

# Empowering Women as Leaders in Pediatric Anesthesiology: Methodology, Lessons, and Early Outcomes of a National Initiative

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Research has shown that women have leadership ability equal to or better than that of their male counterparts, yet proportionally fewer women than men achieve leadership positions and promotion in medicine. The Women's Empowerment and Leadership Initiative (WELI) was founded within the Society for Pediatric Anesthesia (SPA) in 2018 as a multidimensional program to help address the significant career development, leadership, and promotion gender gap between men and women in anesthesiology. Herein, we describe WELI's development and implementation with an early assessment of effectiveness at 2 years. Members received an anonymous, voluntary survey by e-mail to assess whether they believed WELI was beneficial in several broad domains: career development, networking, project implementation and completion, goal setting, mentorship, well-being, and promotion and leadership. The response rate was 60.5% (92 of 152). The majority ranked several aspects of WELI to be very or extremely valuable, including the protégé-advisor dyads, workshops, nomination to join WELI, and virtual facilitated networking. For most members, WELI helped to improve optimism about their professional future. Most also reported that WELI somewhat or absolutely contributed to project improvement or completion, finding new collaborators, and obtaining invitations to be visiting speakers. Among those who applied for promotion or leadership positions, 51% found WELI to be somewhat or absolutely valuable to their application process, and 42% found the same in applying for leadership positions. Qualitative analysis of free-text survey responses identified 5 main themes: (1) feelings of empowerment and confidence, (2) acquisition of new skills in mentoring, coaching, career development, and project implementation, (3) clarification and focus on goal setting, (4) creating meaningful connections through networking, and (5) challenges from coronavirus disease 2019 (COVID-19) and the inability to sustain the advisor-protégé connection. We conclude that after 2 years, the WELI program has successfully supported career development for the majority of protégés and advisors. Continued assessment of whether WELI can meaningfully contribute to attainment of promotion and leadership positions will require study across a longer period. WELI could serve as a programmatic example to support women's career development in other subspecialties. (*Anesth Analg* 2021;133:1497–509)

## GLOSSARY

**COVID-19** = coronavirus disease 2019; **GAIN** = Grow and Advance through Intentional Networking; **SD** = standard deviation; **SPA** = Society for Pediatric Anesthesia; **WELI** = Women's Empowerment and Leadership Initiative

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Accepted for publication August 2, 2021.

Funding: The Women's Empowerment and Leadership Initiative has received support from the Society for Pediatric Anesthesia and Masimo.

Conflicts of Interest: See Disclosures at the end of the article.

Reprints will not be available from the authors.

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DOI: 10.1213/ANE.0000000000005740

While both men and women strive to achieve promotion and leadership positions, proportionally fewer women than men achieve these goals. Women make up 48% of graduating medical classes and comprise 41% of full-time academic faculty.<sup>1</sup> However, the vast majority of women are at instructor and assistant professor ranks. Only 25% of professors and 18% of academic department chairs are women.<sup>1</sup> Within anesthesiology, the number of women professors and department chairs is even lower, at 18% and 13%, respectively.<sup>1</sup> Furthermore, 1 in 4 women anesthesiologists report experiencing disrespect based on their gender, a percentage that ranks among the highest of all medical specialties.<sup>1</sup>

In 2018, the Women’s Empowerment and Leadership Initiative (WELI, weli.pedsanesthesia.org) was founded within the Society for Pediatric Anesthesia (SPA) to address the significant leadership and promotion gap between women and men in anesthesiology. Herein, we describe the design and implementation of WELI and early evaluation results.

**DEVELOPMENT AND IMPLEMENTATION**

WELI was established to provide its participants—highly productive women pediatric anesthesiologists of diverse backgrounds, interests, and career levels—with the tools to achieve equity, promotion, and leadership. WELI was created by a small group of women pediatric anesthesiologists. A WELI advisory board was then established with 14 senior and midcareer

women and men pediatric anesthesiologists who are dedicated to supporting faculty career development. WELI’s mission, strategy, and programming were developed and refined through a series of small and large group discussions among the advisory board members.

The WELI program encompasses 6 domains: (1) promotion and leadership, (2) networking, (3) conceptualization and completion of projects, (4) mentoring, (5) career satisfaction, and (6) sense of well-being. These domains are supported by activities intended to foster connections, provide leadership and career development education, disseminate information, assist with goal setting, and improve mindfulness and well-being (Figure 1).

**Pairing: Advisors and Protégés**

Our initial focus was to recruit advisors and protégés as the inaugural WELI membership. We invited national stakeholders and leaders, pediatric anesthesiology department chairs and division chiefs, SPA board of director members, and other faculty physicians known for academic and leadership success to volunteer or nominate advisors to WELI. We e-mailed the chair and/or chief of every hospital with a pediatric anesthesiology fellowship to nominate faculty as WELI advisors. Advisors were defined as faculty with a track record of successful mentoring, leadership, and success in academic or private practice medicine. Advisors were asked to submit a brief statement of

