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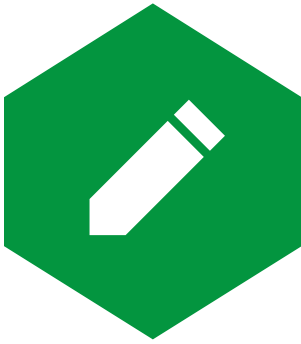
We're in This Together: Student Motivation and Faculty Support in Online Degree Advancement During the COVID-19 Pandemic

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Student Motivation and Faculty Support in Online Degree
Advancement during the COVID-19 Pandemic

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We're in This Together: Student Motivation and Faculty Support in Online Degree Advancement during the COVID-19 Pandemic

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Abstract: The purpose of this study was to identify the motivation for continued learning and degree attainment in online degree advancement (DA) respiratory care students (those with an associate degree pursuing a bachelor's degree) during a pandemic and the types of support needed for academic success in the online learning environment. The design of the study was convergent mixed-methods descriptive survey research. Items from the Academic Motivation Scale-College Version (AMS-C) were used to assess the construct. Additionally, open-ended questions allowed for narrative responses related to the pandemic pressures, motivation regulation, and faculty support. One hundred twenty-three students completed various components of the survey. Respondents were both intrinsically and extrinsically motivated to continue to pursue their advanced degrees despite the pandemic. Students self-identified as being determined to achieve their goals and that support from family, friends, colleagues, and faculty helped them achieve their goals along with their instructors' flexibility which helped ensure student success during the pandemic. Despite the pandemic, respiratory therapy (RT) students pursuing an advanced degree are self-determined and have a genuine love of learning, which helps regulate their motivation to continue. DA students in respiratory care appreciated flexible and supportive instructors in meeting their academic needs.

Keywords: Online Learning, Degree Advancement, Respiratory Care, Self-Determination Theory

Introduction

Respiratory therapists (RTs) are integral members of the interprofessional healthcare team, specifically as frontline providers during the COVID-19 pandemic. The majority of RTs enter the profession with an associate's degree (AD) as this is the minimum requirement for national credentials and state licensure. As demands and responsibilities of the profession continue to evolve, there has been an increased desire for the bachelor's degree to become the standard for entry into practice (AARC, n.d.). Currently, entry-level bachelor of science (BS) degree programs are significantly outnumbered: 341 AD to 70 BS (CoARC 2021). Therefore, a pathway that facilitates continued learning once the individual has entered the profession seems logical to meet this goal. Online degree advancement programs (DAPs) help credentialed registered respiratory therapists (RRTs) return to higher education while continuing to serve in their respective healthcare positions. Degree advancement (DA) students are often classified as post-traditional with an age of 25 and older. Online DAPs provide the "how" for meeting this professional goal. It is also important to address the individual and collective "why" for pursuing this degree so that educators can provide optimal educational content and support to meet students' needs and maintain students' well-being in the process.

Motivation among medical or health science students may be explored through the lens of self-determination. Self-determination theory (SDT) "places its emphasis on people's inherent motivational propensities for learning and growing, and how they can be supported" (Ryan and Deci 2020, 1). A highly motivated person will not only initiate a behavior or task but is also more likely to persist until completion or mastery. This concept has potential implications for student

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recruitment and retention in the online environment in addition to traditional face-to-face learning. Motivation drives learning and can influence academic performance and thereby life satisfaction. For an individual to maintain self-determination, three psychological needs must be met: autonomy, competence, and relatedness (Ryan and Deci 2020). An autonomy-supportive learning environment (ASLE) can provide for these needs as well as elicit deeper learning and engagement from students. Most DAPs are learner-centered and outcomes-based to meet the needs of the profession of respiratory care. Through an integrated curriculum that allows the student to continue practicing as RTs, faculty can employ strategies that foster an ideal learning environment to meet learners' professional and psychological needs. The purpose of this study was to identify the motivation for continued learning and degree attainment in online DA respiratory care students during a pandemic and the types of support needed for academic success in the online learning environment.

