Reconciling Differences in Personal Motivations and Group Expectations: Participation and Completion of Allied Health and Other Cohort-Based Higher Education Programs

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ABSTRACT

The reasons students attribute to their desire to pursue higher education vary widely between individuals, yet the ultimate underlying goal of program completion remains the same, both for students and at the institutional level. In the field of respiratory care, attrition is a shared problem between the institution and the student and according to the literature, it has been addressed from a variety of angles with the seemingly predominant view choosing to investigate individual contributing factors. Rarely has the problem been addressed specifically through the effect of group dynamics on personal motivations. It is within the scope of this paper that the researchers seek to extrapolate from the existing body of interdisciplinary literature the reasons students give for initiating educational endeavors and how these reasons are reconciled through the roles of varying social constructs that occur within group dynamics, specifically in cohort-based education common to respiratory care programs. While the pursuit of higher education appears to be linked to personal decisions, the models of attrition, including the inability of a student to integrate into the program’s culture (normative congruence) and failing to remain committed to one’s personal goals, conceptualize attrition to a greater extent as a social process. Tuckman and Jensen’s well-known five-stage model of group maturation may offer a framework for practical observation and subsequent evaluation and intervention when an individual or a group of learners become “stuck” in a stage and fail to progress. This model may be particularly well suited to facilitating a better understanding of attrition in respiratory care programs because of the emphasis placed on the development of competency in effective communication, teamwork and interprofessional group dynamics among program graduates combined with the emerging use of simulation centers, high-fidelity simulators and standardized patients in health education programs. It is posited that this reconciliation or lack thereof may influence student persistence and hold implications for practice for teachers of respiratory care.

Keywords

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1. Introduction

What reasons do student’s attribute to their desire to pursue higher education? What motivators lead them to undertake a largely optional, multi-year course of study that for most of the populace requires a high level of personal commitment, significant financial expense, and various other forms of self-sacrifice? Advocates of higher education would argue that a college degree is absolutely essential to proverbially “succeed in life” or “make something of one’s self”, while others may say that hard work and tenacity alone are sufficient to carve out a personal niche, particularly so in the environs of an “equal opportunity” capitalist American society. While the validity of the level of need for post-secondary education is beyond the scope of this investigation, the ways in which student’s underlying motivations may adapt or change during the course of their studies is of interest, particularly those students who undertake a cohort-based program of study, as is common in the respiratory care profession. Questions revolving around personal motivations for pursuit of higher education and the impact of socially mediated changes in those motivations hold potential to uncover aspects of group dynamics that educators in cohort based programs may capitalize upon to improve student retention.

2. Individual Motivations for Pursuit of Higher Education in Healthcare

Prior to investigating how social dynamics influence an individual’s personal motivation for the pursuit of education, one must understand the variety of reasons why singular adults seek opportunity for increasing their knowledge base through participation in the academy. Holland surmised in his theory of vocational personalities that the choice of occupation a person selects, and thus the area of study needing to be pursued, is an expression of their innate personality. He also conjectured that the six-factor typology he fashioned could be utilized to describe both individuals and the working environments in which they are predicted to thrive (Holland, J, 1997). Holland postulated that individuals could possess interests or abilities consistent with each of the factors in a linear fashion according to personal preference. His six factor model included the following characteristics: realistic, investigative, artistic, social, enterprising, and conventional. The characteristics he surmised would most applicable to healthcare-oriented motivated students would be the social, investigative, and artistic aspects. The social individual possesses an inclination to help, support, heal, and nurture. The investigative individual tends to be analytical, methodical and precise, and the artistic individual leans toward non-conformity and introspection (Holland, 1959). Henry and Bardo concurred with this medically-minded typography by finding that students enrolled in medical school possessed traits that correlated strongly to the personality types ascribed to them by Holland (Henry P & Bardo H, 1987). Similar findings exist in other investigations as well. The social trait with its corresponding benevolent inclination is evidenced most in several qualitative investigations. Medical students in South Africa, a historically medically underserved developing area, voiced primarily “social” reasons for selecting medical school. “Many (medical) students expressed altruistic and more ‘people-focused’ motives such as helping and caring for people, making a difference, and interacting with people…the more altruistic reasons do seem to overshadow (the others)” (Draper C & Louw G, 2007). Social/altruistic characteristics were also found to be very strong characteristics of students aspiring to be doctors in other studies, lagging only behind investigative characteristics in strength of fit (Spady, 1970). These congruent findings seem to indicate that Holland’s theory of vocational personality proffers good explanations why some individuals decide to pursue careers in the medical field and demonstrate that at least in some instances, socially relevant aspects have an influence on individual motivation. This leads to the speculation that similar applications of the theory would be beneficial in investigating other cohort-based, medically oriented education programs such as in respiratory care. While most respiratory care programs and indeed most institutions of higher learning in general have successful student completion as an implicit part of their departmental mission, student attrition remains a bane to the educational landscape.

