having less time. There are a lot of courses that they have to take in a short span of time to transition into the PharmD program. Many students spoke about the difficulties that they face while in the program. Jennifer Defined the 2+3 program as follows:

It was a bit difficult academically because it's a lot faster than I anticipated, and the overall workload was quite a lot than what I was expecting, but I think it's more because I'm on the shorter track, so there's a lot more given, but I think once you get used to it, you kinda know how it goes.

Christina mirrored this when she admitted the following:

A bit stressed, 2+3 path, very short. I have a lot of homework assignments, I

mean, I'm still struggling, but I think I'm trying to find a good way to better learn than last semester. I mean, I'm struggling a little bit.

Cindy said that sometimes she regrets not going to a 4-year college first and then transferring in later. However, she also said that she did not regret the choice “that much.” Overall, the participants mentioned that they were happy with the pathway that they chose because it would get them through the program faster.

If they want to be prepared to apply for college, look at the program and see what they offer and what they asked for, the requirement and see what you can prepare before entering the program. The other thing is when you get accepted into the program try to read, the material before class and be sure to have answered.

Clint had some advice for entering pre-pharmacy students when he said, “Almost like a caution, you should take a summer course. Otherwise, you will not have an easy freshman semester.” Jennifer mentioned the good and the bad of doing 2+3 in the following words:

I think I kind of liked the two-plus-three tracks because I get to finish a lot faster, compared to other people. But at the same time, I realize it is a bit short and I don't have a gap between like the undergrad and pharm school. There's no break for me in a way. So I think there's a good downside to that as well.

3+3

Three participants were identified as being 3+3 students in the program. Some students mentioned that this pathway did allow for more time and in some cases less stress. They had time to enjoy their time at home and not have to move at a faster pace. Robert mentioned why he chose the pathway that he did, “I would say so myself, but I understand why people want to do two-three like the faster you do. It is also a great reason why just to get there faster is a great reason why I don't like dealing with the stress.” He went on to add the benefits of his pathway as follows:

You could keep your grades up while still having some fun, especially in the three-plus three-track. I hear what people have in two, three, and they have a lot.

I think I'm doing pretty well. I go home once a month, and I have a decent amount of free time.

The next section of this chapter discusses the findings that emerged from the data analysis. The students spoke about their experiences in the pre-pharmacy program and went into the details of what affects them the most inside and outside of the classroom.

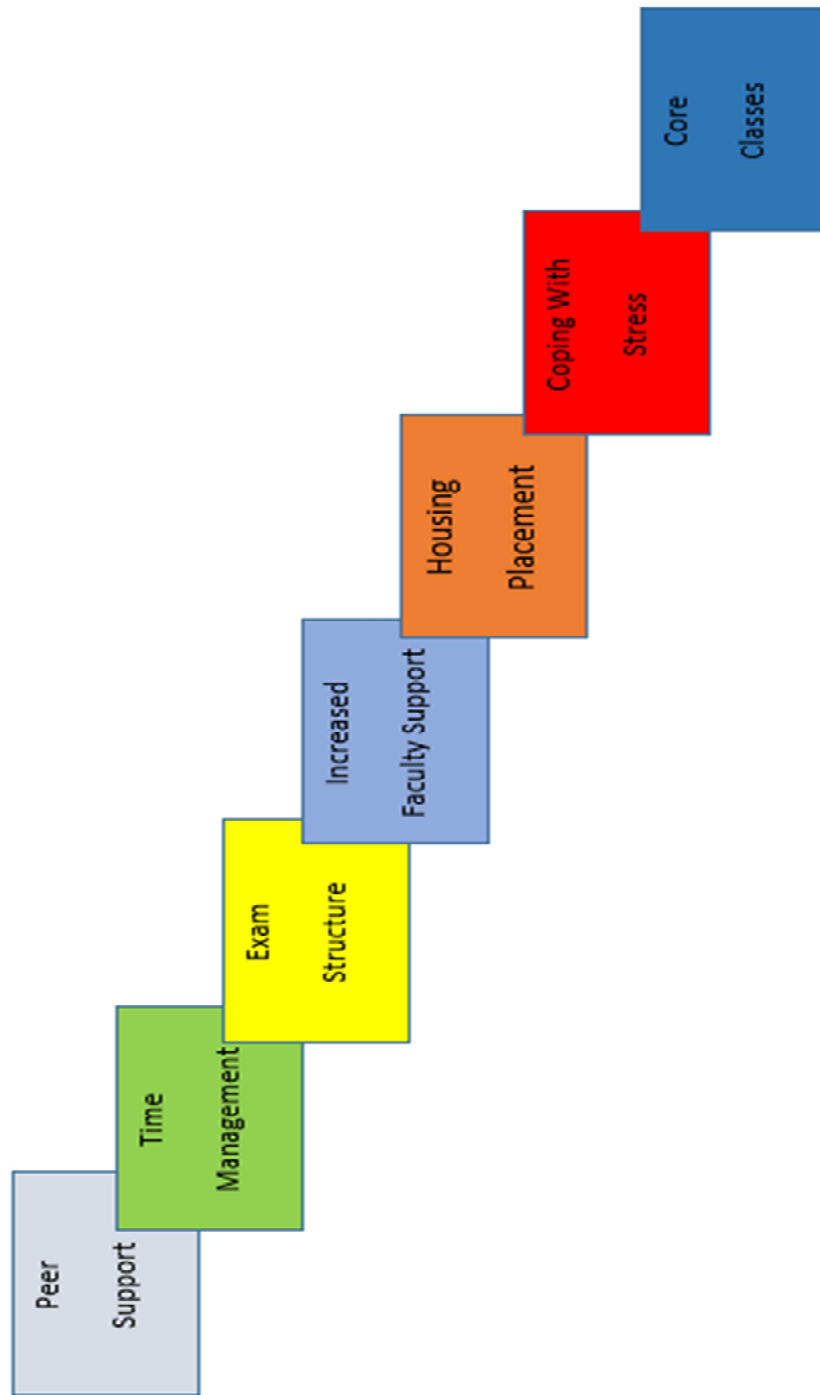


Figure 8. Seven themes.

Findings

Students also spoke about their needs in the program. The students reflected and offered several recommendations on what will help them to be more successful in the program. Figure 9 represents the findings that emerged from the interviews and specific themes that derived of the conversations. As mentioned earlier, the following seven themes emerged from the data: (a) peer support (b) time management (c) exam structure (d) increased faculty support (e) housing placement (f) coping with stress, and (g) core classes. The themes are placed in a hierarchical order. The themes developed from the coding, and the number of quotes and references from the students. They were set in the order of what was important to the student's success in the pre-pharmacy program.

One of the major themes that came out of the interview analysis and reoccurred several times in the discussion as a motivating factor for student success was peer support. Having a connection with a classmate, a PharmD student, or a TA who was associated with them in the program, to deal with situations like stress was considered beneficial. Those students who were at a higher risk of feeling stress tended to have their performances affected. To better understand why students might choose certain types of behavioral engagement, it may be useful to understand the unique value (i.e., "intrinsic, attainment, or utility value") that students see in desired activities of "peer interaction" (Wilson-Kennedy, Huang, Kennedy, Tang, Kanipes, & Byrd, 2019). Peer interaction in a community environment is a standout theme that promotes motivation to students to stay in the program. Students who were interviewed often-mentioned that their peers, who once were in situations similar to those that they found themselves in, helped them stay in the program. Peer support will be discussed as the first theme.

