



# The Journal of Education in Perioperative Medicine

ORIGINAL RESEARCH

## Implementation and Assessment of a Visiting Scholar Exchange Program in Pediatric Anesthesiology to Promote Junior Faculty and Fellow Professional Development

MARLA B. FERSCHL, MD  
CHRISTY BOSCARDIN, PHD

NIROOP RAVULA, MD  
ANDREW INFOSINO, MD

### INTRODUCTION

Developing areas of expertise, honing presentation skills, gaining extramural recognition, and establishing a network of collaborators for academic projects are essential skills necessary for academic career development and professional identity formation in medicine.<sup>1-3</sup> Faculty without clearly defined or nationally recognized areas of expertise may experience burnout, be denied promotion, or decide to leave academic medicine.<sup>4,5</sup> Programs that enhance faculty development and faculty well-being by promoting self-worth and creative growth can lead to increased professional fulfillment.<sup>6</sup>

Junior faculty, defined as clinical instructors and assistant professors, often lack the professional networks integral for success. Early mentorship, coaching, and sponsorship may lead to higher academic productivity and ultimately increase junior faculty promotion and retention rates.<sup>7-10</sup> Many institutions offer professional development programs for junior faculty that provide seminar-based instruction on establishing successful academic careers.<sup>11-13</sup> While these programs offer important instruction, they do not provide extramural opportunities that can lead to networking and promotion, which have been shown to be essential for academic success.<sup>2</sup> Visiting professorships involve in-person opportunities for networking, the exchange of ideas and the potential

for future collaboration, and provide the visiting professor an extramural opportunity to share expertise.<sup>14</sup> However, visiting professorships are usually reserved for established senior faculty with national reputations.<sup>15,16</sup> Offering professional development opportunities akin to visiting professorships to junior faculty may have a significant impact on jumpstarting academic careers. An early introduction into the academic community may provide further opportunities for external mentorship and sponsorship, which are critical for the career development of junior faculty.<sup>8,10,17</sup>

Similar to junior faculty, fellows often have a significant clinical burden and few professional development opportunities. Offering professional development during fellowship training may be an ideal time to initiate this academic engagement and foster a career in academic medicine.<sup>18-20</sup> Providing an opportunity for fellows to participate in a visiting scholar program is a novel concept that may result in a successful academic career. For this concept to work, faculty mentorship is critical to support interested fellows by assisting them with academic skills such as developing areas of expertise and honing presentation skills.<sup>10,17,19</sup> To help both junior faculty and fellows jumpstart their academic careers in pediatric anesthesia we created a professional development program called Visiting Scholars in Pediatric Anesthesia Program (ViSiPAP).

ViSiPAP is a national reciprocal faculty or faculty/fellow exchange program between pediatric anesthesia divisions. ViSiPAP provides an extramural networking platform to facilitate career development and promotion. Program goals include (1) reducing academic isolation and increasing self-worth and creative growth to improve professional identity formation among faculty and fellows,<sup>3,6</sup> (2) accelerating the development of focused areas of expertise,<sup>21,22</sup> (3) initiating faculty/fellow mentorship as well as coaching and sponsorship for fellows and faculty,<sup>21-23</sup> (4) providing opportunities for networking and collaborating,<sup>21-23</sup> and (5) increasing academic activity to improve promotion and retention rates.<sup>21</sup> A further objective was to promote the transition of the fellows from trainees to engaged and productive faculty.

Although other faculty exchange programs exist,<sup>15</sup> the novel features of this program are that it (1) focuses on junior faculty and (2) incorporates fellows. The purpose of this study is to report on the implementation, evaluation, and initial outcomes of this innovative junior faculty and fellow/faculty exchange program.

### MATERIALS AND METHODS

In 2017, the University of California San Francisco created a reciprocal faculty exchange program called ViSiPAP, which

*continued on next page*

*continued from previous page*

grew to involve 10 pediatric anesthesia divisions on the west coast. Visiting faculty spent the day as visiting scholars meeting faculty and fellows from the hosting institution. They also presented at grand rounds or fellow didactic conferences. Travel and meal expenses were covered by the hosting institutions. ViSiPAP was introduced at a pediatric anesthesia program directors meeting and then expanded to include 17 institutions across the United States (Table 1).

ViSiPAP faculty were selected by individual institutional committees, with priority given to junior faculty who stated that they would benefit from the exposure and networking opportunities that ViSiPAP provides. Hosting institutions identified a faculty host with no clinical responsibilities on the day of the visit to facilitate the speaker's itinerary. One-on-one meetings, lunches, and dinners were arranged to foster collaboration and networking between the visiting speakers and the faculty and trainees from the host institution.

