BACKGROUND

In recent years, newly established, teaching-intensive schools and colleges of pharmacy are strongly encouraging and expecting faculty to engage in research, publish and obtain extramural funding. ACPE 2016 Standards strongly advocate and promote research as an integral component of faculty activity that is also strongly endorsed and promoted by AACP. It is widely recognized that research and allied scholastic activities form the foundation of faculty activity that fulfill the mission and vision of the institution. It is well known that faculty at primarily research intensive schools and colleges of pharmacy are engaged in significant research activities, with relatively lower teaching and service load. Faculty at such institutions are provided with startup packages, laboratory and animal facilities, manpower (students and technicians), extensive libraries, and other resources. Moreover, there exists an intellectual environment for conductance of successful research at those institutions as evidenced by extramural grant award to the top twenty COP (AACP funding data available on ACPE website) (Fig. 1). Most of the teaching-intensive schools and colleges of pharmacy on the other hand are designed as teaching-focused and rely heavily upon student tuition as their primary source of revenue. Consequently, these institutions may not provide adequate resources for research and also may not provide ‘proper intellectual environment for conductance of successful research that attracts extramural funding. Moreover, teaching and service load of the faculty in these institutions are relatively high. Yet, there is a growing, but disproportionate expectation for the faculty to engage and carry out fruitful research bringing extramural funding to support research and add additional line of revenue for the institution.

We wanted to investigate faculty perspectives on these concerns with a well-designed survey, and shed some light on rather grey areas of research expectations of the administration, institutional policy and support for research in smaller, teaching-intensive schools and colleges of pharmacy.

OBJECTIVES

To investigate faculty perspectives on research in smaller, teaching-intensive schools and colleges pharmacy with regard to research expectations of the administration/institution, available resources for research, and environment for the successful execution of the expected research.

METHODS

A 20-question survey was created using SurveyMonkey® through peer review validation of the questions inquiring the nature of the institution, faculty demographics, research policies, resources and funding, expectation of scholastic activities in the context of promotion/tenure etc. A list of schools and colleges of pharmacy representing a broad spectrum from AACP published list. Smaller, teaching-intensive schools and colleges of pharmacy were identified based on ‘mission- vision’ statement on their website, number of research publications and extramural grant funding. Institutions with reported extramural funding over 1 million dollar were deemed ‘research intensive’ institutions and excluded from the study.

A link to the anonymous survey was sent to the deans of the identified institutions explaining the intent of the research, and the deans were requested to forward the link to their faculty members. The survey also included an open ended question asking the ‘overall opinion about the scholarship expectations and research resources’. The survey was open for six weeks, and the collected anonymous data was analyzed in aggregate. The study was approved by the respective institutional review boards.

RESULTS and DISCUSSION

Faculty

The survey consisted of twenty questions focusing on faculty perspective on various aspects of research that included 1 open-ended question. In total 468 faculty participated in the survey of which 53% belonged to pharmacy practice, 30% pharmaceutical sciences, 8% had administrative position and 7% were from social and administrative roles. In total 65% were assistant professors (3%), followed by associate (38%) and full professors (12%) demonstrating a broad faculty participation (Fig 2).

Institutional Research Expectation

Faculty were divided on whether institutional research expectations aligned with the available resources, with 43% agreeing and 36% disagreeing (Fig 6). 43% of the faculty disagreed on institutional scientific environment contributing to the success of obtaining extramural funding (Fig 7) which was substantially 50% of the faculty disagreeing being confident of winning extramural research funding in 3-5 years (Fig 8). Yet, 32% agreed and 34% disagreed on the sufficiency of resources for preliminary data generation for external funding application (Fig 9).

Research Resources and Policy

Regarding research grant, 42% faculty reported ‘not planning to apply for grants’; 26% received intramural grant, 22% received extramural non-NH grant and 11% received NH grant (Fig 10). Although, 60% of the participant disagreed on institutional pressure for obtaining extramural funding, yet 83% agreed on ‘strong institutional encouragement on conducting educational research (SoTL)’ compared to more expensive bench/clinical research (Fig 11). This observation was corroborated by 47% faculty disagreeing on having an established office of research and development. A majority; 57.15% faculty agreed on clarity on institutional research/scholarship expectation at the time of hiring, while 28% faculty disagreed (Fig 12).

SUMMARY and CONCLUSION

Survey data revealed the following major points,

- high teaching load for majority of the faculty in the ‘teaching-focused’ pharmacy institutions.
- divergent faculty perspectives on available research resources and policies governing research.
- strong disagreement on availability of an established office of research and development.
- strong disagreement on the probability of future success in research including obtaining extramural funding.
- significant disagreement on ‘institution’s scientific environment’ contributing to the success for bringing extramural funding.
- strong disagreement on ‘institutional pressure for obtaining extramural funding’.
- strong agreement on ‘institutional encouragement on conducting SoTL as an alternative to more expensive bench/clinical research.
- majority agreement on ‘clarity on institutional research/scholarship expectation at the time of hiring’.

We conclude that, although faculty perspective on research at teaching-focused/ intensive COP in US is divergent on various factors, yet, faculty overall identified several areas that may hinder development of successful research program. Analyzing and addressing these issues may lead to better success in research, faculty development, job satisfaction and perhaps retention of qualified faculty with a balanced teaching and research portfolio at the smaller teaching intensive pharmacy institutions in the United States.

REPRESENTATIVE COMMENTS

1. “I don’t feel we have adequate resources (i.e., journal access, info about grant writing, statistical support, etc) to conduct rigorous original research studies. We also have a very high teaching load and it is difficult to find time for research work.”

2. “Poor infrastructure. Dean and other top administrators are indifferent to research.”

3. “Resources are not really there for us at our institution, but research is pushed more and more.”

4. “The expectations of my administration (Dean and Chair) do not match the reality of the environment. Neither has experience with funding agencies (private, public or federal) in the US. This makes it extremely difficult for them to understand the desperate times that we are working in.”

5. “My teaching load prevents me from doing all the research I would like and there is no admin support for the process.”

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