# Leading Change to Address the Needs and Well-Being of Trainees During the COVID-19 Pandemic

*Pnina G. Weiss, MD; Su-Ting T. Li, MD, MPH*

From the Department of Pediatrics, Yale, Yale School of Medicine (PG Weiss), New Haven, Conn; and Department of Pediatrics, University of California Davis (S-TT Li), Sacramento, Calif
The authors have no conflicts of interest to disclose.
Address correspondence to Su-Ting T. Li, MD, MPH, Department of Pediatrics, University of California Davis, 2516 Stockton Blvd, Sacramento, CA 95817 (e-mail: sutli@ucdavis.edu).
Received for publication May 8, 2020; accepted June 1, 2020.

## ABSTRACT

The coronavirus disease 2019 (COVID-19) pandemic challenged program leaders to respond rapidly to changes in health care delivery, protect trainee safety, and transform educational activities. The pandemic demanded that program directors prioritize and address myriad threats to trainees' well-being. In this paper, we adapt Maslow's needs framework to systematically address trainee well-being during the COVID-19 pandemic and identify potential interventions to meet trainee needs at the program, institution, and extrainstitutional levels. Transforming education to effectively respond to trainee well-being needs requires leadership, and we use Kotter's 8-step change management model as an example of a framework to effectively lead change. Program leaders can take this opportunity to reflect upon their training programs and take the opportunity to improve them. Some of the systems of education we develop during the COVID-19 pandemic, such as telehealth, tele-education, and ways to stay connected may provide advantages and will be important to continue and expand upon post-COVID-19.

**KEYWORDS:** coronavirus disease 2019; health; internship and residency; leadership

**ACADEMIC PEDIATRICS** 2020;20:735−741

## WHAT'S NEW

We adapt Maslow's needs framework to systematically address trainee well-being needs during the COVID-19 pandemic. We use Kotter's 8-step change management model to discuss how to effectively lead change to address trainee needs during the pandemic.

THE CORONAVIRUS DISEASE 2019 (COVID-19) pandemic challenged program leaders, as stewards of trainee well-being and the educational mission,[1] to respond rapidly to changes in health care delivery, protect trainee safety, and transform educational activities. The threat of infection, insufficient personal protective equipment (PPE), shelter-in-place and physical distancing measures, and the barrage of (sometimes conflicting) information disrupted personal and professional life. Face-to-face encounters with patients, ambulatory visits, and elective procedures were limited requiring adoption of telemedicine. Some trainees were removed from clinical service while others were deployed to care for adult patients. The pandemic demanded that we, as program leaders, prioritize and address myriad threats to our trainees' well-being.

Using a well-being framework allows program leadership to systematically address trainee well-being needs. In this paper, we adapt Maslow's needs framework to systematically address trainee well-being during the COVID-19 pandemic.[2,3] Transforming education to effectively respond to trainee well-being needs requires leadership. We use Kotter's 8-step change management model as an example of a framework to effectively lead change.[4]

## MODIFIED MASLOW'S FRAMEWORK

Maslow identified 5 fundamental human needs: physiological, safety, belonging, esteem, and self-actualization.[2] We modified Maslow's framework to identify the needs of trainees during the COVID-19 pandemic (Table 1). Table 1 shows examples of potential interventions to meet trainee well-being needs on the program, institution, and extrainstitutional level.

## PHYSIOLOGIC NEEDS

We defined physiologic needs during the COVID-19 pandemic to include food, sleep, physical health, mental health, and childcare.

### FOOD

The Accreditation Council for Graduate Medical Education (ACGME) requires access to food while on duty.[5] Food service closures, physical distancing and infection control measures, time constraints, and expense may limit