Pediatric anesthesia fellows were incorporated into ViSiPAP exchanges between University of California San Francisco, Stanford University, and the University of California Davis as a pilot project creating Fellow/Faculty ViSiPAP. The close geographic proximity of these 3 institutions allowed the inclusion of fellows without significant additional costs. The fellow and faculty traveled together, spent the day as visiting scholars, and both gave a presentation at an afternoon pediatric anesthesia conference. Faculty were paired with fellows sharing similar academic interests. These faculty mentors helped the fellow prepare their presentation and served as a role model during the exchange. All of the fellows from these 3 institutions were given an opportunity to participate in Fellow/Faculty ViSiPAP during their 1-year fellowship.

Initial postparticipation surveys were distributed to all ViSiPAP faculty and fellows to gauge their experiences with ViSiPAP (Online Supplemental Material, File 1). Faculty who participated in more than one ViSiPAP were surveyed for each experience. A follow-up survey to evaluate

ViSiPAP's impact on academic productivity and promotion was sent to all participants that we had contact information for in 2020 (Online Supplemental Material, File 2). We developed the 2 surveys by following an established rigorous survey development protocol to ensure quality and alignment of items with program goals and objectives.<sup>24</sup> Institutional review board approval from the University of California San Francisco was obtained for the study.

The initial postparticipation survey included Likert-scale type questions (1-strongly disagree, 2-somewhat disagree, 3-neutral, 4-somewhat agree, 5-strongly agree) to evaluate the effectiveness and usefulness of ViSiPAP and open-ended questions to solicit suggestions for improvement using QualtricsXM Software (Seattle, Washington). Qualitative comments were coded for content analysis by 3 of the study investigators (M.F., C.B., A.I.) to identify major themes following the standards for reporting qualitative research guidelines.<sup>25</sup> An iterative consensus-building approach was used to first develop an initial coding template and then a code book with definitions. Comments were coded independently and then reconciled together to achieve consensus on the coding. Meaningful themes were identified by using content analysis to review coded excerpts taking into consideration reflexivity notes to account for researchers' background and characteristics. The final themes were refined through consensus. Fellow survey data were compared to faculty survey data to investigate potential differences in their experiences.

The follow-up survey also included Likert-scale type questions on a scale from 1 to 5 to assess whether ViSiPAP provided opportunities for networking/collaborating and developing mentor/mentee relationships. Fellows were asked if ViSiPAP influenced their decision to pursue a career in academic medicine, while faculty were asked if ViSiPAP assisted them with promotion and obtaining extramural peer references. The follow-up survey also quantified the number of online publications, publications in academic journals, and extramural presentations that resulted from participating in ViSiPAP.

## RESULTS

Seventeen institutions participated in ViSiPAP between 2017 and 2020. Fifty-three faculty gave 66 presentations (13 faculty gave 2 presentations), and 20 fellows from 3 institutions gave 20 presentations. Female faculty members gave 64% of the faculty presentations (Table 2). Topics presented by ViSiPAP speakers included clinically focused reviews to fulfill fellowship curricular goals and objectives, as well as lectures on quality improvement, patient safety, global health, and medical education. The cost of hosting a ViSiPAP exchange included travel expenses and hosting a lunch and/or dinner. Expenses for local fellow/faculty exchanges ranged from \$300 to \$500, and expenses for national faculty-only exchanges ranged from \$700 to \$1600.

Eighty percent of fellows (16/20) and 91% (60/66) of faculty responded to initial postparticipation surveys. Data are presented as mean Likert scale score (SD) in Table 3. For fellows, the ratings on perceived use and impact of ViSiPAP were overwhelmingly positive, ranging from 4.64 (SD = 0.67) to 5.0 (SD = 0). Faculty ratings mirrored the fellow experience, ranging from 4.32 (SD = 0.13) to 5.0 (SD = 0). All participants agreed that the program should be continued.

Seven of 13 fellows provided free-text comments in the survey, which were coded by the research team. Highlights of the qualitative comments from fellows ("FEL" with participant number) represented 5 broad areas: (1) overall benefit of the program, (2) educational value of the program, (3) networking, (4) assistance with the transition from fellow to faculty, and (5) opportunities for additional academic activities. Fellows that participated in ViSiPAP found it to be beneficial and educational. They stated that participation in ViSiPAP resulted in the dissemination of "new practice-changing methods which provided invaluable opportunity for peer feedback and collaboration" (FEL4). One described the Fellow/Faculty ViSiPAP exchange as "an outstanding, innovative program that is valuable to fellow and resident education" (FEL2). Fellows viewed being selected as a visiting scholar as a "highlight for the

*continued on next page*

*continued from previous page*

fellows learning curriculum” (FEL4). They appreciated the networking opportunity that Fellow/Faculty ViSiPAP provided and “enjoyed meeting other fellows and faculty at outside institutions” (FEL4). One specifically commented that ViSiPAP was “very helpful as I transitioned from fellow to attending” (FEL7).