3. Models of Attrition

Some of the most seminal and widely cited research on attrition in higher education was conducted in the 1970’s. This research led to the creation of several models of attrition by examining it as a social process rather than simply a personal decision. William Spady proposed the first conceptual model of attrition in response to the need to move towards an “interdisciplinary-based theoretical synthesis of the most methodologically satisfactory findings and conceptually fruitful approaches to this problem” (Spady W, 1970). Spady’s model was based on research previously conducted by Durkheim involving the social nature of suicide. Durkheim theorized in his “egoist view” that an individual’s desire to extricate themselves (suicide) from within a social system (such as a school) was a result of low social integration, and a sense of meaninglessness amongst individuals. Spady postulated that a student’s decision to leave a particular institution was a direct result of that individual’s inability to fully integrate into the institutional culture of the school. He furthered determined that this inability to assimilate was
influenced by many student characteristics, such as background, academic potential, goals for the future, intellectual development, and other variables. These student characteristics work in conjunction or opposition to institution-specific or socially-constructed norms, creating what Spady termed “normative congruence” (Spady, 1970). Normative congruence influences the degree of student satisfaction, which thereby affects the level of social integration. Low normative congruence causes the lack of effort resulting in involuntary dismissal due to poor performance or the voluntary decision to withdraw. The relevance of this model to attrition in respiratory care educational programs is particularly poignant considering the unavoidable social microcosm created through the nature of cohort-based programs.

Another influential examination of the attrition process was conducted by Tinto, who built further onto Spady’s social integration model and proposed that in addition to being integrated into the society of the school, a student must also remain highly committed to their own personal goals and to the institution in which they hoped to achieve them, creating individual/academic/social integration (Tinto V, 1975). Tinto viewed the attrition decision as a result of:

1. a longitudinal process of interactions between the individual and the academic and social systems of the college during which a person’s experiences in those systems continually modify his goal and institutional commitments in ways which lead to persistence and/or to varying forms of dropout (Tinto V, 1975 p 94).
2. Stage supported this theory with her work on student subgroups, in which she determined that academic integration decreased the possibility of attrition indirectly through increased goal commitment, and social integration influenced attrition by helping to create institutional commitment (Stage F, 1989). These models of attrition appear to support what many respiratory care educators anecdotally observe in successful students who tend to quickly develop study groups, consistently participate in service and volunteer projects and attend optional learning opportunities.

4. Predictors of Success in Healthcare Education

In examining factors relating to student retention, many researchers have identified predictors of success. In the respiratory care literature, the bulk of the work surrounding predictors of student success center on singular characteristics such as various subcategories of GPA, interview scores, prerequisite course completion, with little attention paid to any plural plural? considerations (Holt T & Dunlevy, 1992; Ari A, Goodfellow L & Gardenhire D, 2008; Witnebel L, Murphy D & Vines D, 2009). Almost all of the researchers in the general higher education literature agree with Spady and Tinto concerning the importance of social integration, but what variables correlate and interact with one another to create that sense of social integration? Pascarella argued that informal interactions between faculty and students was a critical determinant in student’s “accommodation to the world of ideas, inculcation of certain attitudes and personality orientations, development of interpersonal skills, promotion of critical thinking and problem solving ability, development of a sense of self and career identity, and clarification of personal values”- in essence, the development of the worldview needed to succeed within the culture of a specific program (Pascarella ET, 1980).

