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Expectancy-Value Theory: Why Do We Choose the Path We Do in Doctoral Nursing Education?

Tammy Ladue

College of Nursing, University of New Mexico

Nursing 501-001: Theoretical Foundations of Advanced Nursing

Heidi Honegger Rogers, DNP, FNP-C, APHN-C

Lisa M Taylor, DNP, FNP-BC

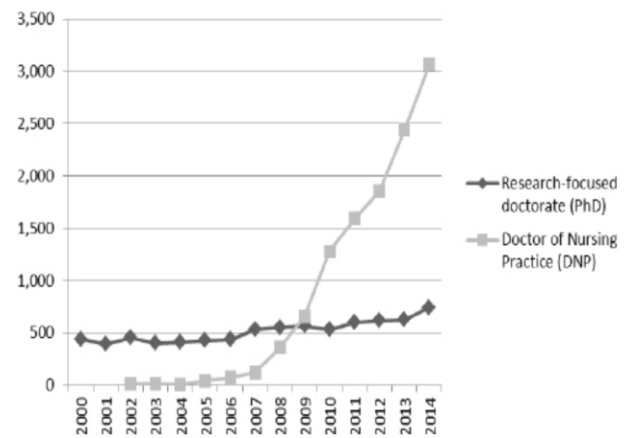
May 9, 2021

Critical Issue

In 2010 The Robert Woods Johnson Foundation (RWJF) and the Institute of Medicine (IOM) formed a committee to review and give recommendations on the future of nursing. One prior related behavior that stood out to the committee was that only 1% of the nursing population were doctoral prepared nurses and committing to a plan of action recommended this number be increased to 2% by the year 2020 (Committee, 2011). To remedy this universities nation-wide expanded the offering of the Doctor of Nursing Practice (DNP) 2-year terminal degree and added a 5-year research Bachelor of Nursing to PhD (BSN-PhD) terminal degree to their curriculum offerings (Committee, 2011). The Campaign for Action organization (2020) reported that this recommendation has been met, but has this recommendation been accomplished in the

correct way? Historically, the PhD was preferred degree for research and teaching at the university level, and the DNP to elevate the clinical expertise of Advanced Practice Registered Nurses (APRNs). However, immediate competing demands and preferences produced statistics that showed that

Figure 1. Graduates of Nursing Doctoral Programs



Source: (Altman et al., 2016).

the DNP programs, as of 2014, has produced 75% more graduates than that of PhD programs (see Figure 1) (Altman et.al., 2016).

Situational influences have affects as seen by DNP faculty at universities across the U.S. became almost equal to that of PhD faculty_(AACN, 2019) as universities were urging/requiring masters prepared educators to obtain their doctorates. The Robert Woods Johnson Foundation, when reviewing this issue,

recommended shortening PhD programs_(Altman et. al., 2016) which are double the number of credit hours to match that of DNP programs (UNM, 2020). This begs the question, based on prior behavior; “Are we setting up the doctoral programs at universities to affect nursing the same way the Associate Degree in Nursing (ADN) has affected the BSN, which as of 2010 we are attempting to correct?” Do we do a possible disservice to future research and nursing education by filling teaching positions in universities with those that hold a doctoral degree just for the sake of the doctoral rather than its intended purpose. What effects might this have on universities and doctoral students in the future. We also need to look at the purpose of the degree when education is involved.

Neither the DNP nor the PhD terminal degrees encompass teaching courses. The PhD may be the better of the 2 terminal degrees as those with a Master of Nursing Education (MSNE) have already obtained their educational certificate where the DNP requires a Master’s in APRN or an MSN in Nursing Administration for the DNP Nurse Executive Organizational Leadership (DNP NEOL) neither of which have educational curricula. The only PhD curricula that offer teaching courses are the BSN-PhD programs (UA, 2020; UC, 2020; UNM, 2020; & UT, 2020). By looking to this inefficiency of education courses both the PhD and DNP curricula can be aligned for those looking to enter the education arena. PhD and DNP degree holders could be offered a post-doctoral certificate in advanced research to increase their expertise in this area.

