

# Implementation of a Coaching Program by a National Surgical Association

Sharon L. Stein, MD,<sup>\*,†</sup> Jacqueline T. Chu, MD,<sup>‡</sup> Andrea Merrill, MD,<sup>†,§</sup> Sophia A. McKinley, MD,<sup>†,||</sup> Sareh Parengi, MD,<sup>†,¶</sup> Karen Donelan, ScD,<sup>#</sup> and Kerri Palamara, MD<sup>‡</sup>

\*UH RISES: Research in Surgical Outcomes and Effectiveness Center, University Hospitals Cleveland Medical Center, Cleveland, Ohio; <sup>†</sup>Association of Women Surgeons, Chicago, Illinois; <sup>‡</sup>Department of Medicine, Massachusetts General Hospital, Boston, Massachusetts; <sup>§</sup>Department of Surgery, Boston Medical Center, Boston, Massachusetts; <sup>||</sup>Department of Surgery, Massachusetts General Hospital, Boston, Massachusetts; <sup>¶</sup>Department of Surgery, Newton Wellesley Hospital, Newton, Massachusetts; and <sup>#</sup>Brandeis University, Waltham, Massachusetts

**OBJECTIVE:** Using the reach, effectiveness, adoption, implementation and maintenance (RE-AIM) framework for implementation science, we describe the implementation and impact of a virtual coaching program designed and conducted through a national surgical organization.

**DESIGN:** The Association of Women Surgeons recruited and trained surgical faculty as coaches with no prior training in positive psychology to coach surgical residents. Coaching pairs completed three coaching sessions center on strength recognition, personal and professional fulfillment, and work life integration.

**SETTING:** The initial coaching training was in person at a national conference, while subsequent training sessions and all coaching sessions were held remotely.

**PARTICIPANTS:** A total of 75 coaches were trained and 121 surgical residents participated in the program.

**RESULTS:** Coachees noted improvement in goal setting, self-confidence, and working relationships. Coaches noted improvement in communication skills both during and outside of the coaching experience. Eighty-six percent of coaches recommended implementing a coaching program at their home institution. This program has served as model for additional programs through other associations and institutions.

**CONCLUSIONS:** The Coaching Project demonstrates the feasibility implementing a coaching project for coaching

surgical residents, teaching new communication skills to coaches, while providing wellness benefits to coachees. (J Surg Ed 000:1–9. © 2022 Association of Program Directors in Surgery. Published by Elsevier Inc. All rights reserved.)

**KEY WORDS:** Coaching, Professional Development, Resident Wellness, Coach, Implementation Framework

**COMPETENCIES:** Systems Based Practice, Professionalism, Interpersonal and Communication Skills, Practice-Based Learning and Improvement

## INTRODUCTION

A sense of community and belonging are major contributors to maintaining well-being and preventing burnout in residency training.<sup>1-4</sup> Residents often cite isolation, lack of role models and disconnection as factors contributing to burnout.<sup>1,5</sup> Mentorship and sponsors can play critical roles in resident well-being. However, many residents lack access to such faculty at their home institution, particularly among populations at higher risk of burnout, such as women surgery residents.

Structured coaching programs have shown improved well-being and decreased burnout among residents using faculty who have completed training in positive psychology and coaching skills as coaches.<sup>1-4,6,7</sup> Most prior positive psychology coaching studies are single institution and/or single specialty studies and require considerable institutional commitment. Residents at institutions who have not committed to such an intervention may lack local access and have a greater need for coaching.

Using the RE-AIM framework for implementation science, we describe the implementation and impact of a

Sources of funding and support: This work was generously supported by a grant from The Physicians Foundation Grant 3298855. The grant was awarded to the Association of Women Surgeons Foundation, a 501c3, exclusively for financial support of The AWS Coaching Project.