Peer Support

Throughout their journey in the pre-pharmacy program, having someone who can relate to what you are going through played a pivotal role in a student's success in the program. The participants described the pre-pharmacy program as being stressful, causing sleep deprivation, and allowing little time to engage in anything outside of the classroom. As studying and classes comprised the forefront of their life schedule, they were left with little time for anything else other than peer relationships. The community assumed a significant role, much like living-learning communities mentioned in Chapter 2; it was described as a way of fostering deeper learning (Upcraft, 2005). This happens when students who live together take at least one class together and have integrated course curricula, providing for tangible student experiences outside of the classroom (Vincent, Marsh, Goodwin, Farr, 2020). Alex referred to this as follows:

It's a lot harder to do, but when you're with other people, you have two perspectives, different opinions, and obviously, they're your friends, and they'll be there for you to help you out.

Robert mentioned this in the following words:

I would say make the right friends because they can always support you and the program, especially if you are in the pre-pharmacy program, people ... in the pre-pharmacy program, they would be able to help you ... study. They're going to be in the same place.

Robert continued, "I would say so because they could help you study. And being able to have fun also." Robert also mentioned that not everything has to be study-focused. "It doesn't have to be studying all the time, or we could just go eat or just hang out, play games. When Alex talked about being alone in the program, he clarified saying, "When you're doing things alone, you can just end up being isolated ... it's just that when you're alone, you're alone. If you're alone, you have no one to reach out to."

Robert also shared his sentiment about having peers versus being alone when he said the following:

I think it's a lot better than dealing with it alone because you have people to rely on and help you, and you have fun while doing it because we all have the same professor as well. I think we were just at the library for hours, just studying together, and that helped me learn the topic as well and get to know more people because I met people here.

Another shared commonality amongst peers was the idea of having a vested interest in the program, Mary stated, “We have the ... same purpose and everything. So it’s really interesting to ... have the same mindset as people ... and to grow with them as well.” Jason also mentioned that peer engagement made certain concepts relatable. He said, “Sometimes asking your peers for help ... It's like I get the concept easier because we're thinking at the same level.” Jerry mentioned that having like-minded thinkers is helpful for coursework. “I think everyone just find a friend, and take every single course with them. Because having likeminded in each other before test days, or due dates, it's convenient.” Mary added what she thought about peers and how they are “valuable” and “rewarding.” She stated, “My friends who I've made throughout this journey, I know that we're doing the same thing.”

Community. One participant shared that because there are many shared experiences together there is a sense of community. Jack stated, “It makes it feel like an actual community, not just people that are dreading doing homework that used to be back when you were doing ... high school education.” Others stated that they did not like reaching out to faculty about their issues and steadily relied on peers for guidance. “It's nice to be able to understand what we're going through and struggle together.” Peers were also represented as more than those who share just in the classroom. Sam clarified that between her break time and study time, “We just ... talk, and then they can

help me out ... go for a walk.” Mary shared this sentiment when she said, “Like being able to ... connect with people and just being on campus. It just makes ... things easier. It's like going to class; you just like walk over.” Jack mentioned the feeling of a family as follows:

It makes it feel like a big family here, especially with fellow pre-pharms because you guys have a lot to work on together. Yeah, it's just filling a gap in each other's knowledge. It makes it feel like an actual community, not just people that are dreading doing homework, like that used to be back when you were doing, like high school education.

Robert talked about how you meet fellow peers. “Most of us have the same classes and have to take it at the same time. So, when you see the same people ... oh, are you in the pharmacy program?” Mary discussed having someone else explain the course material, “Yeah, if one person doesn't know, someone else does, and they explain it.”

Mentors. Other types of peers who were not strictly students in the pre-pharmacy program were also mentioned in the conversations. These types of mentors included PharmD students, student TAs, and supplemental instructors. Robert spoke about peers in the Pharm D program who mentored him, “She's currently a P1, yeah; she's given me advice, gave me the mentorship, what I should do in life and during undergrad or like in classes.” Robert spoke about mentorship when he mentioned his advisor as follows, “It made me feel valued because they wanted me to not fail the class; that was required in the pre-pharmacy program. It just showed that they cared and want us to pass.”

Clint talked about another type of peer support in the form of supplemental instruction (SI). SI is an academic assistance program that utilizes peer-assisted study sessions. Faculty members of historically difficult courses invite supplemental instructors and take their support. “A student that already took the class, and they are

doing very well in the class. So they are able to ... re-explain it to another student that are taking the class.” Jack mentioned the help from Tas’, “TA supplemental instruction in classes, it really benefits you in class.” Allison mentioned about the mentorship support received from PharmD students. She had the following to say:

We know we're going to end up there. Eventually, ease us into the pharmacy. You know what you're doing? I think there was a mentor, we had; you're invited to meet, and they would give us advice. I think that was a very valuable moment because I'm in a school with people who have more experience, and I can ask them questions.

The support from peers helped alleviate the feeling of being alone, and thanks to it, the students could engage with a sense of community and mentorship. The importance of having others know what you are going through and struggling together helps these students manage their schedules. Moreover, another theme came that emerged from the interviews was time management. Much like peer support time management helped students stay focused. Many of the students had mentioned the importance of time management in a pre-pharmacy course.

Time Management

Notably, 10 out of the 12 participants mentioned that time management was associated with the program. Some students spoke about organizational skills to help improve success in the program. Many students mentioned the amount of workload that they had to deal with. Jennifer described having little time to do “a lot of work or a lot of classes.” The workload that students are required to do provided them with little time for anything but coursework. Students also spoke about dealing with a lot as an undergraduate. Jennifer continued, “Two years is really short for an undergrad.” Alex referred to time management in the following words:

Time management for this specific track that I'm on, so it's a 2+3. I'm basically stacking two science courses in addition to one GE, and right now, there's core. I'm a freshman. So ... learning to make set aside or plan out how to manage that.

Jennifer stated, "Time management organization is really important because you're able to divide that (workload). Because that's really hard. I think being organized is really important." Clint recalled how time affects his performance in the program when he brought up the following:

I guess it's part of my nature too to take a long time on my assignments, even though I ... take an awfully long time. I'm not so sure why probably because I didn't read a lot when I was little. So, therefore, that was affecting me.

Alex referred to the importance of managing time for a break:

Being able to set, set aside time for studying and setting aside time for a break. Being able to organize my time, and use it efficiently. One of the greatest lessons I've learned from doing the two-three track, because I know .. other tracks, for example, three-three, four-three, get another one or two years. Because of that, you have a lot more time on your hands. They can use for, let's say leisure.

Mary also spoke about time management by planning. She said, "I know how to utilize my time wisely and ... how to prepare for things. I know the course material for pharmacy is going to be harder ... you have to just plan for that." Mary added how she had to adapt. "I just learned how to time manage; learn how to balance your life and everything you have to do." Jack spoke about the difficulties of managing his time:

The most challenging part is time management. Sometimes having to make the sacrifice of being selective with what you learn in the amount of time you have to learn it. I just learned to value those connections a lot more because as a pre-pharmacy student, it's hard to pack everything into like a small amount of time.

