Health Sciences Faculty Satisfaction in Online Learning: A Relationship to Intent to Leave

Mark Dame
School of Health Professions, Texas Tech University Health Sciences Center, USA

Fethi A. Inan
Instructional Technology, College of Education, Texas Tech University, USA

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Mark Dame [a], Fethi A. Inan [b],*

[a] School of Health Professions, Texas Tech University Health Sciences Center, USA
[b] Instructional Technology, College of Education, Texas Tech University, USA

Abstract

Purpose: Recruitment and retention of qualified health professionals in academia has continued to be a challenge as the field of healthcare continues to grow at a rapid pace. The purpose of this study was to examine the satisfaction of online health sciences instructors and if those satisfaction factors influenced their intent to leave.

Method: A non-experimental survey design was utilized to gather the perceptions of online faculty satisfaction and related factors. A set of satisfaction and intent to leave surveys were answered by 83 online instructors in a higher education health sciences institution.

Results: The results of the path analysis showed that satisfaction from support for online teaching indirectly impacted the faculty intent to leave while influencing job satisfaction and institution satisfaction. Job satisfaction and institution satisfaction directly influenced faculty intent to leave.

Discussion: The theoretical model resulting from the study should allow administrators to follow to mitigate their risk of losing valuable faculty. Further, one could use the model as an overall picture of the indirect relationship of satisfaction from support for online teaching to intent to leave, with job satisfaction and institution satisfaction as the key influences over intent to leave.

Keywords: Turnover, Satisfaction, Online teaching, Faculty support, Job satisfaction, Institution satisfaction

1. Introduction

R ecruitment and retention of qualified allied health professionals in academia have continued to be a challenge as the field of healthcare continues to grow at a rapid pace. The long-term success of educational programs, schools of allied health, and schools of health sciences at large are dependent, in part, on the retention of its faculty as the number of faculty available is limited considering the ever-increasing competition from other schools. Allied health professionals, also known as health sciences professionals, have a plethora of non-academic career opportunities. Notwithstanding, Bluedorn [1] recognized that turnover causes great harm to an organization and even society at large. The intellectual, disruptive, loss of clinical income, and financial costs of turnover are high [2]. Further, beyond the financial and emotional stress of turnover in the organization is the toll it takes on existing faculty who often have to take up the workload slack at least temporarily and often without additional pay.

A key issue about faculty retention is the concern of the capacity of the ability to supply future educators for the academe. Graeff et al. [3] studied job satisfaction in academic physician assistants as retention and competition with industry were deemed key issues. Derby-Davis [4] studied the predictors of satisfaction and intent to stay due to the looming staffing crisis for nursing faculty. Lindfelt et al. [5] cited similar issues with academic pharmacy faculty so they studied work-life balance impact on intention to stay. Their study was proceeded by Conklin and Dessell [6] where the researchers studied intent to leave and noted that relatively little had been studied in the pharmacy arena, yet increasing enrollments and new pharmacy schools were putting pressure on faculty

supply. Other allied health faculty such as occupational therapists were studied by Falzarano and Zipp [7], with the 26% increase per year need for therapists, retention of faculty had become "critical".

1.1. Online faculty job satisfaction

The nature of online teaching experiences could impact faculty's emotional responses. For example, faculty who find the vagueness of work hours too stressful. One could argue that inherent to stress is a disruptive work-life imbalance. Lindfelt [5] studied a national survey of 700 pharmacy faculty to conclude that work-life balance was a significant factor predicting intention to remain in academia. Further faculty who had a desire to remain in academia also had a lower stress score. Roughton [8] studied nurse educators to determine what prompted the intent to leave. Key findings included that 68% thought that flexibility to balance work and family were important to satisfaction, while 31% thought they may leave their job because of the failure to achieve such balance, a percentage that equaled the 30% that were dissatisfied with the balance.

Some noted silence in the literature on the effect of stress and job satisfaction on faculty who teach exclusively online. McLean [9] used the Delphi method to describe such faculty well-being to identify stressors that may interfere with satisfaction and retention. The key stressors concern was that one feels as if one is on the clock 24 hours a day. An institution's lack of protocol for student communication left faculty struggling to meet student needs by thinking they needed to communicate with students no matter the time of day. Additionally, the exclusive online faculty did not see the value of service and scholarship as much as they did about teaching and needed little affiliation or supervision. Similarly, Aquino et al. [10] studied the impact of burnout on nursing faculty's intent to leave to address the nationwide shortage of said faculty. The online survey study of 146 nursing faculty revealed that burnout was a significant predictor related to intent to leave the academe. In another qualitative study that concerned nursing faculty, researchers found that online faculty were concerned about the perception of not being a team player as they were isolated in their online world [11]. Faculty were concerned that online teaching took a great deal of time and other organization obligations might not be fulfilled.

