

Psychosocial Factors and Retention of Female Students in a Health Sciences Program: A Cultural Perspective

Gary Reglin

Nova Southeastern University and University of West Florida

Yolanda Savoy

Coppin State University, 2500 West North Avenue, Baltimore, University 21216

ABSTRACT

The problem was at a for-profit private institution in the year 2015-2016, 25% or 35 of the 142 students who withdrew from the university were from the School of Health Sciences. The purpose was to investigate the psychosocial factors that influenced retention in female students enrolled in online degree programs. The generic research design was the descriptive-survey design. Participants were 35 female undergraduate and graduate students enrolled in online degree programs. The data collection instrument was the Survey of Female Adult Learners' Psychosocial Factors Related to Retention-Adapted. Data analysis for the two research questions included the computation of descriptive statistics (means, standard deviations, frequencies, and percentages) and analysis of variance (ANOVA). Findings for Research Question 1 suggested specific psychosocial factors were critical to retention in online degree programs. For instance, 71.43% of students reported the psycho-social factor, I am a capable person, and 62.86% reported the psycho-social factor; with my ability, I will be able to succeed; were critical to retention. Findings for Research Question 2 indicated that, even though there were differences in the mean scores for the marital status subgroups (not married-single, divorced, and never married). ANOVA showed the differences were not statistically significant, $F(1, 33) = .21, p = .65$, partial eta squared = .006, for the marital status subgroups.

Keywords: Psychosocial factors, retention of students, Culture, health education, gender

INTRODUCTION

Leary et al. (2020) and Jenert and Brahm (2021) analyzed the low retention rates among adult learners in online degree programs, frequently citing data that suggested the need to identify psychosocial predictor variables for attrition. These researchers suggested that meeting the needs of female adult online learners meant understanding attrition within the health sciences programs, because the attrition predictor variables gave support to the retention of the adult learners. Following the guidance of Leary et al. and Jenert and Brahm, the aim of this study was to investigate psychosocial factors associated with the retention of female adult learners enrolled in online degree programs in health sciences. The problem in the study was at a for-profit private institution in the year 2015-2016, 25% or 35 of the 142 students who withdrew from the university were from the School of Health Sciences. Likewise, of the 35 students, 34

students were female students, and 62% of the students in the School of Health Sciences were young African Americans between the ages of 20-34.

Supporting the need for the study, researchers in the National Center for Education Statistics (2022) revealed that from 1990-2014, the number of females in post baccalaureate programs exceeded the number of males. Between 2002 and 2014, the number of full-time male post baccalaureate students increased by 28%, compared with a 42% increase in the number of full-time female post baccalaureate students (National Center for Educational Statistics, 2022). Among part-time post baccalaureate students, the number of males increased by 8%, and the number of females increased by 13%. The percentage of college students who were African American increased. From 2002-2014, according to researchers in the National Center for Educational Statistics (2017), the number of African American students increased from 10% to 15%, and the percentage of American Indian/Alaska Native students increased from 0.7 to 0.9%. Many students withdrew from the School of Health Sciences at the research setting university because of psychosocial factors noted in the research of Krumrei et al. (2013) and the National Alliance of Mental Fitness (2022) to include social support, stress, program satisfaction, self-directed learning, course flexibility, course convenience, finances, academic self-efficacy, and faculty-student interactions.

Research Questions

Two research questions evolved from the research of Leary et al. (2020) and Muller (2008). The research questions are:

1. What psychosocial factors do female students in a health science program identify as being critical to their retention in online degree programs?
2. Do the psychosocial factors identified by female students differ based on the demographic variable of marital status?

LITERATURE REVIEW

Theoretical Framework

An extensive search of the literature uncovered two theories that formed the theoretical framework for the study and helped explain the retention of female adult students in the School of Health Sciences at the for-profit university in the Southeastern United States. The two theories are the theory of dimensions of institutional action and validation theory.

Theory of Dimensions of Institutional Action:

The theory of dimensions of institutional action (DIA) was developed by Vincent Tinto and primarily used to study the major sources of student persistence in higher education. Tenets of the theory of DIA suggested that ongoing, personal contact of university students in online degree programs with faculty and staff was essential to high student retention, low student attrition, and high student satisfaction with the university environment (Ajayi et al., 2021; Samolia & Vrabie, 2023). Therefore, an examination of the psychosocial factors in the study related to the retention of female students was important. Some of the factors, positively or negatively, influenced the relationships and interactions between university students and faculty, as well as the interactions and relationships between peers.

Tinto's theory of DIA addressed specific psychosocial factors that encouraged female students' persistence: institutional expectations, institutional commitment, support, feedback, and

involvement (Ajayi et al., 2023). The theory directed focus from viewing retention and psychosocial factors as events that should not be emphasized by administrators and professors, but as events that must be integral components at the core of the institution's mission and values for online degree programs. Ajayi et al. suggested the challenge in creating a model of institutional action for online degree programs was that, for it to be useful, the model needed to be multi-layered.