Cramming. Another connection between time management and study habits was revealed from the data. What was uncovered from these conversations was the ability to cram before a test. The amount of time that students have to study is limited, so many times, students are forced to cram. Cindy admitted, "It really doesn't stay with

me. It kind of leaves me within a couple of weeks. This is a common issue when trying to retain the amount of information with multiple subjects.” She continued, “ ... I ... cram and study as much as I can at that point, it’s hard to dedicate time.” Jennifer had the following to say about the importance of time management:

I think time management organization is really important because you're able to divide that and not trying to cram all at once. That's really hard. I think being organized is important being here. (I) crammed it, but for say for final, I would have to, know that again; it does come back pretty easy because I did study for it, but I would say it does kind of leave my brain a little bit. I think it depends on what exam, but some of them, I do have to cram it cause even if I do like study beforehand or go to lectures, it's hard to forget.

Students also reflected on time management being added to the curriculum. Alex mentioned that he did not think adding a time management course would be beneficial. “For me the time management, of course wouldn't be useful because I already learned to do so within maybe the first week of college when I first came in.” He did think that it could be useful to other students. “It could be useful (to) other students. I don't know our academic standings and also another thing is that each student operates differently.” Kristen also mentioned a course that could be added. “Kind of ... I'm not sure what it's called, but I guess, a time management course.” Alex spoke regarding student's abilities within the program as follows:

Not every student is going to be that organized, or some students are a lot more talented than others. I know some people who are able to memorize the whole, the entire lecture, just running through it once. It depends on the student because every student is different.

Sam advised about time management. “It's kind of generic, but manage time wisely, and plan time for yourself, and surround yourself with people who are just as driven and goal-oriented.” Jennifer had the following to say while emphasizing the importance of not procrastinating:

I would tell them to not procrastinate. It's like the easy advice, but it's pretty important because once work starts to pile up, it's really hard to get that away from. I think it's really unfortunate.

The next theme that reoccurred amongst the students pertained to difficulties in the structure of the exams. Many of the students spoke about issues with test-taking. This was related to added stress while they were trying to manage multiple tasks. The students pointed to a lot of issues while trying to juggle multiple dates and concerning their time management skills. All of these structural course issues that students reiterated will be discussed further in this chapter.

Exam Structure

When interviewing the students, the exam structure was another recurring theme. It was surprising to hear that the students were tasked with so many exams in the same week, and it led to added stress for the students. The students have exams back-to-back, and it was a challenge for many of them to be prepared for all of them. Sam said, “It's been a little stressful with all the midterms.” There was also a connection between the number of exams and how it makes it hard for students to perform at their best. Sam went on to add the following:

I couldn't arrange time to study. For each of the subjects, I did very poorly every single day; it was like, oh, I couldn't do well. And then just keep going. Then until one day I was like, oh, it's already four classes, and I couldn't do well. I was so stressed and wanted to give up.

Another topic that reoccurred had to do with the number of midterms and quizzes in the same week. Sam mentioned, “I remember that Week 5 exam that week and two quizzes that week.” Jerry remarked, “(It’s) annoying when ... they have an exam on the same day (as a quiz).” One student was asked how they were doing, and the first response was, “Okay. It's been a little stressful with all the midterms.”

Exam stress. Stress caused by the exam structure was another recurring theme. Cindy commented, “This week was probably my most stressful week; I'm kinda numb to stress now. I don't know, at the beginning of the week, I just keep telling myself I'll be fine.”

Jennifer added the following:

There's a lot of ... midterms for certain classes, or certain professors do give out quite a lot of midterms in a row. (It’s) like all the other schedules line up with each other. When you're studying for one test or it could be another one, a good day after, so it's a certain kind of balance.

Jack mentioned, as follows, how specific class tests are happening in the same week and how they impacted his time off:

Usually ... biology and chemistry tests are grouped together in the same week ... and basically you have to sacrifice learning it ... before the deadline. Then if you review what you don't know, see what you got wrong on the test, and you have to put in the extra time of learning that over the weekend, or even over your vacations and breaks.

Kristen spoke thus about her tests and being impacted by other courses, “When we had midterms, I was struggling ... GE they would make us write ... three ... big essays I was doing in two days.” Jennifer mentioned, “You have to study both. I would usually study the first test for a lot of a little bit more than the second one.” She added how to deal with certain abilities. “I would say using a planner or a scheduler, like to see where all

your deadlines. Cindy mentioned that having exams in different weeks would be helpful. “Yeah, if it would be like in different weeks, that would be better.”

The exam structure did have an impact on the performance of the students in the program. Once I was able to understand what they were dealing with, it was easier to understand the roles that the faculty play vis-à-vis the student's experiences in the classroom. Is the faculty supportive and aware of these issues?

The next theme focused on faculty support and the way the students experienced it in the classroom. The faculty has been associated with student success, and their being available for the students is important in fostering better outcomes for students. The students often need that kind of support and do not always reach out to these resources.

Increased Faculty Support

As mentioned in the earlier chapters, the faculty plays a huge role in the engagement and experiences of students. It was no surprise then that its support plays a large role in the success of the students. Words that were expressed for describing the faculty were “supportive,” “really helpful,” and “available.” As Jack mentioned, “I think it is helpful to ask around, but at the end, asking help from a faculty or professors (is) the most beneficial.” However, some students were unable to reach out to their faculty. Some described a feeling of “disappointment.” Some students mentioned they desired more faculty hours and that the faculty be available beyond after-class Q&A.

Sam discussed the frustrations of a lack of faculty support:

I know the way they want us to try and to figure out the way to answer the question, but the problem that I'm having is, I don't really understand. I need them to help me with, how to approach it. Give me some hints or give me some examples or something ... I'm trying to re-read it. What does that word mean?

What are they trying to ask for? I don't know, that's why I asked and I just need more explanation, but the explanation is too short.

Jack mentioned support from faculty as well. He opined, “Develop those personal connections with your teachers because they are there to help you, and ... they do have great memories of their previous students.” Cindy mentioned the support that she received “in chemistry, the teachers ... one I have now, and the one I had before are very understanding.” She also went on to mention their response rate through email. “They email like almost instantaneously. It's crazy. Like you can email it, and they'll get you back in maybe even less than a day, and I think that's impressive.” Jack also mentioned the entire “faculty and educational system” have been “pretty supportive” and that it just “depends if you want to get the support or not.” Sam rated her support on a scale system. “If it's on a scale of one-to-ten, I think around five. I'm okay with it, but I also need more support.”

The importance of faculty support is crucial for the success of students. The students reported that just having available faculty was a benefit to their learning. When the faculty was unavailable, it caused disappointment and feelings of neglect.

Office hours. Having office hours was important to the students. Some students mentioned that they did not utilize the hours or were having some issues because of scheduling conflicts.