1.2. Online faculty institution satisfaction

One's organizational culture can affect satisfaction. Using the survey data collected from over 2300 faculty, Pololi et al. [12] discovered how culture affected retention for academic medical faculty. The authors noted that 14% of academic medicine faculty were considering leaving their institution and 21% were considering leaving academic medicine. They noted that the reason why one was dissatisfied and why such dissatisfaction could lead to departure was the lack of connection to colleagues and the unethical culture of the workplace. Similarly, Dwivedi et al. [13] studied that turnover intention was significantly influenced by organizational culture. Organizational culture explained 46.3% of the variance in turnover intentions while the culture explained 36% of the variance in the related organizational commitment.

A key part of the unknowns in the literature was the degree of the influence on satisfaction by the work environment. Bunton et al. [14] wanted to explore factors that were the most correlated with overall satisfaction using data collected from 9638 full-time medical faculty. They concluded that among the most correlated to satisfaction included variables related to work environments such as clear criteria for promotion, pay compensation, department relationships, and workplace culture. Similarly, in a study concerning pharmacy faculty, retention (decision to leave) was dependent upon a sense of commitment toward the institution and a sense of satisfaction with the teaching environment [6].

1.3. Faculty support for online teaching

Although not specific to allied health or nursing, Wickersham and McElhany [15] through their qualitative study believed that faculty would have accepted online duties better if the administration provided and maintained a technological infrastructure and supported the faculty with development courses. When a faculty member is an instructor and course designer, the technological and time resource hurdles are significant [16]. The technology itself can be a challenge as learning management systems have tended not to be intuitive. The many tasks it takes to input content can be daunting. The amount of time it takes to produce, design, and create a class is more than one expects. If the institution does not appreciate the time involved in creating coursework, then one may feel inferior to one's peers who do not instruct online. Gutierrez et al. [17] in a cross-sectional study of a stratified random sample of nurse faculty showed that supportive developmental experiences for faculty positively predicted nurse faculty's commitment to the academic organization.

The art and science of teaching online and keeping a student engaged is another challenge. Not only do expectations need to be set for providing high-quality course materials, but the instructor must create a class that promotes engagement. However, if the institution does not provide pedagogical aids in the form of instructional technology consultants which could add to the challenges of design and technical concerns resulting in frustration and dissatisfaction [18]. Using the Delphi study, McGee et al. [19] determined that the potential barriers to faculty success and satisfaction were determined that lack of training that models best practices, support from an instructional designer, and access to a model course rubric. Additionally, Golden [20] found that mentoring was also needed for experienced faculty who had only experienced face-to-face instruction but for one reason or the other had to enter the world of distance learning. Often the transition would come with insufficient pedagogical training or support. Instructional designers suggested that adequate levels of instructional design and development support for the faculty could lead to higher satisfaction [21,22].

1.4. Theoretical model

Employee turnover is a serious problem for management. If the administration cannot mitigate the barriers to faculty satisfaction, then the outcome could be an intent to leave. If satisfaction determinants were found, were they correlated with leaving? In other words, does the literature shows a search for motivators for not leaving one's faculty position? There was a suggestion that if one has the intent to leave, then one would leave one's job. Although some research has been conducted to examine the faculty satisfaction and intent to leave

and a long list of aforementioned variables is found to be correlated with the intent to leave. However, these variables are often examined in isolation from each other. Therefore, research in this area is in desperate need of a theoretical framework that can help to move the discussion beyond a simple verification of the list of relationships to the intent to leave. To examine direct and indirect effects of satisfaction from support for online teaching, institution satisfaction, and job satisfaction in the faculty intent to leave, a research-based path model was developed for the current study. This path model was designed to explain hypothesized causal relationships between factors that previous research reported to be important in intent to leave. In the model, arrows indicate the hypothesized path and the direction of effect. The absence of an arrow between variables implies the effect is insignificant.

The model directing this study consists of three blocks of variables (Fig. 1). The first block is the exogenous variable and includes satisfaction from support for online teaching. The second block has two variables: institution satisfaction and job satisfaction. The faculty intent to leave forms the final block. The exogenous variable, satisfaction from support for online teaching, is hypothesized to influence the two endogenous variables: institution satisfaction and job satisfaction [6,12,14,23]. According to the model, faculty intent to leave is hypothesized to be directly influenced by two variables used in the model, and the effects that originated from these two variables: institution satisfaction and job satisfaction, were hypothesized to be negative [23−25]. Satisfaction from support for online teaching is hypothesized to influence faculty intent to leave indirectly [1,2,18]. These influences are mediated by job satisfaction and institution satisfaction variables [26−28].