Self-Determination Theory

SDT originated from Deci and Ryan in 1985. This approach examines why individuals pursue their goals and how this goal attainment can satisfy basic psychological needs (Deci and Ryan 2000). The three psychological needs highlighted in this theory are competence, relatedness/connection, and autonomy; satisfaction of each enhances overall well-being (Deci and Ryan 2000). Competence (perceived or actual) is related to self-efficacy or effectiveness, which can lead to goal attainment and, therefore, life satisfaction. Relatedness is the need to feel connected to others in a social context and form a sense of community. Autonomy is the freedom to self-organize one's experiences and does not necessarily have to be done in isolation from others. These three psychological needs have been shown to enhance intrinsic motivation (IM), integrate or internalize extrinsic motivation (EM), and strengthen life aspirations that lead to greater well-being (Deci and Ryan 2000). It is hypothesized that goals will be pursued if an individual's need for satisfaction can be or is met.

Orsini, Binnie, and Wilson (2016) conducted a systematic review of determinants and outcomes of motivation in health professions education based on SDT. The authors found both positive and negative relationships between various determinants and autonomous (internal or intrinsic) motivation. Personality traits such as persistence, cooperativeness, and self-directedness were associated with IM (Orsini, Binnie, and Wilson 2016). Academic conditions such as taking pleasure in learning, adequate feedback from instructors, and an autonomy-supportive learning climate were also positively correlated with IM (Orsini, Binnie, and Wilson 2016). IM was negatively impacted by anxiety, stress, and burnout on all three dimensions of the inventory (exhaustion, cynicism, and inefficacy). These findings support the concept that motivation is not fixed and therefore can be influenced or manipulated by both internal and external factors, including the relationship a student has with their instructors and the institution in which the degree is being pursued. The goal of continuing education is to create self-determined and self-regulated life-long learners who can meet the needs of their respective professions.

Motivation

Motivation guides behavior and choices that are made whether personally or professionally. Ryan and Deci (2000) stated that to be motivated is to be moved, energized, or activated by something. People vary in both the level and orientation of motivation. The main types of motivation are intrinsic and extrinsic. IM refers to "doing something because it is inherently interesting or enjoyable" (Ryan and Deci 2000, 55). Conversely, EM is doing something because of a separable outcome or reward. IM has been shown to result in high-quality, deeper learning which makes it of particular importance to educators (Ryan and Deci 2000). However, EM can be internalized and integrated to be quite similar to IM. Because not everyone will be motivated by the same task or activity, therein lies the challenges of maintaining interest and satisfaction. As educators, the

goal is to facilitate IM instead of undermining it. To be highly intrinsically motivated, an individual must have the needs of autonomy and competence met (Ryan and Deci 2000). Offering choice and a degree of self-directedness can help accomplish this.

In a review of the literature assessing motivation in medical education, Kusrkar et al. (2011) found that, as an independent variable, student motivation influences academic performance and intent to continue to study medicine. They also found that motivation as a dependent variable can be affected by the teacher and peer support. This review supports the validity of applying SDT to medical education (Kusrkar et al. 2011). Ten Cate, Kusrkar, and Williams (2011) worked to develop a guide for medical educators on how to incorporate the concepts of SDT through autonomy-supportive teaching and enhance student academic performance and well-being. Autonomy-supportive teaching behavior includes acknowledging students' perspectives, giving time and opportunity for autonomous work, providing constructive feedback, praising the quality of work, asking students what they want out of the educational endeavor, and being empathetic (Ten Cate, Kusrkar, and Williams 2011). Problem-based learning has also been shown to increase motivation (Albanese and Mitchell 1993 as cited in Ten Cate, Kusrkar, and Williams 2011) by creating or stimulating feelings of autonomy, relatedness, and competency.

There is a difference between being challenged (IM) and being pressured or incentivized (EM). Social demands change as we age, and we must assume responsibility for non-intrinsically interesting tasks (Ryan and Deci 2000). Extrinsically motivated tasks can still be valuable and worthwhile if it helps accomplish an ultimate goal that is perceived to be positive (i.e., furthering one's career). This example highlights how personal ownership and the feeling of choice or relative autonomy impact EM and regulation of motivation. Both IM and autonomous EM (internalization and integration) have been associated with greater engagement, better performance, higher retention, greater quality of learning, and enhanced well-being (Ryan and Deci 2000). The value placed on the extrinsic task or behavior can be influenced by individuals, groups, or society. Such as the professional "push" for a higher degree for entry into practice within respiratory care. DA students may feel a greater sense of belonging or connectedness to the profession once this goal of obtaining a BS degree has been met.