Of 66 faculty, 41 provided free-text comments when completing the survey. Qualitative comments from faculty (“FAC” with participant number) noted that ViSiPAP was a valuable platform “for creating networks, increasing visibility and building collaborations” (FAC51). Another participant touted the importance of ViSiPAP for promotion by stating: “When I met with my chair, my ViSiPAP lecture was specifically brought up as evidence that I am on track for associate professor” (FAC14). Faculty also enjoyed mentoring fellows on their ViSiPAP presentations and endorsed “the idea of bringing a fellow” (FAC53) and “loved to have shared my ViSiPAP experience with my mentee” (FAC53).

Participants recommended expanding the concept of ViSiPAP, stating “This program should be expanded to host more fellows and faculty from the east coast and across the nation as there is opportunity for growth and the need for junior faculty to launch their academic careers” (FEL4). Others commented that the program was applicable to other departments and subspecialties, suggesting “other subspecialty groups [can] start similar programs to encourage collaboration!” (FAC49).

In 2020, 85% (45/53) of faculty and 45% (9/20) of former fellows completed a follow-up survey. Both faculty and fellow participants rated all 4 components of their ViSiPAP experiences highly: (1) preparing and giving a lecture/presentation: 4.27 (SD = 0.94), (2) one-on-one faculty meetings: 4.08 (SD = 1.06), (3) lunch with the division: 3.78 (SD = 1.04), and (4) hosted dinner: 4.00 (SD = 0.98). The fellows (mean = 4.33, SD = 1.16) and the faculty (mean = 4.61, SD = 0.73) agreed that the program successfully provided opportunities for fellows and faculty members to develop a mentor/mentee relationship. Fellows indicated that participation in ViSiPAP positively

influenced their decision to pursue a career in academic medicine (mean = 4.56, SD = 0.76; Table 4).

The follow-up survey also specifically examined outcomes related to promotion. During the follow-up period, 69% (31/45) of faculty respondents were up for promotion, and all 31 included their ViSiPAP exchange in their promotion packet. Eighty-four percent (26/31) agreed or strongly agreed that their presentation during ViSiPAP helped with their promotion; 77% (24/31) stated that the connections they made through ViSiPAP were valuable for obtaining extramural letters of reference for their promotion packet (Table 4).

Both faculty and fellows indicated that the networking opportunities provided by participating in ViSiPAP resulted in extramural collaborations on academic projects in the 3 years since ViSiPAP was initiated. The 54 faculty and fellows provided documentation that their participation in ViSiPAP resulted in collaborations that led to 45 online academic publications, 39 additional invited presentations, and 8 authorships in peer-reviewed academic journals (Table 5).

## DISCUSSION

ViSiPAP is a successful professional development program for fellows and junior faculty in pediatric anesthesia. ViSiPAP decreases academic isolation and promotes well-being by enhancing self-worth and creative growth for participants. Targeted mentorship to the fellows encourages them to consider academic careers. The program fosters professional identity formation and welcomes both fellows and junior faculty into the pediatric anesthesia community of practice. Participating in ViSiPAP offers benefits to the hosting pediatric anesthesia divisions and their fellowship programs. ViSiPAP’s networking and collaboration opportunities result in additional scholarly output that assists with faculty promotion.

Postgraduate training is the ideal to initiate and nurture successful academic careers. This process requires mentorship, introduction into the community of practice, and opportunities for academic engagement. Previous studies have reported on the positive impact of mentorship on career outcomes, yet nearly half of trainees report not identifying a mentor.<sup>26</sup> Given

this gap, programs that provide structured mentorship and feedback, such as ViSiPAP, are a potentially effective solution to increase mentorship of fellows. Our data suggest that ViSiPAP initiates mentor/mentee relationships between fellows and faculty. More importantly, ViSiPAP positively influences fellows’ interest in academic careers.

