Quality Improvement Project for Improving Mentorship of Advanced Practice Registered Nurses

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Abstract

Background: Mentorship is not often included in healthcare settings as a major strategic priority, but it must be to achieve a culture of mentorship. There is a long-standing tradition of mentorship in academic health centers, most widely recognized in the well-established training model of physicians in medicine. A growing body of research documents the positive impact of mentorship on various outcomes, including research productivity, academic promotion, faculty retention, and career satisfaction. It is common for academic health centers not to have a mentoring program specifically designed for Advanced Practice Registered Nurses (APRNs) but those that do have formal have been demonstrated to contribute to job retention and job satisfaction.

Methods: Content was developed creating a pilot formal mentoring program for APRNs. Sixteen individuals were paired in a mentor/mentee relationship from the same specialty with years of experience for the mentees ranging from <1-7 years and for the mentors from 9-25 years. The pilot program lasted from September 2021-December 2021 in which the content was broken up into sessions, assigned approximately every three weeks. The content included materials from TEDx Talk videos, articles, and websites such as the School of Medicine's promotion site for information on starting and maintaining a site-specific curriculum vitae.

Results: Three of the four subscales were found to be statistically significant including job satisfaction, professional growth, and communication/feedback. Participants overall had high post-intervention survey results which results congruent with the trend of findings in the literature.

Conclusions: Mentorship has been critical to the advancement of APRNs in academic health centers. Implementation of formal mentoring is increasingly recognized as fostering success in

APRNs. The pilot program meaningfully improved three of the metrics related to career development and job satisfaction. This pilot project highlights the need for formal APRN and general Advanced Practice Provider mentoring programs to aid in overall career satisfaction, leading to clinician retention.

Keywords: Mentoring, mentorship, Advanced Practice Registered Nurses, APRN, Nurse Practitioner, Advanced Practice Provider, Academic health center, quality improvement

Introduction

Problem description

There is a long-standing tradition of mentorship in academic health centers, most widely recognized in the well-established training model of physicians in medicine (Pop, 2017). A growing body of research documents the positive impact of mentorship on various outcomes, including research productivity, academic promotion, clinical faculty retention, and career satisfaction (Choi et al., 2019). Political, social, and governmental influences have increased the nurse practitioner (NP) demand in the United States, however, there remains a lack of support and guidance for NPs in their new role (Daniele et al., 2017). Studies across the United States show a well-designed formal mentoring program may greatly improve the transition of NPs into a new role (Pop, 2017). It is common for academic health centers not to have a mentoring program specifically designed for nurse practitioners or Advanced Practice Registered Nurses (APRNs). APRN mentoring programs have been demonstrated to contribute to job retention and job satisfaction. Within the collaborating agency, Advanced Practice Providers (APPs) consist of 30% of faculty, including Advanced Practice Registered Nurses and Physician Assistants (PAs). In 2018, an APP engagement survey revealed over 60% of APPs report their onboarding experience was neither systematic nor well organized. Eighteen percent of APPs disagree or strongly disagree with the statement that they were provided sufficient mentoring and guidance at the time of hire to be able to confidently perform their clinical role as an APP (Bernstein & DeVane, 2020).

Available Knowledge

The philosophy that guides many teaching hospitals includes supporting faculty, residents, and APRNs into their new role (Choi et al., 2019). Formal mentoring programs have

been found to contribute to the academic, emotional, and social development of individuals by providing direct and indirect teachable moments which can enhance mentee's cognitive development, promote academic functioning, improve school motivation, and improve personal values (Pitcher, 2016).

Efstathiou and colleagues conducted a prospective longitudinal study with junior APRN clinician faculty to assess the short and long-term impact of formal mentorship program on job satisfaction and productivity (Efstathiou et al., 2018). One group of was enrolled in a formal mentorship program and another group did not have formal mentorship. The study revealed, at long-term follow up, faculty with mentors were more likely to hold senior faculty positions, despite no difference in initial administrative rank. Most of the mentees reported the program strengthened their long-term success, and a strong culture of lifelong mentorship was instilled in the group. In the APP Assessment and Improvement Project (2020), the plan to address the onboarding dissatisfaction is to introduce standard institutional onboarding, organizational immersion, peer networking, formal mentorship identification and support, dedicated coding, billing and documentation training and clinical proficiency evaluation (Bernstein & DeVane, 2020).