Online Learning and Academic Success

In fall 2019, there were 7,313,623 students (37% of total students) enrolled in at least one online course at degree-granting postsecondary institutions in the United States; 17 percent of students were fully online (NCES, n.d.). Despite the popularity of online education, attrition remains a problem. Academic success, the ability to complete an online course despite hardships, requires persistence. Often, the decision to drop a course may be unrelated to a lack of knowledge and instead reflect a lack of determination. Hart (2012) evaluated twenty peer-reviewed articles to identify and examine factors associated with the ability of students to complete an online course successfully. Factors that facilitate academic success include satisfaction with the quality and relevancy of the program; a format that minimizes impact on work and family schedules; constructive and meaningful feedback; engagement with others in the learning community; support from family, friends, coworkers, and classmates; proximity to graduation; familiarity with online instruction; goal attainment/DA; active online presence; and self-motivation and efficacy (Hart 2012).

Einhellig (2015) studied DA nursing students and identified two additional contributors to academic success: The Workplace 'Push' and Perceptions of Professionalism. Positive 'workplace push' in the form of financial support such as tuition reimbursement and emotional support from supervisors and management encourages academic success. Students seeking advanced degrees from these facilities feel valued and worth investing in. Negative 'push' in the form of employee dissatisfaction with current roles or environments encourages academic success as a way of getting out or moving up (Einhellig 2015). Nurses in the study "felt personal professional competency was enhanced while moving through the curriculum, graduation, and remained in professional practice following completion of the degree program" (Einhellig 2015, 33).

With the increased use of online formats for course delivery, educators must understand and enhance the factors that have been identified as increasing online student success. Meaningful feedback, relevant content, effective communication, and learner engagement are factors that are within the purview of an educator's role; these factors can be used to improve academic success and reduce attrition in online courses/programs. This study examines these factors of academic success as students face the additional stresses associated with the COVID-19 pandemic.

Methods

This study was delimited to students enrolled in an online RRT to BS DAP at a four-year public doctoral university in the northwest region of the US. To be included in the study, participants had to be enrolled in the DAP during the fall semester of 2020. A university email address was required to recruit participants and collect responses. Data was collected between October through December of 2020 over nine weeks. This timeframe occurred during the COVID-19 pandemic while most students were practicing as RTs at the bedside. It is assumed that participants were able to comprehend the survey items and answer honestly and accurately. The online survey platform sent reminder emails to participants who had not yet completed the questionnaire. Inquiries focused on motivation and academic support were part of a larger study that also investigated burnout and resilience in the same study population and are reported elsewhere (McHenry et al. 2022). The following questions guided this study:

1. What type of motivation (intrinsic or extrinsic) is responsible for the continued pursuit of online DA for respiratory care students during a pandemic?
2. How can knowledge of online student academic motivation and support needs/preferences inform online education practices?

The design of the study was mixed methods, non-experimental, descriptive survey research. The design was convergent in that the data was collected alongside initial quantitative responses. Data analysis of the qualitative portion of the study occurred sequentially to potentially explain the quantitative findings. Components of the Academic Motivation Scale-College Version (AMS-C) were used to assess the construct of motivation. Additionally, open-ended questions allowed for narrative student responses related to the pandemic pressures, motivation regulation, and faculty support. The primary investigators developed the survey after a thorough review of the literature, and it was placed in an electronic format using the Qualtrics platform.

Participants

Four hundred and sixty-one online students were sent the solicitation email with the link to the survey, and one hundred and twenty-three students completed components of the survey for a response rate of 26.7 percent. The investigators realized participation was a "big ask" considering the already heavy load of these students working as practitioners during a pandemic and pursuing DA.