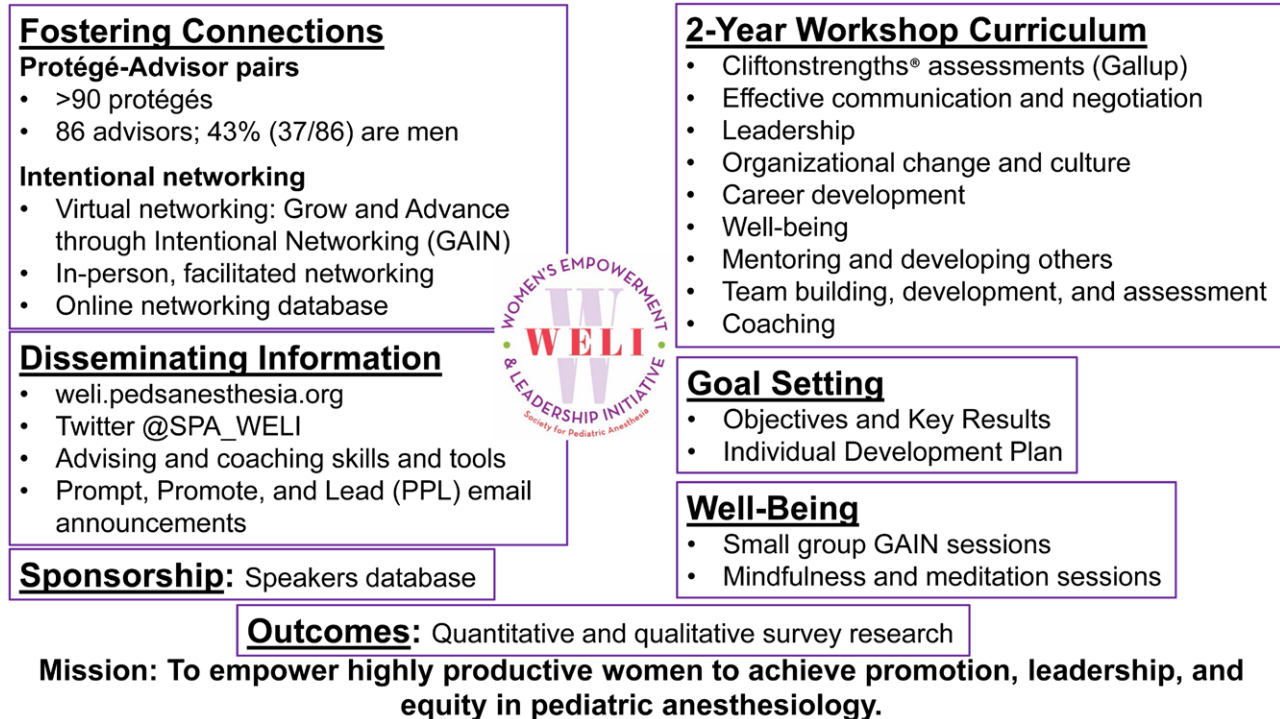


Figure 1. Women’s Empowerment and Leadership Initiative structure.

interest, including areas of expertise and strengths. These advisors were invited to our initial workshop on coaching skills held in conjunction with the Fall 2018 SPA national conference. All WELI advisors are physicians, though not all are pediatric anesthesiologists or women. Some have additional certification as executive or physician leadership coaches.

All WELI protégés are women and SPA members. To recruit WELI protégés, we e-mailed the pediatric anesthesiology chair and/or chief at hospitals with a pediatric anesthesia fellowship to nominate a woman faculty member who had high potential for career advancement. We also contacted departments without pediatric anesthesia fellowships if we were able to obtain the chair/chief's contact information. Although we contacted several private practices, most did not respond. Further, not all academic departments responded. Although initial protégé applications were accepted via chief/chair nomination, as the number of available advisors increased, we expanded the protégé applications to include self-nomination or nomination from other anesthesiology leaders. Protégé applicants are asked to submit a curriculum vitae and a personal statement that describes past accomplishments, career goals for the next 5 years and beyond, characteristics of her ideal protégé-advisor relationship, and what she hopes to gain from joining WELI. Based on advisor availability, protégé members were initially limited to one per institution. As more advisors became available, that restriction was relaxed so that each institution could have multiple WELI protégés.

Small groups of WELI advisory board members matched protégé applicants and advisors using information from their written applications and personal communication with people who had insight into the protégés' needs. All advisory board members participated at some point in suggesting dyads, and at least 2 board members had to agree on each dyad. The advisor and protégé were then independently and confidentially given the opportunity to accept or decline the suggested pairing. Once both parties agreed to work together, the dyads were asked to communicate monthly with a focus on protégé goal identification and accountability. We advised protégés and advisors to communicate for at least an hour by phone or video chat each month. The protégés were asked to write down their objectives and key results, fill out an individual development plan to assess skill growth areas, and give this information to their advisors. A voluntary advising agreement was also provided to encourage each person to define her expectations as the relationship began (Appendix 1).

A hybrid protégé-advisor role was created for more experienced protégés who were interested in advising but who still wanted career support through WELI.

The hybrid protégé-advisors were provided with a senior advisor and a junior protégé.

### **Education: Workshops and Curriculum**

Specialized workshops led by executive business coaches and other content experts on leadership and career development were initially provided twice yearly to WELI advisors and protégés at the annual and winter SPA in-person conferences. Topics included coaching skills, time management, delegation, self-promotion, networking skills, and crucial conversations. For those unable to attend, workshop materials were provided initially by e-mail and then through a password-protected section on the WELI website ([weli.pedsanesthesia.org](http://weli.pedsanesthesia.org)). We developed the WELI website as an online resource with information on leadership skills, networking tools, and curricula related to advising, career advancement, and well-being. With support from the SPA leadership and conference organizers, WELI developed and led a plenary session addressing gender and diversity disparities in career advancement at the 2019 national SPA conference. As a result of the coronavirus disease 2019 (COVID-19) pandemic, virtual platforms became more prevalent. The virtual workshops, which are now held at least quarterly, are recorded and posted to a password-protected part of the WELI website for members who cannot attend.

As workshop attendance grew and as new protégés and advisors joined WELI, WELI advisory board members (S.D.M., S.D.Y.) with expertise in education, coaching, and leadership developed a longitudinal curriculum that cycles every 2 years. The curriculum includes communication, well-being, career development, leadership, team building and development, organizational change and culture, and mentoring and developing others. We provided each WELI member with access to the commercially available assessment Cliftonstrengths (Gallup), to help respondents identify their strengths. Our goal was to help WELI members build a foundation of leadership strengths and skills, maximize their benefit from participating in the WELI workshops, and inform discussions and goal setting.

### **Networking**

Networking sessions were initially held at SPA in-person conferences in conjunction with the WELI workshops. In 2020, the COVID-19 pandemic severely limited all networking. To address this problem, we created Grow and Advance through Intentional Networking (GAIN) virtual sessions.<sup>2</sup> GAIN sessions are 1-hour virtual discussion groups in which 6 to 8 WELI members participate in facilitated networking to address a specific topic. They are moderated by WELI advisory board members, advisors, and

protégés. The GAIN topics change monthly, with each topic offered 2 to 3 times during that month. Topics have included leadership skills, follow-up content from workshops, how to use the Clifton strengths, and well-being themes, such as microaggressions, resilience, and the impostor syndrome.

We encourage further networking within WELI to expand the protégés' and advisors' contacts. The goal is to capitalize on the diverse WELI network of professionals with expertise in research, quality improvement, practice management, administrative leadership, simulation science, clinical medicine, and physician well-being. We initially began introducing protégés to other advisors and protégés after the WELI workshops at the SPA conferences. Additional connections were made through e-mail introductions to individual WELI members by the advisory board, and a WELI networking registry was established on the WELI website. The networking registry allows protégés and advisors to find each other's contact information according to their listed areas of expertise and interest.

### Financing and Communication

Protégés pay \$450 per year for WELI participation; advisors participate in all WELI activities free of charge. Additionally, funding for WELI has been supported by private and corporate donations. WELI funds are used to support guest workshop leader fees and associated costs along with website development and maintenance. All WELI advisory board members and advisors are unpaid volunteers.

In addition to routine e-mails regarding workshops and GAIN opportunities, a bimonthly newsletter, called *Prompt, Promote and Lead*, is e-mailed to WELI members. The newsletter contains well-being and coaching tips, as well as articles on leadership from the business literature. A WELI Twitter account curated by WELI members connects and amplifies WELI's presence.