Fig. 1. Hypothesized path model.

1.5. Purpose of the study

There is a limited number of publications in the area of study of allied health or health sciences distance learning faculty satisfaction [29]. This finding was mirrored in the nursing literature where a few studies were conducted on distance education instruction and none on faculty satisfaction [11]. The body of research in the field appeared to be focusing more on students but lacking in faculty-related issues. It was assumed there would be a plethora of literature from the health profession; the literature stated otherwise [12]. Literature availability was noted as sparse after conducting a comprehensive review of databases and relevant scholarly venues. Conklin and Desselle [6] noted that pharmacy faculty turnover intention had been rarely studied. In fact, some of the literature presented was outside of the scope of allied health and outside of distance learning to bridge gaps. Academic administrators need to know the determinants for retention for those professionals who choose to enter the academe to mitigate turnover and subsequently improve the workplace. Further, one should continually investigate distant learning faculty's satisfaction level and barriers to such satisfaction [21]. Therefore, the purpose of this study was to examine the satisfaction of online health sciences instructors and if those satisfaction factors influenced intent to leave. The study sought to answer the following research question: What are the direct and indirect effects of the satisfaction from support for online teaching, institution satisfaction, and job satisfaction on the faculty intent to leave?

2. Method

2.1. Participants

The participants included faculty from the schools of Health Professions and Nursing. After Institutional Review Board (IRB) approval from the university, participants were recruited. There were about 300 faculty employed or contracted that were contacted by the institution's email system. The response rate was 28% and 83 completed surveys were used in the data analysis. The faculty selected was from dozens of specialties, some with doctorates, others had a graduate degree. The researcher reviewed online school biographies showed instructors would have 1−10 years teaching online. Most faculty were between 30 and 60 years of age. Many adjuncts had professional or other academic backgrounds and live throughout the world.

2.2. Data collection instruments

Support for Online Teaching Satisfaction was based on the Online Instructor Satisfaction Measure [21]. The instructor satisfaction with support was, in part, derived from the amount, quality, and timeliness of support provided by the institution to assist in the design and delivery of online courses effectively and efficiently [21]. Participants rated six items on a 5-point Likert-type scale ranging from "1 = strongly disagree" to "5 = strongly agree." The reliability of the scale was determined to be good, (Cronbach α = .75). Similarly, for this study, the scale's reliability coefficient was high (Cronbach α = .86).

Institution Satisfaction was a Likert-scale rating of faculty satisfaction as identified in the literature that is focused on the work environment. This measure consists of 9 items with a 5-point Likert scale (1 = to 5 = Very Dissatisfied- Very Satisfied). The items were used to assess faculty ratings of the overall satisfaction of the faculty member as an online instructor in health sciences (e.g., culture, mentorship, workload, compensation, and promotion system). For this study, the reliability of the scale was determined to be high (Cronbach α = .89).

The Job Satisfaction survey was a Likert-scaled satisfaction rating of general job satisfaction as identified in the literature on overall job satisfaction [30]. The measure consisted of three items with a 5-point Likert scale that indicated faculty's level of agreement or disagreement (1-strongly disagree, 2-disagree, 3-neutral, 4-agree, 5-strongly agree) [31]. For this study, the reliability of the scale was determined to be good (Cronbach α = .78).

The Survey of Turnover Intention was a Likert-scale rating of the faculty's thoughts about leaving one's job [32]. The measure consisted of three items with a 5-point Likert scale that indicate one's level of agreement or disagreement (1 = to 5 = -strongly disagree -strongly agree). Online instructors rated their level of agreement with statements regarding three intentions. For this study, the reliability of the scale was determined to be high (Cronbach α = .86).

2.3. Data analysis

Mplus software [33] was used to complete the path analysis to examine direct and indirect effects of the satisfaction from support for online teaching, institution satisfaction, and job satisfaction on the faculty intent to leave. Path analysis allowed for the examination of dependent and independent variables to reveal the relative effects of each variable on the other variables in a theory-based model [34]. To

determine the causal effects implied by the path model, the model was estimated by using statistical software that computed the magnitude and significance of indirect effects and their standard errors with regression results. The procedures yielded three types of effects: direct, indirect, and total. The direct causal effects were represented by regression coefficients. The indirect effects of a variable on an endogenous variable were estimated by summing the direct effect coefficients of all possible routes of that variable through mediating variables toward the endogenous variable in the model [34]. The indirect effects represented the impacts on the dependent variables that result from the direct influences of prior causal factors in the model. The sum of the direct and indirect effects produced the total effect.