Systematic reviews, as previously mentioned, have demonstrated that mentorship is associated with increased career satisfaction, faculty retention, productivity, and promotion of clinical faculty (Farkas et al., 2019) and professional organizations have identified the lack of mentorship as a significant impediment to career development. Mentors can model professionalism and ethical behavior to mentees, while mentees can inspire mentors to remain true to their ideals and remind them of their original calling to practice healthcare (Choi et al., 2019).

Rationale

Patricia Benner has discussed how even 30 years ago, long-term, and ongoing career development was important in nursing due to the complexity and responsibility of nursing practice (Davis & Maisano, 2016). Benner's novice to expert model was described as an "effective framework for leadership development and competency measurement, mentoring programs, advanced nursing practice skill acquisition, and professional advancement ladders" (Davis & Maisano, 2016), which can also be applied to APRN career and leadership development. Studies prove people who attend programs that enrich management knowledge through workshops, mentoring, and group activities had an increase in leadership and management competencies at the end of the program (Davis & Maisano, 2016). These studies also support those individuals who participate in these programs have an increase in confidence with assuming a leadership position even after the program.

Mentorship programs are often overlooked as a major strategic priority, but they are necessary to achieve a culture of mentorship. Institutions with successful mentorship programs and a culture of mentorship not only see higher rates of faculty productivity; increase in promotion and tenure criteria; but also, financial incentives by including savings in recruitment costs (Choi et al., 2019). To develop novices, an emphasis must be made by employers to understand the importance of investing time and commitment in their mentors.

The need for mentoring is particularly acute when considering the professional development of underrepresented minority faculty, who account for only 7% of full-time clinical faculty, and need to be incorporated into the academic workforce in greater numbers, at all levels. Developing targeted and culturally appropriate mentorship programs and building a supportive network of colleagues are key strategies for increasing diversity in academic medicine

and healthcare in general (Choi et al., 2019; Farkas et al., 2019). Skill sets learned through mentorship programs can differ from those generally taught in academic programs and can be enhanced through programs designed to foster leadership, many of which include a significant mentoring component and are targeted toward women and members of underrepresented minorities (Choi et al., 2019; Farkas et al., 2019).

Women remain underrepresented in academic medicine, particularly in academic medicine and the lack of women in leadership has been shown to have negative implications for both patient care and educational outcomes (Farkas et al., 2019). A systematic review done by Farkas et al., suggests that mentorship programs designed for women are met with high satisfaction and can help promote and retain women in academic medicine. Mentorship has been proposed as one important method to address gender/racial disparities and bias (Choi et al., 2019; Farkas et al., 2019).

Specific Aim

The aim of this DNP quality improvement mentoring pilot project is to increase the job satisfaction scores of APRNs based off a pre- and post-intervention survey.

Methods

Context

This project took place at a 576-bed academic medical facility in the Pacific Northwest region of the United States. The author collaborated with two microsystems that have APRNs who will benefit from participation in this mentoring project. One microsystem was an inpatient focused clinic, providing pediatric care and certified nurse anesthetists. The second microsystem was from two outpatient clinics, providing care in family medicine and hematology/oncology.

Interventions

Content was developed to create a pilot formal mentoring program for APPs. The intention of the program is to include all APPs, with the participants of this pilot program being APRNs. Sixteen individuals were paired in a mentor/mentee relationship from within the same specialty with years of experience for the mentees ranging from <1-7 years and for the mentors from 9-25 years. The pilot program lasted from September 2021-December 2021, in which the content was broken up into sessions with work assigned approximately every three weeks. The content included materials from resources including TEDx Talk videos, articles, and websites such as the School of Medicine's promotion site for information on starting and maintaining the site-specific curriculum vitae (see Appendix A).

The pairs initially met with the author over a synchronous WebEx meeting to review the program materials and then were broken up into WebEx breakout rooms to review an APP Mentoring Pilot Program Partnership Agreement (see Appendix B). In the pilot program agreement, the pairs were asked to create three obtainable goals for the mentee. The pairs also discussed in what capacity they would meet, whether online or in-person, for their mentoring sessions. They were asked to decide how often they would meet, such as every two weeks or once a month, and how long, such as half an hour or hour. The agreement had ground rules for the pair to discuss for their mentoring relationship and how to respectfully cancel a meeting, if needed. After the synchronous session the pairs were asked to make calendar dates for their first meeting together.