Jack explained how asking questions after class works. “You go in, ask your questions, and they'll have it after each lecture. Lectures are usually about an hour and 15 minutes.” He mentioned about their availability also during that week. “They'll have office hours, like three times a week ... two or three times a week, and they put their all into that.” Jack continued, “If you're going to a TA's office hours for a lab course ... the

lab classes are three hours ... I'm not sure how long (are) TA office hours. Definitely, it would be beneficial, going to teacher's office hours and you can leave.” Sam had never been to any office hours and had the following to say in this regard: “I haven't attended any of the office hours, but usually email. I attended a few last semester. I usually email before I come to the ... office hour. Usually, for the question, I asked after class or beginning of the class.” Jack explained how the office hours are helpful along with certain studying habits:

The reason office hours are so beneficial is because it helps you get in that repetitive state of reviewing your notes, like multiple times a day or multiple times a week, instead of trying to cram, because cramming is not going to work for any student in pharmacy school. I know a lot of people are used to that pattern of learning in high school and in the pre-pharmacy advantage program; it just does not work like that.”

Jack mentioned that there is a connection that you can develop with your professors. “At the University of the Pacific they're there to help you. They're always available. If you attend their office hours or even their TA supplemental instruction in classes, it benefits you in class.” Jack added, “Like I said earlier, you get out what you put in. Don't hesitate to put in extra time with your teachers; attend their office hours.”

Alex desired more office hours, which is evident from the following:

I would just ask for more office hours because I'm on 2+3-track; a lot of the office hours are very limited across basically all my classes, and they only occurred like maybe once or twice a week during a certain time in which I have class; I can't even do it.

Sam shared that finding time was an issue as well within her already busy schedule. She explained, “That time is not very convenient for me. I was ... rushing lunch to run to the office hour so that I could get more time with the questions.” Sam desired convenient office hours. Sam also mentioned, as follows, how she feels like she has to rush:

Everything during that time ... just rushing. The other time, I already have class or (am) busy doing homework. The only time that I have (for) it (is) right after (or) before class. So I (am) always ... struggling, trying to prepare the question, and sometimes, I couldn't get my question answered because there are other students as well.

Sam offered the following solution to email response:

Hopefully, they could actively respond (to) email more because the way we ask questions or (are) concerned about the assignment, the only way to (do this) is through email; if it's possible, they could, could have a range, a certain time that they will respond (to) email and the time that they don't so that we know when (it) is the best time to get, respond fast or reach out (to) them.

Sam expressed disappointment with receiving help. “Kind of disappointed, but I try to find out the way to get my answer if I couldn't ... receive help or couldn't reach out to them through email.” She then mentioned having to come to class “earlier” to see “if they see my email or not.” Sam continued as follows:

Sometimes, I couldn't reach out to them during lecture because we have assignment to do during class. I couldn't reach out. Then when the class (was) done, I tended to forget what ... I need to ask.

Alex, Allison too wished for more office hours and expressed the following desire:

Oh, yeah, I do wish that there were more. I think ... last semester, I tried to go to one out of two available, and it was already pretty crowded. I think maybe three times a week would be better.”

Alex had the following recommendation concerning office hours:

I think my most practical answer to that question would be ... to just schedule your own by emailing the professor and see if they could do it. I think the end answer is going to be the professors going to have to make a sacrifice by allotting their time to ... hour session(s).

Jack mentioned that any of the faculty would “happily help me during office hours or even during their free time. I always know that there’s a(n) opportunity to improve off of my past mistakes.” Sam felt less motivated to ask questions if she were to be the only one doing so, which she expressed in the following words:

I feel less motivated when, for example, during the class, during the lecture, the professor they're explaining, and sometimes I just got lost in the middle and everyone are like, they already understand, but I feel like only... one to stand, so I'm very hesitant to ask.

Allison also added that she asked a lot of questions, and she spoke to support. "I asked the doctor leading the class a lot of questions after usually, and she never seemed to mind." Allison continued as follows:

I think there are already resources here that I'm just not utilizing because like the classes (I'm) struggling most in right now is bio, and they are my two-day sessions. There are office hours, and there are SI sessions, but I haven't been going because of ... commitments. I'll be using them soon. As soon as I get time.

Clint recalled a time when he was close to failing because of not seeking help from a faculty member, which he described as follows:

I did not talk to my faculty advisor as well as some of the people in the chemistry department when I was really close to failing ... chemistry lab. I was looking for like advice on what I could do to better my ... come back to school and having no lab experience. I think that was the closest I've ever came to failing.

Sarah spoke about a teacher's abilities to be engaging, which she expressed in the following words:

The teachers are just instantaneous. For bio, I can see my teacher very passionate about their lectures. Sometimes, they have little jokes and references in their lectures to make you memorize it better and to make learning much more engaging and interactive.

The faculty members were understanding and worked with the students to help them with their grades as Cindy stated in the following words:

For prac one time, I forgot to do something that would jeopardize my whole grade, and they made an exception for me by working, trying to work me in. It was very sweet.

Sam discussed a time about forgetting to ask a question. "Just forgot the question that I'm asking. Or maybe, when they went over (it) again, I tend(ed) to (think that) I already understand. But why would I feel frustrated earlier?" She also

mentioned the stress felt achieving a certain GPA. “The other thing is the GPA for pharmacy. 3.0 is the minimum GPA and see, and sometimes I feel very, frustrated.”

Robert felt that he was fully supported, and he conveyed it as follows:

I feel ... the faculty and everyone, they support us enough. I don't know how they would do any more than what they do because they offer a lot ... to the pre-pharmacy programs, so I wouldn't say they'd have to improve on anything because I believe that they do enough.

Jerry discussed the importance of attending campus events in the following words:

Okay, so, there were some events on campus, I got to meet some faculty and some graduate students, and I'm still contacting them right now, and it's really useful and helpful. They helped me choose my classes and what they recommend me to do.

Kristen mentioned how she thought that certain lectures should not be mandatory. “I feel, for some classes, you don't have to take always, like for lectures, you don't need to get attended. But some professors, they always take attendance. It's unnecessary.” Kristen added, “I feel the lectures should be your own choice since you are in college, and they shouldn't really force you to go if, for example, if you don't feel the need that you need to attend.” She further added, “I feel it should be (such that) you shouldn't force the class, and just let people have the option if they want.”

Looking at what impacts the students inside the classroom provides essential details to student interaction and engagement. Looking at what impacts them outside of the classroom allows for another part of the story to surface that has not always been seen by the administrators concerned. Learning how students are impacted by their housing experiences is important to understand because it connects to their classroom behaviors.

Housing Placement

Learning about the student's support and need outside of the classroom is equally important to their success as in the classroom. Several common points emerged from the interviews. Some students were able to interact more with their roommates rather than just their faculty. Jennifer spoke about her interactions. "One of my roommates we talk about, we usually talk about our problems, and it's nice." She added, "I don't really talk to faculty about ... any issues I'm having or any ... peers. I just talked to my roommate." Jennifer continued about study habits. "My roommate and I decided to study every single day for that class, every single day after a lecture and review everything, and we will do that for just that class."

Noise complaints. Noise levels also affected the students' experiences off-campus Jennifer mentioned that it was easier to meet people through her housing assignment. "I think it is (so) because it's easier to meet people through roommate(s), and because you have similar class schedules, your whole day schedule (is) similar and also the sleep schedule." Allison also spoke about this, as follows, when she said the library as well but from a different view:

Yes to the noise level because I don't like studying in the library anymore because some people don't wear masks, and it gets noisy in the evening because that's when the athletes have to have mandatory study hall, and my neighbors are facing each other, and they're a big friend-group.