3. Results

The data analysis utilized path analysis to examine direct and indirect effects of the satisfaction from support for online teaching, institution satisfaction, and job satisfaction on the faculty intent to leave. To assess the model fit, the variables were evaluated by using the following: A non-significant chi-square value indicates a good fit [35]. However, the RMSEA value (.07) was a little higher than the expected value of .05 or below. All other indices showed a good fitness of the faculty intent to leave model considering the correlation between job satisfaction and institution satisfaction [35]. Fit indices for this model were as follows: $\chi^2_1 = 1.39$, $TLI = .99$; $CFI = 1.00$; $RMSEA = .07$.

Institution satisfaction, and job satisfaction, and faculty intent to leave are endogenous variables, and satisfaction from support for online teaching is the exogenous variable of the model. Except for faculty intent to leave, the two other endogenous variables serve as both dependent and independent variables. For each exogenous variable, the magnitude, direction, and significance of direct and indirect effects were calculated. The standardized regression coefficient and coefficient of determination (R^2) for

equations of endogenous variables are presented in Table 1.

The three hypothesized factors explained 68.5% of the variance of faculty intent to leave. Consistent with the conceptual model (see Fig. 2), only job satisfaction and institution satisfaction showed a significant negative direct effect on faculty intent to leave. The direct effects of job satisfaction ($\beta = -0.62$) and institution satisfaction ($\beta = -0.29$) can be considered as strong. The exogenous variable explained 26.1% of the variance in job satisfaction and 49.7% of the variance in institution satisfaction, respectively. Regarding the indirect effect, as hypothesized in the conceptual model, satisfaction from support for online teaching had a significant indirect effect ($\beta = -0.53$) on the faculty intent to leave. Across all significant factors, job satisfaction had the strongest effect on the faculty intent to leave.

A summary of key findings.

- Satisfaction from support for online teaching positively influences job satisfaction and institutional satisfaction.
- Job satisfaction and institutional satisfaction directly influence faculty intent to leave.
- Job satisfaction and institutional satisfaction mediated the indirect effects of satisfaction from support for online teaching.

4. Discussions

The purpose of this study was to build a theoretical model that would assist higher education health science administrators to mitigate intent to leave amongst their faculty who teach online. Higher education has changed in the last decades and the work environment and style for instructors have changed too as schools pivot for the increased demand for online instruction which has meant more faculty need trained for online education and more faculty are needed to keep up with the demand. Previous studies have explored the impact of job satisfaction on faculty retention where faculty seemed satisfied with their jobs and had a lower

Table 1. Direct and indirect effects of factors influencing faculty intent to leave.

Variables	Endogenous (Dependent) Variables		
	Job Satisfaction	Institution Satisfaction	Intent to Leave
Satisfaction from Support for Online Teaching	.51[a]	.71[a]	.53[a,b]
Job Satisfaction			-.62[a]
Institution Satisfaction			-.29[a]
R^2	.26	.50	.69

[a] $p < .001$.
[b] Indirect effect.

Fig. 2. Estimated path model.

level of intention to leave [4]. Barriers to satisfaction can often result in faculty leave which is disruptive to an organization, especially in a field where there is increasing demand generated by the flexibility of the learning delivery system environment. However, there has been limited research on understanding the impact of job satisfaction and institutional satisfaction along with the support for online teaching faculty.

The statistical method of path analysis was used to determine the degree that the construct satisfaction from support for online teaching influenced the constructs of job satisfaction and institution satisfaction while determining the amount of influence job and institution satisfaction variables have on intent to leave. As the results of the analysis showed, the hypothesized constructs had direct and indirect effects on intent to leave. Of all the variables analyzed, job satisfaction was the most important factor with the highest direct effect on intent to leave. Institution satisfaction was also an important effect on faculty intent to leave. If a faculty member who teaches online was satisfied, there was a strong negative influence on intent to leave which meant if one was satisfied it was less likely the faculty member had an intent to leave.