**Table 1.** Examples of Potential Interventions to Address Resident/Fellow Wellness Needs Using Maslow's Need Framework During COVID-19 Pandemic

| Adapted Maslow Need | Theme | Categories | Examples of Potential Interventions | | |
|---|---|---|---|---|---|
| | | | Extrainstitutional | Institutional | Department/Program |
| Physiologic | Food | Food while working | | Extra money on meal cards | Provide meals while in hospital/clinic |
| | | Food at home | Community-provided meals to health care workers | Hospital-sponsored groceries<br>Gift cards for food-delivery services<br>Volunteer network provide groceries | Gift cards for food-delivery services |
| | Sleep | Sleep on-call | ACGME work hour restrictions - pandemic status | Additional call rooms | |
| | | Respite lodging | State/local lodging for health care workers | Respite housing | |
| | Physical health | COVID-19 screening and testing | COVID-19 testing stations in community | Illness screening<br>Temperature screening<br>Sufficient expedited COVID-19 testing<br>Track COVID-19 exposure and testing | Track COVID-19 exposure and testing |
| | | COVID-19 illness management | | Track sick residents<br>Clinical monitoring<br>Occupational health<br>Isolation policies<br>Return to work criteria | Track sick residents<br>Communication about processes<br>Adequate back-up systems |
| | Mental health | | Mental health hotlines for health care workers<br>Web-based mindfulness resources | On-call mental health provider<br>On-line telehealth<br>Employee and family assistance program<br>Director of trainee well-being<br>Stress and resilience town halls and webinars<br>Web-based meditation | Screening for mental health<br>Centralized resource list<br>Debriefing of teams - scheduled and as needed<br>Check-ins by Program Directors, chief residents<br>Group discussions facilitated by mental health provider |
| | Childcare | | State-supported daycare facilities for health care workers<br>Assistance with paying for increased costs of childcare | Institutional daycare<br>Volunteer network<br>Affiliations with childcare agencies<br>Assistance with paying for increased costs of childcare | Centralized resource list<br>Resident childcare sharing<br>Flexible scheduling<br>Parenting/newborn elective |
| Safety | Personal safety | Personal protective equipment (PPE) | ACGME requirements | Adequate PPE<br>PPE training<br>Infection control training | PPE training<br>Just-in-time training<br>Adherence to infection control |
| | | Accommodation of high risk individuals (pregnancy, immunocompromised, etc.) | | Institutional policies defining high-risk population | Scheduling to accommodate high-risk individuals |
| | Safety of family | | | Short- and long-term housing (for COVID-19 exposure and positive)<br>Shower near work<br>Disinfection protocol<br>Scrubs for work | Centralized information re: disinfection protocol and housing<br>Scrubs for work |
| | Financial security | Job insecurity (personal or spouse) | Governmental subsidies | | Counseling about job alternatives |
| | | Additional expenses | | Paid leave of absence<br>Childcare subsidy | |
| | Schedule and patient care responsibilities | | | Vacation policy<br>Schedule for COVID-19 surge | Short- and long- term schedules, including vacation<br>COVID-19 surge coverage |

(*Continued*)

**Table 1**. (*Continued*)

| Adapted Maslow Need | Theme | Categories | Examples of Potential Interventions | | |
|---|---|---|---|---|---|
| | | | Extrainstitutional | Institutional | Department/Program |
| Sense of belonging | Social support from colleagues | | APPD virtual events | Virtual institutional and departmental town halls | Group-based learning activities<br>Town halls, meetings<br>Group-based virtual social activities: games, competitions, happy hours, journaling<br>Email updates |
| | Social support from friends and family | | | | Technology (ie, ZOOM Webex, etc.) to connect with friends and family |
| Esteem | Appreciation by and for others | Expressions of appreciation | Community appreciation | Additional compensation<br>Departmental appreciation | Shout-outs, expressions of gratitude, virtual graduation, gift certificates |
| | Self-identity as physician | Engagement in meaningful activities | | | Remote into rounds, electives, advocacy work, scholarship |
| | Caring for adult patients | Adequate supervision and teaching<br>Communication scripts | | Collaboration with Internal Medicine (IM), Med-Peds program leadership | IM bootcamp, supervision by IM and Med-Peds faculty<br>Communication training |
| Self-actualization | Mentoring | | | | Faculty mentoring program |
| | Curriculum | Structure and content | ABP allowing PD to request waivers for graduating trainees | | Development of new curricula (eg, new rotations or electives, telehealth, web-based curricula) |
| | | Telehealth to promote physical distancing | ACGME requirements for education, including telehealth<br>CMS revising teaching attending rules for telehealth | Institutional policies in regard to telehealth and trainees<br>Telehealth equipment | Training residents in telehealth<br>Telehealth equipment<br>Appropriate supervision of residents with telehealth |
| | Career development | | APPD and COPS resources and guidelines for application to residency and fellowship programs | Virtual career mentoring by departmental chair, faculty, educational and program leaders | Virtual career mentoring, facilitate networking, provide exposure to trainees' fields of interest, support CV development |