## WELI EVALUATION

### Methods

The Johns Hopkins University institutional review board approved this anonymous, voluntary survey study. Survey response was considered consent to participate in the study. After reviewing similar program evaluation tools,<sup>3-5</sup> 3 coauthors (J.K.L., S.M., and S.T.) drafted the survey. The draft survey was then piloted among 9 WELI members in August 2020, and the survey was refined based on feedback.<sup>6</sup>

The final survey contained quantitative items with 5-point Likert-type questions designed to assess the impact of WELI program components (pairing dyads, workshops, online content, and networking) on specific career development areas, including project

completion, goal setting, mentorship abilities, career advancement opportunities, and well-being. Open-ended survey questions that allowed for free-text responses included:

1. Please describe how participation in WELI impacted your career development and/or advancement.
2. Please describe any impact WELI has had on expanding your professional network and developing meaningful relationships.
3. Please describe any impact WELI has had on clarifying your sense of purpose or improving your well-being.

In November 2020, approximately 28 months after the first WELI session, the survey was e-mailed via Qualtrics to all WELI members who joined WELI before October 2020.

Quantitative data are shown in a descriptive analysis (GraphPad, v.8.3.0, San Diego, CA). Three authors (S.T., J.K.L., J.M.S.) conducted a qualitative thematic analysis. While 2 authors are WELI leaders, the third author is not, and he tried to encourage reflexivity. All comments to the 3 open-ended items were screened separately. As they all contained answers related to the impact of WELI on the participant, we elected to analyze all responses in aggregate. Each of the 3 authors independently coded responses to identify themes, then discussed their findings to achieve consensus on the themes. One author selected illustrative quotes, which were confirmed to be representative of the theme by the other authors.<sup>7</sup>

## RESULTS

Ninety-two of 152 (60.5%) people responded, including 42 advisors (46%), 45 protégés (49%), and 5 dual protégé-advisors (5%). Fourteen described their gender as men (15%), 77 as women (84%), and 1 "declined to state" (1%).

Among advisor respondents, 4 were assistant professors, 15 were associate professors, and 22 were professors. Additionally, 2 were vice chairs, 10 were division chiefs, and 3 were department chairs. Most advisors were clinician-educators (22), followed by clinician-researchers (13), clinicians (4), and a clinician-administrator (1); 1 person did not answer the question about career track. Advisors had participated in WELI for a mean 18.6 months (standard deviation [SD]: 6.3; range: 6–25).

The dual protégé-advisor respondents held the ranks of associate professor (5) and division chief (1) when they first joined WELI. One person was promoted to professor in the interval between joining WELI and the time of the survey. With respect to career track, 2 were clinicians, 1 was a clinician-educator, 1 was a clinician-administrator, and 1 reported

no specific career track. Their mean duration in WELI was 19.0 months (SD: 4.9; range: 12–25).

Among the 45 protégés, ranks on joining WELI included instructor (2), assistant professor (40), associate professor (2), professor (1), and division chief (1). Between joining WELI and the time of the survey, 8 women had been promoted to associate professor and 1 was named associate chair. The protégés listed their career tracks as clinician (11), clinician-educator (20), clinician-researcher (10), other (3), and no specific career track (1). Their mean duration in WELI was 16.1 months (SD: 7.1; range: 5–25).

**Overall Program Value**

Figure 2 shows how respondents rated the value of programmatic aspects of WELI. Seventy-three percent (32 of 44) of protégés found being selected to WELI very or extremely valuable. Both advisor-protégé pairings and workshops were ranked as very or extremely valuable by 30 of 45 (67%) protégés. The majority of advisor respondents ranked workshops (25 of 41

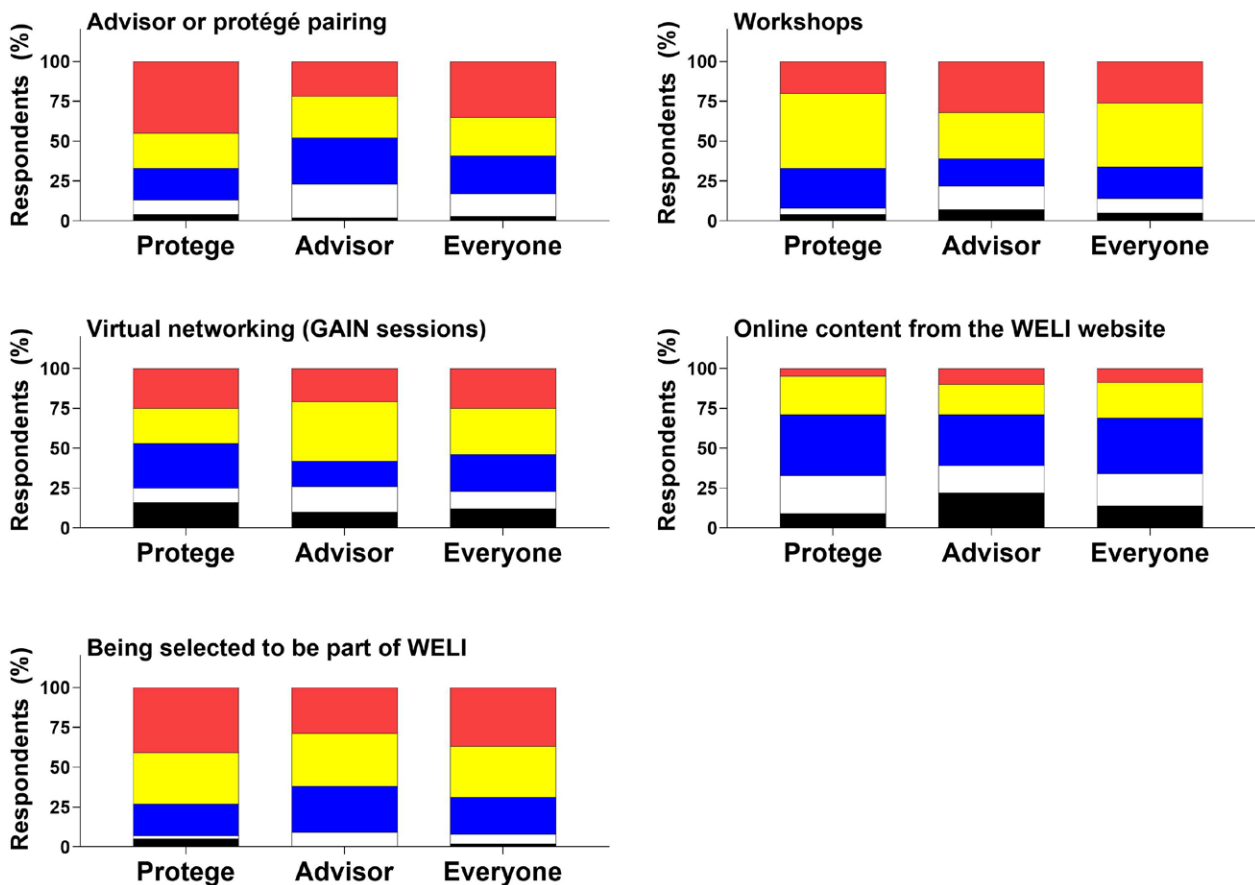
[61%]) and being selected to WELI (26 of 42 [62%]) as very to extremely valuable. Forty-eight percent (20 of 42 [48%]) of advisors ranked advisor-protégé pairings as very or extremely valuable. Thirty of 56 (54%) respondents who participated in GAIN sessions found them to be very or extremely valuable, with a greater percentage of advisors than protégés finding them very or extremely valuable (58% vs 47%). The WELI website was seen as less valuable overall, with most respondents considering it to be only somewhat valuable.