Once the program launched, in the first Plan-Do-Study-Act (PDSA) cycle (see Figure 1), the author received feedback that a tracking worksheet would be beneficial and developed a Goals Tracker Worksheet (see Appendix C), which was a "living document" that the pairs could add to each session, such as action steps they were taking to reach the mentee's goals or barriers

to meeting the goal. The tracking worksheet was created to be a tool that could be downloaded and reviewed during and after the pilot project had ended.

Every three weeks the author sent follow-up emails prompting them with the upcoming content work. The author was also able to observe 1:1 mentoring sessions via WebEx.

The mentor and mentee were surveyed pre- and post-intervention, using a survey created and administered in Qualtrics. Qualitative data was gathered in the post-intervention survey through open comments in Qualtrics.

Study of the Intervention(s)

Study of the intervention focused on tracking unanticipated contextual influences on the project outcomes. Unintentional impact of this project was monitored by the session start emails with the mentoring pairs so the author could add content material if needed. The pilot program ran from September-December 2021, at the height of the Omicron variant in the COVID-19 pandemic. It would have been expected for participants not to be as engaged with the program content but by report most pairs met as scheduled.

Measures

The predominant measure for tracking effectiveness of the intervention was the Qualtrics pre- and post-project survey which was formally analyzed using a t Test. Survey questions were adapted from the Misener Nurse Practitioner Job Satisfaction Survey. The Misener job satisfaction scale was constructed as a reliable and valid instrument to measure job satisfaction among nurse practitioners (Misener & Cox, 2001). Survey questions were separated into four subscales including job satisfaction, professional growth, job recognition, and communication/feedback. The questions were rated on a categorical level of 1 through 5 with 1

representing very satisfied to 5 representing very dissatisfied (Appendix D). Qualitative data was collected from comments gathered by the participants in the post-intervention survey.

Analysis

The data collected from the pre- and post-program Qualtrics survey measured improvement or dissatisfaction of the four subscales by a 2-tailed score, with a p-value of <0.05 considered as statistically significant. Descriptive statistics were compiled in an excel spreadsheet with the results analyzed by running a Paired Samples t Test.

Ethical considerations

A proposal of this project was submitted to the local Internal Review Board and identified as exempt. Because of the potential conflict of interest connected to the author's administrative position, it was ensured that none of the project participants reported to the author.

Participation was purely voluntary so there may be consideration of individuals wanting this experience and volunteering versus other's not being engaged in their work and therefore not taking on extra tasks.

Volunteers were solicited by a lead APP email in which those leads would need to find the project important enough to pass on to their peers.

Results

Sixteen participants volunteered for the pilot mentoring project (n= 16). Between the launch of the pilot program in September 2021 to the end in December 2021 only one group dropped out due to the pressures and time of the COVID-19 Omnicron surge. Participants were asked to provide their name on the surveys for tracking pre- and post-results but would otherwise not be used.

Three of the four subscales were found to be statistically significant including job satisfaction, professional growth, and communication/feedback. Participants overall had high post-intervention survey results with results congruent to the trend of findings in the literature.

Job satisfaction was found to be statistically significant (p= 0.0129), which is supported by findings in study outcomes by Choi et al., 2019 & Pop, 2017 that focus on improved career satisfaction. Professional growth was found to be extremely statistically significant (p= 0.0001), which is congruent with Pitcher (2016), whose work indicates that formal mentoring programs contribute to academic, emotional, and social development of individuals. Data in the Communication/feedback subscale were found statistically significant (p= 0.002), which is supported by studies that explore how participants who attend mentoring programs enrich their management knowledge through workshops, and group activities. Studies looking at these outcomes noted an increase in leadership and management competencies at the end of the mentoring program (Davis & Maisano, 2016).

One area not found to be statistically significant (0.0336) was job recognition. The Omicron variant surge of the COVID-19 global pandemic occurred during the duration of this project. Research during the pandemic indicated significant professional burnout in healthcare providers, which significantly impacted the operations of the US healthcare system. (Reitz et al., 2021). Job roles and responsibilities changed to adapt to the needs of patient care related to restrictions during a global pandemic, which may have impacted the responses to this subscale by the Pilot Project participants (Reitz et al., 2021).