ACGME indicates Accreditation Council for Graduate Medical Education; APPD, Association of Pediatric Program Directors; ABP, American Board of Pediatrics; PD, program director; COPS, Council of Pediatric Subspecialties; and CV, curriculum vitae.

trainee access to food. Provide information to trainees about community provided meals, hospital-sponsored grocery stores, and volunteer networks and advocate for meals for trainees on duty and gift cards for food delivery services.

### SLEEP

The ACGME recognized the importance of adequate rest to protect trainees and patients when it preserved the work hour requirements even for institutions granted Stage 3 Pandemic status.[6] Monitor trainee access to adequate rest, including call rooms and respite lodging.

### PHYSICAL HEALTH

Trainees are exposed to and at risk of COVID-19 illness and death.[7] Screening and rapid access to COVID-19 testing for trainees is critical to minimize infection to coworkers and patients. High-quality clinical care, isolation policies, and return to work criteria must be provided to trainees with COVID-19.

Track trainee exposures, testing and illness status, communicate the need to leave work at the first signs of illness to minimize the risk to others, and ensure adequate backup plans.

### MENTAL HEALTH

Trainees are at greater risk of depression, anxiety, insomnia, and distress during the COVID-19 pandemic.[8] Program leaders play a critical role in monitoring trainees and ensuring access to mental health services (eg, on-call telehealth mental health providers, employee and family assistance programs, stress, and resilience town halls). Schedule debriefing of teams, frequent check-ins, and mindfulness activities to help support trainee mental health.

### CHILDCARE

School and childcare closings have added to trainee stress. Provide trainees with information about state- and institution-supported childcare options. Consider flexible scheduling, when possible (eg, a parenting or newborn elective).

## SAFETY

Threats to safety include sequelae related directly to COVID-19 infection as well as loss of routine and stability.

### PERSONAL PROTECTIVE EQUIPMENT

Concerns about adequate access to PPE are widespread and often exacerbated by conflicting policies and information.[9,10] Program leaders and institutions must provide both adequate PPE and training[6] and be notified of any deviations. Applying high reliability principles to infection control on an institutional level are critical.

### HIGH-RISK CONDITIONS

Accommodating high-risk individuals is important, but challenging, because criteria outlined by the Centers for Disease Control and Prevention or institution may not be clear. While pregnancy has not been listed as a risk factor, many program leaders are hesitant to expose their pregnant trainees to COVID-19 patients. Responses can vary between total removal from face-to-face clinical care to transfer to lower risk environments (eg, newborn intensive care unit), and may be mandatory or voluntary.

### FAMILY SAFETY

The risk of infection that trainees pose to their loved ones and families is an important concern.[9] Ensure trainees have access to information about short- and long-term housing for health care workers who have been exposed to or are ill with COVID-19, disinfection protocols, showering facilities, and extra scrubs.

### FINANCIAL INSECURITY

Financial stress on trainees may be compounded by worries about compensation if they fall ill, additional childcare and other expenses, spouses' loss of income or postgraduate positions falling through. Be sensitive to financial stressors and provide guidance and resources.

### ROUTINE SCHEDULE

Shifting schedules, including uncertainty about covering adult patients, challenges trainees' sense of safety. Provide, when possible, short-and long-term schedules, including vacations and staffing for COVID-19 surges. In this regard, chief residents have played a critical, and often heroic, role during this pandemic.

## SENSE OF BELONGING

Social distancing and cancellation of regular activities create isolation from colleagues, families, and friends which contributes to anxiety and can threaten trainee well-being.[9–12]

### SOCIAL SUPPORT FROM PROGRAM

Institutions, departments, and programs have adopted virtual technology, email updates, and websites to connect. Program leaders have developed web-based, group-based learning activities, town halls and meetings, social activities such as games, competitions, and happy hours, and journaling as ways to enhance connection. Consider creative ways to create a community for incoming interns in the face of physical distancing.