Correspondence: Inquiries to Sharon L. Stein, MD, University Hospitals/Cleveland Medical Center, 11100 Euclid Avenue, LKS 5047, Cleveland, OH 44106. Fax: 216-844-5957; e-mail: [Sharon.stein@uhhospitals.org](mailto:Sharon.stein@uhhospitals.org)

virtual national coaching program designed and conducted through a national surgical organization.<sup>8</sup> This program can be implemented at either an institutional or association level and provides a structure for initiating a coaching program by previously untrained faculty using a standard curriculum and a single subject matter trainer, to improve the well-being of residents. We demonstrate the efficacy of implementation of this project as well as a pathway to provide coaching opportunities to others who might be interested in starting similar programs.

## METHODS

The Association of Women Surgeon (AWS) is a not-for-profit educational and professional organization whose mission is to inspire, encourage, and enable women surgeons to realize their professional and personal goals. In 2018, in response to concern for well-being of women surgery residents, the AWS implemented a coaching program through our national organization. This program was funded by a grant from The Physicians Foundation and approved by the Partners Healthcare (now Mass General Brigham) Institutional Review Board, *including consent for participation, data analysis and publication. Data was not collected with respect to coaching session content.* The program was designed to recruit and train practicing surgical faculty to coach residents using a positive psychology coaching methodology. The coaching format was developed and implemented by Dr. Kerri Palamara, in conjunction with the Institute of Coaching.<sup>7</sup> Faculty were not expected to have prior or gain additional coaching experience beyond the training provided through the program.

### Recruitment

The program was promoted to AWS members as a fully virtual coaching program for residents. Coaches (practicing surgeons) and coachees (surgical residents) were recruited via emails over several months through an online registration on the AWS website. Social media including Twitter, Facebook, and Instagram were used for recruitment. Inclusion criteria for participation were current membership in AWS, active surgical practice for coaches, and current trainee status in the United States or Canada for coachees.

### Coaching Technique

Positive psychology is a methodology of identification and implementation of strengths and positive emotions, championed by Martin Seligman and previously applied to coaching techniques.<sup>9-11</sup> Positive psychology in coaching teaches coaches to guide coachees in self-reflection, goal-setting, and problem-solving using reflective

listening, and by emphasizing positive emotions and strengths articulated by the coachee, as opposed to emphasizing negative emotions, performance improvement and weaknesses. Specific exercises focused on strength recognition, personal and professional fulfillment, and work life integration were selected and curated for inclusion in the curriculum.

### Training

Coaching training was a focused, 3-hour training designed with the goals of accessibility and approachability for a broader group of educators, rather than a multi-day or even multi-week traditional coach certification. The goal of this training was not to create certified coaches, rather to empower faculty to engage as a novice coach in a coaching conversation with a learner.

While a traditional coaching certification program emphasizes specific methodology and theory of coaching, the emphasis on our abbreviated coaching training was on reflective listening. Coaches were provided with a specific group of instruments to use in each session, but much of the training time was centered on teaching the coaches to allow the coachee to talk and reflect, rather than offering prescriptive advice, as a surgical mentor might do traditionally. Although the program did not include formal assessment of coaching technique of the coaches, indirect assessment of effectiveness was obtained through several end of program comments. All coaches were required to attend a 3-hour training taught by a certified professional coach and subject matter expert (SME, KP), in which core concepts of coaching, reflective listening, and positive psychology were demonstrated. Training consisted of didactic teaching as well as hands-on practice by the coaches in dyads to simulate the exercises coaches would use with their residents. Participants were encouraged to share reflections, concerns and observations following practice. This initial training was held in person at the AWS national conference.

All coaches were provided with a copy of a coaching handbook developed by the authors prior to the training which contained all coaching exercises, links to video demonstrations of exercises, and a step-by-step guide to each coaching session with their resident. Coaches also received continuing medical educational credits for completion of the training.

