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RESEARCH

Identifying Psychological Contract Breaches to Guide Improvements in Faculty Recruitment, Retention, and Development

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Objective. To identify pharmacy faculty members' perceptions of psychological contract breaches that can be used to guide improvements in faculty recruitment, retention, and development.

Methods. A list of psychological contract breaches was developed using a Delphi procedure involving a panel of experts assembled through purposive sampling. The Delphi consisted of 4 rounds, the first of which elicited examples of psychological contract breaches in an open-ended format. The ensuing 3 rounds consisting of a survey and anonymous feedback on aggregated group responses.

Results. Usable responses were obtained from 11 of 12 faculty members who completed the Delphi procedure. The final list of psychological contract breaches included 27 items, after modifications based on participant feedback in subsequent rounds.

Conclusion. The psychological contract breach items generated in this study provide guidance for colleges and schools of pharmacy regarding important aspects of faculty recruitment, retention, and development.

Keywords: psychological contract breach, Delphi, faculty recruitment, faculty retention, faculty development

INTRODUCTION

A psychological contract has been described as an individual's beliefs regarding the terms and conditions of a reciprocal exchange agreement between the employee and the organization.¹ A perceived breach of a psychological contract can alter an employee's performance and commitment to an organization as well as lead the employee to consider leaving or to actually leave an organization.²⁻⁹ Psychological contract breaches are more frequent and intense in organizations that are downsizing or restructuring.⁵ The same can occur in academic environments when budgets are tightened during economic downturns and as states reprioritize financial commitments to academic needs, services, and programs. Many potential remedies have been proposed to address the effects of these events on faculty recruitment, retention, and development. The psychological contract as a potential remedial approach has been examined in the corpo-

rate environment and in some academic spheres, but it has not yet been studied in academic pharmacy.

In the academic environment, a psychological contract involves a set of expectations by a new faculty member about the promises made as part of the new job but not formally written in the letter of offer and official contract. These might include a collegial environment, informal mentorship, initial teaching load, staff support, office and laboratory space, laboratory equipment, and time to develop an experiential site.

When a faculty member perceives that an organization has failed to deliver on such promises, a breach of the psychological contract may have occurred. A perceived breach of the psychological contract is "the cognition that one's organization has failed to meet one or more obligations within one's psychological contract in a manner commensurate with one's contributions."¹⁰ Because of the subjective nature of psychological contracts, different individuals may have different perceptions and understandings about what these contracts entail.^{1,3,10} The psychological contract is held in the mind of the employee, and the organization may not share the same beliefs about the obligations it implies.¹⁰ This subjectivity accounts for the uniqueness of each individual's perception of a breach

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of contract. Given the complexity of most academic interviews and the multiple individuals and stakeholders involved, each of whom has his own perceptions of the work environment, it should not be surprising when an interviewee perceives breaches after beginning a new job.

Previous researchers have offered similar definitions for both a psychological contract breach⁴ and a psychological contract violation.^{1,3} Morrison and Robinson described a breach and a violation as 2 different concepts.¹⁰ They “reserved the term ‘violation’ for the emotional and affective state that may under certain conditions follow from the belief that one’s organization has failed to adequately maintain the psychological contract.” The psychological contract breach has more to do with cognition, whereas psychological contract violation is more closely associated with feelings that develop after a psychological contract breach.

Although psychological contracts are rooted in equity theory, they are not the same as expectations and fairness exchanges.¹¹ Generally, expectations are what the employee anticipates receiving from the employer.¹² These are quite different from “promises” made by the employers as part of the psychological contract in that they involve elements of trust, a sense of a relationship, and reciprocal obligations.¹ Equity expectations are less specific than psychological contracts because they are derived from social cues and internal standards of fairness.¹¹ Psychological contract breaches are more intense than unmet expectations in that they cause a feeling of having been wronged.³ Likewise, the impact of psychological contract breaches extends beyond disappointment and dissatisfaction associated with inequities to include feelings of betrayal.³ Inequities can typically be remedied, but perceived breaches of psychological contracts are not so easily repaired.¹

