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RESEARCH PAPER

Effectiveness of Junior Faculty Mentoring Relationships in the Colleges of Pharmacy in Metro Manila, Philippines

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Abstract

The aim of the study was to describe mentoring profile, correlate mentoring profile with mentoring effectiveness and career related outcomes. Cross sectional descriptive research with key informant interviews and survey as data collection procedures of all colleges of pharmacy in the NCR were employed for the studies. There were 13 deans, 80 junior faculty members and 34 identified mentors that participated in the study at 89.4% total response rate. Majority of relationships were between a junior and senior faculty member occurring in an informal and unstructured way. The benefits of mentoring relationships were higher percentage of research involvement, higher frequency of administrative positions, and more career related outcomes. The regression equation created from the analysis are [mentoring effectiveness score = 6.16 + 0.45 (cultivation phase) + 0.48 (formal mentoring program)] and [career related outcomes = 0.31 (mentoring effectiveness) – 0.08.]. The author recommends the creation of institutionalized formal mentoring programs that include characteristics of the program correlated to positive results.

Introduction

Mentoring is considered as an important aspect of faculty development, retention, professionalization, and career path decision making (Hagemeier *et al.* ,2013). Mentoring programs designed for a junior faculty can serve to address both the art and science of teaching, by providing a formal guide to increase focus on both of these sides of teaching effectiveness, competence can improve, and the faculty member benefits with increased job satisfaction (Shim H and Roth G, 2008).

The pharmacy workforce in the academe in Metro Manila is predominantly young, female, may be classified in the early stages of their careers as demonstrated by the large proportion of teachers in the instructor levels, with no graduate degrees yet and are non-tenured. (Loquias MM and Robles YR, 2012).

The large number of faculty members in the non-tenure track can be indicative of faculty retention concerns (Beardsley R *et al.,* 2008). Educational leaders can minimize turnover by altering the organizational environment by increasing the support it provides to its faculty (Loquias MM and Sana EA, 2012).

While mentoring is associated with positive professional and personal outcomes, little is known about the existence of mentoring programs and relationships for junior faculties of the colleges of pharmacy in the Philippines. There are no locally published reports yet that explore its potential to address the current issues of pharmacy in the academe. Furthermore, no study is conducted yet in the Philippines to study the factors and the mentoring model that may lead to effective mentoring and positive career related

outcomes. This research will therefore answer the following research questions:

1. What are the characteristics of junior faculty and mentors in the colleges of pharmacy?
2. How is mentoring experienced by the junior faculty members of the colleges of pharmacy?
3. What is the relationship of mentoring profile to mentoring effectiveness based on the perceptions of junior faculty?
4. What are the career related outcomes of junior faculty members attributable to mentoring?
5. What is the effect of mentoring effectiveness on career related outcomes of junior faculty members?

The research is guided by the conceptual framework (Figure 1).

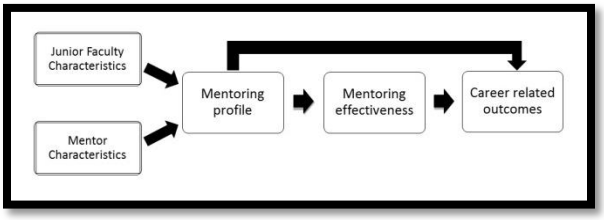

Figure 1: Conceptual framework

The study looked at how junior faculty and mentor characteristics (age, sex, marital status, highest educational attainment, and current degree course enrolled in, years of teaching experience, years of teaching in the current institution, tenure status, employment status, academic rank, teaching load, average monthly income, mentoring history, and mentoring predisposition) affect the mentoring profile of the academic institution. And then looked at the effect of mentoring profile by comparing the different groups under each mentoring configuration in terms of mentoring effectiveness and career-related outcomes of junior faculty.