Principles in the theory suggested the first condition of student success was the commitment of the university to the welfare of all students (online and face-to-face degree programs students). The commitment may be facilitated through investments of money and people to support the online degree programs (Leary et al., 2020). Using funds to support resources shown to facilitate students' successes in online degree programs demonstrated more of a commitment on the part of the institutions toward student success than fancy mission statements or shiny brochures (Beasley et al., 2020; Leary et al., 2020).

Another condition for student success, according to the principles of the theory of DIA, was an online environment where students were held to high expectations, regardless of their background, marital status, and ethnicity (Jenert & Braham, 2021). Van-Herpen et al. (2020) stated that some first-year female and male students did not spend nearly enough time studying for their classes to be academically successful, possibly because the expectations that were projected to students were not in line with those that promoted student success.

Validation Theory:

The primary tenet of the validation theory (VT) was "intentional affirmation of students to validate themselves as valuable members of online university learning communities requiring support aligned with psychosocial factors and to foster personal and social development" (Rendon & Muñoz, 2012, p. 12). Moreover, principles in the validation theory placed the burden on faculty, staff, administrators, and parents to ensure satisfied and engaged students in the online learning experiences.

Rendon (2014) and Almanzar (2021) noted that many young, minority, and nontraditional students matriculated to college needing a sense of direction and wanting guidance, but not in a patronizing way. These young and vulnerable adult learners usually failed in a sterile, fiercely competitive context for learning that was present on some university campuses today. Additionally, some university faculty and staff assaulted students with information and/or withheld information, instilled doubt, and fear in students, distanced themselves from students, silenced and oppressed students, and/or created fiercely competitive learning environments that pitted students against each other (Rendon, 2021; Rendon et al., 2020). Rendon suggested this kind of no pain, no gain learning context greatly disadvantaged certain student populations in online degree programs, such as working-class women and minorities. In the VT are tenets that provided guidance in the process of online learning at for-profit universities (Rendon, 2021). One tenet is a support system in-and out- of-classes that fostered academic and interpersonal development (Rendon et al., 2021). Another tenet is for faculty to help the students feel capable of online learning and facilitate a sense of self-worth in students (Rendon, 2021). A tenet is facilitating exposure to significant out-of-class validating agents to include a positive spouse, boyfriend, or girlfriend (Rendon et al., 2020). Further, agents might be positive

family members, such as parents, siblings, relatives, as well as children or classmates and friends attending and not attending universities (Rendon 2021; Santa-Ramirez et al., 2020).

Convenience and Flexibility in Online Courses for Females

Before the implementation of online degree programs, women at for-profit universities had limited options to earn a college degree, because of family and work responsibilities. Most women were single parents. Two studies concluded the importance of convenience and flexibility to the retention of women in online degree programs. Guided by a longitudinal research design, Cole et al. (2014) examined a 3-year study of graduate and undergraduate students' level of satisfaction with online blended instruction at one university in the Northeastern United States. Five hundred and fifty-three student participants were used in the study over eight academic terms. The graduate and undergraduate students rated the instruction in online courses as moderately satisfactory, with blended (partially online) courses rated more satisfactory than fully online courses. Cole et al.'s (2014) findings showed that convenience was the most cited reason for satisfaction with blended learning courses. Lack of interaction was the most cited reason for student dissatisfaction. Findings indicated that adult learners who were satisfied in their blended learning platforms became successful self-directed learners in their online degree programs.

In a qualitative study, the premise of limited options was investigated with Rousseau's (2012) phenomenological research design. Rousseau assessed the increased responsibility of balancing multiple roles for adult female students. Female participants were online learners who worked full-time and either married and had one or more children, cohabited, and had one or more children, participated in a same-sex domestic partnership, and had one or more children, or were single parents with custody of one or more children (Rousseau, 2012). Rousseau reported similarities among the participants and revealed an online education had convenience and flexibility for working mothers. All participants responded that time management, commitment, and some forms of support were important for facilitating a balance between pursuing online graduate degrees, working full time, and caring for their children (Rousseau, 2012).

Academic Self-Efficacy and Retention

The concept of academic self-efficacy is an important concept in online degree programs for female college students in their journey to obtain a college degree. Muller (2008) wanted to understand why women learners persisted or failed to persist, as well as psychosocial barriers that supported or hindered persistency to graduation. Muller conducted a qualitative study with interviews of 20 female college undergraduate students. Interview data were analyzed using the constant comparative data analysis procedure where themes were identified and summarized. Pertinent themes that evolved from the interviews suggested multiple responsibilities, lack of academic self-efficacy, insufficient interaction with faculty, technology, and coursework ranked highest as barriers to women's persistence to graduation with online degrees. Expanding the study of Muller (2008), Flowers et al. (2011) investigated one of the psychological barriers (academic self-efficacy) noted by Muller and discovered low self-efficacy of students was a reason for low retention rates among minority students. Students' engagement in online courses had various challenges, which involved several factors related to the retention of minority students. High academic self-efficacy was a challenge for many minorities, which included women. Flowers et al. (2011) investigated the self-efficacy of

students enrolled in Historically Black Colleges and Universities and students enrolled in online and traditional biology and computer science courses using the Survey of Academic Orientation (SAO) academic self-efficacy subscale. The purpose of this study was to provide suggestions for improving online pedagogical practices. The SAO self-efficacy scale was administered to college students in an online and traditional Science, Technology, Engineering, and Mathematics (STEM) course to determine students' beliefs in their academic abilities to accomplish academic goals. Results from these findings showed that demographic factors had little predictive value regarding attrition in online courses, while self-efficacy in academic success and technology utilization played a role in mediating successful online experiences (Flowers et al., 2011).