Allison mentioned study rooms not being available when needed. "We do have study rooms here, but yeah, because sometimes they're locked." Jennifer, on the other hand, thought that studying in the library was a better option. "The library is definitely a better place to study. The quads get really loud and hectic." Jennifer continued about her roommate being a non-stem student. "It's not that bad. It's definitely doable. If

you're in pharmacy school, as a pre-pharm, I feel bad for my roommate.” Jack mentioned how it’s not fair for non-STEM roommates due to the hours that he has to be awake. He had the following to say in this regard:

I have a lot of late nights like this. I went to bed at about 7:00 AM this past night and just doing O-chem (Organic Chemistry) labs because those, take a lot of time, and I feel it's not a fair exchange if your roommate is not ... a pharmacy student.

Allison also discussed the issues she faced owing to having a non-STEM roommate:

It’s always noisy, especially until like 1:00 to 2:00 AM. I got paired with a random, and she's a music major, so she's always like watching; they're watching me. She comes in (and) she's like, you're studying again? I was like, STEM, STEM, women in STEM, you know? I guess it just makes it a little bit more difficult.

Mary discussed the difficulties of having a roommate who was in different major:

I think it would be challenging because I like living with my roommate so far. It's very motivating to hear. When (she) studied .. I should study but, (if) she was (in) another major, I think I'd have a hard time. I'm more relax too.

Jack had chosen his roommate rather than being placed with a random one; he shared the following:

Yeah, my roommate isn't in the same program as me, but we were friends from high school. We picked the room together, intentionally, so that worked out; it worked out well, but now, we're going to have to go our separate ways, since I'm going to move into pharmacy housing next semester.

Facilities and classroom issues. There was also some discussion about the facilities being too crowded, and classrooms being out of date. There was also a mention about making renovations to the classrooms. The technology was also mentioned as being outdated.

Jack spoke, in the following terms, about the issues with living in the quad community:

It's a lot of cleaning that you have to do just because it gets dusty so easily. You have communal restrooms at some places, so limited shower space. Being able to do your laundry: that's probably the hardest thing to do if you're in the quad community.

Sarah mentioned the restroom locks. "I can think of like a few other things that would probably (be) our higher priority. Locks in restrooms. I hope they do get maintained at least before the semester starts.

The students also discussed issues with classrooms and technology. Cindy brought up the facilities in the classrooms. "A lot of the classrooms are really out of date, especially like the seats and the tables. Like they're not that great." She added about renovations. "It was pretty old. I think that new renovations could always be made, especially the boards can be kind of small; they're not that great. The technology that they use in classroom sometimes, the boards can be kind of small or like, and the projectors and whiteboards."

Coping with stress was mentioned through many themes, and the ability of the students to deal with that stress was important to their success. Stress being represented was not a surprise with the number of exams that they have to take. The hours that the students spend on studying, lectures, and labs also impact their sleeping habits. The students had found ways to cope with that amount of stress.

Coping With Stress

There were many references to stress that came up in the discussions. Even students that were feeling confident in the program or doing well were still overwhelmed with stress. What was fascinating to know from some of the answers and important to note was their ability to cope or not with that stress. Kristen mentioned feeling "overwhelmed between tests. There's just like a lot of work to do." She added "a

lot of stress.” Jerry spoke about dealing with future stress. “I think when the time comes (this) will give me a lot of stress, but right now, I’m just focusing on the present, I guess.” Clint spoke about an anxiety response. “The reason that you get anxious within the lab is that you don’t understand will that be structured? You blank out on; it simply slips ... you don’t know what you’re doing anymore.” Jerry spoke about a time during the program when he even became numb to the stress. “I think this semester, this week was probably my most stressful week because I had three exams back to back to back. But at the same time ... I’m kinda numb to like stress now.” He then pointed out how he reinforces himself to feel better. “I don’t know, at the beginning of the week, I just keep telling myself I’ll be fine ... or something.” Jack reflected on the cost of the stress caused and how it related to added pressures in the following manner:

It’s just how much it’s going to cost. That’s ... the main concern that stresses you out. There’s also the worry that some people start pharmacy school, and a lot of them don’t make it. That’s a lot of money down the drain.

Allison was unsure of how to cope with that stress. “I think, personally for me, if I feel stressed, I don’t really want to show it. I’m not sure what an external resource can (do). Even help me personally.”

Clint narrated how stress affected his assignments, which is the following:

Oh, gosh. I have been saying many times now, my first semester is where I truly felt the most stress with 18 units. In response to that ... I rushed through my assignments a lot, but somehow, I’m just able to get the good grade just by rushing it.

He continued, “Oh, yeah, definitely (it) was not a good response to, to the stress, although they do say that taking care of your task fast out of anxiety is a natural response.” Clint took responsibility for his stress as follows:

Had been stressing myself a lot last semester because I took it upon myself. I knew what I was signing up for when I signed up to be a 2+3. So, I know the

stress that came with it, but I can't blame anyone else other than myself for taking on a challenge like that.

Clint also provided a way to cope with that stress as follows:

UOP has a really good solution ... where you (can) choose to decelerate your major if you would like to. It would lighten the stress load a lot, and a lot of teachers are very accommodating with their deadlines because some of them are very soft, and then they'll give you a hard deadline or an extension.

Sam reflected on the issues faced with comprehending the lectures and related them to stress. "I think it is when I don't understand the lecture or when I couldn't catch up with a class. And, the last, the third reason is just exam." She spoke of ways of coping with stress through relationships. "I think friend. So, yeah, I usually have like a break time between study time." She continued mentioning friends. "I have friends, and we just like talk, and then they can help me out, or (we) go for a walk, express relief; something like that; like an outdoor activity." Cindy too related to her friends. "(When) I am stressed about, about like school and stuff, I'll reach out to my peers and, I guess, study with them." Cindy continued to discuss other ways in which she deals with stress which are the following:

I think driving, music, and driving around. I think I just found it recently. It's helped me to cope with stress. I couldn't handle the stress very well, but the time that I cut my hair, it's like, I have too much going on.

Alex spoke of the following past experiences that helped him to deal with stressors:

I've dealt with in my life. I've been involved in a lot of situations where I have been overwhelmed, where I have been super stressed out. I just learned to live with it. It depends on whether or not you have experience with being overwhelmed or not.

Jennifer had the following to say when asked if she had seen other peers stressed in the program:

All of us were pretty doing okay. Everyone is stressed out during those times, but I never really seen someone that was so stressed about it that ... don't want to be here anymore. It wasn't like that. It was just more, oh, they're just stressful this exam.

Robert mentioned he was less stressed because of his pathway being 3+3. He had the following to say in this regard:

I understand why people want to do 2+3. The faster you (finish the better it is). It is also a great reason ... to get there faster ... I don't like dealing with the stress but, I think personally that 3+3 ... it's great.

Students have to take general core classes along with their STEM-based courses.

The students expressed different ideas in their core classes. It was important to understand what the students find useful from their non-science courses to learn what they desire from their learning experiences. Understanding their needs concerning coursework can help build classes around these needs, and necessary additions can be made to the existing curriculum.