The mentoring profile that predicted mentoring effectiveness score was also determined as well as relationship between mentoring effectiveness and career related outcomes. With this conceptual framework the hypotheses of the study are:

1. There are no significant differences between mentors with mentoring history and those with none with respect to the following variables:

   a. Duration of mentoring relationship
   b. Terms of availability for consultation,
   c. Career development predisposition,
   d. Psychosocial support predisposition

2. There are no significant differences between groups from different mentoring profiles in terms of mentoring effectiveness and career related outcomes:

a. There is no correlation between mentoring profile with mentoring effectiveness.

b. There is no correlation between mentoring effectiveness with career related outcomes.

This research can provide insights and baseline data for administrators and future researchers related to decision making on creation of institution-initiated formal mentoring programs to address current issues in the academe such as high attrition rate in junior faculty members and career-related productivity. Furthermore, the study identified the factors and mentoring profile that lead to mentoring effectiveness and career-related outcomes that may offer recommendations and guide in designing mentoring programs appropriate for the colleges of pharmacy.

Methodology

Research study design

The study used a cross sectional descriptive survey and analytical research designs. The cross sectional descriptive survey was used to describe the characteristics of the mentors, the junior faculty mentee and how mentoring relationships are conducted in the academic institutions. These served as the independent variables for the correlation study. Analytical research aims to explore the relationships between the independent variables identified in the survey with the dependent variable, mentoring effectiveness score and career-related outcomes. The research also identified the career-related outcomes associated to effective mentoring relationships as well as compared the dependent variables between the groups (with mentor, self-perceived mentor, and no mentor).

Population and Sampling technique

Population of this study refers to all pharmacy schools in the Philippines and their respective junior faculty members. Accessible population refers to all those based in the National Capital Region (NCR), also called Metro Manila. There are 13 schools of Pharmacy in the NCR that produced board examination takers for January 2015. These schools represent 28.86% of all those with graduates who took the January 2015 Pharmacist Licensure Examination in the Philippines. The schools in the NCR are selected because more than 50% of the total graduates of pharmacy come from this region (Beardsley R *et al*, 2008).

The corresponding deans of these colleges, the junior faculty members they identified, and all the mentors the latter identified comprised the respondents in the study. The following inclusion and exclusion criteria were used:

1. Junior faculty in this study is a certified faculty member for the academic year 2013-2014 of any College of Pharmacy in Metro Manila with not more than five (5) years of experience in the academe or has a work experience in any College of Pharmacy in Metro Manila.

2. Mentor is a senior faculty who is an active member of the academic institution identified by the junior faculty respondents in the question "Who is your most influential mentor in the academe?" The mentor should have either seniority over the junior faculty mentee in the form of graduate degree, tenure or an academic rank higher than that of the junior faculty.

Data Collection Procedures

The data collection procedure has three phases. Phase I is a structured interview with the deans of the Colleges of Pharmacy. Phase II is a structured interview followed by a survey with the junior faculty members and Phase III is a survey of all identified mentors. To measure the mentoring effectiveness score, the scale developed and previously pretested by Berk RA et al (2005) was adopted. Permission to use the tool for the purpose of this research study was granted by the Prof. Ronald Berk on behalf of his colleagues through electronic mail. The questionnaires used in this study were previously critiqued and pretested to a class composed of different teachers from different health care professionals at the National Teacher Training Center for the Health Professionals of the University of the Philippines Manila.

Phase I: Interview with the Deans

The interview sought to find out the mentoring profile of the academic institution by determining the presence of formal or informal mentoring, number of mentor and junior faculty mentees in the academic institution, the predominant mentoring model (one-on-one, or group mentoring) used, the goal of the mentoring relationships, the mode of matching mentors and junior faculty mentee, the nature of mentoring relationship and evaluation of existing mentoring relationships.

Phase II: Interview and survey with junior faculty

The junior faculty mentees were asked to describe their mentoring relationship by asking the respondents their definition of mentoring, perceptions on how the mentoring relationship began, the basis for selecting the mentor, the goal of the mentoring relationship, topics that they typically discuss, the role of the mentor and the strengths and weaknesses of the relationship.