5. The Social Experience of Cohort Based Education

With such a vast body of knowledge spanning multivariate attributes for student motivation, inculcation, and subsequent graduation, the importance of social constructs and their impact on the educational climate cannot be denied. This aspect of analysis is even more important when examining cohort-based programs which are vastly different than the traditional collegiate experience. These types of programs are generally comprised of much smaller classes, are more keenly focused in regard to content, and are often confined to either graduate or professional level studies, when it is often assumed (sometimes mistakenly) that students have reached personal maturation and hold many of the learner characteristics thought to be inherent in participants in adult learning (Knowles MS, 1980). Considering the typical respiratory care program, with its stepwise, prescribed curriculum and smaller accreditation-limited class sizes, group dynamics becomes even more intriguing. This being said, it is surprising that while some of what is known regarding the social aspects of group dynamics has been appropriated into educational inquiry, much of the seminal work can be found in the business/human resource development and athletics literature, where corporations and sports programs have an interest in determining the attributes of and thus facilitating the creation of high performing teams. Group development staging, as originally crafted by Tuckman and further refined with his colleague Jenson underpins much of the work on team development. (Tuckman B, 1965; Tuckman BW & Jensen MA, 1977). Their well-known model was comprised of five stages: forming, storming, norming, performing, and adjourning. It is this model, along with subsequent theories and parallels in other fields of study that will inform much of the remainder of this inquiry.

5.1 Forming: The Grouping Begins

In the forming stage, individuals “test the waters” so to speak and determine which behaviors
are desirable and acceptable within the group. This is a crucial point when the group seeks out or establishes a leader and individuals tentatively seek to determine their own role. Considering that membership in many groups, particularly in cohort-based education, is not self-selected, the forming stage holds the responsibility of laying the foundation for cohesion or for precipitating attrition. As noted in a qualitative analysis of project team members from an industrial engineering team, the fact that group members are often diverse in their backgrounds with differing motivations for participation, members often have “conflicting perspectives and loyalties” (Ammeter A & Dukerich J, 2002). This conflict in personal and group cognition has been examined in many studies, so the recognition of its existence is not a new concept; however the process by which one transcends from the singular to the pleural is a relatively new line of study. Hellstrom suggests that an inherent “self-serving bias” possessed by the individual must be reconciled, although in some instances it is merely internalized in order to effectively integrate into the team:

Here the group takes on instrumental significance in terms of how it can contribute to the ideation process of the individual…while the group can be instrumentally useful; it may also pose a threat to the ideation process of the individual. Contributing is indeed an issue of fine-tuning and correcting one’s self with regard to the group, a process that in spite of the difficulties involved may be described as a form of ‘creative adjustment’ (Hellstrom T p 313).

5.2 Storming: Negotiations and Cognitive Dissonance

The storming stage is characterized by conflict and then either resolution or separation, in essence the “creative adjustment” as coined by Hellstrom. This stage is particularly important when viewed through the lens of Piaget’s theory of equilibrium, which contends that individuals engaged in subject and/or object relations go through a cognitive process involving either outright assimilation to new ideas/goals, with rejection of their previously held positions, accommodation of the perceived difference into their existing cognitive framework, or the experience of feelings of “perturbation”, likely leading to group abandonment (Sweet M & Michaelsen L, 2007). Although ultimately unavoidable, studies suggest that conflict, while uncomfortable and challenging to overcome, holds value for “nurturing and growth fostering of the group” (Torosyan R, 2008). This challenge is often overcome through the facilitative efforts of a leader, tasked with assigning member responsibilities, establishing deadlines, and enforcing group-created accountabilities, creating an environment of “positive interdependence” (Page D & Donelan J, 2003) . Indeed, many of these leader responsibilities parallel those of a respiratory care educator such as a clinical preceptor. Piaget’s theory of equilibrium and the notion of positive interdependence effectively bridge the gap in transitioning to the next stage of group development-norming.