### Additional Support Sessions

In order to support the coaches and to provide additional training, two optional virtual training sessions were held approximately 3 months and 6 months after the national conference using Zoom technology. These sessions allowed for reflections and debrief on their experiences with their coachees, review of core

concepts of coaching, and exercises in which coaches were paired 1:1 in breakout rooms, followed by extensive discussions and debriefing. Coaches were invited to share challenges and successes from prior coaching sessions. These sessions were moderated and led by the SME. Approximately 2/3rds of the coaches participated in each follow up support sessions. In addition, to accommodate the busy schedules of surgeons and those who were unable to participate live, we taped the support session and sent recordings of each session to all participants.

The AWS and the SME provided support to coaches throughout the year via an online discussion forum or e-mail. Each participant was sent a confidentiality statement which explicitly stated limits of confidentiality, should the coach feel that the coachee was at risk of harm to themselves or others.

## Pairings

Coaches who completed their training were then paired with coachees. Coaches were matched with residents of disparate specialty and geography in order to minimize likelihood of traditional mentoring interactions outside of the coaching program. Self-identification demographics such as age, race and ethnicity were not considered as numbers were small and priority was given to pairing residents with coaches outside of their field of interest and institution. Coaches were generally paired with 2 coachees. Coaching pairs committed to three 1:1 coaching sessions over a 9-month period but were permitted to meet more frequently if both parties desired. As coaching pairs were not in the same location, sessions were conducted over phone, or video conferencing. Suggested meeting duration was 40 to 60-minutes. There was no consequence for not meeting.

## Data Collected

All participants provided basic demographic information including affiliation with institutions and area of specialty which was used to match participants. Additionally, pre- and post-program surveys were sent, including assessment of well-being and burnout using previously validated scales. Instruments included are noted in Addendum A.

## Statistics

Participant demographics and characteristics are summarized for those who responded to baseline and follow-up surveys. For continuous scoring outcomes such as Personal Fulfillment Index (PFI), Self-Valuation and PERMA, we summarized the measures using mean and standard deviation, tested for difference using paired t-tests. A two-sided p-value < 0.05 was considered statistically

significant. All analyses were conducted using SAS version 9.4 (SAS Institute, Cary, NC).

## Re-Aim Framework

The Re-AIM Framework, popularized by Glasgow et al.,<sup>8,12,13</sup> is a widely accepted format for assessing the success of implementation of public health interventions. The five components of the Framework include

1. Reach: The population that participated in the program and its applicability to the general population for whom the intervention is planned.
2. Effectiveness: The behavioral outcomes that were observed during the program.
3. Adoption: The percentage of eligible individuals who participated in the program.
4. Implementation: Whether the program was delivered as intended and its costs.
5. Maintenance: Whether the program effects were sustainable.

Major interventions and activities, methods of assessment, and corresponding Re-Aim dimensions are reported in [Table 1](#).

## RESULTS

### Survey Completion Rates

Sixty five of 75 (86.7%) coaches and 84 of 121 (69.4%) coachees completed end of year surveys.

### RE-AIM Measures

*Reach.* The demographics of participants are detailed in [Tables 2](#) and [3](#). The 75 attending surgeons who participated over 2 years represented 65 different programs; the 121 residents who participated were from 87 different residency programs and surgical specialties which varied from otolaryngology and orthopedics to breast and trauma. Participants were geographically diverse through the US and Canada. Twenty-five percent of coaches and coachees were from nonacademic programs.

*Effectiveness.* Trainee participants reported improvements in frequency of goal setting, self-reflection activities, and ability to receive feedback; as well as improvements in working relationships. The coachees found that the program was helpful in receiving feedback on their performance positively (35.4% prior to coaching vs 56.8% after coaching,  $p < 0.001$ ) and having an opportunity to reflect on their experiences (55.4% prior to coaching vs 76.8% after coaching). At baseline, 30% of residents reported that they had not set goals with their residency

**TABLE 1.** Intervention Components and Data Collection Methodology Used by the AWS Coaching Project as Correlated to the RE-AIM Framework