The junior faculty members were also asked if they have publications, presentation or poster, new teaching method or strategy, clinical expertise, conducting research, service activities (e.g., community service, political activity, professional organization), development of a program: (e.g., educational/clinical course or new program of study, job change/promotion, and grant writing/submission. They were also asked on how their mentoring relationships played a role in these outcomes.

Phase III: Survey with the mentor

The first part measures the mentor's characteristics (demographic information and employment information) and the second part is mentoring profile which includes mentoring history, tendency to mentor younger faculty members, availability for mentoring and perceived impact of mentoring in own career.

Data processing and analysis

All quantitative data were encoded and statistically analyzed using Microsoft Excel 2013. All categorical variables were converted to dummy variables prior to analysis, the dummy variables act as a replacement

independent variable. All continuous variables and responses to open ended questions were encoded as is using Excel.

The data from characteristics of mentor and mentee and the mentoring profile were analyzed using descriptive statistics specifically measures of central tendency and measures of variability or dispersion.

The mentoring effectiveness score scoring system per item was:

No response = 0

Not Applicable (NA) = 1

Strongly disagree (SD) = 2

Disagree (D) = 3

Slightly Disagree (SlD) = 4

Slightly Agree (SlA) = 5

Agree (A) = 6

Strongly Agree (SA) = 7

The mentoring effectiveness score was averaged. Items 1-6 of the mentoring effectiveness scale covers the Psychosocial support (PS) score and career development (CD) support score on the other hand covers items 7 to 12 mentoring effectiveness scale. Overall mentoring effectiveness score refers to the average of PS and CD scores.

The mentoring effectiveness score served as the dependent variable in the correlation study. A stepwise estimation approach was employed to determine which independent variable: mentoring profile, to include in the multiple regression analysis. A correlation study was also performed with the number of career-related outcomes as the dependent variable and mentoring effectiveness score as the independent variable. The second part of the analysis involved grouping of junior faculty respondents according to the groups: with mentor and self-perceived mentor. Analysis on the differences on mean for mentoring effectiveness score of junior faculty was done using student T test at 95% confidence interval assuming unequal variances between the groups. For categorical variables chi-square goodness of fit test.

Results and Discussion

There are thirteen (13) colleges pharmacy in Metro Manila and all deans agreed to participate in the study. Of the thirteen (13) schools only one is publicly funded. The number of junior faculty and mentors for each schools are highly varied (Table 1) ranging from 2 to 25 faculty members. Eighty (80) out of eighty nine (89) junior faculty members agreed to participate in the study at a response rate of 89.8%. While for the identified mentors 88.2% response rate (30 of 34 faculty members) participated.

Junior faculty characteristics

Majority of the junior faculty respondents were female, holder of bachelor's degree in pharmacy with a mean age of 25.8 years. In terms of work related variables, majority are full time, temporary or contractual instructors with a mean years of service at 2.2 years, handling 13-24 units of academic load at a salary grade that ranges from P15,000 -20,000 per month (Table 2).

Mentor Characteristics

The mentors considered for the study are those who were identified by their junior faculty mentee. Based on the data gathered, 56.2% of the mentor respondents were female, holder of master's degree in pharmacy with a mean age of 40.9 years and 60% of which were single. In terms of work related variables, majority were full time, permanent/ tenured assistant professors with mean years of service at 16.4 years, handling administrative positions and 13-24 units of academic load at a salary grade of >P30,000 per month (Table 3).

Out of the 30 identified mentor majority were aware that they had junior faculty mentee (76.7%). Of the 23, 18 or 78.3% were mentors with mentoring history. Data showed that mentors with mentoring history have a mean mentoring relationships with their mentors at 9.7 years and they still actively consult their mentors at an average of 5.6 days in a month.