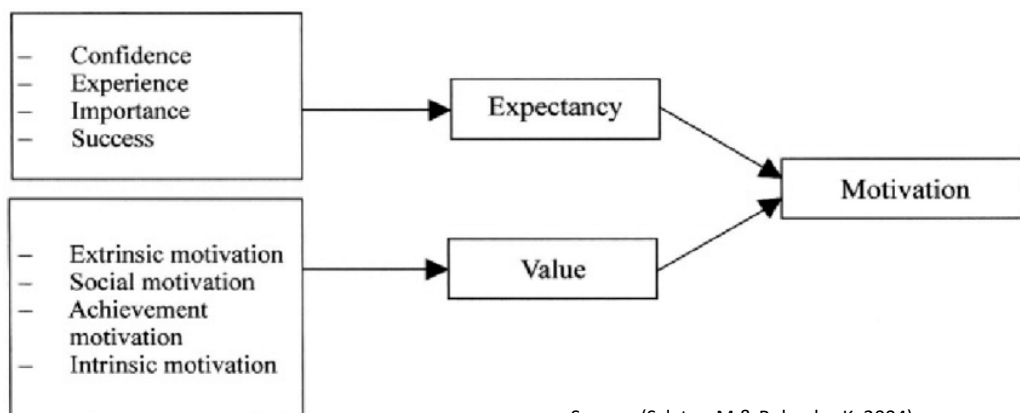
Expectancy-Value Theory (EVT)

The Theory of Expectancy-Value is part of Pendor’s Health Benefits Model noted in McEwen & Wills (2019. pp. 229-230) and lends itself well to the critical issue of this paper. The Expectancy-Value Theory was initially developed by John William Atkinson in 1950-1960 for use in psychology. Mr. Atkinson was a psychologist, teacher, and scholar who was presented the Gold Medal for Distinguished Scientific Contributions for his work in psychology. This theory was employed to clarify and predict

attitudes toward objects and actions, but it is now used to understand what persuades individuals to achieve their goals. His theory was expanded into the realm of educational psychology by Jacquelynne Eccles and Norman T. Feather by researching student motivation. Jacquelynne Eccles PhD is a professor of psychology and research scientist at the University of Michigan. Her research focuses on the underlying foundations of student choice which are expectancy and value (Learning, nd.). Utilizing this information, Eccles presented her theory of Situational Expectancy and Value.

Norman T. Feather is a PhD in psychology and began his published research in the field in 1958 with his first publication *Level of Aspiration and Achievement Imagery* in the Australian Journal of Psychology. In 1982 he revised the EVT to a simpler form in his book *Expectations and Actions: Expectancy-Value Models in Psychology* which does not possess the developmental (middle) portion of Eccles theory. It is Feather's EVT (Sclater, & Bolander, 2004) that will be used to evaluate this critical issue to help explain the decisions made by prospective students when deciding which terminal degree to pursue. Additional concepts put forth by Dietrich et. al. (2017) for the Situational Expectancy-Value Theory allows us to identify what can be done to increase the likelihood of students obtaining a terminal degree, look at the how prospective students look at the type of doctoral education they choose.

Figure 2. Feather's 1982 Expectancy-Value Theory of Motivation



Source: (Sclater, M & Bolander, K. 2004).

Concept 1: Choices are motivated by a person's expectations that a task can be mastered and are based on confidence from previous experience. This experience can be changed by new experience. Experience with research in both the BSN and MSN nursing degrees consists of a total of 4 courses (2 Theory and 2 Research) which only allows these experiences to be used as reference to base an expectancy of confidence.

Concept 2: Choices are motivated by the task value (worth doing) which is subjective. This concept is also divided by: Attainment (doing well), Intrinsic (personal enjoyment), Utility (future usefulness) values, and Cost. Additionally, cost is divided into: Effort, Emotional, and Opportunity costs.

Concept 3: Expectation is created or modified by a person's internal calculation of these factors.

These concepts allow us to identify what can be done to increase the likelihood of students obtaining a terminal degree, look at the how prospective students look at the type of doctoral education they choose, and the factors that may help to identify adjustments needed to equalize the enrollment rates of nursing terminal degrees. By equalizing experience in the nursing curriculum, it will equalize the internal calculation used to decide between the Doctor of Nursing Practice and the Doctor of Philosophy terminal degrees.

Assumptions proposed by this theory include: 1. Each person has an experience or expectation on the subject to be studied. In the case of this paper this assumption is true. 2. Both expectation and value are needed to measure decisions. In the case of this paper this assumption is true. 3. Expectancy is multiplied by value to decide. As there are no psychological examples or proof of this assumption, this will continue to be an assumption.

Application of Expectancy-Value Theory in Doctoral Nursing Program Choices

Concept 1: Expectancy

Studies have shown that the more often a task is performed the more likely the task can be mastered (Leaper & Benson, 2011). Within the undergraduate degree there are two, three credit hour (Cr), research/theory courses taught, and within graduate programs of the master's degree there are two additional three credit hour experience in research/theory to be used as a reference when contemplating the terminal degrees of the PhD and DNP (UA, 2020; UC, 2020; UNM, 2020; & UT, 2020).