### SOCIAL SUPPORT FROM FAMILIES AND FRIENDS

Engagement with family and friends is important for trainee wellness.[11,12] Assess this factor as part of trainee check-ins. Consider making video communications (eg, Zoom [Zoom Video Communications, Inc, San Jose, Calif], Cisco Webex [Cisco Systems, Inc, San Jose, Calif]) more available to trainees to help them connect with families and friends.

## ESTEEM NEEDS

Suspension of program activities, physical distancing, and isolation may limit opportunities for achievement and recognizing accomplishments necessary for building self-esteem.

### APPRECIATION BY AND FOR OTHERS

Physicians are being recognized world-wide for their dedication and sacrifices. However, those who have not cared for many COVID-19 patients may not feel they have earned recognition. Be deliberate about incorporating shout-outs, expressions of gratitude, and tokens like gift certificates for trainees and advocate for extra compensation and other recognition from hospitals or departments. Encourage expressions of gratitude by trainees to help support well-being. Recognizing accomplishments of graduating trainees is challenging but consider personalized gifts and ceremonies that are virtual, comply with physical distancing, or that are rescheduled when rules are relaxed.

### SELF-ESTEEM

Being sidelined can impact personal and professional identities of trainees, which can be mitigated by engaging trainees in alternative meaningful activities (eg, clinical, advocacy, scholarship). For those caring for adult patients, adequate supervision and training are key in supporting self-efficacy. Collaborate with program leaders in Internal Medicine, combined Medicine-Pediatrics, and Family Medicine to optimize trainee learning climate. Training and scripts can help support trainees in communicating with adult patients and their families.

## SELF-ACTUALIZATION

Maslow defines self-actualization as the "desire for self-fulfillment. . ..to become everything that one is capable of becoming."[2] The pandemic challenged traditional modes of education, but also offered opportunity to innovate. Both ACGME and American Board of Pediatrics responded by waiving some curricular requirements, especially for graduating trainees. However, program leaders are still responsible to ensure proficiency despite abbreviated training. Trainees have lost opportunities to network locally and nationally and participate in experiences that might be formative for their career choices. Association of Pediatric Program Directors and Council of Pediatric Subspecialties provide networking opportunities. In addition, consider developing virtual career mentoring and creating additional opportunities for trainees. Ensure adequate mentorship and help trainees build their curriculum vitae (eg, including abstracts accepted but not presented at national meetings). Development of new curricula to address changing educational and health care landscapes (eg, distance learning and mentoring, telehealth) have the potential to positively transform trainee experience.

## HOW TO LEAD EDUCATIONAL CHANGE USING KOTTER'S 8-STEP CHANGE MANAGEMENT FRAMEWORK

Kotter's 8-step change management framework can offer guidance on how to effectively lead change during the COVID-19 pandemic: establish a sense of urgency, form a powerful guiding coalition, create a vision, communicate the vision, empower others to act on the vision, plan for and create short-term wins, consolidate improvement and produce more change, and institutionalize new approaches (Table 2).[4] While Kotter presents his steps as linear, many steps can be iteratively modified.

## ESTABLISH A SENSE OF URGENCY

The COVID-19 pandemic upends traditional medical education, creating challenges to direct in-person patient care, supervision, and education. Clarifying the importance and immensity of these challenges to all stakeholders, both educators and learners, is an important first step. A SWOT (strengths, weaknesses, opportunities, threats) analysis may help establish a sense of urgency and identify next steps.

## CREATE A GUIDING COALITION

In addition to program leadership, decide which additional stakeholders should be included. Consider including both those making larger clinical (Chair) and educational decisions (Designated Institutional Official, Vice Chair of Education), front-line faculty and trainees, and individuals with technical expertise (eg, in information technology and telemedicine). Make it clear to members of the guiding coalition the role they will have in the transformation effort, whether to brainstorm suggestions, develop policies, convince others, and/or model or enact changes.

## CREATE A SHARED VISION

Create a shared vision to direct the educational change effort by prioritizing multiple potentially conflicting goals, such as keeping trainees safe, delivering excellent patient care, and educating our next generation of pediatricians. Delineate strategies, such as leveraging telemedicine and tele-education, in order to meet set goals.