If we compare the frequency of availability of the mentor for the junior faculty the mean is higher but not statistically significant ($t=0.29$, $p=0.39$). The alpha value is set at 0.05. The perceived impact of mentor is also statistically significant ($t=2.58$, $p=0.03$) at alpha 0.05. In terms of predisposition to career development

Table 1: Distribution of junior faculty and mentors in the Colleges of Pharmacy in Metro Manila

School	Number of junior faculty	Number of junior faculty respondents	Junior Faculty response rate (%)	Number of mentor	Number of mentor respondents	Mentor response rate (%)	Total response rate (%)
1	14	13	92.9	6	6	100.0	95.0
2	5	4	80.0	1	1	100.0	83.3
3	25	20	80.0	2	1	50.0	77.7
4	8	8	100.0	2	1	50.0	90.0
5	6	6	100.0	2	2	100.0	100.0
6	6	6	100.0	5	5	100.0	100.0
7	4	4	100.0	1	1	100.0	100.0
8	2	2	100.0	1	1	100.0	100.0
9	7	7	100.0	7	7	100.0	100.0
10	2	2	100.0	1	1	100.0	100.0
11	3	3	100.0	3	2	66.7	83.3
12	2	2	100.0	1	1	100.0	100.0
13	5	3	60.0	2	2	100.0	71.4
Total	89	80	89.8	34	30	88.2	89.4

Table 2: Demographic profile of junior faculty respondents (n=80)

Variables	Descriptions	Frequency	%
Sex	**Female**	**45**	**56.2**
	Male	35	43.7
Highest educational attainment	**BS Pharmacy**	**59**	**73.7**
	MS Degree	12	15.0
	BS Industrial Pharmacy	3	3.8
	Doctor of pharmacy	2	2.5
	Clinical Pharmacy	1	1.3
Academic rank	**Instructor**	**67**	**83.7**
	Assistant Professor	6	7.5
	Assistant Instructor	1	1.2
	Lecturer	1	1.3
Type of appointment	**Temporary/contractual**	**76**	**95.0**
	Permanent/tenured	4	5.0
Work status	**Full time**	**69**	**86.3**
	Part time	11	13.8
Average monthly income	**15,000- 20,000**	**28**	**35.0**
	20,000-25,000	21	26.3
	>25,000	13	16.3
	10,000-15,000	6	7.5
	< 10,0000	4	5.0
Academic units	**13-24**	**42**	52.5
	24-30units	11	13.7
	7-12 units	9	11.2
	<6 units	2	2.5

Table 3: Demographic and work related profile of mentor respondents (n=30)

Variables	Descriptions	Frequency	%
Sex	**Female**	**21**	**70.0**
	Male	9	30.0
Civil status	**Single**	**18**	**60.0**
	Married	12	40.0
Type of appointment	**Permanent/ Tenured**	**20**	66.7
	contractual/ Temporary	10	33.3
Work Status	**Full time**	**27**	**90.0**
	Part time	3	10.0
Academic rank	**Associate professor**	**12**	**40.0**
	Assistant professor	10	33.3
	Instructor	5	16.7
	Professor	1	3.3
	Lecturer	1	3.3
Teaching load per semester	**13-24 units**	**18**	**60.0**
	7-12 units	9	30.0
	<6 units	3	10.0
Administrative position	**Yes**	**22**	**73.3**
	No	8	26.7
Average monthly income	**>30,000**	**22**	**73.3**
	20,000-25,000	4	13.3
	10,000-15,000	2	6.7
	25,000-30,000	1	3.3
	15,000-20,000	1	3.3

Table 4: Mentoring profile

School	Type of mentoring	Mutually recognized mentoring	Self-perceived mentoring	No mentor	Percentage of junior faculty with mentoring (%)
1	Informal	7	3	3	76.9
2	Informal	1	0	3	25.0
3	Informal	0	2	18	10.0
4	**Formal**	**6**	**2**	**0**	**100.0**
5	**Formal**	**2**	**1**	**3**	**50.0**
6	Informal	1	4	2	71.4
7	Informal	0	1	2	33.3
8	**Formal**	**2**	**0**	**0**	**100.0**
9	Informal	2	4	1	85.0
10	Informal	2	0	0	100.0
11	Informal	0	3	0	100.0
12	Informal	0	2	0	100.0
13	Informal	1	1	1	66.7
Total		24	23	33	**58.8**