Stressors and Personal Support for College Students

Personal support from family members and peers are required to reduce the ill effects of the stress caused by women trying to balance finances, employment, and heavy online course loads. Women who manage multiple roles and stressors and have personal support systems tended to be successful in online degree programs (Mercadal, 2021). Some women must cope with many personal reasons, such as illness of parents, illness of children, separation and divorce from husbands, and depression. The concepts of stressors and personal support to ameliorate the effects of the stressors were important in online degree programs, because women experienced many stressors from heavy academic course loads, employment, family, and finances that negatively impact retention in online degree programs (McDonald et al., 2022; Muller, 2008).

Arric (2011) gave emphasis to the concepts of personal social support, stressors, and students' interactions. In a qualitative study with undergraduate students, Arric suggested the concepts were integral factors in the retention of female students and women likelihood to persistence in online degree programs. Arric investigated the stressors and personal support systems of women enrolled in an online master's degree program in education at a college located in the Midwestern United States. Many of the participants had various personal and family responsibilities. The major finding from the interviews was women participants who managed multiple roles and stressors and had personal support systems could be successful in an online master's program, in part, because of their own motivation and support system for career advancement (Arric, 2011). Arric's finding suggested there were stressors when women participated in multiple roles, but with adequate support and persistence, many women could complete the online degree program. In a similar qualitative study with female students, Boyd's et al. (2020) goal was to improve freshmen students' retention and graduation rates. The results revealed that many of the withdrawals were because of personal reasons and lack of adequate personal support from family members and peers. Several participants indicated an overwhelming number of personal reasons related to family members (i.e., parents became ill, husband left, inability to cope with depression, and too much stress) with little personal support (Boyd et al., 2020).

METHODOLOGY

Participants

The sample was a convenience sample (Creswell & Creswell, 2020) of participants from a for-profit university where this researcher was employed. They were female undergraduate and graduate students in the School of Health Sciences. There were 66 students in the School of Health Sciences, and the majority (62) of the students was females. Of the seven programs in

the School of Health Sciences, three programs were associate degree programs; three were bachelor programs; and one was a master program. The greatest number of female students (20) was enrolled in the associate degree in medical assisting. The greatest number (19) of students was classified as freshmen, and there were only 13 students enrolled in the graduate program. Of the 62 female students, 44 were African American, while nine were Caucasian. Only 35 students completed and returned surveys. Of the 35 students, 34% were married; 66% were either single, separated, or never married. Also, 57% were African American; 17% were Caucasian; 11% were Hispanic American; and 15% classified in the other category. Regarding age, 11% were 18-23 years; 29% were 24-29 years; 17% were 30-35 years; 17% were 36-41 years; 26% were greater than 41 years of age. For level of access to computers, 71% had high access; 26% indicated moderate access; 3% had low access.

Instrument

The data collection instrument was the Survey of Female Adult Learners' Psychosocial Factors Related to Retention -Adapted. Items on the adapted survey came from the Survey of Adult Retention in Postsecondary Vocational Program used in the dissertation of Roberson (1998). Roberson reported content validity was established on the survey by a panel of experts (university administrators, statisticians, and professors), who critiqued the survey for appropriateness with the sample, vague items, appropriate scale, and clear directions. Feedback from the panel was used to revise the survey (Johnson & Christensen, 2020). To further enhance content validity, the survey was field-tested with graduate and undergraduate students from universities in Louisiana.

To establish internal reliability, the Cronbach's alpha reliability procedure was used (Roberson, 1998). Alpha coefficients ranged from 0.70 to 0.93, which were acceptable. Similarly, the test/retest reliability procedure was used to test reliability over time and yielded a coefficient of stability ranging from 0.60 to 0.93, suggesting good reliability. Items from Roberson (1998) survey were used to develop the adapted survey used in the study. Prior to using the adapted survey in the main study, it was pilot tested with three students and three faculty members who were not part of the main study. The adapted survey had 27 statements that represented psychosocial factors related to retention in online degree programs. Participants responded to each of the 27 psychosocial statements using a five-point Likert scale (stronglyThe adapted survey was emailed to the female students in the School of Health Sciences using Survey Monkey.