The major instruments used to assess a psychological contract breach include the Psychological Contract Measures¹³ and the Psychological Contract Inventory,¹⁴ or some adaptation thereof.^{4,5,15-19} These instruments are general in nature and can be used for almost any type of job, as illustrated by the following item from Robinson and Morrison: “I have not received everything promised to me in exchange for my contributions.”¹⁶ Several categories of psychological contract breaches have been identified, such as training and development, compensation, promotion, nature of job, job security, feedback, management of change, responsibility, and people.³

The implications of psychological breaches have been examined in the corporate environment and are beginning to be studied in higher education. Psychological contract breaches have been investigated in pharmacy

students with respect to satisfaction with the educational experience²⁰ but have yet to be examined among pharmacy faculty members, particularly regarding job outcomes. Several studies in the academic environment have adapted the previously discussed general psychological contract measures,²¹⁻²³ while others have examined psychological contract breaches through qualitative interviews.^{24,25} These are helpful in determining if there is a problem in the organization related to psychological contract breaches or violations.

The study of psychological contract breaches in academic environments, including multidisciplinary health-professions education, requires the use of instruments capable of eliciting some of the unique facets faced by faculty members. These are helpful in determining if there is a problem with breaches or violations of psychological contracts within an organization. Specific items identified in the psychological contract breach measure developed for pharmacy faculty members can assist colleges and schools of pharmacy in pinpointing problem areas that need to be addressed and taken into consideration in recruiting, retaining, and developing faculty members. The objective of this study was to identify the unique components of perceived psychological contract breaches among pharmacy faculty members that can be used to inform the creation of a quantitative measure of psychological contract breaches in an academic pharmacy environment.

METHODS

The organization’s institutional review board reviewed and approved the study under exempt status from full review. A 4-round modified Delphi procedure was conducted between April 2010 and October 2010 to develop a measure of pharmacy faculty members’ perceived psychological contract breaches. A Delphi technique is a “systematic procedure for arriving at a reasoned consensus.”²⁶ It elicits opinions from a group with the aim of generating a consensus response.²⁷ The Delphi has 3 primary features: anonymity, iteration and controlled feedback, and a statistical group response.²⁸ There are numerous modifications to the Delphi technique, one of the main uses of which concerns the formation of items to compose measures used in subsequent studies.²⁹ Use of a Delphi, qualitative and/or mixed methods approaches has been recommended as a key first step in the development of such measures.^{30,31} The modified Delphi was chosen over other face-to-face techniques (eg, a focus group) to minimize bias resulting from dominating individuals, group-think, and irrelevant communications.²⁸ Delphi procedures tend to yield more accurate group estimates because of the controlled anonymous feedback

and are efficient for gathering the opinions of experts in disparate locations.

To a great extent, the success of any Delphi procedure hinges on the expertise of its composite panel members. Panel members should be willing and able to take part in an iterative process and have the potential to make valuable contributions to the process.³² Purposive sampling is often used to gather an appropriate sample of persons with diversity in characteristics, such as gender, age, experience, and rank. Thus, their representativeness does not imply such in a statistical sense but rather the inclusion of a range of relevant interests and perspectives so that it encompasses a range of relevant interests and perspectives.

A common method of choosing panel “experts” is to draw from an informal network of potential candidates.³² A Delphi panel is typically composed of 8 to 12 members.³³ While there have been Delphi panels with a higher number of members, the Delphi method should not be confused with a “conventional” quantitative survey instrument. The authors assembled a list of possible faculty candidates based on their track record of leadership in academic pharmacy, publication of papers related to faculty quality of work life, and/or holding positions/titles indicative of interest in or concern with academic governance. Potential candidates were chosen for their representation of public, private, research-intensive, and teaching-intensive institutions, as well as the basic, clinical, and social/administrative sciences of pharmacy. Academic rank also was a consideration: the researchers invited assistant, associate, and full professors as well as a limited number of faculty members in administrative roles, such as deans and department chairs.

A letter of invitation that was e-mailed to all potential participants (n=17) included an explanation of the modified Delphi procedure and a consent form for participation in the entire Delphi process. The 12 consenting participants were sent another e-mail explaining round 1 and an attached questionnaire consisting of 5 open-ended questions addressing various aspects of psychological contract breaches. The questions were derived from a thorough review of the literature on psychological contract breaches. Copies of the questionnaires are available on request from the corresponding author.