Networking and collaborating are essential for faculty academic success. ViSiPAP provides unique opportunities for junior faculty to expand their networking circle and showcase their scholarly activity on a national stage. Barriers to participation in scholarly activity include uncertainty regarding professional identity and inadequate nonclinical time to complete scholarly activity.<sup>27</sup> ViSiPAP creates opportunities to present scholarship in a safe and supportive environment and promotes the development of a focused areas of expertise. Relationship ties within the network provide access to assets, advice, and opportunities which are particularly important for social capital.<sup>28</sup> Our follow-up survey documents the power of this effect: participating in ViSiPAP catalyzed 92 documented additional presentations or publications. Many exchanges occurred in the months just prior to survey distribution, suggesting that our survey may underrepresent the total academic output resulting from ViSiPAP.

ViSiPAP provides a novel approach to support the promotion and retention of junior faculty. All participants listed their ViSiPAP experience on their CVs, and the majority believed that ViSiPAP was integral to their promotion. While all scholarly activity is important for promotion, extramural opportunities, like ViSiPAP, are viewed as more significant by promotion committees. Many junior faculty also obtained extramural references as a result of their participation in ViSiPAP. As there is still a gender inequity in anesthesia, especially in leadership positions, programs to eliminate this disparity are important.<sup>29</sup> ViSiPAP successfully supported the career development of female faculty and fellows. ViSiPAP can also be used to support the career development of underrepresented in medicine individuals. A recent call for more

*continued on next page*

*continued from previous page*

inclusion and diversity within anesthesia suggests amplifying voices of women and underrepresented in medicine individuals through leveraging networks.<sup>30</sup> By targeting these groups, ViSiPAP may enhance their retention and promotion and ultimately lead to a more diverse faculty leadership. ViSiPAP's impact on diversity is an area of future investigation.

ViSiPAP provides significant benefits to the participating fellowship programs and pediatric anesthesia divisions. Fellowship programs are generally smaller and more specialized than residency programs with fewer faculty. This makes it more challenging to cover all required didactic material and provide diverse faculty role models. ViSiPAP exposes faculty and trainees to outside expertise and new ideas. This collaboration allows for the sharing of resources and helps create a pediatric anesthesia community across the participating institutions.

While ViSiPAP has been successful and worthwhile, there have been some barriers to its implementation as a national program. The first is convincing division chiefs and program directors of the value of joining ViSiPAP for their faculty and fellows. Another barrier is persuading departmental chairs or division chiefs to provide the required financial support to subsidize faculty nonclinical time, travel, and host expenses. A third barrier is encouraging fellowship directors to provide fellow nonclinical time and mentorship to prepare and give their presentations. To date, ViSiPAP has been financially supported by departmental/divisional or visiting professor funds.

Our study has several limitations. Although our surveys had high response rates, they were not psychometrically validated. Our survey responses may have bias due to nonrespondents. Finally, this is an initial study that only involved a small number of faculty and fellows.

Future directions include increasing the number of programs and participants in ViSiPAP, especially the number of programs that incorporate fellows. We also plan to initiate a formal speaker evaluation system to assess the educational quality of the presentations and ultimately provide

feedback to the speakers to improve their presentations. Finally, we hope to investigate if ViSiPAP participation has an impact on fellow career choice as well as faculty promotion and retention rates.

The global Coronavirus Disease 2019 (COVID-19) pandemic has limited in-person exchanges since March of 2020, and we are currently piloting virtual ViSiPAP Faculty and Fellow/Faculty exchanges. These virtual exchanges eliminate the need for funding and travel time. It is unclear if virtual exchange will be viewed equivalently by promotions committees. Additionally, they may be less enjoyable and may not lead to the same degree of networking and collaboration. Evaluation of the virtual ViSiPAP program is ongoing.

Our combined Fellow/Faculty ViSiPAP has broad applicability to all fellowship programs. ViSiPAP fellow/faculty exchanges are inexpensive, easy to organize, and benefit both fellows and faculty in academic medicine. Departmental support for ViSiPAP demonstrates commitment to the success of its fellows and faculty, and we encourage leaders in academic medicine to support this type of initiative.

In summary, ViSiPAP is a powerful and low-cost program with the potential for significant impact in a short time period. ViSiPAP assists with fellow and faculty professional identity formation, augments networking and collaboration, and provides a springboard for launching academic careers.