Discussion

Summary

This DNP project sought to improve mentorship of a variety of APRNs, with an intention of including all APPs. It aimed to create content for participants to use in mentoring sessions to collaboratively work on goals for the mentee that ran from September 2021-December 2021. The desired outcome of the pilot program was to increase the scores in overall job satisfaction, with support from the literature findings indicating formal mentoring programs contribute to the academic, emotional, and social development of individuals (Pitcher, 2016). PDSA cycle 2 was utilized to continue to develop content as the program progressed, with PDSA cycle 3 utilizing opportunities for growth and addition of education content if a formal program were to be created from this pilot project.

Interpretation

Three subscales were noted to be statistically significant - job satisfaction, professional growth, and communication/feedback. The noted improvement in these subscale scores between pre and post assessment may have been due to the content that was provided and educational materials, the formalized mentoring relationships, and the overall sense of connection achieved in the pilot program. Some comments received in the qualitative data section in the post-intervention survey included: “Establishing a formal mentor/mentee relationship was the most helpful part of the program”, “I think the content related to empathy and having better conversations was helpful, since it is applicable to a wide variety of situations. I enjoyed watching the TED Talk videos”, “I liked that we had dedicated time every few weeks to meet. Our schedules could get busy, so having something on the calendar and topics to discuss made it consistent and we both came prepared”.

Limitations

The size of the pilot project is a limiting factor with only sixteen participants. Due to this small sample size, a paired t test analysis was the best way to interpret the data.

It was intended for this pilot program to include all APPs but unfortunately no PAs volunteered to participate.

One of the overall comments for improvement in the qualitative section was to make the program longer. Ideally, most formal mentoring programs are shown to be most successful from six months up to nine- or twelve-months (Choi et al., 2019).

Participants who were mentors asked for more content on how to be a mentor, especially those who had never formally mentored. Some felt they were simultaneously trying to learn to be a mentor while giving their mentee a positive experience. In an ideal experience, content that would teach the mentors about elements of strong mentoring would precede the session series of mentors with mentees.

Conclusions

Mentorship has been critical to the advancement of APRNs in academic health centers. Implementation of formal mentoring is increasingly recognized as fostering success in APRNs. The pilot program meaningfully improved three of the metrics related to career development and job satisfaction. This pilot project highlights the need for formal APRN and general APP mentoring programs to aid in overall career satisfaction, leading to clinician retention.

References

Bernstein, J. & DeVane, K. (July 2020). APP Assessment and Improvement Project: Findings and Recommendations. *OHSU Solutions Summary.*

Choi, A., Moon, J.E., Steinecke, A., & Prescott, J.E. (2019). Developing a Culture of Mentorship to Strengthen Academic Medical Centers. *Academic Medicine, 94*(5), 630-633. *doi: 10.1097/ACM.0000000000002498*

Daniele, P.B., McTiernan, T., & Lapera, C. (2017). The Nurse Practitioner Mentorship Program: Supporting Role Transition into Practice. *Sigma Repository* from http://hdl.handle.net/10755/622066

Efstathiou, J.A., Drumm, M.R., Paly, J.P., Lawton, D.M., O'Neill, R.M., Niemierko, A., Leffert, L.R., Loeffler, J.S., & Shih, H.A. (2018). Long-term impact of a faculty mentoring program in academic medicine. *PLoS ONE, 13*(11), 1-12. https://doi.org/10.1371/journal.pone.0207634

Farkas, A.H., Bonifacino, E., Turner, R., Tilstra, S.A., & Corbelli, J.A. (2019). Mentorship of Women in Academic Medicine: A Systematic Review. *Journal of General Internal Medicine, 34*(7), 1322-1329. doi: 10.1007/s11606-019-04955-2

Misener, T.R. & Cox, D.L. (2001). Development of the Misener Nurse Practitioner Job Satisfaction Scale. *J Nurs Meas,* 9(1), 91-108. DOI: 10.1016/j.nurpra.2020.04.012

Pitcher, D. (2016). Evaluating a Program for Preparing Nurse Practitioner Preceptors/Mentors. *Journal of Doctoral Nursing Practice, 9*(1), 158-163. http://dx.doi.org/10.1891/2380-9418.9.1.158

Pop, R.S. (2017). Mentoring Nurse Practitioners in a Hospital Setting. *Journal of Nursing*