Intervention Components	Data Sources	RE-AIM Component
Creation of a coaching curriculum	AWS Coaching Project Book	Effectiveness Implementation
Coaching training: skills of positive psychology, techniques of reflective listening	CME Survey End of Year Survey	Effectiveness Implementation
Coaching support sessions	End of Year Survey	Implementation Maintenance
Pairing of coaching pairs with disparate specialty and geography	End of Year Survey	Reach, Adoption
Virtual coaching sessions	End of Year Survey	Reach Effectiveness Adoption
Relationship building between coach and coachee	End of Year Survey	Effectiveness Implementation Reach
Coaches using skills from coaching outside of project	End of Year Survey CME Surveys	Reach Adoption Maintenance
Testing of well-being	End of Year Survey	Effectiveness, Implementation Maintenance

CME, Continuing Medical Education; RE-AIM, Reach, effectiveness, adoption, implementation and maintenance.

program in the past year. At the completion of the program, 85% of coachees reported goal setting with their program directors and 65% completed this activity at least twice in the past year. Coachees commented that the AWS coaching project helped them with the task of goal setting. A representative comment was, “The AWS coaching project catapulted me toward meaningful deep reflection that was formative and helped me successfully reset my goals at a crucial time.” Coachees agreed that the coaching program was useful in helping them address the typical challenges facing residents including self-confidence (83% agreed), working relationships (75% agreed) administrative burdens (54% agreed) and would recommend implementing a coaching program at their home institution (86% agreed).

**Adoption.** Registration for The AWS Coaching Project was open to all 3500 AWS members. Approximately 30% of AWS members are trainees (1040 trainee members) and would be eligible for the program. In the United States and Canada there are just over 8600 general surgery residents, and approximately 35.7% of these are women, according to the Association of American Medical Schools.<sup>14</sup>

The program template can be used successfully beyond women surgery residents. In the 4 years since launching this program, the AWS Coaching Project has paired 153 coaches with 283 residents (of 400 resident members). Additionally, the program has inspired a cascade of coaching programs; at least 9 coaches have engaged in formal coaching training after participating in the AWS Coaching Project. Former coaches have created programs at the American Society of Pediatric Surgeons (50/88 potential residents participating), Memorial Health Network (Miami,

FL; 17/158 potential residents participating), and Rush University, (Chicago, IL; 76/844 potential residents participating). In each program, there is a similar 2:1 ratio of coachee: faculty coach.

**Implementation.** Participation rates were high, noted in end-of-year survey data from coachees. Sixty-nine percent of coachees completed end of year surveys; 88% of whom reported participation during the program. These coachees reported meeting 3 to 4 times over the 9-month program with an average length of meeting of 20 to 60 minutes. The majority of coachees rated the level of communication with their coach as good or excellent (95%). Only 12% of coachees reported no coaching interaction during the program.

One goal of this program was to create a safe space for reflection that might not otherwise exist for these trainees through the provision of coaches from a different specialty and institutions for the coachees. 48.9% of coachees said they preferred a coach from outside of their own program, while 20% stated they had no distinct preference. Coachees stated that “Having another surgeon who was not part of my program but rather invested in me as a person and my growth not only as a surgeon but also as a person was wonderful.” “I did not have to feel guarded or judged.” Another coachee shared “I felt more at ease honestly discussing issues that were challenging at my program because I was not shaping or changing the opinion of someone that has any separate vested interest in the issues, outside of helping me process and improve. The separation made me trust the insight and guidance even more because there were no conflicting interests shaping the support either.”