## References

- Merriam SB, Vanderberg R, McNeil MA, Nikiforova T, Spagnoletti CL. A robust faculty development program for medical educators: a decade of experience. *South Med J*. 2020;113(6):275-80.
- Hitchcock MA, Bland CJ, Hekelman FP, Blumenthal MG. Professional networks: the influence of colleagues on the academic success of faculty. *Acad Med*. 1995;70(12):1108-16.
- Triemstra JD, Iyer MS, Hurtubise LMA, et al. Influences on and characteristics of the professional identity formation of clinician educators: A qualitative analysis. *Acad Med*. 2021;96(4):585-91.
- Girod SC, Fassiotto M, Menorca R, Etkowitz H, Wren SM. Reasons for faculty departures from an academic medical center: a survey and comparison across faculty lines. *BMC Med Educ*. 2017;17(1):8
- Pololi LH, Krupat E, Civian JT, Ash AS, Brennan RT. Why are a quarter of faculty considering

leaving academic medicine? A study of their perceptions of institutional culture and intentions to leave at 26 representative US medical schools. *Acad Med*. 2012;87(7):859-69.

- Schrijver I, Brady KJ, Trockel M. An exploration of key issues and potential solutions that impact physician wellbeing and professional fulfillment at an academic center. *PeerJ*. 2016;4:e1783.
- Ayyala MS, Skarupski K, Bodurtha JN, et al. Mentorship is not enough: exploring sponsorship and its role in career advancement in academic medicine. *Acad Med*. 2019;94(1):94-100.
- Gottlieb AS, Travis EL. Rationale and models for career advancement sponsorship in academic medicine: the time is here; the time is now. *Acad Med*. 2018;93(11):1620-3.
- Steele MM, Fisman S, Davidson B. Mentoring and role models in recruitment and retention: a study of junior medical faculty perceptions. *Med Teach*. 2013;35(5):e1130-8.
- Flexman AM, Gelb AW. Mentorship in anesthesia. *Curr Opin Anaesthesiol*. 2011;24(6):676-81.
- Thorndyke LE, Gusic ME, George JH, Quillen DA, Milner RJ. Empowering junior faculty: Penn State's faculty development and mentoring program. *Acad Med*. 2006;81(7):668-73.
- Loyal J, Porto A, Camenga D. Creating a program for junior faculty professional development: a tool kit. *MedEdPORTAL*. 2018;14:10703.
- Yanofsky SD, Voytko ML, Tobin JR, Nyquist JG. Jumpstarting academic careers: a workshop and tools for career development in anesthesiology. *J Educ Perioper Med*. 2011;13(1):E058.
- Campbell KM, Tumin D. The HBCU medical school visiting professorship: a new approach for supporting professional development of underrepresented minority faculty. *J Immigr Minor Health*. 2020;22(2):221-2.
- Cumbler E, Herzke C, Smalligan R, et al. Visiting professorship in hospital medicine: an innovative twist for a growing specialty. *J Hosp Med*. 2016;11(10):714-8.
- Beeler WH, Griffith KA, Evans SB, Golden DW, Jaggi R. Visiting professorship in academic radiation oncology. *Int J Radiat Oncol Biol Phys*. 2020;108(3):824-9.
- Munshay F, McDonnell C, Matava C. Pediatric anesthesia training to early career stage: opportunities for firm foundations. *Paediatr Anaesth*. 2021;31(1):24-30.
- Lewis JD. The pathway to academic success starts during fellowship. *Gastrointest Endosc*. 2005;61(4):587-8.
- Ogunyemi D, Solnik MJ, Alexander C, Fong A, Azziz R. Promoting residents' professional development and academic productivity using a structured faculty mentoring program. *Teach Learn Med*. 2010;22(2):93-6.
- Rama JA, Campbell JR, Balmer DF, Turner TL, Hsu DC. Investing in future pediatric subspecialists: a fellowship curriculum that prepares for the

*continued on next page*

*continued from previous page*

- transition to academic careers. *Med Educ Online*. 2015;20:26714.
21. Cahn PS. Onramp to scholarship: putting clinical faculty members on the path to academic productivity. *J Contin Educ Health Prof*. 2019;39(3):218-22.
  22. Castiglioni A, Aagaard E, Spencer A, et al. Succeeding as a clinician educator: useful tips and resources. *J Gen Intern Med*. 2013;28(1):136-40.
  23. Morzinski JA, Fisher JC. A nationwide study of the influence of faculty development programs on colleague relationships. *Acad Med*. 2002;77(5):402-6.
  24. Artino AR Jr, La Rochelle JS, Dezee KJ, Gehlbach H. Developing questionnaires for educational research: AMEE Guide No. 87. *Med Teach*. 2014;36(6):463-74.
  25. O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. *Acad Med*. 2014;89(9):1245-51.
  26. Stamm M, Buddeberg-Fischer B. The impact of mentoring during postgraduate training on doctors' career success. *Med Educ*. 2011;45(5):488-96.
  27. Ledford CJ, Seehusen DA, Villagran MM, Cafferty LA, Childress MA. Resident scholarship expectations and experiences: sources of uncertainty as barriers to success. *J Grad Med Educ*. 2013;5(4):564-9.
  28. Warner ET, Carapinha R, Weber GM, Hill EV, Reede JY. Faculty promotion and attrition: the importance of coauthor network reach at an academic medical center. *J Gen Intern Med*. 2016;31(1):60-7.
  29. Bissing MA, Lange EMS, Davila WF, et al. Status of women in academic anesthesiology: a 10-year update. *Anesth Analg*. 2019;128(1):137-43.
  30. McCullough D, Gotian R. Making anaesthesiology more inclusive: the time for action is now. *Br J Anaesth*. 2020;125(6):e458-60.