Survey Instrument

The portion of the survey in which this study was focused consisted of various demographic characteristics (eleven questions) and items from the AMS-C (Vallerand et al. 1992). The first question confirmed the student's age (>18 years old) and enrollment in the online DAP. The AMS-C was evaluated for face validity by the primary investigators, and it was determined that only a subset of questions applied to the study population; therefore, only ten questions were included (five measuring IM and five measuring EM), and verbiage was altered slightly to represent online DA students. Each answer on the survey was given a numerical value with the

following labels: (1) does not correspond at all, (2) corresponds a little, (3) corresponds moderately, (4) corresponds a lot, and (5) corresponds exactly. The responses indicated a level of agreement with the question “Why are you pursuing an advanced degree in respiratory care?” Items were then categorized as either intrinsic or extrinsic for comparison. Validity and reliability measures of the AMS-C in prior studies resulted in a coefficient alpha of 0.81 and test-retest reliability of 0.79 (Vallerand et al. 1992). Three additional questions were asked about pressures of the pandemic, regulation of learning, and support/motivation from instructors while pursuing an online advanced degree. These questions were open-ended and required a narrative, qualitative response. Participants were included in a drawing for a \$50 digital gift card as an incentive.

Data Collection

The study protocol was submitted to the investigators’ Office of Research Compliance and was granted Institutional Review Board (IRB) approval before any data collection. The electronic questionnaire was sent to all students enrolled in the RRT to BS DAP during fall 2020. An email invitation to participate in the study was sent on October 30, 2020, which included the informed consent and contact information of the researchers. Responses were accepted until December 31, 2020. It was made clear to participants that no survey data would be reviewed before the end of the semester and before final grades had been calculated and submitted.

Data Analysis

Descriptive statistics (e.g., frequencies) of responses from the ten items that were taken from the AMS-C were conducted using SPSS Statistics 27 software. For the three open-ended questions that required a narrative response, text responses for each question were assessed line by line and placed in initial categories. The responses were then placed in NVivo 12 Pro software for further text/content analysis and coding of categories. Themes were then drawn for each of the content areas.

Results

Table 1: Primary Sample Characteristics of Participants

Variable	<i>n</i>	Percent
Gender		
Female	87	70.7%
Male	36	29.3%
Ethnicity		
Asian or Pacific Islander	15	12.2%
Black or African American	3	2.4%
Hispanic or Latinx	20	16.3%
Multiracial or Biracial	1	0.8%
White or Caucasian	79	64.2%
Other and Prefer Not to Respond	5	4.1%
Age		
18–25	9	7.3%
26–40	78	63.4%
41–55	31	25.2%
56–70	4	3.3%
Prefer Not to Respond	1	0.8%
Marital Status		
Yes	67	54.5%
No	54	43.9%
Prefer Not to Respond	2	1.6%
Region		
Midwest	11	8.9%
Northeast	22	17.9%
Southeast	30	24.4%
Southwest	2	1.6%
West	58	47.2%

Variable	n	Percent
Years of Experience		
0–5 Years	43	35%
5–10 Years	47	38.2%
11–15 Years	16	13%
16–20 Years	8	6.5%
21–25 Years	3	2.4%
26–30 Years	5	4.1%
31+ Years	1	0.8%
Practice Area		
Adult Acute Care	89	72.4%
Industry	1	0.8%
Neonatal or Pediatric Acute Care	15	12.2%
Cardiopulmonary Rehabilitation	2	1.6%
Pulmonary Function Testing/Diagnostics	6	4.9%
Long term Care	1	0.8%
Sleep Medicine	2	1.6%
Education	1	0.8%
Transport	1	0.8%
Management	4	3.3%
Prefer Not to Respond	1	0.8%
Work Hours/Week		
8–20 Hours	2	1.6%
21–34 Hours	8	6.5%
35–48 Hours	104	84.6%
49+ Hours	9	7.3%
Courses Completed in the DAP		
1–2 courses	27	21.9%
3–4 courses	12	9.8%
5–6 courses	22	17.9%
7–8 courses	27	21.9%
9–10 courses	35	28.5%
Provide Direct Care for Patients with COVID-19		
Yes	115	93.5%
No	8	6.5%