Table 5: Classifications of informal mentoring relationships

A. Variables	Attributes	Frequency	%
Informal mentoring relationships (n=70)	Mutual recognition	16	22.9
	Self-perceived mentoring	21	30.0
	No mentoring relationship	33	47.1

Table 6: Mentoring effectiveness score

Variable	Dimension	Self-perceived mentoring		Mutually recognized mentoring	
		Mean score	SD	Mean score	SD
Career development	Content expertise	6.57	0.61	6.35	0.71
	Constructive and useful critiques	6.18	1.22	6.48	0.73
	Provides direction and guidance on professional issues (e.g. networking)	6.31	1.13	6.39	0.72
	Provides answer to questions	6.34	1.14	6.48	0.67
	Suggest appropriate resources	6.17	1.15	6.48	0.79
	Provides challenges to extend abilities	6.31	1.18	6.39	0.78
Overall Career development support score		**6.32**	**1.07**	**6.43**	**0.73**
Psychosocial support	Supportive and encouraging	6.57	0.66	6.57	0.66
	Role model for professional integrity	6.86	0.35	6.65	0.57
	Motivates for improvement	6.69	0.52	6.57	0.66
	Acknowledges contributions	6.11	1.21	6.26	0.86
	Accessibility	5.89	1.32	6.22	0.80
	Approachable	6.64	0.59	6.70	0.56
Overall Psychosocial support score		**6.46**	**0.78**	**6.49**	**0.69**
Overall mentoring effectiveness score		**6.39**	**0.92**	**6.46**	**0.71**

Likert scale numerical equivalent 1- Not applicable, 2-Strongly Disagree, 3- Disagree, 4- Slightly Disagree, 5-Slightly Agree, 6-Agree, 7-Strongly Agree

Table 7: Research involvement and administrative role of Junior Faculty

Variables	Attributes	Mentee perceived mentor (n=36)		Mutual recognition (n=23)		No mentors (n=21)	
		Frequency	%	Frequency	%	Frequency	%
Research involvement	Yes	9	24.32	12	52.17	6	28.57
	No	28	75.68	11	47.83	15	71.43
Administrative position	Yes	12	32.43	4	17.39	1	5.00
	No	25	67.57	19	82.61	20	95.24

Table 8 Career-related outcomes of junior faculty in different types of mentoring formats

Criteria	Groups					
	Mentee perceived mentor (n=36)	%	Mutual recognition (n=23)	%	No mentoring relationship (n=21)	%
Publication	5	14	3	13	1	5
Presentation or poster	8	22	2	9	1	5
New teaching method or strategy	18	50	16	70		0
Clinical expertise	4	11	8	35	1	5
Conducting research	5	14	11	48	1	5
Service activities (e.g., community service, political activity, professional organization)	7	19	10	43		0
Development of a program: (e.g., educational/clinical course or new program of study).	3	8	1	4		0
Job change/promotion	3	8		0		0
Grant writing/submission		0	1	4	1	5

(t=1.44, p=0.11) and psychosocial support (t=1.32, p=0.13), both are also higher but not statistically significant.

Mentoring profile

Of the 13 schools of pharmacy only 3 schools (23.0 %) identified an existing formal institutional mentoring program according to the deans. The program has been running for a range of 2-5years so the programs are relatively new with an average of 3.3 years of existence. From the 3 programs, two required participation (66.7%) and therefore the participation is not voluntary for the mentee.

Of the 10 schools with no institutional mentoring program only 3 (30%) of deans indicated satisfaction with the current mentoring relationships in the school and consequently 70% (7 of 10) schools believed that there is a need for an institutionalized formal faculty mentoring program that focuses on teaching and learning strategies, test construction, teaching materials, and administrative responsibilities. The deans also displayed openness to an interschool mentoring program if logistically possible.