The responses from round 2 were reviewed for clarity and redundancy, reordered, and tabulated. This list of items would serve as the basis for the second-round questionnaire. Participants were asked to rate each of the items on a scale of 1 to 4 (1 = not important at all, 2 = slightly important, 3 = important, 4 = extremely important) on the item’s potential contribution to a measure of psychological contract breaches. It was emphasized to participants not to report the extent to which they were promised

these items or had promised (psychologically) to others, but rather to report the importance of that item to the phenomenon of perceived contract breaches.

The responses from round 2 were used to inform round 3. Items that did not meet an *a priori* criterion of a median greater than 2.5 were not included in the round 3 questionnaire.³⁴ In round 3, respondents were presented with the slightly altered list of items from round 2, along with aggregated quartile ranges and their own responses from the previous round. Respondents were asked to reconsider their responses after viewing the aggregate results from their peers. They were requested to provide an explanation if they chose to remain outside the interquartile range. Round 4 followed a structure similar to that of round 3 except that it included only the new items that were added just prior to round 3. After observing and calculating responses from rounds 3 and 4, there was little variation in participants’ responses, thus indicating the formation of a consensus opinion and obviating the need for subsequent rounds.³³

RESULTS

The 12 Delphi participants consisted of 2 assistant professors, 3 associate professors, and 7 full professors. Four were from basic pharmaceutical sciences, 6 represented the clinical practice sciences, and 2 were from the social and administrative sciences. There was an even representation of public and private institutions. Four of the colleges and schools of pharmacy represented were relatively new, having been formed within the past decade. Institutions affiliated with academic health sciences centers also were represented but did not comprise a large component of the participants’ collective background. Program size was not measured or readily available; however, the institutions represented appeared to be diverse along several continua.

Usable responses were obtained from 11 faculty members, resulting in a 91.7% response rate for round 1. One assistant professor (a basic pharmaceutical scientist) did not return the round 1 survey instrument. The responses from round 1 culminated in the generation of 28 items for round 2 (Table 1). Based on comments and suggestions from the participants, 5 items from round 2 were omitted from the round 3 questionnaire and precluded from further consideration. Three of the 6 items that were removed failed to meet an *a priori* criterion of a median >2.5. The remaining 2 (items 6 and 25) were removed because of participants’ comments regarding their similarity with 2 others (items 1 and 10, respectively). Based on comments and suggestions from the participants, 4 items were added to the round 3 questionnaire: “number of months required to precept students,”

Table 1. Pharmacy Faculty Panel Members' Responses to Items from Rounds 2, 3, and 4 in a Modified Delphi Procedure

| Perceived Psychological Contract Breach | | Round 2 Mean (SD) ^a | Round 3 Mean (SD) ^a | Round 4 Mean (SD) ^a |
|---|--|-----------------------------------|-----------------------------------|-----------------------------------|
| 1 ^b | Overall teaching load | 3.7 (0.5) | 3.9 (0.3) | |
| 2 ^c | Freedom to select courses I teach | 3.0 (0.8) | 2.8 (0.8) | |
| 3 ^d | Availability of graduate or other teaching assistants | 2.4 (1.0) | | |
| 4 | Adequacy of support staff | 3.3 (0.5) | 3.3 (0.5) | |
| 5 ^d | Opportunities for interdisciplinary teaching | 2.1 (0.6) | | |
| 6 ^d | Enrollment/class size | 2.8 (1.0) | | |
| 7 | Adequacy of teaching facilities/equipment | 3.4 (0.7) | 3.4 (0.7) | |
| 8 ^d | Opportunity to develop elective courses | 2.2 (0.6) | | |
| 9 | Moving expenses | 2.9 (0.7) | 2.9 (0.7) | |
| 10 ^e | Support for professional development | 3.7 (0.5) | 3.7 (0.5) | |
| 11 | Office space | 3.5 (0.7) | 3.5 (0.5) | |
| 12 | Adequate office supplies | 3.0 (0.5) | 2.9 (0.3) | |
| 13 | Annual salary adjustments | 3.1 (0.9) | 3.1 (0.7) | |
| 14 | Fringe and related benefits | 3.4 (0.5) | 3.5 (0.5) | |
| 15 | Laboratory space | 2.9 (0.9) | 2.9 (0.7) | |
| 16 | Laboratory equipment | 3.0 (0.8) | 3.0 (0.7) | |
| 17 | Start-up funds | 3.1 (0.7) | 3.1 (0.6) | |
| 18 | Grant-writing support | 2.7 (0.7) | 2.9 (0.7) | |
| 19 | Designated practice site | 3.3 (0.7) | 3.4 (0.5) | |
| 20 | Adequacy of practice site | 3.3 (0.7) | 3.4 (0.5) | |
| 21 | Support/resources at practice site | 3.1 (0.7) | 3.2 (0.6) | |
| 22 | Opportunities for collaborations at practice site | 2.7 (0.7) | 2.7 (0.7) | |
| 23 ^f | Clearly delineated requirements for organizational rewards, including promotion and tenure | 3.1 (0.7) | 3.5 (0.7) | |
| 24 | Overall workload | 3.8 (0.4) | 3.8 (0.4) | |
| 25 ^d | Support for faculty development | 3.5 (0.7) | | |
| 26 | Formal mentoring program | 2.9 (0.9) | 3.0 (0.7) | |
| 27 | Informal mentoring | 2.7 (1.0) | 2.8 (0.8) | |
| 28 ^g | Collegiality/climate in the organization | 3.2 (0.8) | 3.2 (0.8) | |
| 29 ^h | Number of months required to precept students | | 3.4 (0.7) | 3.4 (0.7) |
| 30 ^h | Overall expectations for scholarly productivity | | 3.7 (0.5) | 3.8 (0.4) |
| 31 ^h | Time for consultation of other outside activities | | 2.8 (0.8) | 2.8 (0.8) |
| 32 ^h | Committee service expectations | | 2.6 (0.5) | 2.6 (0.5) |