Source: McHenry, Wing, and Lester

Table 2: Percentages for Intrinsic Motivation Survey Items

Survey Statement	Corresponds a Lot and Exactly Corresponds
Because I experience pleasure and satisfaction while learning new things.	75.6%
For the pleasure I experience in broadening my knowledge about things which appeal to me.	70.7%
For the satisfaction I feel when I am in the process of accomplishing difficult academic activities.	61.8%
Because my studies allow me to continue to learn about many things that interest me.	71.6%
Because DA allows me to experience personal satisfaction in my quest for excellence in my studies.	72.3%

Source: McHenry, Wing, and Lester

Table 3: Percentages for Extrinsic Motivation Survey Items

Survey Statement	Corresponds a Lot and Exactly Corresponds
The BS degree will better prepare me for the career I have chosen.	80.5%
To prove to myself that I am capable of completing a BS degree.	80.4%
A BS degree is required in order to pursue graduate-level education.	58.6%
Because I believe that a few additional year(s) of education will improve my competence as a worker.	70%
Because I want to show myself that I can succeed in my studies.	78.9%

Source: McHenry, Wing, and Lester

Continued Pursuit of an Advanced Degree

For the question, “why do you think you have been able to withstand the external pressures of the COVID-19 pandemic and continue your pursuit of an advanced degree in the process?” nine themes emerged with varying degrees of frequency. The top three are listed in Table 4.

Table 4: Theme Identification and Corresponding Examples for Resiliency

Theme	n	Example Quotes
Determination to Achieve Goals	36	<p>"I am motivated and strong. I am a fighter, and I will not give up on my goals due to external events." (female, White, 18–25)</p> <p>"I want to finish something I started, and show my daughter I am capable of accomplishing my goals." (male, Hispanic, 26–40)</p> <p>"Because I have to keep moving forward and stress prepares me to handle more challenging situations." (female, White, 18–25)</p> <p>"My end goal is to complete this program regardless of all hurdles life throws at me." (female, White, 26–40)</p>
Support	23	<p>"I have a very supportive family." (female, White, 26–40)</p> <p>"I could not have done it without the love and support from them [family] and my close friends. That helped me immensely." (female, Asian or Pacific Islander, 26–40)</p> <p>"Support from fellow colleagues." (female, White, 41–55)</p> <p>"My instructors have been understanding and open to making adjustments if needed." (female, Hispanic, 41–55)</p>
Flexibility and Work Schedule	15	<p>"Online has allowed me to work and go to school." (female, Asian/Black, 26–40)</p> <p>"I pace myself. I drop a course if I need to." (female, White, 26–40)</p> <p>"Having the program be online and have the option to only take one class at a time helps a lot." (female, white, 26–40)</p> <p>"Because I don't work 24/7, therefore it doesn't affect home time." (female, White, 26–40)</p>

Source: McHenry, Wing, and Lester

Additional themes that surfaced regarding why students thought they had been able to withstand the pressures of the pandemic were because the program served as a distraction from their frontline work (nine mentions), they perceived themselves to be mentally tough or resilient (nine mentions), the expectation of professionalism in caring for patients (eight mentions), and faith (two mentions). Eight respondents were seemingly unaffected by the pandemic ("no difference"), and five respondents felt like they were notwithstanding the pressures of work and school because they had failed a class or had feelings of being overwhelmed.

Regulation of Motivation for Continued Learning

For the question, "how do you, as a learner, regulate your motivation for continued learning and course progression through the online DAP despite the COVID-19 pandemic?" seven common themes emerged. The top three are listed in Table 5.

Table 5: Theme Identification and Corresponding Examples for Regulation of Motivation

Theme	n	Example Quotes
Goal Attainment	34	<p>"Graduation is my motivation regardless of obstacles in my life." (male, White, 26–40)</p> <p>"Focus that I'm one day closer to completing my degree." (female, White, 26–40)</p> <p>"After completing each class, I would cross it off my list. This shows me how close I am to finishing my goal." (female, Black, 41–55)</p> <p>"I see a light at the end of the tunnel." (male, Multiethnic, 41–55)</p>
Staying Organized, Focused, and Planning Ahead	26	<p>"I am highly organized and keeping my schoolwork organized around my work schedule is the only way it has worked." (female, White, 26–40)</p> <p>"The due dates help when motivation is low, or when I'm tired. I've never missed a due date on purpose, so I'm not going to start now." (female, White, 18–25)</p> <p>"I try to stay organized and make a plan and stick to it. It has gotten hard at times but I have tried my best." (female, White, 26–40)</p> <p>"I space out my work and I do not overwhelm myself trying to accomplish too much in one sitting." (female, White, 26–40)</p>