When assessing the PhD curriculum, one will likely find a minimum of four research courses (12Cr), and an additional two statistics courses (6 Cr), two philosophy/theory courses (6 Cr) as well as three terms of compiling an original research dissertation (18 Cr). When we compare the DNP curriculum, we find one research course (3Cr), one statistics course (3 Cr), and up to five scholarly projects not original research based (8 Cr maximum), which count toward required practice hours, to obtain a doctoral degree (UA, 2020; UC, 2020; UNM, 2020; & UT, 2020). Therefore, when the course credit hours are tallied the PhD requires a minimum of 42 research-based credit hours and the DNP requires a total of 14 research-based credit hours for the same level of terminal degree. This makes the PhD program an achievement-oriented situation (due to lack of familiarity) where higher value is placed on the difficult achievement, and the reward is the achievement itself and the DNP program a Relaxed Situation (Feather, 1959). Existing findings by Dietrich et al. (2017), suggest that "expectancies and values are both a more stable characteristic of the person and malleable by the situational characteristics of the learning context." When facing this the above statistics with only 12 credit hours of research/theory course experience to draw upon, a *Choice Potential* occurs, and it is highly likely that the student will opt for the DNP program rather than the PhD program due to success probability. This may explain why enrollment in nursing PhD programs have remained consistently low compared to that

of DNP programs. The expectancy to succeed in the DNP program is elevated above the PhD program and the overall cost is lower in the DNP program as well.

Concept 2: Value

The Task Value of anything begs the question “Is it worth doing?” Feather (1988) states “the general proposition that actions and outcomes that are perceived to reflect skill and ability are positively valued and depends in part on the extent to which they are seen to implicate valued attributes of the self.” As nurses we are trained and experienced in clinical and leadership aspects of the profession, which are one-on-one, rather than the research and scholarship aspect that moves the profession as a whole forward. As we evaluate the DNP and PhD degrees for task value, this concept highly favors the DNP program rather than the PhD program.

Attainment Value

Nurses who choose to advance their degree with a DNP are the persons who excel at the clinical or leadership aspects of nursing and look to increase their knowledge and expertise in the clinical and leadership arena both of which focuses on person to person. They can draw on practice experience to help them achieve their goal and are more likely to excel in academic course work. Nurses who opt for the PhD program are those who strive to advance a profession through research, scholarship, and teaching. Except for teaching, they focus on processes within a system rather than person to person. PhD candidates must learn to focus on issues and find gaps in nursing’s knowledge base. These are difficult concepts to learn and master.

DNPs could realize the immediate gratification of the results of their work in the persons they encounter as practitioners and leaders. PhDs may wait years to realize the impacts of their study or the change in policy or procedure resulting delayed gratification.

Intrinsic Value

Dietrich et al. (2017) found that “if a student is intrinsically motivated for a given task, then they will invest more effort than on a task for which they hold low intrinsic motivation”. Those who pursue the DNP enjoy the personal aspects of the care given or the leadership duties performed and wish to continue in the roles they currently perform but at a much higher level. They find the scientific practice of nursing to be gratifying. PhD candidates enjoy continual curiosity, nurture the willingness to question, and wish to discover the new. These aspects are a more delayed gratification.

Utility Value

Career options available for those with a DNP are almost endless. They may have their own practice as Advanced Practice Nurses, be a member of an in-hospital medical service, be high level nurse administrators, have clinics in large organizations, and as the trend shows become nurse educators at universities. Career options for the PhD include research as an independent, as a scholar where research is done in tandem with a university and participates in role as educator or they may be employed as executives in organizations.

Cost

Effort Cost. In assessing cost, we consider effort (energy applied to course study), The effort cost for the DNP is lower than the PhD. Though the curricula are in depth and intensive in the DNP, the nurse has had these concepts and processes in undergraduate and master’s level instruction. They are able to draw on practical experience which eases information input and increases understanding thereby lowering the effort cost of the degree. The PhD program, as stated in concept 1, is heavily laden with research courses. With the minimal exposure to research in the undergraduate and master’s programs, the effort cost is elevated for the PhD due to new concepts, procedures, and processes which are rarely

performed in the everyday experience of the nurse. This decreases ease of assimilating information and increases study time.

Emotional Effort. Emotional effort is emotional impact on the student and their support system. The DNP emotional cost is less than that of the PhD. The average nurse draws on clinical and leadership experience for the DNP the familiarity of the subjects makes the learning easier which in turn lowers stress and makes the learning process more enjoyable. The stress associated with obtaining the degree is also lessened due to the academic time being shorter due to the program's average length of two years for a master's degree and two years as a DNP candidate student. The cost to social factors (time spent with family and friends) is also less due to the education time of the degree and the lower intensity of the scholarly project preparation and analysis. In the PhD program emotional cost is high. Stress related to new concepts lacking familiarity, and social cost factors are elevated due to the extended length of the PhD programs (average of four years plus two years for a master's degree), and the need to defend their original research proposal then complete their dissertation within a year.