## COMMUNICATE THE VISION

Communicate frequently and regularly, utilizing multiple communication modalities. Consider consolidating information from multiple sources into a central, on line site and tailoring information to the audience to avoid information overload. Acknowledge that plans will change as situations change. Consider how to communicate changing information, including being transparent about why changes were made to help stakeholders understand and accept changes.

**Table 2.** Examples of How to Lead Educational Change During the COVID-19 Pandemic Using Kotter's 8 Steps to Leading Change Framework

| Kotter's 8 Steps to Leading Change | Examples of Leading Change During the COVID-19 Pandemic |
|---|---|
| 1. Establish a sense of urgency<br>- SWOT analysis (strengths, weaknesses, opportunities, threats) | COVID-19 pandemic disrupts in-person direct patient care and education<br>Trainee duration of training remains unchanged<br>Public continues to expect graduation of competent physicians<br><br>Strengths – Dedicated faculty interested in education, clinical care, and trainee wellness<br>Weaknesses – Lack of telemedicine and tele-education<br>Opportunities – Leverage telemedicine and tele-education to improve education for trainees<br>Threats – Mandated physical distancing; ACGME and ABP requirements |
| 2. Form a powerful guiding coalition<br>- Include pertinent stakeholders<br>- Emphasize teamwork | Program leadership (program director, associate program directors, coordinators, chief residents)<br>Chair, Designated Institutional Official<br>Faculty<br>Trainees |
| 3. Create a vision<br>- Vision to direct change effort<br>- Strategies to achieve vision | Keep trainees safe<br>Deliver excellent patient care<br>Educate our next generation of pediatricians<br>Strategies: Leverage telemedicine and tele-education to deliver excellent patient care and educate our trainees while minimizing infection risk |
| 4. Communicate the vision<br>- How will you communicate vision and strategies? | Communicate frequently and regularly<br>Use multiple communication modalities (email, teleconference, texts, postings, etc.)<br>Create on-line repository of most up-to-date information<br>Acknowledge plans evolve<br>Be transparent about reasons behind changes |
| 5. Empower others to act on the vision<br>- Identify/get rid of obstacles to change<br>- Change systems/structures that undermine vision<br>- Encourage risk taking<br>- Use guiding coalition as role models | Empower faculty and trainees to engage in interactive distance learning modalities and telemedicine<br>Provide faculty development in best practices for telemedicine and tele-education<br>Install teleconferencing software, microphones and video cameras on existing computers<br>Encourage members of guiding coalition to experiment with tele-education |
| 6. Plan for and create short-term wins<br>- Plan for visible performance improvements<br>- Create those improvements<br>- Recognize/reward others involved in those improvements | Front-load didactic schedule with faculty willing to experiment with novel tele-education modalities<br>Work closely with faculty to implement interactive remote teaching<br>Recognize faculty who effectively utilize novel ways to engage learners with tele-education |
| 7. Consolidate improvement and produce still more change<br>- Build on momentum to change systems, structures, and policies that don't fit vision | Share best practices of how faculty engage with learners remotely<br>Advocate for changes in your local institution<br>Advocate within APPD, COPS, and COMSEP for flexibility for programs/trainees to meet ACGME, ABP, LCME requirements |
| 8. Institutionalize new approaches<br>- Make it a habit by articulating the relationship between the new behaviors and success<br>- Plan for succession by developing new leaders | Provide feedback to faculty about learner response to changes<br>Develop faculty champions |

APPD indicates Association of Pediatric Program Directors; COPS, Council of Pediatric Subspecialties; COMSEP, Council on Medical Student Education in Pediatrics; ACGME, Accreditation Council for Graduate Medical Education; ABP, American Board of Pediatrics; and LCME, Liaison Committee on Medical Education.

## EMPOWER OTHERS TO ACT

Many individuals and institutions recognize the unprecedented disruption in trainee's lives from COVID-19 and want to help. Provide them with a clear vision and plan for how they could intervene to improve trainee well-being and education. If your vision and strategy include expanding telemedicine and tele-education opportunities, empower faculty to innovate to engage learners remotely. Consider ways to minimize obstacles to change, such as providing faculty development in telemedicine and how to actively engage an audience using tele-education. Empower faculty to experiment and creatively engage learners. Reiterate that "mistakes" pave the road to success.