**Career Development Opportunities**

Figure 3 illustrates the extent to which respondents thought that WELI contributed to career opportunities such as initiating or completing projects, finding collaborators, and applying for or receiving funding. Among the 37 WELI protégés who started a new project, 17 (46%) stated that WELI somewhat or absolutely contributed to their ability to do so. Among the same group who were involved in a project, 62% of protégés

How valuable to you was each of the following aspects of WELI?

■ Not valuable at all    □ A little valuable    ■ Somewhat valuable    ■ Very valuable    ■ Extremely valuable



**Figure 2.** Value of WELI programming by type. GAIN indicates Grow and Advance through Intentional Networking; WELI, Women’s Empowerment and Leadership Initiative.

To what extent did WELI contribute to the following career opportunities?

N/A (has not happened)      Not at all (happened, but not influenced by WELI)  
 A little      Somewhat      Absolutely

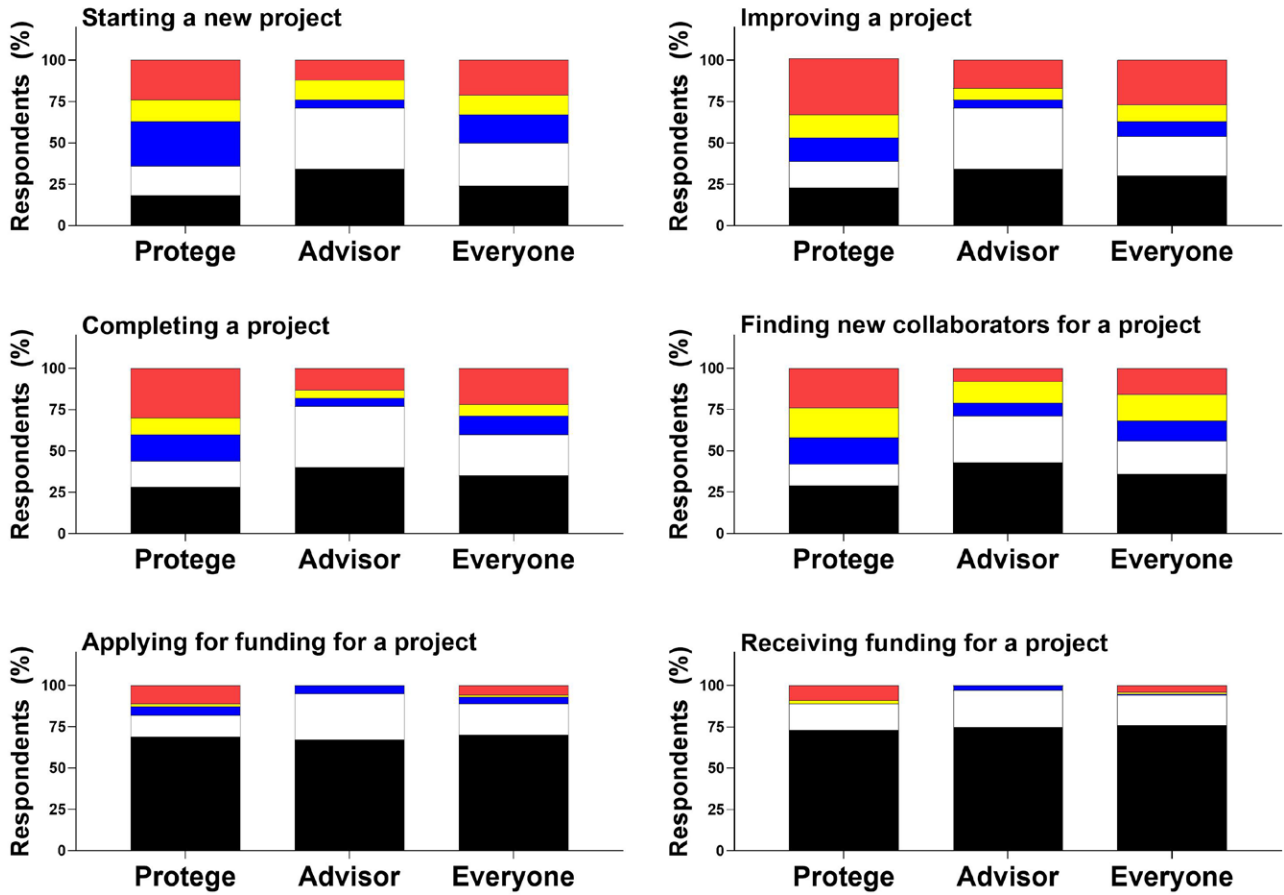


Figure 3. WELI contribution to projects, collaboration, and funding. WELI indicates Women’s Empowerment and Leadership Initiative.

found that WELI somewhat or absolutely contributed to improving a project, and 55% felt that WELI somewhat or absolutely contributed to completing a project. WELI somewhat or absolutely contributed to 19 of 32 (59%) protégés finding new collaborators. The majority of WELI members did not apply for project funding.

Figure 4 depicts the extent to which respondents felt WELI contributed to career opportunities such as speaking engagements, promotion, leadership positions, or relationship development. Among protégés who were invited as a visiting speaker/professor, 63% ranked WELI as somewhat or absolutely contributing to this opportunity. Overall numbers of individuals applying for or achieving promotion were low at the time of the survey. However, 51% of those who did so ranked WELI as somewhat or absolutely of value in applying for promotion and 38% felt the same regarding achieving promotion. Among those who applied for a leadership position at their institution, 42% found WELI somewhat or absolutely of value, whereas only 29% felt that WELI somewhat or

absolutely contributed to receiving a leadership position. Importantly, 79% of all respondents regarded WELI as somewhat or absolutely of value in developing at least 1 meaningful relationship outside of their protégé-advisor dyad.

**Goal Setting and Well-Being**

Figure 5 shows data centered on goals and well-being. Among protégés, 49% considered WELI to have improved their clarity regarding priorities either a lot or extremely, and 44% felt similarly regarding clarification of career aspirations and purpose. Among all respondents, including advisors, 49% felt that WELI improved their interest and ability to mentor others somewhat or absolutely. Importantly, 58% of protégés ranked WELI as contributing a lot or extremely to optimism about their professional future. Only 27% of respondents felt that WELI contributed somewhat or absolutely to improvement of work-related burnout. However, 44% of protégés thought that WELI contributed a lot or extremely to overall quality of life.

To what extent did WELI contribute to the following career opportunities?