Research, 25(4), 304-309. doi: 10.1097/JNR.0000000000000161

Reitz, K.M., Terhorst, L., Smith, C.N., Campwala, I.K., Owoc, M.S., Downs-Canner, S.M., Diego, E.J., Switzer, G.E., Rosengart, M.R., Myers, S.P. (2021, November 19). Healthcare providers' perceived support from their organization is associated with lower burnout and anxiety amid the COVID-19 pandemic. *PLOS One,* from https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0259858 https://doi.org/10.1371/journal.pone.0259858

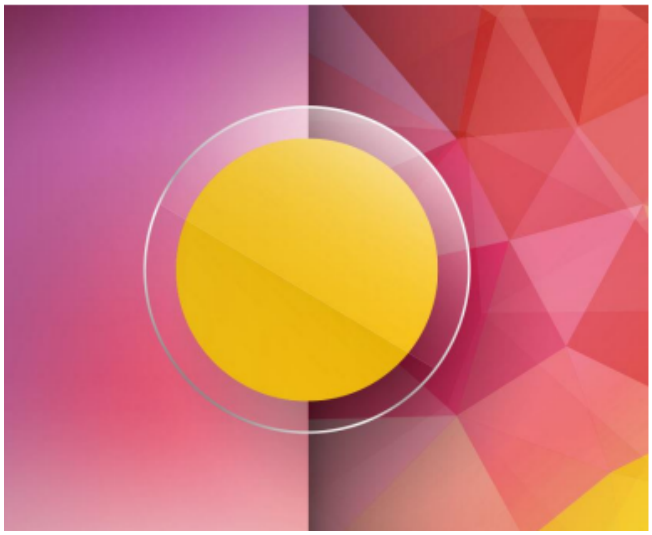
Rohrich, R.J. (2003). Mentors in medicine. *Plastic and Reconstructive Surgery*, 112 (4): 1087-1088.

Appendix A Sample Content from APP Pilot Mentoring Program

Goals for Mentoring Program

- Develop a peer mentoring experience for career development closely aligned with participants' core values
- Create a mentoring program where participants experience an inclusive, trustworthy culture of learning and creativity
- Support participants in developing skills in leadership, collaboration, mindfulness, meaningful dialogue, and other skills crucial for a successful mentoring relationship

A Mentor is not someone who walks ahead of us to show us how they did it. A mentor walks alongside us to show us what we can do.
-Simon Sinek



Session 1

"Establishing your Mentoring Relationship"

Launch meeting with mentor/mentee pairs

Discussion and breakout session

Pre-mentoring program survey (30 questions)
Survey link

Session 2

"The Science of Mentorship"

TEDx Talk video: "Science of Mentorship" by Shawn Blanchard
Video link

Reflection questions- Page 4

Appendix A Sample Content from APP Pilot Mentoring Program, cont.

Reflection Activities

Session 2
October 11-October 31

Please watch Shawn Blanchard's TEDx video on "Science of Mentorship": Video link

Reflect together on some of Shawn's points through the video and answer these questions together:

- What unconscious mentorship has shaped you?
  - Good examples?
  - Bad examples?
  - Really good bad examples?
- What are your favorite informal mentoring resources?
  - Social media, magazines, books, music, art, hobbies, music, TV shows, motivational speakers, news mediums, websites, social groups
- What activities in our mentoring relationship will best assist you in creating consciousness around your practice goals?

Appendix B APP Mentoring Pilot Program Partnership Agreement

APP Mentoring Pilot Program Partnership Agreement

We have agreed on the following goals and objectives as the focus of the mentoring relationship:

1.
2.
3.

We have discussed the ways in which we will work together, develop, and, in the spirit of partnership, collaborate on the development of a work plan. In order to ensure that our relationship is a mutually rewarding and satisfying experience for both of us, we agree to:

1. Meet regularly. Our specific schedule of contact and meetings is as follows (how often, where, etc.).
   - If one person needs to cancel a meeting it has been discussed how this will be done:
2. Look for multiple opportunities and experiences to enhance the mentee's learning. We have identified and will commit to the following specific opportunities and venues for learning:
3. Maintain confidentiality of our relationship. Confidentiality for us means:
4. Honor the ground rules we have developed for the relationship. Our ground rules are:
5. Provide regular feedback to each other and evaluate the progress. We will accomplish this by:

We agree to meet regularly until we accomplish our predefined goals or for a maximum of []. At the end of this period of time, we will review this agreement, evaluate our progress, and reach a learning conclusion. This relationship will then be considered complete. If we choose to continue our mentoring partnership, we may negotiate a basis for continuation, so long as we have stipulated mutually agreed on goals.