Procedures

Boudah (2020) emphasized "descriptive studies had the intent to find out what was, so observational and survey methods were frequently used to collect descriptive data" (p. 11). Likewise, Buxton (2021) explained "descriptive research involved gathering data that described events and then, organize, tabulate, depict, and describe the data collection" (p. 216). Data collection for Research Questions 1 and 2 occurred with the adapted survey and followed specific and detailed steps. Sixty-two undergraduate and graduate female students in the online degree programs in the School of Health Sciences were identified with the support of a data clerk in the university. A copy of the adapted survey with a letter of invitation to participate in the study was emailed to the students through a Survey Monkey link. In the letter of participation, students were provided instructions about the survey and a time frame of seven days during which the completed survey should be returned. When students read the letter of

participation and returned the survey, students consented to participate in the study. Confidentiality of data was protected by asking respondents not to write names or identifying information on the survey (Creswell & Guetterman, 2019). All data were placed on a universal serial bus (usb) password protected device, and the device stored in a locked file cabinet in this researcher's home office until time for data analysis.

Data Analysis

For the first research question, descriptive statistics (frequencies, percentages, means, and standard deviations) were calculated for each of the 27 survey statements using the five-point Likert-scale (s) (Huck, 2013). For the second research question and the demographic comparison on the marital status subgroup, the guidance of Huck (2013) and Pycszak (2018) was followed. Survey scores were changed to interval-level scores to use the parametric statistical model, analysis of variance (ANOVA). The interval-level range of scores was 27-135. Each of the students who completed the survey had an interval-level composite score in the range of 27-135. The ANOVA model was used to compare the demographic subgroup of marital status. Additionally, the effect size indicator was calculated as suggested by Burkholder et al. (2020) and Frankfort-Nachmias et al (2021).

RESULTS AND DISCUSSION

Findings for Research Question 1

In Research Question 1, it was asked, what psychosocial factors do female students in a health science program identify as being critical to their retention in online degree programs? To answer Research Question 1 with the analyzed data, female students in the health science program identified specific psychosocial factors as critical to their retention in online degree programs. Close examination of Table 1 shows for the response option of strongly agree, the highest percentage of respondents checking this response option is 71.43% for Statement 8 (I am a capable person); the second highest is 62.86% for Statement 7 (With my ability, I will be able to succeed); and the third highest is 54.29% for Statement 1 (When I enroll in online courses, I always believe that I must finish no matter what). Interestingly, when the response options of agree and strongly agree are combined, greater than 70% of responders checked agree and strongly agree for 10 of 27 statements. The statements are Statements 1 (When I enroll in online courses, I always believe that I must finish no matter what), 2 (Completing my courses and my degree is important because I believe this will help me get a job), 7 (With my ability, I will be able to succeed), 8 (I am a capable person), 11 (Attending class is enjoyable for me), 18 (The university provides me with advice that is helpful with many of my concerns), 19 (The instructor teaches in ways that help me understand the information in the online courses), 21 (The instructor lets me know how I am doing in the class), 22 (The instructor really cares if I am learning the information in my courses), and 23 (Administrators and/or professors encourage and show me how to be a self-directed learner). Further analysis reveals, fewer than 9% of responders checked strongly disagree for all statements except Statements 1 (When I enroll in online courses, I always believe that I must finish no matter what) and 16 (My family responsibilities do not interfere with my course work in my online degree program). Respectively, for the two statements, these percentages are 8.57 and 11.42 (Table 1).

Table 1: Psychosocial Factors Related to Retention in Online Degree Programs (n=35)

# Statement	Réponse options %				
	SD	D	ND	A	SA
When I enroll in online courses, I always believe that I must finish no matter what	8.57	0.00	11.43	25.71	54.29
Completing my courses and my degree is important because I believe this will help me get a job	14.29	2.86	5.71	22.86	54.28
I feel it is important to be accepted by other students in my online courses	2.86	5.71	57.14	22.86	11.43
I feel accepted by other students in my online courses	2.86	2.85	40.00	34.29	20.00
Other students have a positive influence on my desire to succeed in online courses	5.72	8.57	48.57	28.57	8.57
I believe that I could do well if I try	5.71	0.00	0.00	22.86	11.43
With my ability, I will be able to succeed	5.71	0.00	2.86	28.57	62.86
I am a capable person	5.71	0.00	0.00	22.86	71.43
The instructors are like a friend to me	8.57	8.57	40.00	22.86	20.00
The instructors make me feel good about myself	5.71	5.71	28.57	37.15	22.86
Attending class is enjoyable for me	5.71	2.86	11.43	48.57	31.43
I feel secure about my financial situation	5.71	17.14	28.57	34.29	14.29
Receiving support from an outside agency makes attending the university easier	5.71	2.86	28.57	51.43	11.43
The encouragement and support of family and/or friends help me decide to attend my online courses	5.71	8.57	34.29	28.57	22.86
The friends I made in my courses encourage me to do well	2.86	5.71	25.71	45.71	20.00
My family responsibilities do not interfere with my course work in my online degree program	11.42	14.29	28.57	22.86	22.86
The technology equipment at the university is adequate and often operational	2.86	5.71	20.00	48.57	22.86
The university provides me with advice that is helpful with many of my concerns	2.86	5.71	11.43	42.86	37.14
The instructor teaches in ways that help me understand the information in the online courses	2.86	5.71	22.86	45.71	22.86
When I inquired about my degree program, I was offered tests to determine my interests	2.94	38.24	29.41	17.65	11.76
The instructor lets me know how I am doing in the class	2.94	5.87	14.71	38.24	38.24
The instructor really cares if I am learning the information in my courses	2.94	0.00	23.53	38.24	35.29
Administrators and/or professors encourage and show me how to be a self-directed learner	5.88	2.94	14.71	41.18	35.29
Generally, I find my online courses to have flexibility	8.57	20.00	25.71	34.29	11.43
Activities, assignments, and tests are convenient for me and do not usually conflict with my work or family obligations	8.57	20.00	28.57	28.57	14.29
The instructors in my online courses have the type of personality required to work effectively with students	2.86	2.86	28.56	51.43	14.29
Generally, I have been satisfied with my online courses	5.71	2.86	25.71	54.29	11.43