For the schools with no formal mentoring program, only 52% junior faculty members identified that they have mentors. In order to characterize the informal mentoring relationships, deans were interviewed. According to them majority of the mentoring relationships in the academic institution began spontaneously and naturalistically (91.5%), where the relationship began voluntarily between the junior faculty and the mentor informally (Table 4)

Mutually recognized mentoring compared to self-perceived mentoring

Of the 52% junior faculty members identified that they have mentors and only 43% of these lead to mutually recognized mentoring relationship. The majority are self-perceived mentoring relationships only. The mean for both frequency and duration of mentoring relationship is higher for the group with a mutually recognized relationship at 8.8 days per month compared to 6.1 and 18.4 months compared to 14.7, however there are no statistically significant difference using T-test with a P value of 0.25 and 0.51 respectively (Table 5)

Mentoring effectiveness

The highest average score is 7 and therefore at 6.39 and 6.46 we can say that the junior faculty rated their mentors at a high score, with those in a mutually recognized mentoring relationship as slightly higher (Table 6).
If we compare the means and variances of the two groups for these score there are no observed statistical difference using T test set at an alpha level of 0.05, PS score (t= 0.02, p= 0.98), CD score t=1.08, p=0.28) and total score (t= 0.08, p=0.42) respectively. Therefore we can say that whether the mentoring relationship is mutually recognized or self-perceived by the junior faculty only the mentoring effectiveness score of the respondents did not differ significantly.

Factors affecting mentoring effectiveness score

The Pearson correlation and regression analysis were run against the mentoring profile as the independent variables and mentoring effectiveness score as the dependent variable. The only characteristics with a p value lower than 0.05 was the variable for the stage of mentoring relationship (cultivation phase) at 0.01 and therefore could be considered as a factor with statistically significant effect on the mentoring effectiveness score.

Findings showed that the stage of mentoring relationship is the strongest predictor for mentoring effectiveness score at equation for total effectiveness score with the p value of 0.01; on the other hand junior faculty members in a formal mentoring program give a slightly higher mentoring effectiveness score. The regression equation created from the analysis is [mentoring effectiveness score = 6.16 + 0.45 (cultivation phase) + 0.48 (formal mentoring program)]

Career-related outcomes

Career - related outcomes between the different groups were also tested for correlations. In terms of research involvement the group of junior faculty with a mutually recognized mentoring relationship displayed the highest percentage at 52.7% (12 of 23) compared to only 24.3% (9 of 36) and 28.6% (6 of 21) of the junior faculty with self-perceived mentor and no mentor respectively.

For administrative positions the group with the greater frequency is the group of junior faculty with self-perceived mentor at 32.4% (12 of

36), followed by the group of junior faculty with a mutually recognized mentoring relationship at 17.4% (4 of 23) and again with the least frequency is the group of junior faculty with no mentor at 5.0% (1 of 21) only. (Table 7).

Chi square test for the research involvement yielded a value of 5.24 (p=0.05) and for the administrative position 6.44 (p=0.04), proving that there is a significant association in terms of the type of mentoring at level of significance α=0.05.

The group of mentors in mutually recognized mentoring relationship showed the greatest percentage of engagement on the following outcomes attributable to their mentoring relationship: new teaching strategy (70%), clinical expertise (35%), conduct of research (48%), and service activities (43%). On the other hand the group with self-perceived mentoring relationship displayed the most outcomes in publication (14%), oral or poster presentation (22%), development of a program: (e.g., educational/clinical course or new program of study) (8%) and job change/promotion (8%). The only criterion that is of majority in the group of no mentor was grant writing/submission (5%), all other criteria got the lowest percentage of the three groups (Table 8).

However, it should be noted that, while the junior faculty identified these outcomes as attributable to mentoring characteristics, cause and effect relationship cannot be directly established due to other confounding variables that may have led to these outcomes.