**TABLE 2.** Demographics of 121 Surgery Resident Coachees Enrolled in the AWS Coaching Project

	N	% (STD)
Age (STD)	121	30.5 (3)
Race		
White	85	70.2%
Black, or African American	5	4.1%
Asian	19	15.7%
More than one race	7	5.8%
Other, did not answer	5	4.1%
Ethnicity		
Hispanic/Latinx Descent	10	8.3%
Non-Hispanic/Latinx	110	90.9%
Did not answer	1	0.8%
Surgical specialty		
General Subspecialty	53	43.8%
Acute Care/Trauma	19	15.7%
General Surgery	13	10.7%
Cardiovascular	13	10.7%
Non-General Surgery	15	12.4%
Undecided	15	12.4%
Training level		
PGY1	28	23.1%
PGY2	16	13.2%
PGY3	24	19.8%
PGY4	15	12.4%
PGY5+	19	15.7%
Research	19	15.7%
Institution		
Unique Institution	87	
Academic Program	66	75.9%
Non-Academic Program	21	24.1%
Region		
Northeast	39	32.2%
Midwest	24	19.8%
South	50	41.3%
West	3	2.5%
Canada	5	4.1%

Costs for the project were limited. Beyond costs for the randomized clinical trial, our SME was paid as a consultant for development of materials, training and year-round support. The AWS association management partner was also paid for creation of the website, marketing of the program, and logistical support. Additional support, such as matching of residents, was done by AWS volunteers. The 2020 program, which was entirely virtual secondary to COVID concerns, has a budget of \$10,000, which includes access to online programs and training modules.

*Maintenance.* End of year surveys were conducted. Coachees stated that they used skills learned in coaching outside of the coaching context, specifically in interactions with colleagues (64%) and with family and friends (59%).

**TABLE 3.** Demographics of 75 Practicing Surgeon Coaches Enrolled in the AWS Coaching Project

	N	%
Race	75	
White	30	40.0%
Black, or African American	3	4.0%
Asian	10	13.3%
Other	3	4.0%
More than 1	1	1.3%
Not answered	28	37.3%
Ethnicity		
Hispanic/Latinx descent	3	4.0%
Non-Hispanic/Latinx	45	60.0%
Not answered	27	36.0%
Specialty		
Acute Care/Trauma	47	62.7%
General Subspecialty	13	13.3%
Cardiothoracic/Vascular	3	4.0%
General Surgery	5	6.7%
Non-General Specialty	7	9.3%
Years in practice (number)		
0-5	33	42.7%
6-10	22	29.3%
11-15	11	14.7%
16+	9	12.0%
Institution		
Academic	57	76.0%
Non-Academic	18	24.0%
Location		
Northeast	21	28.0%
Midwest	18	24.0%
South	25	33.3%
West	11	14.7%
Canada	0	0.0%

## DISCUSSION

The AWS Coaching Project demonstrated that a coaching program can be implemented through a national organization using virtual technology to reach a vulnerable trainee population and improve goal setting, self-reflection, and feedback in a safe space. Coaching provides a unique set of skills when compared to traditional mentorship models. This program also differs from mentoring program, where mentors traditionally *direct* residents. While mentors remain vital to help guide residents through details of clinical practice, technical expertise and sponsorship for opportunities, a coach's job is to help the coachee visualize their goals and understand the skills they need to create their individual path in medicine. Our results show that provided the infrastructure, training opportunities and

curriculum; a professional society can effectively implement a coaching program to reach a broad audience with high satisfaction. Due to the virtual nature of participation, vulnerable surgical trainee groups could participate from any program, regardless of size, geographic location, or resources. The program could be modelled and implemented for other underrepresented groups where local mentoring might be more challenging to find for trainees.

We believe that with faculty buy-in, a defined curriculum, and subject matter expertise, the program can be amplified to provide exponential benefits. The success of this model is demonstrated by replica programs through the American Society of Pediatric Surgery, as well as the graduate medical education programs at Rush University and Memorial Hospitals. By providing a structured reproducible coaching curriculum, coaching opportunities are achievable throughout the country with relatively minimal additional resources. Core elements of such a program would include time for coaches and coachees to meet, a commitment from faculty coaches and formal training of coaches by a certified professional coach with a positive psychology curriculum. In addition to our curriculum, there are many resources online for additional exercises in positive psychology and coaching to aid in the maintenance and implementation of coaching programs.