Core Classes

Several of the students mentioned in their conversations about the core classes and general education classes. Some enjoyed them, but others did not care for them. Either the students felt that these classes did not serve any purpose, or they were seen as a welcome distraction from the vigorous coursework. Kristen mentioned, "I feel like the GE courses sometimes are (a) bit excess." Mary thought that "everything's just kind of fine with them." Mary also mentioned that these classes served as a distraction. "Interesting ... they're something to distract me from like the harder STEM classes. I think the STEM-based courses are a lot harder (than) GEs, but that's pretty much it."

Jack referred, in the following words, to the versatility of the GE courses:

And I think that (in) the PACS classes you had a wide selection; you can choose really what you want. You can do finance, you could do business ... (A) handful

of different topics you could choose from. I think that the PACs courses were beneficial, as they're mandatory for all freshmen.

Jack discussed how the courses are structured, which was in the following terms:

No, it's usually not right after class. They teach back-to-back classes; most teachers ... they'll ... have it late during that day, in the evening, if you have the class in the morning, or they have it the next day ... because usually, you're in a block schedule where you have class(es) on Monday, Wednesday, Monday, Wednesday, and Friday, and then you'll have different classes on Tuesday (and) Thursday.

Sarah thinks that a lot of information can be added to the STEM courses. "I can see how it gets a little overwhelming to want to learn stuff that's out of the ... itinerary. Some teachers are just too passionate for other kids, and that's okay." She said that she did enjoy learning the material, "knowing that trivial stuff, but it can be a little overwhelming to like a person who just wants to pass their general classes, say they're in business or something." Sarah recommended a GE course that could be added to the curriculum. "The history of technology and medication throughout timelines."

Cindy continued:

I don't see how economy itself can help with that. I guess there are some non-related courses that can easily overwhelm a student with like excessive amounts of information they don't need.

Cindy was not interested in the core classes. "Teachers do teach these core classes. The topics aren't that interesting." Cindy also mentioned the grading standards were random. "(They) Grade kind of by their standards ... a whim." She also spoke about engagement. "Certain classes, but just core. I don't feel as engaged. And then, they're not that applicable to the program."

Mary felt her classes were equally important:

I guess not, I find it easy with the classes already. (I) have so far (done) well. That's why it's not too bad for me. Anthropology I think they're equally important in the materials that they teach students. Everything's fine with them

(they're) interesting, I mean, they're something to distract me from the harder stem classes.

Summary

This chapter revealed the perceptions/opinions of 12 pre-pharmacy students. Through the interviews, the following seven themes arose: peer support, time management, exam structure, increased faculty support, housing placement, coping with stress, and core classes. The students' experiences, as shared, brought to the fore many issues that pre-pharmacy students face inside and outside of the classrooms. Many of these themes are linked together in terms of the hurdles these students face. Despite all of the adversity that these students face, they are still motivated to continue. Improvements to the program can bring about crucial relief in terms of the alleviation of the stress that these students deal with. Learning about the students' needs and experiences and bringing about necessary changes in view of these is essential for ensuring these students' success.

What the students start with from high school aligns with the Student Involvement Theory. Similarly, the more engaged the students are with their peers, faculty, and the institution concerned, the more they are likely to succeed. The students' experiences in and outside of the classroom are connected. If you do not solve the issues inside the classroom, then the outside problems can persist and show in the classroom experiences. The findings presented in this study will, hopefully, lead to more conversations concerning helping the pre-pharmacy students, including by taking into account the recommendations made for improvements. Chapter 5 will answer the research questions that guided this study, discuss the conclusion of the study, and recommend improvements for this research to move forward.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

"If the lost world is lost, If the unheard, unspoken Word is unspoken, unheard; Still is the unspoken word, the Word unheard, The word without a word, the Word within The word and for the world; And the light shone in darkness and Against the Word the unstilled world still whirled About the centre of the silent word."

— T. S. Eliot (December, 1978)

The pre-pharmacy students in this study revealed aspects that impacted their engagement, experiences, and support. They reflected on the support they get from their peers, how they manage their time wisely, the exam-related stress they feel, the support they get from their faculty, housing-related aspects, and how they deal with stress. Each one of these themes connected with the stories that came from the interviews. The engagement, experiences, and support were all represented, and these contributed to their struggles and successes during the pre-pharmacy program. This chapter revolves around the two research questions that were the basis of this study, and it provides recommendations to help improve the pre-pharmacy program and help future pre-pharmacy students. This will also make recommendations for further research and conclude with a final reflection from the author of this study.

Significance of the Study

How can valuable information on student engagement, support, and experiences be gathered? Few systematic studies have examined how the method of reporting student engagement might influence the needs of students' experiences. The focus of this research was qualitative interviews and gathering meaningful data to understand pre-pharmacy students' needs and how they are related to their experiences. For instance, the interviews, which were conducted as a part of this study, sought inputs

from not just engaged but also disengaged students. This approach provided significant details about student engagement and academic success.

This study seeks to define what makes a student engaged or disengaged in the classroom and helps improve the understanding of engagement by the faculty members and administrators concerned. Several surveys have been developed for use with K-12 students and amended for being used in the context of higher education. However, as a study approach or methodology, hearing first-hand stories and conversations from the students is yet to be fully developed. The interviews conducted for this study helped in narrowing the focus to what the students reported, specifically concerning what they are dealing with during the said program.

The purpose of this chapter is to conclude this qualitative study about engagement interventions. This study explored what students perceived to be the key factors that foster students' needs and address the issue of lower retention rates.

Methodology

For this qualitative research, 12 pre-pharmacy students were interviewed. Each interview lasted for about 25–60 minutes. The majority of the interviews ranged from 40–60 minutes. Two interviews lasted for 25 minutes each. The homogeneity of the population was helpful, as they were pre-pharmacy students at the same private university, which helped gather specific sampling data. This allowed for more data to be collected and overall better sampling.

This chapter presents the findings that emerged from the interviews and the specific themes that came out of the conversations. From the data that was collected, the following seven themes emerged: (a) peer support (b) time management (c) exam

structure (d) increased faculty support (e) housing placement (f) coping with stress (g) core classes.

Research Questions

This study looked at students' engagement, experience, and support in a pre-pharmacy program. Astin's (1984) SI theory aims to "encourage educators to focus less on what they do and more on what the student does" (p. 522). Looking at the needs that students require in a pre-pharmacy program was essential to understanding their success outcomes. Further, having an understanding of their in-class experiences and out-of-class experiences will help keep the students engaged.

Research Question One: What Additional Support Do Students Need From Their Classroom Settings, the Faculty Members, and Their Institution?

The data analysis presented that the students needed exam structure changes, more office hours with faculty, and solutions to the housing facility issues they faced. The participants spent the majority of their time at the institution itself, and, hence, they could provide valuable insight into the situation at the campus.

A major issue for the students that led them to feel stressed was the amount of consecutive tests that they need to take. Spivey, Chisholm-Burns, & Johnson (2020) observe the following observation in this regard:

After being admitted to a pharmacy program, the early period of didactic study is the most difficult for students, as they grapple with the scope of new information, problems with time management and study strategies, and preparing for tests. A student is more likely to make an unsatisfactory grade of D or F during the first two years of a PharmD program, leading to remediation and possible failure to progress.

This has made it difficult for the students concerned to develop study habits that would make them more successful. The participants who were interviewed mentioned that

they had to cram to take in all of the information at once, and some participants mentioned that retaining the information was a challenge.