^a Likert-type scale of importance ranging from 1 to 4 (1 = not important at all, 2 = slightly important, 3 = important, 4 = extremely important)

^b Round 2 item read as: Teaching load

^c Round 2 item read as: Specific courses assigned

^d Removed after round 2

^e Round 2 item read as: Funds for professional development + item 25 (Support for faculty development)

^f Round 2 item read as: Recognition and reward for job well done

^g Round 2 item read as: Collegiality/friendliness among faculty

^h Item added for round 3

“overall expectations for scholarly productivity,” “time for consultation in other outside activities,” and “committee service expectations.” Five of the items from round 2 were modified in light of participants’ comments. Item 1 (“teaching load”) was modified by adding “overall” to encompass

item 6 (“enrollment/class size”). Item 2 (“specific courses assigned”) was altered to differentiate it from item 1. Item 10 was modified by combining it with item 25, based on participants stating that they considered these types of development to be the same. Item 23, which most participants

considered too general, was modified to be more specific. Finally, item 28 was altered slightly to represent the collegiality/climate of the organization rather than that of the faculty alone.

Usable responses for round 2 were returned by 10 panel experts, for a response rate of 83.3%. One full professor from the basic pharmaceutical sciences did not return the round 2 questionnaire. Panel experts rated all 28 items from round 2 with a mean of at least 2.1 (Table 1). Mean ratings of 18 items were higher than 3.0, and mean ratings exceeded 3.5 on 5 of these items. Mean ratings of 10 of the items were below 3.0. Panel experts rated all 27 items from round 3 with a mean of at least 2.6 (Table 1). Mean ratings of 18 items were higher than 3.0 and mean ratings exceeded 3.5 on 7 of these items. Mean ratings of 9 of the items were below 3.0. Panel experts rated the 4 items in round 4 with a mean of at least 2.6 (Table 1). Mean ratings of 2 items were higher than 3.0. The mean rating exceeded 3.5 on 1 of these items. Mean ratings of 2 of the items were below 3.0.

The results from round 3 indicated formation of a consensus, as participants changed a number of their ratings to be in agreement with their peers. The standard deviation narrowed on most items, further evidencing opinion convergence.³³ The item responses had a final standard deviation of ≤ 0.8 , and 6 item responses had a standard deviation of <0.5 . On item 18, the participants' responses actually resulted in an increase in the standard deviation. This may be attributable in part to a higher mean rating; however, items such as these will require reliability testing and further scrutiny for validity. The final 27 psychological contract breach items are shown in Table 2.