The role of the coach is to provide a thought-provoking and creative space that empowers the coachee to move forward toward their vision of the future. In its ideal form, the coachee develops tools for more effective communication, decision making, goal setting and self-efficacy following the interactions. The coaches also appeared to benefit from the program. Ninety percent of coach respondents stated that coaching training helped improve their communication skills; Qualitative comments include, "I am more effective as a leader in our training program and a mentor to medical students and residents." After participation in the program, several coaches went on to obtain formal training in coaching or implemented similar programs for their own institutions or professional organizations. "The AWS coaching project has changed the trajectory of my life. I initially joined the coaching project to help residents and learn more about coaching. What I learned was how much coaching helped me find my passion for medicine again." Further studies evaluating the effects on coaches are warranted.

Our coaching program was in the middle of its second year when the COVID pandemic began, which terminated professional activities for many in academics. Because of the virtual nature of the AWS Coaching Project, the program was able to continue. During 2020-2021, the entire program, including initial training was held virtually. In 2019 and in 2020, many of the pairs used the existing virtual format to provide support

during a tumultuous year. Keys to success for sustained implementation were the virtual format, buy-in from the leadership of a national society providing infrastructure and resources, and coach faculty.

Further studies would be useful to understand the impact of coaching to other groups, including the benefit to coaches themselves, as well as coaches and coachees in other surgical populations. Ideally, the program could be expanded on the national/society level to provide coaching opportunities to all trainees who are interested regardless of their residency program's offerings. Further directions include assessing long-term outcomes on well-being and burnout for participants in these types of programs. In addition, studies to evaluate whether there is long-term maintenance of coaching skills, and adoption of coaching techniques for those trained in coaching would be helpful.

## CONCLUSION

The AWS Coaching Project provides a robust model and methodology for providing coaching to women surgical residents. The fully virtual nature of this program affords access to vital support to residents at any program, regardless of physical location, surgical specialty or institution. Using the tools and structure provided, the program is reproducible by both individual institutions and professional associations with the goals of improving trainee well-being and decreasing burnout.

## ADDENDUM OF INSTRUMENTS USED DURING THE AWS COACHING PROGRAM

1. Professional Fulfillment Index: Trockel, M., Bohman, B., Lesure, E. *et al.* A Brief Instrument to Assess Both Burnout and Professional Fulfillment in Physicians: Reliability and Validity, Including Correlation with Self-Reported Medical Errors, in a Sample of Resident and Practicing Physicians. *Acad Psychiatry* **42**, 11–24 (2018). <https://doi.org/10.1007/s40596-017-0849-3>.
2. Self-valuation Scale: Trockel MT, Hamidi MS, Menon NK, Rowe SG, Dudley JC, Stewart MT, Geisler CZ, Bohman BD, Shanafelt TD. Self-valuation: Attending to the Most Important Instrument in the Practice of Medicine. *Mayo Clin Proc.* 2019 Oct;94(10):2022-2031. doi: 10.1016/j.mayocp.2019.04.040. Epub 2019 Sep 19. PMID: [31543254](https://pubmed.ncbi.nlm.nih.gov/31543254/).
3. Gratitude Questionnaire: Questions 2 and 6. McCullough, M. E., Emmons, R. A., & Tsang, J. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology*, **82**, 112-127.
4. Measurement of Current Status: Questions 11-13. Antoni, M. H., Lechner, S. C., Kazi, A., Wimberly, S.

R., Sifre, T., Urcuyo, K. R., Phillips, K., Gluck, S., & Carver, C. S. (2006). How stress management improves quality of life after treatment for breast cancer. *Journal of Consulting and Clinical Psychology*, 74, 1143-1152.