Increased faculty support was identified by some participants as an issue that impacted their learning. As mentioned in Chapter 2, the teacher's teaching process has an impact on the students' learning (Hattie, 2003; McKeachie, 2007). Learning is more likely to occur from what the students can accomplish with the teacher's help and is less connected to the teacher's process per se of educating the students. More comfortable students do benefit from more personal one-on-one interactions. Similarly, the faculty was represented as passionate and helpful. However, some students felt that the faculty's support could be improved. This could be in terms of an increase in the faculty hours set aside for the students. Providing some lectures in an online format is another option. Relevant literature has shown that some issues about lecturing include the inability to have alternative teaching styles, not embracing new styles, following methods that have been established long ago, and subscribing to viewpoints about students' experiences that have become outdated (Jaschik, 2018).

Using Astin's theory (1999) and a causal model helped open a clearer understanding of how the student's needs were represented. This model helped in assessing change. It helped the researcher to look deeply into the characteristics of the campus structure and surroundings. Asking questions about experiences outside of the classroom was important because these can impact their classroom experiences too. Many characteristics were examined, and this included examining the background of students, their relationship with the organization, and the environment surrounding the students. These variables showed that student's effort in their coursework and interactions on campus and the development of their learning skills.

For example, the institution can provide more support through facilities and classroom updates to improve the areas where students study and sleep. The students described classrooms and technology as being out of date. The housing areas could also benefit from thorough cleanings, for instance. One student described the rooms being caked in dust. Other students mentioned that even being able to do laundry due to availability was an issue they faced. Some students did report that certain residence halls were nicer than others. These factors impact a student's mental and physical health. As the students' surroundings play a larger role in their experiences and needs, it is important to maintain and update them to lessen the presence of any additional stressors. Students spend several hours in their residence halls, libraries, and classrooms, so it is important for them to have a space where they feel comfortable and safe. As learning communities have an impact on the GPA, it is important to take steps to keep them maintained (Stassen, 2003). Understanding the students' backgrounds was crucial in understanding the continuation of their engagement in their respective environments.

Research Question Two: How Might Academic Programs Aid in Fostering Learning Experience Needs in and Outside of the Classroom?

The participants of this study did make several recommendations during the interviews. They mentioned mentorship programs, for instance, for the PharmD program. They also discussed housing issues that impacted them outside of the classroom. A time management course that could benefit them was also mentioned. While most students thought that their experiences could be improved upon by housing placements. The students faced a lot of issues with noise, roommates, and finding a

place to study after hours, especially when students worked late hours that continued into the morning.

The students mentioned time management skills as something that needed to be mastered to be successful in the pre-pharmacy program. While some said that they either had this type of skill before college others said they did procrastinate, and it did impact the way they studied. Some students even mentioned how a class on this topic would be beneficial for those who might not have these skills. There were ideas regarding other courses too, including a history of pharmaceuticals class that could relate the core with the STEM classes. Even a course on dealing/coping with stress was thought to be valuable by some of the students. As mentioned in Chapter 2, there is a connection between accreditation standards and how co-curricular work is integrated into the pharmacy curriculum. Yet, there has been no roadmap on incorporating co-curricular programs to support pre-pharmacy students' needs. It is essential to learn what these students need from their learning experiences so that the faculty can add these into their curriculum (Maerten-Rivera, Chen, Augustine, D'Assalenaux, Lindsey, Malcom, & Zeszotarski, 2021). The more the number of ways in which students engage in their non-STEM courses, the more beneficial it could be to their learning outcomes. Then, the courses would not feel like a burden or just a task to complete.

Many of the students mentioned that their housing played a role outside of the classroom. Noise from roommates was a theme that arose from the data. The students found it hard to study in their rooms. They also mentioned how their roommates affected them. One student went on to say that she was shamed for studying all the time. Relevant literature states that learning communities can foster long-lasting benefits that impact GPA (Stassen, 2003). Having, as roommates, students who share

similar study habits can be beneficial to the GPA of them all. Relevant literature also mentions that communities create a connect of support and facilitate transformative learning experiences, all of which helps students to feel more connected with their university, their major, and the community, which establishes a pattern of involvement at the start of their academic life (Upcraft, 2005). There was also a mention of a lack of study rooms inside the residence halls and that if there were some, they were locked or not readily available. The related issues mentioned by the students were the high level of noise from the halls and not being able to study in their rooms.

Recommendations

The results from the data revealed the need for more support in their classroom setting and outside of the classroom. The data that was collected from the students was related to Astin's (1999) student involvement theory. What students start with will affect their ability to do well in the program. Providing support to both areas of the student's life and classroom experiences is required for their success. Their outcomes change, and they learn and develop as a result. The data from this study should provide useful feedback for the pre-pharmacy program.

There needs to be further consideration of the support that can be given to the students. The ideal method to ensure that the students receive support and the ability to prepare them would be to have a revision of the current exam structure. Having exams for multiple classes on the same day is daunting for the students, and it becomes difficult for them to prepare well for all of the tests. This, research suggests, leads to less ideal study habits and even issues with retaining information. This also adds to the stress that the students feel about being in the program in the first place.

If it is not possible to be able to rearrange the curriculum, then further support for students is recommended. Providing the students with more time management-related inputs and/or helpful FAQ on how to have balanced study habits is called for. Further, more peer support from TAs and through SI would also be beneficial in scenarios like these.

More recommendations concerning time management were made in terms of adding to the existing classes and curriculum. Having a class on time management that is mandatory and added to the curriculum would help those who struggle with balancing courses; it would also help improve those who already have these skills and hone them further. Even having an optional course for those who wish to seek out help would be beneficial.

This study shows the importance of relationships for student success. Many of the students spoke about the importance of faculty support. Having an engaged faculty was important for them to feel prepared. The students who could have more hours with the faculty benefitted, especially those who are not comfortable with engaging after class. Accessing the faculty can be a challenge given students' schedules, more so when they already have issues managing their time. More interactions between the faculty and students should be encouraged beyond the classroom setting. When the students will have the opportunity to see faculty members at events or gatherings outside of the classroom, it may facilitate networking and getting additional support.

Recommendations for Action

The following recommendations may be taken into consideration to improve the pre-pharmacy program:

1. The internal and external factors at the University of the Pacific need to make adjustments to the current curriculum when they are developing their exam schedule. It should be ensured that more than one class exam is not scheduled on the same day. Moreover, the students should have support from faculty, teacher assistants, or other peers for dealing with the exam structure. Establishing support in combination with the exam structure will aid in reducing poor study habits and relieve stress.
2. Adding a course that supports students with time management and prepares them to achieve school and social life balance is important. The more the students have such support, the better will be the outcomes achieved.
3. Encouraging faculty to be available beyond class meetings and providing in-person or online office hour sessions is important. This will allow flexibility for interactions between faculty and students. Allowing also for email interactions. Utilizing student assistants can help in answering questions and emails and questions that are faculty-related can be collected and provided for the faculty member to create a FAQ.
4. Housing facilities should have more late-night study areas, much like in the Chan Hall apartments. Providing students with a key or leaving them unlocked for access would be beneficial. There should also be housing placements that are specifically designated for STEM students. Due to the rigor of the program and the hours that students spend studying, this will allow for fewer conflicts between roommates and encourage better studying habits.