DISCUSSION

The modified Delphi procedures generated a list of 27 items that can be used to comprise a measure of psychological contract breaches among pharmacy faculty members. This list potentially could be adapted for use among faculty members in different fields of study. Some of the psychological contract items generated by this study, such as "collegiality/climate in the organization" and "overall workload," describe items that might be promised in most jobs. However, many are specific in reflecting academic autonomy and the tripartite mission of scholarship, teaching, and service. For instance, there were items pertaining specifically to teaching (eg, overall teaching load, freedom to select courses I teach, enrollment/class size); to scholarship (eg, grant writing support, overall expectations for scholarly productivity); and to service (eg, support for professional

Table 2. Final Set of Psychological Contract Breach Items From Pharmacy Faculty Participants in a Modified Delphi Procedure

| |
|---|
| Overall teaching load |
| Freedom to select courses I teach |
| Adequacy of support staff |
| Adequacy of teaching facilities/equipment |
| Moving expenses |
| Support for professional development |
| Office space |
| Adequate office supplies |
| Annual salary adjustments |
| Fringe and related benefits |
| Laboratory space |
| Laboratory equipment |
| Start-up funds |
| Grant-writing support |
| Designated practice site |
| Adequacy of practice site |
| Support/resources at practice site |
| Opportunities for collaborations at practice site |
| Clearly delineated requirements for organizational rewards, including promotion and tenure |
| Overall workload |
| Formal mentoring program |
| Informal mentoring |
| Collegiality/climate in the organization |
| Number of months required to precept students |
| Overall expectations for scholarly productivity |
| Time for consultation of other outside activities |
| Committee service expectations |

development, committee service expectations, time for consultation of other outside activities). Academic institutions, even at the departmental level, can use psychological contract items to gauge areas that are lacking in order to help recruit, retain, and develop qualified pharmacy faculty members.

Academic health professional programs such as pharmacy are seeing a strain in the supply of faculty members in part because of increasing student enrollment and a proliferation of new programs.³⁵ These trends underscore the need for a greater number of experiential sites for introductory and advanced practice experiences. Moreover, a generation of faculty members is preparing to retire, and there is a recurrence of vacant faculty positions that are difficult to match with qualified candidates.³⁶ In their report published in 2008, the American Association of Colleges of Pharmacy (AACCP) Task Force on Faculty Workforce (formed in 2005) predicted that approximately 1,200 positions will need to be filled over the next 10 years. Even though vacancies or lost positions have decreased from 2008-2009, pharmacy academia is

still facing a faculty shortage.³⁷ There were 374 reported vacancies and/or lost positions in 2009-2010. The need to recruit faculty members to fill vacancies is matched by the need to retain productive faculty members who contribute substantively to the organization and to the academy.

Retention of qualified faculty members might be as challenging as recruitment, given the diversification of unique and interesting job opportunities for pharmacists with postgraduate degrees and the heightened expectations of faculty members.³⁸ Turnover in academic pharmacy has become a problem that might be more acute among pharmacy practice and female faculty members.³⁹ In a survey of pharmacy faculty members, 1 in 5 respondents indicated an intention of leaving their current academic institution during the ensuing 2 years.⁴⁰ The most recent AACP Task Force on Faculty Workforce argues for a focus on recruitment and retention of qualified pharmacy faculty members through multiple lenses.⁴¹

One of the major draws into an academic career is the opportunity to teach and mold or impact the lives of others.⁴² Pharmacy practice faculty members have cited the opportunity to combine teaching with direct patient care as 1 of the more compelling aspects of the job.⁴³ This is well reflected in the items proffered from the panel, as 6 of the items identified were specifically related to teaching. Grant writing, which is 1 of the greatest deterrents to pharmacy students choosing a career in academia,⁴² was identified as an important item in a psychological contract. Salary, another reason faculty members cited for leaving an institution,⁴⁰ was also reflected in the psychological contract breach items (ie, annual salary adjustment, fringe benefits, start-up funds). Excessive workload is 1 of the most frequently cited reasons for pharmacy faculty members leaving an institution.⁴⁰ Overall workload, overall teaching load, and expectations for scholarly productivity were all included in the items proffered as important components of a putative measure of psychological contract.