5. PERMA Profiler - It is recommended that educators looking to evaluate PERMA in their programs should use the complete 23 item PERMA Profiler, which can be accessed here: [https://www.peggykern.org/uploads/5/6/6/7/56678211/the\\_perma\\_profiler\\_101416.pdf](https://www.peggykern.org/uploads/5/6/6/7/56678211/the_perma_profiler_101416.pdf)

6. Intolerance of Uncertainty Short Form - Bottesi, G., Mawn, L., Nogueira-Arjona, R., Romero Sanchiz, P., Simou, M., Simos, G., ... Freeston, M. H. (2020, June 10). A short-form version of the Intolerance of Uncertainty Scale: Initial development of the IUS-5. <https://doi.org/10.31234/osf.io/b62wf>

7. Hardiness Resilience (DRS-15) - Bartone, P. T., Ursano, R. J., Wright, K. M., & Ingraham, L. H. (1989). The impact of a military air disaster on the health of assistance workers. *Journal of nervous and mental disease*, 177(6), 317-328.

8. Internally Developed Questions:

- How often do you set goals in typical program meetings (mentors, advisors, chief residents, program director, coach)?

I have not set goals in the past year  
 Once in the past year  
 Twice in the past year  
 Four times in the past year  
 Bi-monthly (every other month)  
 Monthly  
 Weekly

- How many meetings did you have with your coach this year? *NOT ASKED OF CONTROLS*

0  
 1  
 2  
 3  
 4  
 >4

- How would you rate the quality of your communication with your coach? *NOT ASKED OF CONTROLS*

Excellent  
 Good  
 Fair  
 Poor  
 Don't know

- On average, how long are your meetings with your coach? *NOT ASKED OF CONTROLS*

Less than 30 minutes  
 30-60 minutes  
 More than 60 minutes  
 Don't know

- In the past year, have you used the skills you have learned in the Professional Development Coaching Program in your interaction with others? *END OF YEAR ONLY, NOT ASKED OF CONTROLS*

Yes, I have definitely used these skills	Yes, I have somewhat used these skills	No, I have not used these skills	Not applicable
--	--	----------------------------------	----------------

Colleagues in medicine  
 Colleagues in nursing  
 Relationships with family and friends  
 Your mentors or advisors  
 Patients

- In previous research, the following have been noted as major challenges for trainees. For each one, please indicate if you believe the coaching program has improved your ability to cope. *NOT ASKED OF CONTROLS*

	Definitely yes	Somewhat yes	Somewhat no	Definitely no	Not sure
--	----------------	--------------	-------------	---------------	----------

Information processing  
 Work-life balance  
 Cultural competence  
 Working relationships  
 Coping with work hour restrictions  
 Administrative burdens  
 Self-confidence

- Given what you now know about your training experience, would you advise a qualified applicant to pursue a training here (at your training program)?

Definitely would  
Probably would  
Probably would not  
Definitely would not

- Given what you know about the AWS Coaching Program, would you advise other training programs to implement a coaching program?

Definitely would  
Probably would  
Probably would not  
Definitely would not

- Given what you believe are the biggest challenges for a resident, do you think the AWS Coaching Program is a useful program to address them?

Definitely yes  
Somewhat yes  
Somewhat no  
Definitely no  
Not sure

- The coaching model used in this program was previously only used for in-person meetings in an organization where coach and coachee were both employed. Which comes closest to your opinion about your experience of coaching?

I prefer coaching with a coach/coachee outside my organization  
I would prefer to participate in this program inside my organization  
I have no preference

- Are you Hispanic or Latino origin or descent?

Yes, Hispanic or Latino  
No, not Hispanic or Latino

- What is your race?

White  
Black or African American  
Asian  
Native Hawaiian or Other Pacific Islander  
American Indian or Alaska Native  
More than one race

- Thinking about the past year, please rate your experiences with...