The following authors are with the University of California San Francisco, San Francisco, CA: **Marla B. Ferschl, Christy Boscardin, and Andrew Infosino** are Professors. **Niroop Ravula** is an Associate Professor, University of California Davis, Davis, CA.

**Corresponding author:** Andrew Infosino, MD, Department of Anesthesia and Perioperative Care, University of California San Francisco, 550 16th Street, San Francisco, CA 94143. Telephone: (415) 806-5755, Fax: (415) 476-0238

**Email address:** Andrew Infosino: Andrew.Infosino@ucsf.edu

**Funding statement:** Support was provided solely from departmental sources.

**Conflicts of interest:** The authors declare no competing interests.

#### Abstract

**Background:** Junior faculty in academic medicine often struggle with establishing their careers, resulting in low promotion and high attrition rates. Fellows also grapple with the decision to pursue careers in academic medicine. We report on the implementation and evaluation of a novel faculty and fellows exchange program that promotes career development.

**Methods:** In 2017, the University of California San Francisco created a reciprocal faculty exchange program called the Visiting Scholars in Pediatric Anesthesia Program (ViSiPAP). ViSiPAP expanded to involve 17 institutions across the United States. Fellows from 3 of the institutions were paired with faculty mentors to create

Fellow/Faculty ViSiPAP. An initial postparticipation survey was sent after each exchange, and a follow-up survey in 2020 assessed ViSiPAP's impact.

**Results:** Fifty-three faculty participated in ViSiPAP and gave 66 presentations, and 20 fellows from 3 institutions gave 20 presentations. The initial postparticipation survey response rate was 88%, and the follow-up survey response rate was 74%. Survey responses indicated that ViSiPAP enhanced fellow and faculty well-being, improved didactic conferences, and provided opportunities for networking and collaborating. The follow-up survey indicated that participation in ViSiPAP led to 45 online academic publications, 39 additional invited presentations, and 8 authorships in peer-reviewed academic journals.

**Conclusions:** ViSiPAP is a successful professional development program for both fellows and junior faculty in pediatric anesthesia. Our program successfully introduced the participants into the pediatric anesthesia community and jumpstarted academic careers. Participation in ViSiPAP led to increased scholarly output and assisted with faculty promotion. This combined fellow/faculty exchange program is a novel approach to professional development and is broadly applicable to other disciplines in academic medicine.

**Keywords:** Visiting scholar exchange program, faculty well-being, faculty professional development, fellow professional development, pediatric anesthesia fellowship, faculty networking and collaboration, faculty promotion, visiting professorships, coaching, sponsorship.

*continued on next page*

*continued from previous page*

## Tables

**Table 1.** *List of Institutions Participating in Visiting Scholars in Pediatric Anesthesia Program*

<b>Institution</b>
Children's Hospital of Los Angeles, University of Southern California, Los Angeles, CA
Children's Hospital of Philadelphia, University of Pennsylvania, Philadelphia, PA
Children's National Hospital, George Washington School of Medicine, Washington, DC
Children's Wisconsin, Medical College of Wisconsin, Wauwatosa, WI
Cleveland Clinic Children's Hospital, Case Western Reserve University, Cleveland, OH
Children's Hospital Colorado, University of Colorado, Aurora, CO
Doernbecher Children's Hospital, Oregon Health & Science University, Portland, OR
Johns Hopkins Children's Center, Johns Hopkins University, Baltimore, MD
Loma Linda University Children's Hospital, Loma Linda University, Loma Linda, CA
Lucile Packard Children's Hospital, Stanford University, Palo Alto, CA
Nemours/Alfred I. duPont Hospital for Children, Thomas Jefferson University, Wilmington, DE
Seattle Children's Hospital, University of Washington, Seattle, WA
University of California Davis Children's Hospital, University of California Davis, Sacramento, CA
UCLA Mattel Children's Hospital, University of California Los Angeles, Los Angeles, CA
UCSF Benioff Children's Hospital, University of California San Francisco, San Francisco, CA
Holtz Children's Hospital, University of Miami, Miami, FL
UNM Children's Hospital, University of New Mexico, Albuquerque, NM