Findings for Research Question 2

In Research Question 2, it was asked, do the psychosocial factors identified by female students differ based on the demographic variable of marital status subgroups? The inferential statistical model used in the comparison was a one-way ANOVA. Tables 2 and 3 display the results of the one-way ANOVA statistics for the marital status subgroups. Table 2 presents statistics for group source (psychosocial factors related to retention) and evaluates the population of female undergraduate and graduate students enrolled in the School of Health Sciences online degree program. Results of the analysis indicate $F(1, 33) = .21, p = .65$, partial eta squared = .006. One-way ANOVA model assesses the differences among means for the marital status subgroups (not married=single, divorced, or never married) for the adapted survey mean scores (Table 2). There were no statistically significant differences between mean scores of the marital status subgroups, as determined by the one-way ANOVA. The partial eta squared effect size indicator showed a negligible effect size value of .006. Type of marital status subgroup did not influence the adapted survey mean scores of female college students, as measured by the adapted survey mean scores across the subgroups (Table 2).

Table 2: Analysis of Variance for Psychosocial Factors Related to Retention by Marital Status Subgroup (n=35)

Source	SS	df	MS	F	P	Partial eta squared
Between gps	43.87	1	43.87	.21	.65	.006
Within gps	6799.73	33	206.05			
Total	413573.00	35				

Note. SS=sum of squares; df=degrees of freedom; ms=mean square; f=f-ratio or explained variance divided by the error variance; p=SPSS generated probability value; partial eta squared=effect size indicator from the ANOVA formula.

In Table 3 is a presentation of mean values of the psychosocial factors related to retention scores for each of the marital status subgroups. An examination of the table shows the highest psychosocial factors related to retention mean ($M=108.61$) is associated with not married group (not-married- single, divorced, or never married).

Table 3: Descriptive Statistics for Psychosocial Factors Related to Retention Scores by Marital Status Subgroup (n=35)

Group	N	Mean	SD
Married	12	106.25	15.91
Not Married	23	108.61	13.51

Note. N=number of students; sd=standard deviation; not married=single, divorced, or never married.

DISCUSSION AND IMPLICATIONS

Findings for Research Question 1 suggest female students in the health science program identified specific psychosocial factors as critical to their retention in online degree programs. The psychosocial factors are conveyed in the survey statements. For instance, 71.43% reported the psychosocial factor, I am a capable person, and 62.86% reported the psycho-social factor; with my ability, I will be able to succeed; are critical to retention. In addition, 54.29% responded the factor, when I enroll in online courses, I always believe that I must finish no matter what, is critical to retention.

Greater than 70% of responders agreed 10 of 27 psycho-social statements on the survey are important to their retention. The statements are: (a) when I enroll in online courses, I always believe that I must finish no matter what; (b) completing my courses and my degree is important because I believe this will help me get a job); (c) with my ability, I will be able to succeed); (d) I am a capable person); (e) attending class is enjoyable for me; (f) university provides me with advice that is helpful with many of my concerns; (g) instructor teaches in ways that help me understand the information in the online courses); (h) instructor lets me know how I am doing in the class); (i) instructor really cares if I am learning the information in my courses; and (j) administrators and/or professors encourage and show me how to be a self-directed learner. The analyzed one-way ANOVA data for Research Question 2 suggested that, even though there were differences in the mean scores for the marital status subgroup, the differences were not statistically significant and probably occurred due to chance factors and not by female student participation in a specific type of group.

Interpretation and Context of Findings

Findings from the two research questions showed support for two theories that formed the framework for this study. For instance, a main tenet of Tinto's theory of dimensions of institutional action (DIA) suggested that ongoing, personal contact of university students in online degree programs with faculty was essential to student retention, low student attrition, and student satisfaction with the university online environment (Ajayi et al., 2021; Samolia & Vrabie, 2023). Female students' responses on the adapted survey indicated psychosocial factors (i.e., university's support systems that addressed students' concerns, caring instructors, and instructors who made the online courses enjoyable) positively influenced the relationships and interactions between university students and faculty, as well as the interactions and relationships between online peers and family members.