For mentoring effectiveness score as a predictor of number of types of career related outcomes, a regression analysis of the number of declared outcomes as the dependent variable and the total mentoring effectiveness score as the independent variable was performed. Result showed a p value of 1.4×10^{-5} and F value is equal 1.48×10^{-5} and therefore there is a significant relationship at α=0.05, R squared is 0.21 and therefore it means that it is predictive of 21% of the variability for the outcomes. The equation created is [career related outcomes = 0.31 (mentoring effectiveness) – 0.08.].

Conclusions and Recommendations

Mentoring relationships exist in the colleges of pharmacy in the Philippines. All identified mentoring relationships are between a junior faculty members and a senior faculty member. It was observed that mentors with higher work experience and expertise are identified by the junior faculty, and that those with mentoring history have a higher tendency to provide higher quality mentoring experience, thus proving the presence of cascade mentoring in the colleges of pharmacy.

The unstructured type of mentoring relationship reveals disadvantages such as lower frequency of meeting and availability of the mentors for consultation. This also leads to shorter duration of mentoring relationship. The benefits of mentoring relationships are appreciated and recognized by both mentors and mentees as well as deans and college officials. But most are at the initiation phase probably because the relationships are not formal and majority are unstructured.

There are observed advantages when a mentor has experienced mentoring. These mentors have a higher mean time availability for the junior faculty, higher predisposition to help the junior faculty in the career development and in providing psychosocial support. This implies that when a good mentoring relationship is created for the junior faculty members at present this would most likely lead to a culture of quality mentoring for the future.

This research also confirmed the advantages of having mentoring relationships. Results showed that junior faculty in a mentoring relationship had a statistically higher percentage of research involvement, higher frequency of administrative and more career related outcomes like publication, oral or poster presentation, on-going researches, engagement on new teaching strategy, clinical expertise, service activities, development of a program and job change/promotion.

Having an institutional based and structured formal mentoring program showed a positive correlation for mentoring effectiveness score. This is most likely attributable from the observed advantages of a clearly stated goal for the mentoring relationship, all junior faculty members are paired with a mentor, there are extrinsic incentives in terms of monetary compensation and recognition through certificates for the mentors and evaluation of the program is present.

Majority of the deans believed that there is a need for an institutionalized faculty mentoring program that focuses on teaching and learning

strategies, test construction, teaching materials, and administrative responsibilities they also displayed openness to an interschool mentoring program if logistically possible.

The basis of the junior faculty for selecting their mentors included the subject matter being taught by the junior faculty and over all working relationship and perception of a co-faculty. The topics that are usually discussed are either course subject related or topics related to career progress of the junior faculty. This finding suggests that the best candidate as mentors for the junior faculty are the senior faculty within the teaching team and individuals that show willingness to give career advice and psychosocial support to junior faculty members. It will also be beneficial if the mentor and mentee share common interests and teaching philosophy.

Curiously, it appears that the type of mentoring whether it is mutually recognized or not does not affect the mentoring effectiveness score. Initiation phase is identified as the strongest predictor for mentoring effectiveness score but at inverse relationship. Mentoring program showed a weak positive correlation for mentoring effectiveness score. The regression equation created from the analysis is [mentoring effectiveness score = 6.16 + 0.45 (cultivation phase) + 0.48 (formal mentoring program)].

The regression equation created is [career related outcomes = 0.31 (mentoring effectiveness) – 0.08]. The equation means increase in the mentoring effectiveness score results to more career development outcomes for junior faculty. The results of this study provided some inputs and identified important characteristics related to mentoring relationships in the colleges of pharmacy in the Philippines, information that administrators from different schools or even national organization of schools of pharmacy can consider. If the administrators considers the creation of an institutionalized mentoring program is recommended that faculty mentoring programs be designed to include important characteristics and factors such as:

1. Match junior faculty and mentor according to interest, expertise, and experience related to subject and research interest
2. Mentor candidates who display willingness to commit time for face-to-face consultations. It is also more advantageous if the candidate mentor has a past mentoring history.
3. Design programs that are sustainable and long term in order to maximize the benefits of the relationships that are observed at the cultivation stage.
4. Mentoring effectiveness score may be used as a tool to evaluate the strength of the relationship and the success of the program.

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