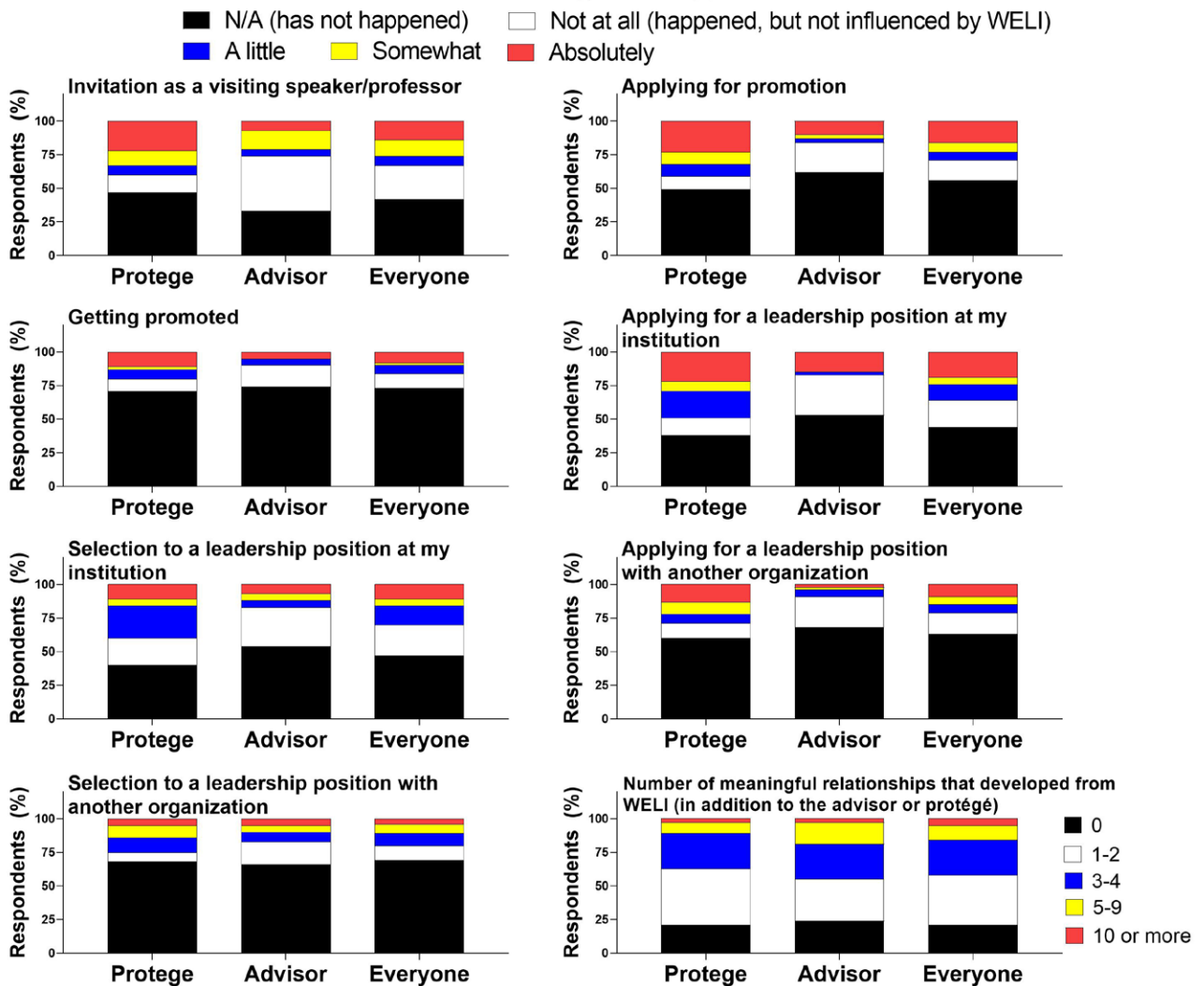


Figure 4. WELI contribution to career advancement, leadership opportunities, and relationships. WELI indicates Women's Empowerment and Leadership Initiative.

**SURVEY QUALITATIVE ANALYSIS**

Three free-text questions queried WELI's impact on (1) career development and advancement, (2) networking and meaningful relationships, and (3) sense of purpose and personal well-being. Response rate to each question was similar between groups. Eighty-four percent (77 of 92) of respondents answered the question about career development and/or advancement, including 38 of 45 (84%) of protégés, 34 of 42 (81%) of advisors, and 5 of 5 (100%) of dual protégé/advisors. Fifty-seven (62%) respondents answered the question about networking and relationships, including 25 of 45 (56%) of protégés, 28 of 42 (67%) of advisors, and 4 of 5 (80%) of dual protégé/advisors. Fifty-one percent (47 of 92) of respondents answered the question about sense of purpose and well-being, including 21 of 45

(47%) of protégés, 22 of 42 (52%) of advisors, and 4 of 5 (80%) of dual protégé/advisors.

Identified themes included (1) feelings of empowerment and confidence, (2) acquisition of new skills in mentoring, coaching, career development, and project implementation, (3) clarification and focus on goal setting, (4) creating meaningful connections through networking, and (5) challenges from COVID-19 and inability to sustain the advisor-protégé connection. A total of 103 free-text responses pertained to these major themes.

Protégés particularly expressed feelings of empowerment after participation in WELI. Nine of 10 (90%) free-text responses referring to empowerment were from protégés:

WELI did what it advertised to do, it empowered me. It helped me identify mentors and mentees. I feel like I am able to capitalize on my leadership skills.

To what extent did WELI contribute to improvement in each of the following?