Female college students responded in adapted survey that, at the for-profit university, they experienced appropriate support systems based on their psychosocial needs, while receiving feedback and caring support from some faculty and staff, as advocated by Beasley et al. (2020). A basic premise of the theory of DIA reflected in the survey responses was the for-profit university might have a high degree of commitment to students enrolled in online degree programs and believe the students were capable of academic success. The university's commitment to students affected the expectational climate and retention of female students (Van-Herpen et al., 2020).

Findings showed support for the validation theory (VT). Principles in the VT placed the burden on faculty, staff, administrators, and parents to ensure satisfied and engaged students in the online learning experiences. Consistent with the female students' responses in the survey, a basic premise of the VT was many young, minority, and nontraditional students matriculated to college requiring a sense of direction and desiring guidance, but not in a patronizing way (Rendon, 2021; Santa-Ramirez et al., 2020). These were capable adult learners who required encouragement to become self-directed learners. However, learners sometimes failed in a fiercely competitive context with learning that was still present on some university campuses without programs and support services aligned with the psychosocial factors supportive of student retention.

Tenets in the VT guided faculty and administrators at the study's for-profit university understanding of the female students' development in online degree programs and provided a way to frame success strategies to transform the female students into powerful online learners who overcame past oppression and invalidation (Rendon et al., 2020). Reported in several female college students' responses on the adapted survey, some students experienced invalidation while in college when they believed the online faculty to be unapproachable and online instructors instructed in a way that stifled the students' learning of content. Yet, when validation was present, students felt capable and a sense of positive self-worth, which were essential; especially for students who lacked self-confidence in their ability to be successful (Rendon et al., 2020).

In addition to showing support for the two theories forming the framework for the current study, responses in the adapted survey revealed support for most of the literature (Ellis-Davis, 2020; Francescucci and Rohan, 2019; Kalkbrenner et al., 2021; Tight, 2019; Vincent et al. 2020; Wilson-Kennedy et al., 2019). These researchers conveyed in this literature that programs and strategies at universities, based on the psychosocial factors, facilitated the retention of female college students in online degree programs. Many female students reported in the study's survey that when they enrolled in online courses, the feeling of students was to finish the courses regardless of the sacrifices. Likewise, the completion of courses and the college degree was important in obtaining a job, and some students reported they were determined to succeed, regardless of the obstacles in the journey to graduation. The female responses were echoed in the research of Ellis-Davis (2020) and Francescucci and Rohani (2019). Ellis-Davis (2020) and Francescucci and Rohani explained that policies at universities should be planned, using the psychosocial factors, to instill confidence in students enabling them to graduate from college, obtain suitable employment, and become an asset to society as productive tax paying citizens.

The female college students responded in the survey that at the for-profit university they felt accepted by peers while enrolled in online courses and had the ability to be successful in online courses. Students perceived themselves as capable and independent online learners with good instructors. Likewise, instructors made students feel good about themselves and enjoy attending class. Tight (2019) reported that retention of students was enhanced by faculty who had the ability and inclination to motivate, instill confidence, and encourage independent learning in all students enrolled in their online courses. Similarly, Kalkbrenner et al. (2021) explained that in online courses positive interactions and relations between online students and instructors were important for the academic progress of students. Further, Kalkbrenner et al. indicated courses were convenient and flexible enough to meet students' family, work, and social obligations.

Students and faculty at the study's for-profit university revealed the importance of encouragement and support of family and friends, as well as family responsibilities not interfering much with online course work. Students and faculty perceived faculty played an important role in the retention of students. For instance, Vincent et al. (2020) and Wilson-Kennedy et al. (2019) argued that caring and supportive faculty and family members were vital to the persistence of all college students to obtain college degrees. Instructors at the for-profit university cared if students were learning the course information and encouraged students to be self-directed learners. Supportive of the research of Vincent et al. (2020) and Wilson-

Kennedy et al. (2019) for preventing the attrition of college students, some students and faculty in the dissertation responded that technology equipment at the university was often operational, university personnel were trained to provide students good advice and counseling, tests were administered to determine students' interests and guide them to enroll in the most appropriate courses, and online courses were planned to give students flexibility.

Implications of Findings

An implication is faculty should be well-prepared and trained in the use of the technologies associated with the online environment because of the significant impact of preparation and training on the quality of online learning. If university personnel and students are properly prepared and trained to work in online degree programs, there should be an expectation of low student dissatisfaction, attrition, and failure. A second implication is convenience and flexibility are critical concepts in online degree programs for female college students, because many women have limited options while pursuing college degrees and balancing work, family, and student responsibilities (McDonald et al., 2022).

Third, an implication is married women with children and single mothers' participation in the workplace plus being online graduate learners placed a great demand on them to perform multiple roles as spouses, workers, homemakers, students, and parents. Therefore, it is important online degree programs are designed to be convenient and flexible to facilitate the retention of working mothers enrolled at universities (National Alliance on Mental Illness, 2022; National Center for Educational Statistics, 2022). Women should be able to earn college degrees in the comfort of their own homes and on their own schedules.