5.3 Norming: Rules of Engagement

Largely occurring after the majority of conflict resolution has occurred, norming, which is characterized by increased intra-group support, cohesion, and the establishment of standards of normative behavior, is the precursor to effective and productive group collaboration. The climate created by group norming has been referred to by many names, such as learning communities, communities of practice, coalitions, cohorts, etc. Regardless of the nomenclature, the dynamics are the same: individuals have negotiated or are in the process of negotiating their individual perspectives/expectations with that of the larger group—there is a sense of meaning-making, willingness to participate in open dialogue, group-determined and –approved problem solving schemas, and shared interests and competencies that differentiates the group from surrounding groups or communities (Pereles L, Lockyer J & Fidler H, 2002).

One study that sought to determine specific characteristics inherent in a group with a strong sense of community investigated collegiate athletic programs as social microcosms of the larger institution. These researchers found that in addition to possessing a sense of “connection, caring, interdependence, shared values, rituals, and belonging”, these teams recognized goal sharing, frequent interaction, shared adversity, leadership, and accountability as traits facilitative to the successful creation of community (Wolf-Wendel L, Toma D & Morphew C, 2001). The individuals on the teams under scrutiny in the aforementioned study recognized the value social collaboration holds over individual performance, which contrasts with the outside-in perspective of many athletic fans who demonstrate fervor for the illumination of individual statistics and “star performers” above overall team performance. Although it may seem axiomatic that social negotiation and norming are essential for successful collaboration, it does hold potential for negative ramifications as posited by Van der Wey:

In these insular environments there are no opportunities to learn and take into account the voices, experiences, and perspectives of those who are not like (the group)...no coalition building is done in such an environment; it does not provide a space for members to develop the ability to cope when non-members enter the room. It is hard, uncomfortable, and sometimes painful work. Therefore, coalition work requires that individuals
give, retreat occasionally for nourishment, and then return (Van. der Wey D, 2007 p 996).

5.4 Performing: Getting Down to Business

The collective norming of a group of learners allows for the productive phase of teamwork—performing, where individuals are situated yet flexible in regard to their roles within the larger group, leading to cooperation and ultimately, problem solving. This is perhaps the most important phase of the process of group maturation as it represents something of a union of initial individual motivations and successful group negotiations, ideally leading to desired outcomes for both, often termed a “win-win”. Considering the importance of group performance, regardless of the context or goals, much study has been conducted into how to facilitate and maintain strong group performance. One prominent theory is that of group-value theory, in which “group interactions that lead people to feel respected as group members reinforce their commitment to the group and encourage them to spend continued effort on behalf of the group” (Erez A, Sleebos E, Mikulincer M, Vaizendoom M et al., 2009). Other researchers have found that teams “must believe in their team’s capabilities, find meaning in the team’s tasks, and fully realize the impact of their work if they are to become truly high performance teams” (Learner S, Magrane D & Friedman E, 2009). While most studies incorporate team goal-setting as part of the norming stage of group development, it has also been posited that rather than just enhancing initial cohesion, focusing on team goals acts as sustenance for the maintenance of team structures (Senecal J, Loughead T & Bloom G, 2008). Clearly reaching the performing stage of group maturation does not singularly equate with successful outcomes, nor represent some serendipitous blending of personalities—rather performance is the result of concentrated effort maintaining the balance of power and degrees of acceptance achieved by progression through the previous stages of group development.

5.4 Adjourning: Closing Up Shop

The final stage of group development according to Tuckman and Jenson is adjourning, where group members disband upon resolution of the problem or task that led to their initial engagement (Tuckman BW & Jensen MA, 1977). This would be analogous to program or degree completion when applied to cohort-based education, and rather than merely having an effect on outcome, adjourning is in-of-itself an explicitly desired outcome, both for individual group members, the groups themselves, and of the institutions in which they are enrolled. Rather than writing adjournment off as purely an outcome role in the group dynamic process, it is important to consider its role in future collaborations for the students involved in the cohort group dynamic. Indeed the ability to work effectively in groups or teams is a goal of respiratory care credentialing agencies and a prerequisite for many industries, including healthcare and the academy, both of which are typical avenues of employment for learners having undergone cohort-based programs of study. Perhaps rather than an endpoint, adjournment should be considered a transitional period useful for reflection prior to engagement in future collaborations.