Opportunity Cost. Opportunity costs consist of the availability of programs and employment post achievement. Opportunity costs have minimal impact since as of 2006 more DNP programs have been instituted in universities throughout the United States. However, opportunity to be accepted into DNP programs may be reduced due to the volume of nurses applying for enrollment in this program. Post degree employment is almost limitless. PhD programs, on the other hand, remain difficult to be accepted into. This is due to the recommendation that proposed dissertation topics fit within the expertise of the university PhDs and the limited PhD advisors employed by the universities. To fit these perimeters, PhD students must pay out of state tuition for the opportunity to pursue their goal. Feather (1988) found that "where *choice potential* is the dependent variable there is a significant *increase* in selection as success becomes subjectively more likely".

Monetary Cost. Monetary cost, which is not included in the scheme of this theory, includes the overall monetary expenditure for the program. The DNP has additional advantage over the PhD in this area as well. To attain a DNP there is the graduate cost of tuition for 35-38 Cr and 1000 practice hours of which 500 may be credited from the master's program (UA, 2020; UC, 2020; UNM, 2020; & UT, 2020). The monetary cost in obtaining a PhD is on average 52 Cr for didactic courses then 18 Cr for their dissertation for a total of 69 Cr nearly double that of the DNP, and if need be at the cost of out-of-state tuition depending on dissertation topic. This produces an inequitable cost for the same level terminal degrees.

Concept 3: Calculation

Each person weighs the benefits and costs to help make the decision as to which doctoral program is best for them. Is it the Achievement-oriented goal, PhD, or the DNP which Feather (1959) classifies as "the relaxed situation"? In *Subjective Probability and Decision Under Uncertainty*, Feather (1959) shows us that "where choices are concerned the first and most important variable is the degree of commitment." The second variables are choice potential and success probability that occurs in what he calls the "Relaxed Situation" which are in direct opposition with that of the "Achievement-oriented situation".

Summary

Overall, the Expectancy-Value Theory works well for this topic. Its strength lays in the fact that it allows us to identify how choices are made and identify what needs to be addressed in rectifying the issue of the low number of PhD candidates/graduates. This issue has been known since 2016 when Altman et al. noted it while reviewing the progress of the IOM & RWJF summit from 2011. Unfortunately, there are, as yet, no studies on this issue to date. Therefore, we can only hypothesize the variables involved in a candidate's decision as to which doctoral degree they will choose.

Although this theory works well for this subject, it is weak in that it does not take in to account the monetary cost which may be a key factor in choosing a DNP over a PhD since the estimated cost, using UNM as the basis, of \$26,547 vs. \$58,372 respectively for in-state tuition (UNM, 2020). Additional weaknesses include the way a decision is structured in the study; is it a committed or a wishful choice and what type of reward goal is the doctoral candidate pursuing: is it an external, internal, or to maintain a self-concept validation (Toure-Tillery & Fishbach, 2018). Feather (1959) states this “validation is defined by the type of questions asked of those in the study”. The IOM & RWJF committee proposes to rectify the situation by shortening the PhD program which would only decrease time and monetary cost, but not address the issue of familiarity with the subjects to be studied in the curriculum

“The challenge for nurse leaders today is to merge the professional practice science (the problem solving for human health issues) and the academic science (the creation of theories and conceptual frameworks) of our discipline” (Bunkers, 2000). However, the nursing curricula has not adopted this theory as needed for research in undergraduate and graduate nursing programs nationwide. Ball et al. (2016) shows us, based on their EVT research, that interest in a subject is formed in the early school years and impacts future course selections as well as persistence in school by the student.

If additional research courses are taught in the undergraduate and the masters level programs, additional experience would be available to draw upon. The task would be more familiar and become easier based on experience and confidence gained which in turn will increase task value and decrease its cost. This process moves the PhD program (which has 9.6% decline as of 2014) toward the relaxed situation status in which the DNP currently resides (Groer & Clochesy, 2020; Feather 1959). This increased exposure may also lead to increased evidence-based research lead by undergraduate and masters prepared nurses which is needed to increase bedside evidence-based nursing.

We must also look at the potential effect to universities where DNP prepared nurses are joining the educational arena. As tenured positions are filled with clinical based terminal degrees, it lessens the ability of the university in accepting PhD candidates as there will be less advisors which in turn limits dissertation topics. As attrition of PhD professors occurs, less and less PhD candidates will be accepted to programs due to these limitations if these positions are not filled with PhD prepared academics. However, this does not imply that DNP prepared professors are not valued in the academic arena, but it does imply that overfilling tenured positions with DNP prepared professors can have unintended effects on university programs in the future (Groer & Clochesy, 2020).

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