*continued on next page*

continued from previous page

## Tables continued

**Table 2.** Number of Institutions, Exchanges, Faculty, and Fellows That Participated in Visiting Scholars in Pediatric Anesthesia Program per Academic Year<sup>a</sup>

	2016-2017	2017-2018	2018-2019	2019-2020 <sup>b</sup>	Total
Institutions	2	10	14	17	17
Exchanges	2	20	29	15	66
Faculty	2	20	29	15	66
Female	0	9	21	12	42
Male	2	11	8	3	24
Fellows	0	9	8	3	20
Female	0	5	4	1	10
Male	0	4	4	2	10

<sup>a</sup> Faculty and fellows are further subdivided by gender.

<sup>b</sup> Spring 2020 exchanges were cancelled because of the COVID-19 pandemic.

**Table 3.** Initial Postpresentation Survey: Quantitative Likert-Scale Results (1-strongly disagree to 5-strongly agree)

ViSiPAP	Fellow Mean (SD) n = 16	Faculty Mean (SD) n = 60
... was a worthwhile experience	4.94 (0.25)	4.97 (0.18)
... decreased academic isolation	5.0 (0)	4.88 (0.32)
... improved fellow/faculty well-being	4.64 (0.67)	4.56 (0.65)
... was a beneficial experience for my division/children's hospital	4.81 (0.54)	4.95 (0.22)
... provided opportunities for networking/collaboration	4.81 (0.40)	5.0 (0)
... should be continued	5.0 (0)	5.0 (0)
I would recommend participating in ViSiPAP to my colleagues	5.0 (0)	4.98 (0.13)

Abbreviation: ViSiPAP, Visiting Scholars in Pediatric Anesthesia Program.

continued on next page

continued from previous page

## Tables continued

**Table 4.** Follow-up Survey: Quantitative Likert-Scale Results (1-strongly disagree to 5-strongly agree)

Visiting Scholars in Pediatric Anesthesia Program	Fellow Mean (SD) n = 9	Faculty Mean (SD) n = 47
. . . provided me with sustained opportunities for networking, communicating or collaborating with colleagues from outside institutions	4.56 (1.01) n = 9	4.72 (0.54) n = 47
. . . influenced my decision to pursue a career in academic medicine	4.56 (0.73) n = 9	NA
. . . provided me with an opportunity to develop a mentor-mentee relationship with a faculty member	4.33 (1.12) n = 9	NA
. . . provided me with an opportunity to develop a mentor-mentee relationship with a fellow	NA	4.61 (0.72) n = 23 <sup>a</sup>
. . . helped with my promotion	NA	4.48 (0.77) n = 31 <sup>a</sup>
. . . was useful for obtaining extramural peer references for promotion	NA	3.88 (1.00) n = 43 <sup>a</sup>

Abbreviation: NA, not applicable.

<sup>a</sup> n for these 3 survey questions had varying applicability response requirements.

**Table 5.** Follow-up Survey: Additional Scholarly Activity Resulting From Participation in Visiting Scholars in Pediatric Anesthesia Program

	Fellow n = 9	Faculty n = 43
No. of online academic publications	9	36
No. of people with one or more online publications	5	16
No. of additional invited presentations	9	30
No. of people with one or more additional invited presentations	6	19
No. of peer-reviewed journal publications	2	6
No. of people with 1 or more peer-reviewed journal publications	2	3

continued on next page

*continued from previous page*

## Supplemental Online Material

---

### Supplemental Online Material

#### File 1. ViSiPAP Postparticipation Survey<sup>a</sup>

Q1: Please identify your academic position at the time you participated in ViSiPAP.

- Clinical Fellow
- Clinical Instructor
- Assistant Professor
- Associate Professor
- Professor

Q2: Please indicate your role in ViSiPAP. Please select all that apply.