■ Not at all    □ A little    ■ Somewhat    ■ A lot    ■ Extremely

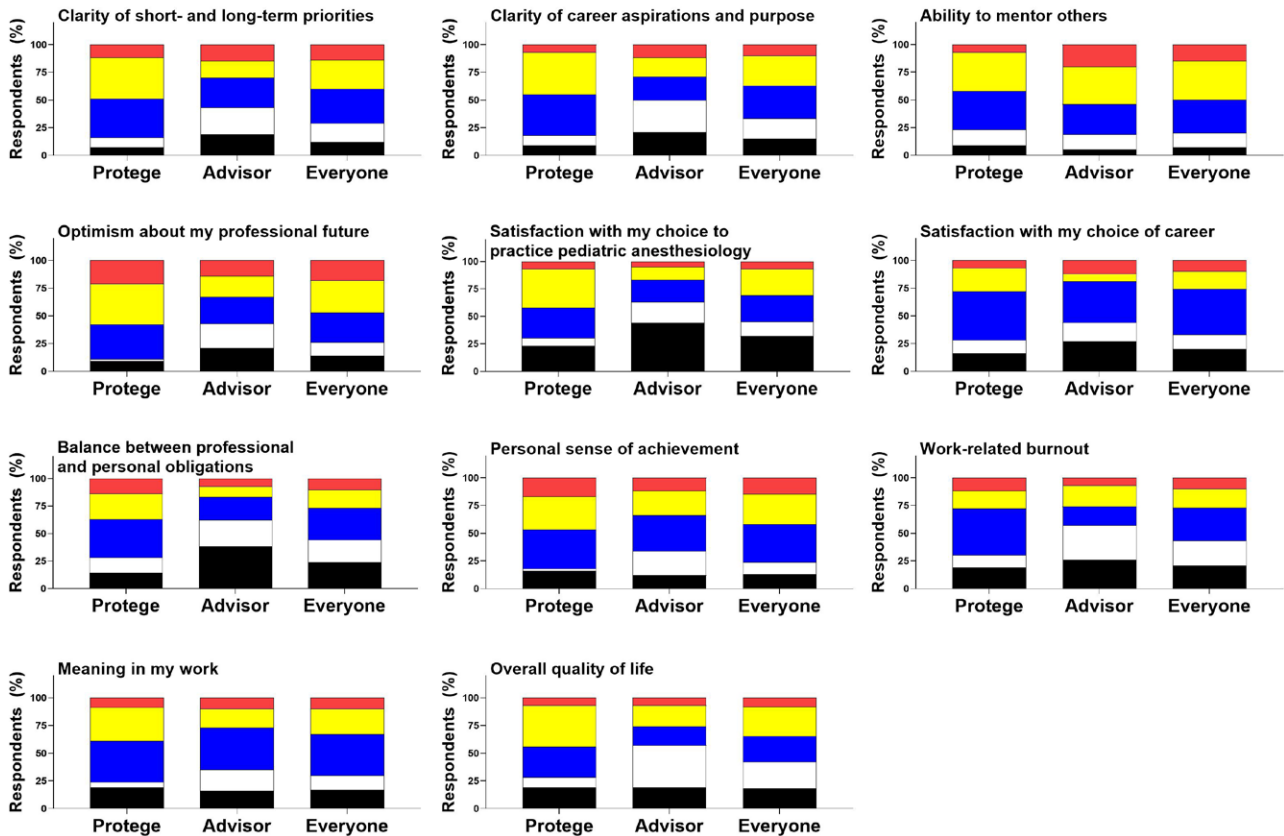


Figure 5. WELI contribution to defining priorities, satisfaction, and well-being. WELI indicates Women’s Empowerment and Leadership Initiative.

WELI has provided the tools necessary to make connections, engage, and empower me. I have even felt more courage to speak up and ask my leadership for the things that I need to succeed.

Sixteen percent (16 of 103) of responses referred to acquiring new skills. WELI advisors (13 of 16, 81%) comprised the majority:

I’ve been a coach in WELI but have also benefited myself during this time, in becoming a better coach, mentor, and better communicator.

WELI members, predominantly protégés (13 of 21, 62%), described increased focus on their career and ability to set and achieve goals:

Conversations with my mentor helped me identify my interests and goals, prioritize, plan, and act. This lead [sic] to a change in my leadership position.

WELI has brought clear focus to my academic activities. This focus has enabled me to work towards achieving my goals in my field of interest (clinician well-being), and recently I was appointed as vice chair of a national committee and associate chair of my department. I could not have done this without the advice of my advisor and WELI network.

Networking was the most mentioned topic in free texts, especially among protégés (27 of 46 [59%]). Nearly 45% (46 of 103) of all comments mentioned

networking. Expanded networks led to connections and produced opportunities for members:

WELI has been priceless in enabling me to meet and interact with numerous leaders in our field. This collaboration has been beneficial to me personally, and to WELI as an organization. I have moved outside my small world of cardiac anesthesia and been able to form relationships throughout pediatric anesthesia to serve my other noncardiac interests. Outside of my relationship with my WELI advisor, I have been able to cultivate meaningful relationships with several other WELI proteges and advisors. This has led to a myriad of projects, collaborations, and speaking opportunities. WELI has made me more confident and excited to connect with other pediatric anesthesiologists.

The COVID-19 pandemic made WELI participation difficult for some members; some others found WELI ineffective. Ten percent (10 of 103) of responses reported challenges in WELI participation related to the pandemic:

I feel as though the many changes in my life this past year has had a negative effect and WELI was not introduced at a time when it could help...COVID hit, our department made numerous changes in regards to workload and compensation...

To be honest, since COVID-19, with added stressors at work and home, and with the elimination of and restrictions on

in-person meetings, I have not been as motivated or enthusiastic about participating in virtual workshops.

WELI had little to no impact on my career development/advancement. I had one conversation with my mentee and neither of us attempted to continue the discussion...there is no doubt COVID had an impact on our effort--other priorities put the WELI project on the back burner for both of us, I would assume.

## DISCUSSION

In an analysis of 360° reviews, women in leadership positions are scored significantly higher on a majority of leadership competencies and are perceived as being as effective as men.<sup>8</sup> A growing body of evidence shows that having at least 3 women on the board of directors is a “tipping point” of influence. Analysis of both global and US companies revealed that those with at least 3 women on the board of directors have a significantly greater financial return on investment.<sup>9</sup> However, women are a small percentage of business leaders. Women held only 7.8% of chief executive officer positions in Fortune 500 companies at the end of 2020.<sup>10</sup> Similarly, women make up just more than 25% of all members of the US Congress.<sup>11</sup>

The findings in academic medicine parallel the business community. Despite being nearly half of academic faculty members, women represent <25% of professors and <20% of academic department chairs. Within anesthesiology, the percentages are even lower.<sup>1</sup> To our knowledge, no data are available specific to pediatric anesthesiology. The gap between women’s leadership ability and positions held represents lost potential for industries, companies, and academia.

WELI’s mission is to empower highly productive female pediatric anesthesiologists to achieve equity, promotion, and leadership. Our survey results indicate that WELI provides value in building skills and creating opportunities foundational to career development, leadership, and promotion. Workshops taught by executive coaches and content experts on time management, communication, delegation, impostor syndrome, and negotiation skills were rated as very or extremely valuable by two-thirds of WELI members. WELI members described feeling empowered and having new skills in part because of their membership. Notably, advisors emphasized new skill acquisition more than protégés. Thus, WELI benefits faculty of all career levels. Goal setting and achievement were identified as key benefits of participating in WELI in both quantitative and qualitative analyses, including abilities to improve and complete projects. These data show that WELI is achieving the first and essential steps toward leadership and promotion by providing new skills and confidence.

While achieving leadership positions and promotion are among WELI’s primary goals, these metrics were not consistently demonstrated in this early

survey. Of the few members who were promoted during their WELI membership, 38% found WELI to be of value in the promotion process despite this survey being conducted only 2 years into the program and during a pandemic. Results were similar for those who received a leadership position. As promotion and leadership assumption are career milestones that require time, the 2 years of WELI’s existence is not sufficient time to impact long-term end points. We will evaluate these longer-term and ambitious metrics in future surveys.