Fourth, since for-profit universities tend to serve many older women from low-income backgrounds, adequate financial aid knowledgeable financial aid counselors are critical for their retention. Further, because students at for-profit universities are more likely to be enrolled in certificate or associate degree programs versus bachelor and master-level programs, the greatest amount of financial assistance must be concentrated in the certificate and associate degree programs. There are many at-risk adult learners in online degree programs, and the availability of substantial financial aid is critical for their retention from year to year (National Center for Educational Statistics, 2022). It is imperative administrators and faculty train and hire instructors with personalities supportive of excellent online teaching (Mahlangu, 2020; Mercadal, 2021).

CONCLUSIONS

Findings from the two research questions tested the study's two major theories for relevancy to young female students enrolled in the School of Health Sciences online degree programs at a for-profit university in the southeastern United States. Likewise, perceptual survey findings from female college students showed support for most of literature suggesting a positive correlation between psychosocial factors and retention of female college students. Retention of female students must be a high priority and shared concern of all faculty and administrators at universities. Caring, interactive, and supportive faculty who design online courses, based on psychosocial factors that are positively correlated with retention, are the cornerstones in providing students with a viable online education. These faculty are vital in encouraging students to persist to graduation with the certificate, associate of arts, bachelor, and master's degrees. Faculty in online courses can facilitate female students feeling part of for-profit

universities and persisting in the courses. It is imperative faculty truly understand the importance of designing courses using psychosocial factors and understand the impact their roles have on female student retention in the health sciences online degree programs.

References

- Ajayi, A. A., Mitchell, L. L., Nelson, S. C., Fish, J., Peissig, L. H. M., & Causadias, J. M. (2021). Person-environment fit and retention of racially minoritized college students: recommendations for faculty, support staff, and administrators. *Educational Science*, 3(1) 11-17. doi: 10.3390/educsci11060271.
- Almanzar, R. R. (2021, December). Advisors as validation agents: Cultivating a sense of belonging and student success for racially minoritized students at predominantly White institutions. *Academic Advising Today*, 44(4), 3-12.
- Arric, L. (2011). *An investigation of women's perceived stressors and support systems while enrolled in an online graduate degree*. Doctoral dissertation. Available from ProQuest (3497347).
- Beasley, S. T., Vandiver, B. J., Dillard, R., Malone, W., & Ott, R. (2020). The development of an academic engagement intervention for academically dismissed students. *Innovation in Higher Education*, 45(2), 387-403. doi: 10.1007/s10755-020-09510-0.
- Boudah, D. J. (2020). *Conducting educational research: Guide to completing a thesis, dissertation, or action research project (2nd ed.)*. Sage.
- Boyd, N., Horissian, K., Xiaoyan, L. (2020). Impact of community experiences on student retention perceptions and satisfaction in higher education. *Journal of College Student Retention Research Theory and Practice*, 24(4), 33-53. doi: 10.1177/1521025120916433.
- Burkholder, G. J., Cox, K. A., Crawford, L. M., & Hitchcock, J. H. (2020). *Research design and methods: An applied guide for the scholar-practitioner*. Sage.
- Buxton, P. S. (2021). The retrospective record review: a methodological option for educational research. *Journal of Research in Education*, 30(2), 9-27.
- Cole, M., Shelley, D., & Swartz, L. (2014). Online instruction, e-learning, and student satisfaction: A 3-year study. *The International Review of Research in Open and Distance Learning*, 15(6), 112-131.
- Creswell, J. W., & Creswell, J. D. (2020). *Research design: Qualitative, quantitative, and mixed methods approach*. Sage.
- Creswell, J. W., & Guetterman, T. C. (2019). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research (6th ed.)*. Pearson.
- Ellis-Davis, M. (2020). *Community college faculty perceptions of their role in student retention: A replicated study*. Doctoral dissertation. Nova Southeastern University. https://nsuworks.nova.edu/fse_etd/285
- Flowers, L. A., Moore, J. L., III, Flowers, L. O., & Clarke, M. J. (2011). *The relationship between academic self-concept and career self-efficacy among African American males in STEM disciplines at two historically Black colleges and universities: An exploratory study*. Emerald Group Publishing Limited.
- Francescucci, A., & Rohani, L. (2019). Exclusively synchronous online (VIRI) learning: The impact on student performance and engagement outcomes. *Journal of Marketing Education*, 41(1), 60-69. <https://doi:10.1177/02734753128818864>
- Frankfort-Nachmias, C., Leon-Guerrero, A., & Davis, G. (2021). *Social statistics for a diverse society*. Sage.
- Huck, S. W. (2013). *Reading statistics and research (6th ed.)*. Boston, MA: Pearson.

Jenert, T., & Brahm, T. (2021). The interplay of personal and contextual diversity during the first year at higher education: Combining a quantitative and a qualitative approach. *Frontier Learning. Research*. 9(2), 50–77. doi: 10.14786/flr. v9i2.669.