Recommendations for Further Research

The following recommendations are made for further research concerning the pre-pharmacy program:

1. Having a large population of students from all three pathways 2+3, 3+3, and 4+3 to look at the differences between the cohort's experiences vis-a vis support and engagement.
2. Looking at different pre-pharmacy programs that do a traditional 4-year pathway to examine the issues related to their experiences and needs.
3. Interviewing faculty members, teacher assistants, and administrators to understand any missing elements of student support in the program. It is important to not only focus solely on the students to provide their stories but also understanding the entire dynamics of the University's engagement elements.
4. Due to the COVID-19 pandemic, all of the interviews were conducted online through zoom. For future studies, in person interviews will allow better ways to

connect with the student. This will allow for better engagement and the ability to gauge how something might have affected students through signals and cues that get expressed in body movements, which go unnoticed during a zoom meeting. It will add to the effectiveness of the overall in-person interaction by providing a more personal touch.

5. Recommendations should be pursued after the university looks to other universities and the literature on how to implement those recommendations in pre-pharm or adjacent pre-professional programs.

Researcher's Reflection

As I look back on my interviews, I understood what the students were feeling because as a student balancing your time is essential to your success and where you want to get to next in your journey. Working with PharmD students, I know the amount of stress they feel, and how they deal with that pressure is admirable. Seeing the initial journey they take that prepares them for the PharmD program has also given me an insight into who they are. I was inspired by how these students deal with the stress; in fact, they just do.

During my reflection on my journey through the doctoral program and work balance, I was able to relate to these students. Thinking about how I was going to be able to make it through the amount of research and coursework. I was close to leaving the program a few times. As one student mentioned, you just deal with the stress. As simple as that sounds, it was true for me too. I have learned that you do not need to look to the future to finish your goals. I could relate to their trials and tribulations, and it was inspiring to see that the students were not letting the stress be larger than their goals. As I end my journey, I realize that stress is not just temporary, but it is transactional in the sense that you can move beyond where you are even when your goals have been accomplished and you get your reward.

What I learned from this process of stress and time management is that you can not do it alone. Finding a peer, or a mentor helps and motivated me to move beyond my comfort zone. It was the phone calls of support when I felt most frustrated, or those words of encouragement from those in the process, or those who moved beyond it. I was able to relate to their stories about peer support and can see how hard it is to get through the stress alone. I was pleased to hear that a majority of the students mentioned that. I did not realize how important this was to me until I heard their conversations and reflected on my own experiences.

However, I could not relate to some of the experiences of the amount of test-taking that they had to go through, and the levels of chemistry they have to accomplish. I could only imagine the amount of stress that a freshman student in college has to go through on a two or three-year track. The levels that students have to go through in stem programs are a lot. I can see how students in other programs cannot relate to their dedication to studying at all hours of the night. That was something I could relate to with research. However, studying for that many hours and then having a test on multiple days I could feel the frustrations and that was relatable.

Moreover, the lessons that I learned from feeling less engaged to engaged were motivating factors for me to want to do this study. I can still recall a faculty member not supporting me when I needed it the most. They even accosted me instead of listening to what I was dealing with. What I learned from these moments is some professors can have a large impact on the student's success. I knew my experiences were not the only ones out there. That is why I became determined to find out why students are engaged or not in their programs. I believe hearing their stories provides information that will help future students. Students should feel their worth despite what faculty perceive

them as. You are more than just a grade or your circumstances. Never quit on yourself through the process.

I would like to add that I did not have just negative experiences when dealing with faculty. On the contrary, the reason for my success is those professors who helped me and encourage me to keep moving forward. I had thought at one point that there were very few that you encounter, but I realized that my experiences were not true. Hearing the stories from the pre-pharmacy students and how faculty have encouraged and supported them was encouraging. Hearing them speak about the support they received in their academics spoke to that importance.

While many of the students gave genuine responses to the questions, I do feel some might feel less comfortable with being too negative. I think naturally the students are wanting their stories to come off professional. I think that is why it is important to let the students speak their stories and have their feelings flow naturally. I feel like the students were able to feel safe and give me a moment in their space to hear those stories. It is important to listen and to ask genuine questions about their experiences. These students hold valuable information that will lead to success in the institutions that listen.

Summary

This qualitative study looked to uncover the engagement, experiences, and support of pre-pharmacy students. In all, 12 pre-pharmacy students were interviewed. Each interview lasted for about 25 - 60 minutes. The Research was guided by Astin's (1999) Student Involvement Theory which seven themes emerged: (a) peer support (b) time management (c) exam structure (d) increased faculty support (e) housing placement (f) coping with stress (g) core classes.

The data proved that pre-pharmacy students' engagement is impacted by their surroundings, faculty, and peer support. Students mentioned that many issues impact their success in and outside of the classroom. There are important factors of support from peers and faculty that play a role in their ability to succeed.

The recommendations include the University of the Pacific adjusting the current curriculum when they are developing their exam schedules. Adding a course that aids in support for students focusing on time management, and as well preparation for students to encourage their school and social life balance. Having faculty available after class Q&A and providing online or in-person office hour sessions will aid in the student's success. This will allow flexibility for interactions between faculty and students. Housing facilities should have more late-night study areas, like in the Chan Hall Apartments that the PharmD students currently have. There should also be housing placements that are specifically designated for STEM students. The hope is for students to have improved success outcomes.

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Appendix A: INFORMED CONSENT FORM

Thank you for taking time out for this interview. If you have decided to participate in these research interviews, you may withdraw at any time if you so choose. Your responses will be kept confidential, and the interviews will not contain any information that will identify you. Please do not mention the names of any of the professors or any other members of the staff. If you have any questions about the interviews, please contact the researcher at j_stack@u.pacific.edu.

Appendix B: Semi-structured interview questions: Students

Interview Questions	Research Questions
1. Tell me about yourself; how are you doing in your life outside of the classroom?	Background Information
2. Why did you join the pre-pharmacy program at the University of the Pacific?	Background Information
3. What has your experience been like in the pre-pharmacy program so far or the last few years?	Background Information
4. What has been the most rewarding or valuable aspect of your learning experience during your course while you've been in the pre-pharmacy program?	Research Question 2
5. What has been the most rewarding or valuable learning experience outside of the classroom while you've been in the pre-pharmacy program?	Research Question 2
6. What support do you wish your faculty, classroom, and institution would have provided you with?	Research Question 1
7. Do you feel there is a program that is not related strictly to the science curriculum that could have been added that would have helped you prepare for success?	Research Question 2
8. Do you feel you are now well prepared for the PharmD program?	Research Question 2
9. If a student was applying for the pre-pharmacy program, what advice would you give them to succeed in the program?	Research Question 2
10. What are some of the challenges in the pre-pharmacy program that caused you to feel less engaged?	Research Question 1
11. Can you provide an example of a time when you were able to interact with a peer, a faculty member, or the institution while you were dealing with issues in the program? How did it make you feel?	Research Question 1
12. What is a major stressor in the pre-pharmacy program? (What else impacts you academically, and what helps you deal with the stress non-academically?)	Research Question 2
13. Did you at any time feel stretched too far? How did you respond? How were you able to cope?	Research Question 2