## CREATE SHORT-TERM WINS

Empower your guiding coalition to experiment and model the way for others. For example, consider scheduling faculty who are most willing to experiment with novel tele-education modalities to lead resident didactics initially. Work one-on-one with faculty to ensure success delivering interactive educational conferences utilizing audience-response or virtual small group sessions. Recognize faculty who effectively utilize novel ways to engage learners with tele-education.

## CONSOLIDATE IMPROVEMENT

Build on momentum created with short-term wins to create further change. Consider sharing best practices of how your faculty have engaged with learners remotely. Advocate within your institution for changes which could broadly improve the lives of local trainees, such as extra money on meal cards, child care assistance, a larger temporary physician workspace to allow for physical distancing, or temporary housing. Advocate within national organizations such as Association of Pediatric Program Directors and Council of Pediatric Subspecialties for flexibility for programs and trainees to meet ACGME, American Board of Pediatrics, and Liaison Committee on Medical Education requirements in light of disruption of education due to COVID-19.

## INSTITUTIONALIZE NEW APPROACHES

Articulate the relationship between new behaviors and success. For example, consider sharing feedback with all faculty about positive learner responses to specific techniques used to engage learners in distance learning. Consider building plans for succession by developing new leaders, such as developing faculty champions for tele-education or telemedicine.

## CONCLUSIONS

Using a framework such as Maslow's hierarchy allows program leaders to systematically address trainee's needs during and post COVID-19. Using Kotter's framework for leading change allows program leaders to effectively implement changes required to meet trainees' needs. Additionally, program leaders can take this opportunity to pause and re-evaluate what is essential during training and how we can continue to improve our education. It is possible that we find that some of the systems of education we develop during the COVID-19 pandemic, such as telehealth, tele-education, and ways to stay connected during this era of required physical distancing may be important to continue and expand upon post-COVID-19.

## ACKNOWLEDGMENT

*Authorship statement*: All authors are responsible for this work and have participated in the drafting and revising of the manuscript.

## REFERENCES

1. Carson SL, Perkins K, Reilly MR, et al. Pediatric program leadership's contribution toward resident wellness. *Acad Pediatr*. 2018;18:550–555.
2. Maslow AH. A theory of human motivation. *Psychol Rev*. 1943;50:370–396.
3. Hale AJ, Ricotta DN, Freed J, et al. Adapting Maslow's hierarchy of needs as a framework for resident wellness. *Teach Learn Med*. 2019;31:109–118.
4. Kotter JP. Leading change: why transformation efforts fail. *Harvard Business Rev*. 2007.
5. Accreditation Council for Graduate Medical Education. ACGME Common Program Requirements (Residency). ACGME approved major revision. 2018; effective: July 1, 2019. Available at: https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/CPRResidency2019.pdf. Accessed June 24, 2020.
6. Accreditation Council for Graduate Medical Education. Stage 3: pandemic emergency status guidance. 2020. Available at: https://www.acgme.org/COVID-19/Stage-3-PandemicEmergency-Status-Guidance. Accessed June 24, 2020.
7. CDC COVID-19 Response Team. Characteristics of health care personnel with COVID-19—United States. *MMWR Morb Mortal Wkly Rep*. 2020;69:477–481. https://doi.org/10.15585/mmwr.mm6915e6.
8. Lai J, Ma S, Wang Y, et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Netw Open*. 2020;3e203976.
9. Shanafelt T, Ripp J, Trockel M. Understanding and addressing sources of anxiety among health care professionals during the COVID-19 pandemic. *JAMA*. 2020;323:2133–2134. https://doi.org/10.1001/jama.2020.5893.
10. Rambaldini G, Wilson K, Rath D, et al. The impact of severe acute respiratory syndrome on medical house staff: a qualitative study. *J Gen Intern Med*. 2005;20:381–385.
11. Sagalowsky ST, Feraco AM, Baer TE, et al. Intimate partner relationships, work-life factors, and their associations with burnout among partnered pediatric residents. *Acad Pediatr*. 2019;19:263–268.
12. Eckleberry-Hunt J, Lick D, Boura J, et al. An exploratory study of resident burnout and wellness. *Acad Med*. 2009;84:269–277.