<i>Theme</i>	<i>n</i>	<i>Example Quotes</i>
Love of Learning	18	“I feel proud I am learning about such important topics.” (female, White, 41–55)
		“The constant will to always build upon my knowledge and skill has kept me going throughout this program.” (female, Asian, 26–40)
		“I am eager for knowledge. I always have been.” (male, White 26–40)
		“Because I have truly enjoyed the content that I am studying.” (female, White, 56–70)

Source: McHenry, Wing, and Lester

Additional themes that surfaced for the question regarding how students regulate their motivation for learning included self-care, work-life balance, taking breaks (eleven mentions), support from family, coworkers, instructors (eight mentions), and professional growth or advancement in the field as a result of earning the degree (six mentions). Thirteen participants felt like their motivation was somewhat unregulated because the process had been difficult and the extra stress of the pandemic was not helping.

Online Instructor Support

The final qualitative question asked “what have online instructors done or should they have done to provide you with the necessary support and motivation for continued learning?” and seven content areas emerged. The top three are listed in Table 6.

Table 6: Theme Identification and Corresponding Examples for Instructor Impact

<i>Theme</i>	<i>n</i>	<i>Example Quotes</i>
Flexibility	25	“I think that the professors tried their hardest to be flexible with due dates knowing what we as therapists were dealing with at the hospital.” (female, White, 26–40)
		“He [instructor] let me submit it later. I still remember how much more hope it gave me to keep up the good fight.” (male, White, N/A)
		“The instructors have seemed to be very flexible and reasonable if any delays occur in assignments.” (female, White, 41–55)
Supportive	19	“They have all been very supportive and understanding and encouraging.” (female, White, 26–40)
		“I have enjoyed all of my instructors and feel they have all gone above and beyond to support and motivate.” (female, White, 41–55)
		“Every instructor I have had has been amazingly supportive.” (female, White, 41–55)
Available and Accessible	16	“Heartfelt announcements/emails of support.” (female, White, 26–40)
		“My instructors have always been available and approachable.” (female, White, 26–40)
		“I feel all of my instructors have gone out of their way to let us know as students we can reach out to them with anything.” (female, White, 41–55)
		“All have been wonderful about providing their contact info and encouraging us to contact them with any situations that we have come up.” (female, White, 41–55)
		“They are always available for help.” (female, White, 26–40)

Source: McHenry, Wing, and Lester

Additional themes that surfaced were instructors who were understanding and empathetic (fourteen mentions), encouraging and appreciative (ten mentions), and effective communication (ten mentions). Areas where students felt things could be improved upon (ten mentions) were the amount of reading required, knowledge of student assistance programs, instructors not being able to relate to the pressure of the bedside, perception of busywork, and varying instructor preferences and expectations.

Discussion

This population of online DAP students were determined to complete their BS degree and reported that support from family, friends, coworkers, and instructors was vital to their success. Additionally, the flexibility of the online program, appropriate time management, and a dedication to and love of learning helped students regulate their motivation. Students were also appreciative of flexible instructors (i.e., providing extensions, grace periods, and accommodations) and those who were supportive, available and accessible, understanding and empathetic, communicated effectively and often, and encouraging and admiring of the work of their students. A “we’re in this together” mentality among classmates and instructors was a frequent theme noted in the participants’ responses.

The study population was largely female (69.8%) which could be one of the reasons levels of perceived self-determination and motivation seemed to be high. Kusrkar et al. (2013) found that females have a greater quantity of motivation and quality (autonomous or intrinsic) which can affect academic performance through study effort and strategy in a modest (383) group of medical students. The relatively high levels of IM found in this population correspond to a study done by Tanaka and Watanabe (2011) in that taking pleasure in school and the learning process was positively associated with intrinsic academic motivation. The majority of students were near completion of the DAP (27.8%) which may or may not have influenced the degree of motivation, specifically IM. Orsini et al. (2015) found that third- and fourth-year dental school students were less motivated than first- and second-year students, possibly because of the progressive vigor of the program. However, as mentioned previously, Hart (2012) identified proximity to graduation as a determinant of academic success.