Johnson, R. B., & Christensen, L. (2020). *Educational research: Quantitative, qualitative, and mixed methods (7ed)*. Sage.

Kalkbrenner, M. T., Jolley, A. L., & Hays, D. G. (2021). Faculty views on college student mental health: Implications for retention and student success. *Journal of College Student Retention: Research, Theory & Practice*, 23(3), 636–658. <https://doi.org/10.1177/1521025119867639>

Krumrei, E. J., Newton, F. B., Kim, E., & Wilcox, D. (2013). *Psychosocial factors predicting first-year college student success*. <http://krex.ksu.edu>. doi:10.1353/csd.2013.0034.

Leary, M., Morewood, A., & Bryner, R. (2020). A controlled intervention to improve freshman retention in a STEM-based physiology major. *Advanced Physiology in Education*. 4(2), 334–343. doi: 10.1152/advan.00038.2020.

Mahlangu, V. P. (2020). Understanding toxic leadership in higher education workplaces through betrayal trauma theory. *BCES Conference Books*, 18(1), 115-121.

McDonald, M. A., Cordova, J. A., & Meyers, L. S. (2022). Social support as an explanatory mechanism of the relationship between social class and mental health in university students: A structural mediation model. *Journal of Social Inclusion (JoSI)*, 13(2), 36–53.

Mercadal, T. P. (2021). *Depression in college students*. Salem Press Encyclopedia.

Muller, T. (2008). Persistence of women in online degree-completion programs. *International Review of Research in Open and Distance Learning*, 9(2), 1-18.

National Alliance on Mental Illness. (2022). *Mental health conditions*. <https://www.nami.org/About-Mental-Illness/Mental-Health-Conditions>

National Center for Education Statistics. (2022). *Undergraduate retention and graduation rates*. <https://nces.ed.gov/programs/coe/indicator/ctr/undergrad-retentiongraduation#:~:text=See%20Digest%20of%20Education%20Statistics>

Pyrzczak, F., & Oh, D. M. (2018). *Making sense of statistics (pp. 128–133)*. Routledge.

Rendón, L. I. (2014). *Garrison Institute*. www.garrisoninstitute.org

Rendón, L. I. (2021). A higher calling: Toward a more spacious role for academic advisors. *NACADA Journal*, 41(1), 5–12. <https://doi.org/10.12930/NACADA-21-91>

Rendón, L., & Muñoz, S. (2012). Revisiting validation theory: Theoretical foundations, applications, and extensions. *Enrollment Management Journal*, 5(2), 12-33.

Rendón, L. I., Nora, A., Bledsoe, R., & Kanagala, V. (2020). Científicos Latinxs: Uncovering the counter-story of success in STEM. The untold story of underserved student success in STEM fields of study. In S. J. Paik, S. M. Kula, J. J. González, & V. V. González (Eds.), *High-achieving Latino students: Successful pathways toward college and beyond* (pp. 159-178). Information Age Publishing.

Roberson, L. T. (1998). *Demographic, psychosocial, institutional, and environmental factors relating to attrition and persistence of students at Louisiana technical colleges*. Grambling State University. UMI Number: 9920420.

Rousseau, C. (2012). *Balancing work, family, and student roles: A phenomenological study of the adult female graduate online learner*. Doctoral dissertation. University of Wisconsin. Available from ProQuest 3541368.

Samolia, M. E., & Vrabie, T. (2023). First-year seminars through the lens of Vincent Tinto's theories of student departure. A systematic review. *Frontier in Education*, 8(3), 9-18.

Santa-Ramirez, S., Wells, T., Sandoval, J., & Koro, M. (2020). Working through the experiences of first-generation students of color, university mission, intersectionality, and post-subjectivity. *International Journal of Qualitative Studies in Education*, 2(1) 1–16. <https://doi.org/10.1080/09518398.2020.1783012>

Tight, M. (2019). Student retention and engagement in higher education. *Journal of Further and Higher Education*, 44(5), 689-704. doi:10.1080/0309877x.2019.1576860.

Van Herpen, S. G. A., Meeuwisse, M., Hofman, W. H. A., & Severiens, S. E. (2020). A Head Start in higher education: the effect of a transition intervention on interaction, sense of belonging, and academic performance. *Studies in Higher. Education*. 4(1), 862–877. doi: 10.1080/03075079.2019.1572088.

Vincent, S. B., Marsh, W., Goodwin, M., & Farr, J. (2020). Impact of providing a living learning community for first-year pre-pharmacy students. *American Journal of Pharmaceutical Education*, 85(1), 68-82. doi:10.5688/ajpe8268.

Wilson-Kennedy, Z. S., Huang, L., Kennedy, E., Tang, G., Kanipes, M. I., & Byrd, G. S. (2019). Faculty motivation for scholarly teaching and innovative classroom 119 practice—An empirical study. *Research and Practice in Chemistry Education*, 3(2), 65-88. doi:10.1007/978-981-13-6998-8_5.