In the event one of us believes it is no longer productive for us to continue or the learning situation is compromised, we may decide to seek outside intervention or conclude the relationship. In this event, we agree to use closure as a learning opportunity.

By signing this agreement, you agree to have screenshots for documentation purposes only for DNP Project presentation. Please check the box if you DO NOT wish for your picture to be used.

Mentor's signature / date _____ _____ ☐

Appendix C APP Mentoring Pilot Project Goals Tracker Worksheet

APP Mentoring Pilot Project Goals Tracker

Start Date:

Mentor name: **Mentee name:**

Goal 1:

Goal 2:

Goal 3:

Date of meeting:

Action Steps for achieving goal:

Barriers to meeting goal:

Comments:

Date of meeting:

Action Steps for achieving goal:

Barriers to meeting goal:

Appendix D Qualtrics Post-Intervention Survey-sample

APP Mentoring Pilot Post-Program Survey

Start of Block:

Q1 Please provide your full name and credentials (this will not be published, it is only for the purpose of the pre and post survey)

_____

Q2 Please provide length of time in years as an Advanced Practice Provider

_____

Q3 Please provide length of time in current role as an Advanced Practice Provider and the department/specialty you work in

_____

Q4 How would you rate your overall mentoring experience? (Experience overall not just program)

- ○ Extremely satisfied (1)
- ○ Somewhat satisfied (2)
- ○ Neither satisfied nor dissatisfied (4)
- ○ Somewhat dissatisfied (5)
- ○ Extremely dissatisfied (6)

Q5
For the following questions: After your mentoring experience: **How Satisfied Are You in Your**

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Q31 Do you feel the content provided in this pilot mentoring project was useful in your career (Tedx videos, article, reflection questions)?

- ○ Not at all useful (9)
- ○ Slightly useful (10)
- ○ Moderately useful (11)
- ○ Very useful (12)
- ○ Extremely useful (13)

Q32 Please provide a brief overview of your experience: What was most helpful? What topics did you like the best? If content were added what else would you like for topics? If the program were longer, how long would you feel would be useful-6 months, 9 months, or 12 months?

_____

Q33 Do you and your mentoring partner plan to continue your mentoring relationship after this pilot program?

- ○ Yes, we'll keep meeting (1)
- ○ Yes, but informally (2)
- ○ No, we plan to end our mentoring relationship (4)

End of Block:

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*Adapted from Misener Nurse Practitioner Job Satisfaction Survey

Figure 1 PDSA Cycle

Planning

June-September 2021

PDSA 1

Development of Content, based on findings in the literature

Development of Survey questions, based on tools in literature

Development of APP Mentoring Agreement, based on tools in the literature

Session 1-5

September-December 2021

PDSA 2

Added Goals Tracking Worksheet, based on feedback

Added sending email at the beginning of each session

Asked for informal feedback asked for mid program and followed up on individual feedback

Added email follow-up to certain pairs on steps to achieving goals

Conclusion

December 2021-January 2022

PDSA 3

Added open comments to Qualtrics survey

Added individual email follow-up on comments

Added completed certificate of completion once surveys were done

Figure 2 Paired Sample t test from Pre- Post-Program Qualtrics Survey

Group	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Job Satisfaction Pre	1.9021	0.7882	0.2107	0.5389	0.0768	2.8782	13	0.0129
Job Satisfaction Post	2.2100	0.6887	0.1841					Stat sig
Professional Growth Pre	2.2350	0.6760	0.1807	0.3332	0.1668	6.4931	13	0.0001
Professional Growth Post	2.4850	0.6339	0.1694					Stat sig
Job Recognition Pre	2.1043	0.5367	0.1434	0.2008	0.1337	0.4337	13	0.0336
Job Recognition Post	2.1379	0.5154	0.1377					Not Stat sig
Communication/Feedback Pre	2.500	0.714	0.191	0.346	0.140	5.0902	13	0.0002
Communication/Feedback Post	2.743	0.798	0.213					Stat sig