6. Application

Although Tuckman and Jenson’s model of group development is probably the most widely cited and influential model of group maturation, its original application was in predicting or observing sequential, linear group progression from forming to adjourning, with more focus on progression and little to no identification of the potential for regression or fluctuation between stages. Indeed their notion of a predictable linear progression is the main point of contention for most of the critics of their work. Their original study recognized the importance of time on how quickly groups move through the five stages, but fails to specify or even offer conjecture as to any prescribed time frame prerequisite for stage progression or even successful maturation in general (Sutherland S & Stroot S, 20120). This has potentially serious implications for practice when applied to cohort-based respiratory education, as the time spent working collectively as a group is largely a function of the type of program or predetermined course of study. Groups of learners may find themselves “stuck in a stage of development for some time, may regress, (or fail)…to develop to full maturity”.

This recognition of the dynamic nature of group maturation staging allows for deliberate efforts on the part of the instructor or leader to facilitate progression or takes steps to prevent regression. Specific methodologies for team building are murky and vary widely between contexts and practitioners are in disagreement as to whether explicit attempts are more beneficial than implicit attempts to foster teamwork. What is clear is that instructional practice should allow for time enough for groups to effectively develop through individual stages of maturation while encouraging/promoting the efforts known to promote successful group collaboration, such as effective communication, conflict resolution, and tolerance of diversity.

7. Conclusion and Implications for Future Research

Although initial motivations are often personal in regard to beginning a course of study in a program of higher education as evidenced through lenses such as the theory of vocational personalities, it is clearly demonstrated through research cutting across disciplinary boundaries that
the climate created by the institution and the social group in which the student is involved has far greater significance on individual and group goal completion than any mere personal impetus. This phenomenon is most clearly elucidated through the examination of cohort-based programs, where the social climate is oftentimes a unique ecosystem existing within the confines of the larger institution. Recognition of the group growth processes as viewed through the lenses of group dynamic theory and other socially constructed methods of inquiry allow for the elucidation of their subsequent influence on retention, personal goal attainment/negotiation, and graduation— all essential elements on the agenda for the informed practitioner seeking to facilitate student learning while maintaining compliance with larger institutional goals.

In respiratory care as well as in other health care educational programs, there are multiple opportunities for students to interact with other students, with faculty and with clinical preceptors beginning early in the academic experience. These interactions can be relatively simple and can occur in the classroom, laboratory and clinical settings. Later in the educational program, progressively more sophisticated interactions that may include interprofessional education and/or practice may occur in clinical settings that also become increasingly more complex. Additionally, accreditation standards require programs to document that graduates have achieved competency in effective communication and team interaction in these patient care settings.

Because of the importance of the social group and the group growth process to individual student goal completion and the emphasis placed on the eventual development of a well functioning health care team at program completion, informed faculty may want to look at emerging venues to accomplish these objectives. Simulation centers equipped with high-fidelity simulators and the availability of standardized patients can provide an opportunity for health care students to first practice and then demonstrate these competencies during real-life clinical scenarios developed by faculty. At the conclusion of the scenario during a de-briefing session facilitated by the faculty, students are encouraged to identify actions that were taken (or not taken) during the scenario to promote enhanced group communication and collaboration. There are no (or few?) studies that demonstrate the effectiveness of simulation in the development of effective communication, conflict resolution and tolerance of diversity – the very competencies known to encourage group maturation, enhance normative congruence and personal commitment to goals, all of which are believed to reduce attrition. Just as there is a rich diversity of individual learners and motivations, there is an equally rich diversity of programs available for study. While all of these programs hold potential for facilitating transformative changes beneficial to the complex problems facing the world today, few have the level of potential as respiratory care in the face of an uncertain healthcare system. The social climate of an institution is equally dynamic and varies just as widely as its students, so further research should be conducted on how to best utilize or implement the controllable aspects of the social environment to best serve students and educators. Simulation centers, high fidelity simulators and standardized patients are emerging applications that may assist researchers in the near future in better understanding how to teach effective communication, group interaction and other aspects of group dynamics that educators in cohort-based programs may capitalize on to improve student retention, as well as ensure programmatic outcomes. Although it is unlikely that the social aspects of educational experiences can ever be completely controlled or its influence entirely predicted, previous work has demonstrated the value of investigations into the social aspects of adult education and the fact that there is as-of-yet no unifying theory of social integration encourages future inquiry.

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