Networking and collaboration are foundational to professional growth. WELI incorporates multiple approaches to networking with mixed value reported in the survey results. Protégé-advisor dyads and the creation of new connections between WELI members were rated as very or extremely valuable by two-thirds of all respondents. Importantly, nearly 80% of WELI protégés reported finding an additional meaningful relationship outside of their dyad through WELI. The qualitative data reinforced WELI’s value in expanding members’ professional networks; protégés in particular reported high impact from WELI networking opportunities. Most survey respondents who had been invited for speaking engagements ranked WELI as contributory to that event. Although dyad participation was highly rated, protégés rated being selected to join WELI as more valuable than the dyads. This emphasizes the importance of large networks to create new opportunities and the value of recognizing faculty for their accomplishments through nominations to programs like WELI.

Notably, the WELI virtual networking forum, GAIN, was rated as very or extremely valuable by only about half of attendees even though networking had a large impact in the qualitative analysis. GAIN was created more than a year after WELI was started, in part because the COVID-19 pandemic limited opportunities to meet in person. Early on, it had less structure and regularity than the current iteration. At the time of the survey, GAIN in its current format had been in place for only a few months. GAIN sessions are designed to have a dual purpose—discussion around a career development, leadership, or well-being topic and facilitation of connection and networking among attendees. GAIN uses facilitated networking to promote discussions of predetermined topics. Our survey asked about GAIN’s overall effectiveness but did not specifically query networking or educational value. Future surveys may reveal more information about GAIN’s usefulness overall and provide more information to improve the program’s design.

Recruiting and pairing advisors and protégés was one of WELI’s first initiatives. The protégé-advisor dyad component was evaluated as very or extremely valuable by two-thirds of protégés and nearly half of

advisors. We recruited well-established and nationally known anesthesia faculty to serve as our advisors. This strategy was key to WELI's success because these early volunteers became champions for WELI once they participated in the program and saw its value. Not only did protégés benefit from improved accessibility to a network of senior faculty, but WELI was furthered by the sponsorship and support of influential leaders in pediatric anesthesia.

Four WELI advisors were assistant professors when they answered the survey. Each of these are women, and 3 were subsequently promoted to associate professor or are in the promotions process. The fourth advisor at assistant professor rank has an established track record of mentorship, program implementation, and development. Leadership, advising skills, and experience do not always translate into academic promotion. Advisors are nominated to join WELI based on their experience and skills regardless of rank.

WELI members of any career level can choose to be a protégé because coaching, mentoring, and skills development are crucial for all career phases. We match relatively senior protégés, including those who are associate professors or division chiefs, with even more senior advisors such as experienced department chairs. Protégés can acquire skills for their own career advancement while learning to support their own faculty and implement large-scale programs. As protégés professionally advance, they are encouraged to become WELI advisors.

The original model for the dyad was intended to foster a coaching relationship. Coaching differs from mentoring in that mentoring typically requires overlap of expertise between participants. Mentors provide answers and solutions to mentees' problems. The coaching model involves using open-ended inquiry to discern a solution, with ongoing assessment and accountability.<sup>12</sup> Physicians are generally less familiar with coaching than with mentoring, and WELI provided a workshop and ongoing education on coaching for advisors. As the dyad program evolved, it became evident that the relationships between advisors and protégés organically spanned mentorship, coaching, and sponsorship. These relationships evolved to meet the protégés' needs. Further, some members participated in WELI as both protégé and advisor, receiving and providing support from other WELI members. Supporting and teaching faculty to effectively mentor and coach is critical to the ongoing success of our subspecialty.

All career development programs must include sustainability plans, including retaining current advisors while developing advisors for the future. Advisors are typically senior-level faculty who have significant professional responsibility, including department chairs, division chiefs, senior faculty members, SPA leaders,

etc. During the orientation process, WELI protégés are instructed to drive the relationship and be efficient with their advisor's time by being prepared for meetings. Additionally, advisors can access all WELI content, workshops in coaching and leadership topics, and online networking through GAIN, free of charge. The majority of advisors who took the survey ranked workshops and GAIN sessions as very or extremely valuable. Nearly two-thirds of advisors stated that just being selected for WELI was valuable. The majority of respondents who highlighted acquiring new skills through WELI in the free-text responses were advisors. Thus, WELI clearly benefits both advisors and protégés. We are hopeful that dual protégé-advisors and protégés who remain with WELI will contribute to the next generation of advisors in pediatric anesthesiology.

As is true for all program development, funding is essential. We use professional leadership coaches to teach our workshops and provide some GAIN topic prompts and educational content. Additional expenses include WELI member Cliftonstrengths assessments on admission and website creation and upkeep. Yearly membership fees from protégés do not cover expenses, and the gap has been managed through SPA support, private and corporate contributions, and donations of time from the WELI leadership. All advisory board members are unpaid volunteers.

Future directions for WELI include implementation and refinement of a longitudinal in-person and virtual curriculum. Enhanced programming for networking and the creation of speaking forums for WELI members will provide additional opportunities. A business plan is in process to enhance long-term financial solvency. Creating allied partnerships with organizations that have similar missions for diverse or under-represented groups will allow WELI to support and benefit from other approaches to empowerment.

We acknowledge several limitations to our survey methodology. Because WELI programming evolved during the 2 years before assessment, some program aspects had been in place longer than others. Similarly, WELI has a rolling admission structure; therefore, newer protégés with limited WELI involvement had less time to achieve their goals. Additionally, because the 9 months preceding survey distribution were during the COVID-19 pandemic, this time may not be representative of WELI effectiveness in non-COVID times. WELI does not have a way to evaluate advisor performance or accountability, although this metric is a future goal. We did not collect information about other demographic characteristics, such as race or ethnicity; these unmeasured data may impact end points. The women who participate in WELI and who completed the survey are predominantly from academic institutions. Women in private practice anesthesia may have

different experiences. End points for WELI programming, empowerment, advancement, and promotion, are complex and may be interpreted differently by individuals, and the survey questions and responses may not capture the concept nuances. Future surveys could include more free-text space for respondents to describe their successes. Further, WELI members who perceive benefit or who have strong feelings about the program may be more likely to complete a survey and respond to free-text questions. Finally, some institutional spam filters rejected our e-mail survey distribution despite repeated attempts to reach members. We can administer future surveys at in-person conferences in addition to e-mail in the future.