- ViSiPAP speaker
- Host for a ViSiPAP speaker
- Attended a ViSiPAP presentation

Q3: The ViSiPAP exchange program has decreased “academic isolation”.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

Q4: The ViSiPAP exchange program has improved fellow/faculty “well-being”.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

*continued on next page*

*continued from previous page*

## **Supplemental Online Material *continued***

---

Q5: The ViSiPAP exchange has improved pediatric anesthesia fellow conferences by providing outside expertise and perspective.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

Q6: The ViSiPAP exchange has provided opportunities for networking, communicating, or collaborating with colleagues from outside institutions.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

Q7: Hosting a visiting ViSiPAP exchange has been a beneficial experience for my division/children's hospital.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

Q8: The ViSiPAP exchange has been a worthwhile experience for me.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

*continued on next page*

*continued from previous page*

## **Supplemental Online Material *continued***

---

Q9: I would recommend participating in ViSiPAP to my colleagues.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

Q10: ViSiPAP should be continued.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

Q11: Please provide any additional comments or suggestions for improving the ViSiPAP Program.

---

---

---

---

---

<sup>a</sup>Survey text preserved per original. Minor punctuation and formatting adjustments have been made.

*continued on next page*

*continued from previous page*

## **Supplemental Online Material *continued***

---

### **File 2. Follow-up Survey of In-person Fellow/Faculty ViSiPAP Presenters<sup>a</sup>**

Q1: Please select your gender identity.

- Female
- Male
- Non-binary/other

Q2: Please select your racial/ethnic identity. Please select all that apply.

- African American
- American Indian or Alaskan Native
- Asian
- Caucasian
- Latinx or Hispanic
- Native Hawaiian or Pacific Islander

Q3: Please identify your academic position at the time you participated in ViSiPAP.

- Clinical Fellow
- Clinical Instructor
- Assistant Professor
- Associate Professor
- Professor

Q4: ViSiPAP has provided me with sustained opportunities for networking, communicating, or collaborating with colleagues from outside institutions.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

*continued on next page*

*continued from previous page*

## **Supplemental Online Material *continued***

*Display This Question:*

*If Please identify your academic position at the time you participated in ViSiPAP: = Clinical Fellow*

Q5: The experience of participating in ViSiPAP influenced my decision to pursue a career in academic medicine.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

*Display This Question:*

*If Please identify your academic position at the time you participated in ViSiPAP: = Clinical Fellow*

Q6a: ViSiPAP provided me with an opportunity to develop a mentor-mentee relationship with a faculty member.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

*Display This Question:*

*If Please identify your academic position at the time you participated in ViSiPAP: = Clinical Fellow*

*continued on next page*

*continued from previous page*

## **Supplemental Online Material *continued***

Q6b: If you participated in a combined Fellow/Faculty ViSiPAP, this experience provided me with an opportunity to develop a mentor-mentee relationship with a fellow.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree
- Not applicable as my ViSiPAP experience was Faculty only

*Display This Question:*

*If Please identify your academic position at the time you participated in ViSiPAP: = Clinical Fellow*

Q7a: Have you been up for promotion since you gave a presentation for ViSiPAP?

- Yes
- No

*Display This Question:*

*If Have you been up for promotion since you gave a presentation for ViSiPAP? = Yes*

Q7b: Did you include ViSiPAP in your CV/promotion packet?

- Yes
- No

*Display This Question:*

*If Did you include ViSiPAP in your CV/promotion packet? = Yes*

*continued on next page*

*continued from previous page*

## Supplemental Online Material *continued*

Q7c: ViSiPAP helped with my promotion.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

*Display This Question:*

*If Please identify your academic position at the time you participated in ViSiPAP: = Clinical Fellow*

Q8: ViSiPAP was useful for obtaining extramural peer references for promotion.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

Q9: Has participating in ViSiPAP led to any online publications (eg, Anesthesia Toolbox, SPA Lecture Series, SPA Question of the Week, etc)? Please indicate the number.

▼ 0 (1) ... 9 (12)

Q10: Has participating in ViSiPAP led to any publications in academic journals? Please indicate the number.

▼ 0 (1) ... 9 (12)

Q11: Has participating in ViSiPAP led to additional extramural presentations at another institution (eg, Grand Rounds, Invited Speaker) or a national/international meeting? Please indicate the number.

▼ 0 (6) ... 9 (15)

Q12: Please indicate the usefulness of each of the following ViSiPAP experiences from (1) least useful to (5) most useful.

	1	2	3	4	5
Preparing and giving the lecture/presentation (1)					
Lunch with division (2)					
Dinner (3)					
One on one faculty meetings (4)					

*continued on next page*

*continued from previous page*

## **Supplemental Online Material *continued***

---

Q13: Please provide any additional comments or suggestions about ViSiPAP.

---

---

---

---

---

<sup>a</sup> Survey text preserved per original. Minor punctuation and formatting adjustments have been made.