Participants were extremely determined to achieve their goals despite the pandemic, which could be characteristic of being “gritty” (Stoffel and Cain 2018). Pursuing a degree for career advancement did surface within the themes for regulating motivation, but it was not the top reason. Obtaining a BS degree to pursue a graduate degree was the least supported extrinsic motivator. This can be an indicator of wanting to remain in the profession, though not explicitly stated. Respondents reported a high level of personal accomplishment (McHenry et al. 2022), which was mirrored in the self-efficacy themes that emerged from the qualitative responses. In addition, they want to be acknowledged for their efforts, which they indicated they received from their instructors. Statements of EM were more frequently chosen among participants and the statement “to prove to myself that I am capable of completing a BS degree” had the highest overall agreement. This could be an example of internalizing and integrating an extrinsic motivator so that it becomes less contingency-dependent and more self-supported (Deci and Ryan 2000). Respondents also believe the BS degree will better prepare them for their chosen profession, again indicating their preference for remaining in the field.

It can be reasoned that components of the online DAP facilitate an ASLE that enhances IM, though not specifically explored within the research questions. According to SDT, three needs must be met and can be accomplished through an ASLE. The need for autonomy can be met by providing student choice within assignments that encourage exploration and self-directedness. Providing an appropriate course structure that is consistent and communicates expectations also affords autonomy. Autonomy can also be sought by incorporating activities that promote reflection/engagement and that increase student willingness to participate. Competence can be ascertained by mastering learning outcomes, and feedback should be given that is either functional (what student has done well) or informational (what should be improved) to build confidence and self-esteem. Constructive feedback as a way of supporting and encouraging students has been found to influence the perception of competence in numerous studies (Hart 2012; Ten Cate, Kusrkar, and Williams 2011; Orsini, Binnie, and Wilson 2016). Orsini et al. (2015) found that feedback given as a dialogue and focusing on the task instead of the person was well-received in the clinical setting,

but this could also translate to the online environment through document sharing and audio/visual feedback from instructors. Lastly, relatedness could be achieved by acknowledging student perspectives and empowering them to share their experiences as practicing clinicians. Being responsive in communication (accessible and available) also helps students feel connected to both the instructor and the institution. Instructors who are caring and empathetic help build “horizontal relationships” in that both parties have an obligation to the academic success of the students and can relate to one another (Orsini et al. 2015).

Limitations

Limitations of the study included representation from only one online DAP and the potential for inaccurate self-reporting on the survey instrument. Given the relatively low response rate, the findings cannot be generalized to the entire population of DA students. Alteration of the verbiage of the AMS-C could have affected the reliability and validity of the instrument. Questions about amotivation (intrinsic nor extrinsic) were not included in the survey due to the assumption an unmotivated individual would not be enrolled in a voluntary DAP. The specific wording of the open-ended questions may have led to misinterpretation as one respondent stated, “[I] don’t understand the question.”

Implications and Recommendations for Future Research

SDT has been studied and applied to both medical and dental students, and there may be value in addressing the components of this theory concerning other health-related programs of study, whether face to face, online, graduate, or undergraduate. It may also be important to continue to identify the motivations of students joining both entry into practice and DAPs to identify a correlation with retention and persistence to graduation, as these subpopulations may have different motivational factors. Further exploring how ASLEs could enhance the learner experience and overall satisfaction may also be beneficial. Future research could focus on exploring the differences in motivation and support systems among various ethnic groups, age ranges, and genders.

Conclusion

Online DAPs serve as a bridge for how practicing RTs can pursue the professional goal of baccalaureate-level education within their field of study. Understanding students’ desire to better themselves for the role they play in direct patient care is imperative for respiratory care educators. With the knowledge of DA students being both intrinsically and extrinsically motivated, educators can employ strategies that enhance an ASLE. RTs who are emotionally exhausted from serving at the bedside during a pandemic may experience less IM; therefore, educators who are flexible and supportive may be able to help students engage in deeper learning and persist to degree completion. Self-determined students who love learning and autonomy-supportive educators cultivate a mutually beneficial relationship that can lead to academic success.

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