Furthermore, support for online teaching in the school proved to be a critical factor that impacted faculty intent to leave through an indirect effect. If sufficient support is available, then faculty have more time to focus on content creation and instruction and experience less stress with which to contend while not spending time trying to debug technical and pedagogical issues. In other words, if the support is considered good it makes a faculty member happier in one's job. Further, when one has more time and fewer problems with figuring out technical or pedagogical problems, one could be more satisfied with one's job. Likewise, if one is experiencing less stress due to good technical support or access to the tools one needs for instruction one could be happier with the institution as the institution supplies the needed tools technical support, and likely the moral support so that the faculty member can focus on instruction and course design as necessary.

4.1. Implications

The results of this study will facilitate a better understanding of turnover and job satisfaction of distance learning faculty satisfaction in a health sciences environment. The tested model would be a strong tool for health sciences administrators to use to measure satisfaction and to base such results to determine what deficiencies should be mitigated to prevent turnover. In fact, it appears turnover and dissatisfaction may be mitigated by institutional solutions. Faculty development appears to be one of the most important institutional responsibilities to support and retain staff. Faculty development can range from sharing technical tips, how to state an objective, requirements, online pedagogy, professional improvement, or research opportunities. The institution needs to have available for its students and faculty technical and instructional support and training. Ongoing training on the learning management system and other available tools to produce the highest quality project available is a function of the institution. Lastly, the institution should support the instructor/designer in showing what instructional design is all about as a systematic way to produce instruction via using effective teaching and learning tools [36]. Further, administrators should focus on distance education faculty development programs on personal and pedagogical needs rather than subjective contact hours [37]. In a survey study on online faculty, an open-ended

questionnaire analysis found that online faculty need faculty development in how to develop online courses and preferred small just-in-time hands-on workshops on specific issues [15]. Faculty preferred supportive technical tools over money. However, those faculty members were concerned that the administration's desire to increase enrollment numbers via online learning did not also desire to cap class sizes.

The availability of mentorship for junior faculty is an essential component for retention. Lost and confused junior faculty underperform not only in their online instruction but also in research and service. Burnout can come easily and unexpectedly for faculty due to competing demands for clinical productivity, teaching, research, and work-life balance. To mitigate burnout, Chen et al. [38] implemented a mentoring program. During the seven years of implementation, the majority of faculty remained in the program and those who participated were more likely to remain in the organization. Chang et al. [39] took a similar approach in academic medicine but by measuring the effect of how already created career development programs impact retention. By reviewing over 3000 female faculty, those that participated in career development programs were significantly less likely to leave academic medicine than their peers for up to eight years after their academic appointment.

The inherent isolation caused by distant instruction affects social bonding and faculty interaction that appeared key to faculty satisfaction [20]. Collegiality is a powerful factor of satisfaction overriding other negative job aspects. Collegiality creates not only a kind workplace, but a workplace more amenable to research collaborations, creative instruction possibilities, and other interprofessional opportunities. Additionally, a practical and psychological boost to satisfaction would result if one has had a connection to the industry from whence one came. Boseman and Gaughan [40] showed that faculty who continued to have industry ties were significantly more satisfied than other faculty.

In a similar vein, in the health sciences, it is critical that the institution is honest about the work environment, institutional support, and work expectations [41]. These aspects appear critical to one who may never have taught before and especially if one has never instructed online before. Then the candidate needs to be honest with oneself over personal fit at the time of recruitment to mitigate future intent to leave. The openness and culture of administrative support may mitigate dissatisfaction [42]. Although not specific to allied health or

nursing, faculty would have accepted online duties better if the administration provided and maintained a technological infrastructure and supported the faculty with development courses [15]. In summary, the work environment is a key influencer of satisfaction where if limited could induce an intent to leave. Whether it is the culture and antecedents of mentorship, collegiality, hire to fit, stress, isolation, or compensation related to work, there is an indication that if the general workforce, academic medicine, and some known allied health find it important, therefore, a study to determine the influence on allied health online faculty satisfaction and intent to leave is justified.

5. Conclusion

To explore a model of faculty satisfaction and intent to leave to assist higher education administration to mitigate turnover, surveys were administered in a higher education institution that was comprised of allied health and health science professionals who instructed online. These surveys measured a faculty member's satisfaction from support for online teaching, satisfaction with one's job, and with one's satisfaction with the institution, along with a measurement of intent to leave. The descriptive analysis results of the survey data showed that the faculty was generally satisfied with one's job and to a lesser degree with the institution. The results of the path analysis of the survey data showed that satisfaction from support for online teaching indirectly impacted the faculty intent to leave while influencing job satisfaction and institution satisfaction. Job satisfaction and institution satisfaction directly influenced faculty intent to leave. The major premise of the hypothesized model paths was powerful enough to explain variance in faculty intent to leave and what degree a satisfied faculty member who taught online would have an intent to leave.

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