### CONCLUSIONS

WELI is a model for supporting women's career development in pediatric anesthesiology. The quantitative and qualitative data from our 2-year program indicate that WELI has had early successes and should continue and expand. Our survey results showed that the process of participating in WELI overall was beneficial for protégés and advisors. Coaching, mentoring, networking, and education on leadership and career development skills provide cornerstones for generating opportunities for advancement. WELI could be a prototype model for supporting women's career development in other subspecialties. ■

### ACKNOWLEDGMENTS

The authors acknowledge the following people for their contributions to WELI programming: Alyssa M. Burgart, MD, MA, FAAP, Clinical Associate Professor, Department of Anesthesiology, Perioperative & Pain Medicine, Stanford University, Stanford, California; Denise P. Chang, MD, Assistant Clinical Professor, Department of Anesthesia and Perioperative Care, University of California, San Francisco, San Francisco, California; Nina A. Guzzetta, MD, FAAP, Professor of Anesthesiology and Pediatrics, Department of Anesthesiology, Emory University School of Medicine, Children's Healthcare of Atlanta, Atlanta, Georgia; Jen Lau, Assistant Professor, Department of Anesthesiology Critical Care Medicine, Children's Hospital Los Angeles, University of Southern California Keck School of Medicine, Los Angeles, California; Rebecca D. Margolis, DO, FAOCA, Assistant Professor, Department of Anesthesiology Critical Care Medicine, Children's Hospital Los Angeles, University of Southern California Keck School of Medicine, Los Angeles, California; Jina Sinsky, MD, Assistant Professor, Department of Anesthesia and Perioperative Care, University of California, San Francisco, San Francisco, California. The authors also acknowledge Eric Wittkugel, MD, Associate Professor, Clinical Anesthesiology and Pediatrics, University of Cincinnati College of Medicine, Cincinnati Children's Hospital, Hudson Certified Leadership Coach for his contributions to the WELI coaching skills curriculum; and Claire Levine, MS, ELS, Scientific Editor, Department of Anesthesiology and

Critical Care Medicine, Johns Hopkins University, for her document review and editing.

### DISCLOSURES

**Name:** Jamie McElrath Schwartz, MD.

**Contribution:** This author helped develop the program, design the study, analyze the data, and write the manuscript.

**Conflicts of Interest:** None.

**Name:** Scott D. Markowitz, MD.

**Contribution:** This author helped develop the program, design the study, and edit the manuscript.

**Conflicts of Interest:** None.

**Name:** Samuel D. Yanofsky, MD, MEd.

**Contribution:** This author helped develop the program, design the study, and edit the manuscript.

**Conflicts of Interest:** None.

**Name:** Sean Tackett, MD, MPH.

**Contribution:** This author helped design the study, analyze the data, and edit the manuscript.

**Conflicts of Interest:** None.

**Name:** Laura K. Berenstain, MD, FASA.

**Contribution:** This author helped develop the program, design the study, and edit the manuscript.

**Conflicts of Interest:** None.

**Name:** Lawrence I. Schwartz, MD.

**Contribution:** This author helped develop the program, design the study, and edit the manuscript.

**Conflicts of Interest:** None.

**Name:** Randall Flick, MD, MPH.

**Contribution:** This author helped develop the program, design the study, and edit the manuscript.

**Conflicts of Interest:** None.

**Name:** Eugenie Heitmiller, MD.

**Contribution:** This author helped develop the program, design the study, and edit the manuscript.

**Conflicts of Interest:** None.

**Name:** John Fiadjoe, MD.

**Contribution:** This author helped develop the program, design the study, and edit the manuscript.

**Conflicts of Interest:** None.

**Name:** Helen H. Lee, MD, MPH.

**Contribution:** This author helped develop the program, design the study, and edit the manuscript.

**Conflicts of Interest:** H. H. Lee consults for the United States Food and Drug Administration and for Edwards Life Sciences.

**Name:** Anita Honkanen, MD, MS, FAAP.

**Contribution:** This author helped develop the program, design the study, and edit the manuscript.

**Conflicts of Interest:** None.

**Name:** Shobha Malviya, MD.

**Contribution:** This author helped develop the program, design the study, and edit the manuscript.

**Conflicts of Interest:** None.

**Name:** Franklyn P. Cladis, MD, FAAP.

**Contribution:** This author helped develop the program, design the study, and edit the manuscript.

**Conflicts of Interest:** None.

**Name:** Jennifer K. Lee, MD.

**Contribution:** This author helped develop the program, design the study, analyze the data, and write the manuscript.

**Conflicts of Interest:** None.

**Name:** Nina Deutsch, MD.

**Contribution:** This author helped develop the program, design the study, analyze the data, and write the manuscript.

**Conflicts of Interest:** None.

**This manuscript was handled by:** James A. DiNardo, MD, FAAP.

## APPENDIX 1: WELI PROTÉGÉ-ADVISOR AGREEMENT



Welcome to the Society for Pediatric Anesthesia (SPA) Women's Empowerment and Leadership Initiative (WELI). Please use this protégé and advising agreement to help structure your goals and parameters for your WELI relationship. This agreement is optional but highly recommended. Protégé-advisor relationships benefit from shared understanding and expectations.

1. **Goals:** What do you hope to achieve from this relationship? Examples include gaining perspective on skills and tasks needed to succeed in the workplace, exploring and pursuing new career opportunities, refining curriculum vitae and other documents for promotion, networking, leadership skills development, etc. The protégé's Objectives and Key Results may be used here. WELI advisors can list their goals for growing as mentors and coaches.

WELI protégé:

WELI advisor:

2. **Frequency of meetings:** We recommend approximately 1-hour monthly meetings by video chat or phone. The interval may vary depending on immediate needs, deadlines, and career level. Communication methods that allow you to see each other are the most effective. Emails and texts alone are not sufficient. *Consider setting a standing meeting to communicate each month.* Some pairs found that consistent meeting times are more conducive to reliable interactions than arranging new meeting times each month. As the protégé's and advisor's networks grow within WELI, this meeting frequency may need to be adjusted to accommodate other WELI meetings.

Goal meeting frequency:

Reserved day and time for monthly meetings (if applicable):

3. **Confidentiality:** All discussions will be held in the strictest of confidence.
4. **Plans for evaluating the relationship's effectiveness:** Examples include a biannual review of progress made toward the mentee's Objectives and Key Results.

Plan:

5. **WELI assessments:** To assess program effectiveness and inform the WELI steering committee, there will be routine assessments (typically brief surveys). We agree to participate in WELI assessments when requested.
6. **Relationship termination clause:** In the event that either party finds the mentoring relationship unproductive and wishes to terminate the WELI relationship, we agree to honor that decision without question or blame. We recommend that you contact a member of the WELI steering committee for assistance.
7. **Duration:** The WELI relationship will continue as long as both parties feel comfortable with its productivity. Annual WELI protégé dues and SPA membership dues must be paid on time.
8. **Mentee membership renewal:** Mentee membership renewal is contingent upon reliable communication with your WELI advisor due to a limited number of WELI positions.

WELI protégé's name (please print) and signature:

Date: \_\_\_\_\_

WELI advisor's name (please print) and signature:

Date: \_\_\_\_\_

Chief/Chair acknowledgement of this agreement if the Chief/Chair is paying the protégé's annual WELI dues:

Name (please print) and signature:

Date: \_\_\_\_\_

*Empowering highly productive women pediatric anesthesiologists to achieve equity, promotion, and leadership*

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