Many faculty members experience role stress throughout their career.⁴⁴⁻⁴⁶ As such, it is important to uphold the balance among teaching, research, and service. Additionally, the opportunity to engage in this triad has been identified as the most attractive aspect influencing the decision to accept a faculty position.⁴³ Benchmarking has been proposed in pharmacy academia to help with measuring the quality of educational and research programs.⁴⁷ Although Bosso and colleagues do not address psychological contracts by name, the clear communication and measurement culture, which they argue are needed for benchmarking,⁴⁷ should help uphold psychological contracts, the fulfillment of which has been correlated with intention to stay with a university.²²

Deans and department chairs play an important role in developing a transparent and responsible culture, considering that department chair support is a direct influence on turnover intentions.⁴⁰ The AACP's recent focus on department chair development acknowledges the importance of this relationship.⁴¹ Mentoring is another effective approach to retaining faculty members and decreasing work stress.⁴⁸ The Delphi panel in the current study found mentoring to be an important aspect to include in psychological contracts (eg, formal mentoring program, and informal mentoring). A sample of university scientists perceived that if their psychological contracts were upheld, they achieved greater research productivity and career advancement.²²

Although the Delphi was used primarily to inform an instrument for future research on the relationship of psychological contract breaches with other work-related factors affecting pharmacy faculty members, its findings also have relevance to the practice of recruitment and retention in colleges and schools of pharmacy. These items indicate what factors are important to pharmacy faculty in pursuing a career in academia and should be considered when recruiting, interviewing, and developing faculty members. Frequent clear communication and mentoring specifically on these items may reduce the incidence of psychological contract breaches as well as ameliorate the repercussions that may follow a psychological contract breach.

The results of any Delphi procedure are limited by the expertise of the panel participants and the level of diligence with which they carried out the process. Based on their comments to the investigators and responses to open-ended questions, the Delphi procedure survey participants in the current study seem to have approached this responsibility with diligence. However, their conforming to their peers' ratings of items in latter rounds on the basis of convenience rather than earnest beliefs cannot be ruled out. Regardless of the panel's level of expertise, a different set of participants may have generated a slightly different set of items. A purposive sampling strategy was employed to gain representation from the basic, clinical, and social/administrative sciences, in addition to representation by type of institution, faculty rank, and participation in administrative activities. If a focus group had been used instead of a Delphi procedure, the opinions and items important to disciplines with lesser representation or from junior faculty members may have been minimized. Because of the anonymous nature of the Delphi, if individual faculty members thought they were the only ones representing their respective disciplines, they may have been more open to voicing opinions than they would have been in a face-to-face interview. Faculty members were not

sought purposively from all 8 academic sections denoted by AACP; however, there were participants with membership and experience in more than 1 section, such as pharmacy practice with experience and/or responsibilities in experiential education and basic sciences with joint or combined appointments in pharmacology and medicinal chemistry.

Researcher bias is another possible limitation. The research team selected the original definition, the first set of instructions, and the development of the round 2 list of items from the comments and suggestions generated by the first round. Although there are several ways to define organizational citizenship behaviors, the research team intentionally chose to provide only 1 definition. This decision was made to lower participant burden/confusion and to allow the generation of items to transpire under the auspices of a well-renowned and accepted conceptual definition. The list was developed from participants' comments and suggested items, which limited the influence of the researchers in an attempt to maximize participant input.

The proposed list of items requires further validation and reliability testing for use as a measure of psychological contract breaches in a department, college, or school. The items generated from this process should be employed in studies with larger sample sizes and validated using quantitative designs. Further refinement of the psychological contract breach measure should include item analysis for reliability and factor analysis to evidence convergent and discriminant construct validity. The use of this study's procedures to inform item generation followed by the aforementioned quantitative approaches is commensurate with recommendations for the development of measures used in survey research.⁴⁹

Identification and benchmarking of constituent faculty's perceived psychological contract breaches can become an important component in tracking the morale and climate of an organization. It might also assist administrators with identifying faculty expectations and unmet needs and with tailoring their interviewing and hiring processes. Finally, the measurement of psychological contract breaches can be helpful for administrators and researchers in determining their link to satisfaction, productivity, and other work-related outcomes.

CONCLUSION

The list of psychological contract breaches generated by the modified Delphi procedure in this study provides colleges and schools of pharmacy useful guidance on identifying areas that need to be addressed to improve faculty recruitment, retention, and development. This list

potentially could be adapted for use among faculty members in different fields of study. Future research should include larger sample sizes and quantitative validation.

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