	Excellent	Good	Fair	Poor
Patient care				
Operative activities				
Understanding your role in the patient care team				
The opportunity to learn new skills				
Recognition for your work				
Receiving feedback about your skills or performance as a physician				
Your working relationship with trainees (residents or fellows)				
Opportunity to reflect on your own experiences				
Your teaching opportunities				
Your relationship with nurses				
Your relationship with other residents				
Your working relationship with faculty colleagues				

REFERENCES

- Horowitz CR, Suchman AL, Branch WT Jr., Frankel RM. What do doctors find meaningful about their work? *Ann Intern Med.* 2003;138:772-775. <https://doi.org/10.7326/0003-4819-138-9-200305060-00028>.
- Clever LH. Some things have not changed. *Ann Intern Med.* 2000;132:85-89. <https://doi.org/10.7326/0003-4819-132-1-200001040-00014>.
- Linzer M, Levine R, Meltzer D, Poplous S, Warde C, West CP. 10 bold steps to prevent burnout in general internal medicine. *J Gen Intern Med.* 2014;29:18-20. <https://doi.org/10.1007/s11606-013-2597-8>.
- West CP, Dyrbye LN, Rabatin JT, et al. Intervention to promote physician well-being, job satisfaction, and professionalism: a randomized clinical trial. *JAMA Intern Med.* 2014;174:527-533. <https://doi.org/10.1001/jamainternmed.2013.14387>.
- Shanafelt TD, Noseworthy JH. Executive leadership and physician well-being: nine organizational strategies to promote engagement and reduce burnout. *Mayo Clin Proc.* 2017;92:129-146. <https://doi.org/10.1016/j.mayocp.2016.10.004>.
- Palamara K, Kauffman C, Chang Y, et al. Professional development coaching for residents: results of a 3-year positive psychology coaching



- intervention. *J Gen Intern Med.* 2018;33:1842-1844. <https://doi.org/10.1007/s11606-018-4589-1>.
7. Palamara K, Kauffman C, Stone VE, Bazari H, Donelan K. Promoting success: a professional development coaching program for interns in medicine. *J Grad Med Educ.* 2015;7:630-637. <https://doi.org/10.4300/JGME-D-14-00791.1>.
  8. King DK, Shoup JA, Raebel MA, et al. Planning for Implementation success using RE-AIM and CFIR frameworks: a qualitative study. *Front Public Health.* 2020;8:59. <https://doi.org/10.3389/fpubh.2020.00059>.
  9. Fishman MDC, Reddy SP. Coaching: a primer for the radiologist. *J Am Coll Radiol.* 2021;18:1192-1197. <https://doi.org/10.1016/j.jacr.2021.02.024>. Epub 2021 Mar 19. PMID: 33753069.
  10. Gazelle G, Liebschutz JM, Riess H. Physician burnout: coaching a way out. *J Gen Intern Med.* 2015;30:508-513. <https://doi.org/10.1007/s11606-014-3144-y>. Epub 2014 Dec 20. PMID: 25527340; PMCID: PMC4371007.
  11. Larsen D, Chu JT, Yu L, Chang Y, Donelan K, Palamara K. Correlating burnout and well-being in a multisite study of internal medicine residents and faculty. *J Gen Intern Med.* 2021;36:1422-1426. <https://doi.org/10.1007/s11606-021-06653-4>. Epub 2021 Mar 5. PMID: 33674923; PMCID: PMC8131435.
  12. Glasgow RE, McKay HG, Piette JD, Reynolds KD. The RE-AIM framework for evaluating interventions: what can it tell us about approaches to chronic illness management? *Patient Educ Couns.* 2001;44:119-127. [https://doi.org/10.1016/s0738-3991\(00\)00186-5](https://doi.org/10.1016/s0738-3991(00)00186-5).
  13. Glasgow RE, Vogt TM, Boles SM. Evaluating the public health impact of health promotion interventions: the RE-AIM framework. *Am J Public Health.* 1999;89:1322-1327. <https://doi.org/10.2105/ajph.89.9.1322>.
  14. <https://www.aamc.org/news-insights/america-s-medical-residents-numbers>. Accessed September 8, 2021.