abstract

Physician health and wellness is a critical issue gaining national attention because of the high prevalence of physician burnout. Pediatricians and pediatric trainees experience burnout at levels equivalent to other medical specialties, highlighting a need for more effective efforts to promote health and well-being in the pediatric community. This report will provide an overview of physician burnout, an update on work in the field of preventive physician health and wellness, and a discussion of emerging initiatives that have potential to promote health at all levels of pediatric training.

Pediatricians are uniquely positioned to lead this movement nationally, in part because of the emphasis placed on wellness in the Pediatric Milestone Project, a joint collaboration between the Accreditation Council for Graduate Medical Education and the American Board of Pediatrics. Updated core competencies calling for a balanced approach to health, including focus on nutrition, exercise, mindfulness, and effective stress management, signal a paradigm shift and send the message that it is time for pediatricians to cultivate a culture of wellness better aligned with their responsibilities as role models and congruent with advances in pediatric training.

Rather than reviewing programs in place to address substance abuse and other serious conditions in distressed physicians, this article focuses on forward progress in the field, with an emphasis on the need for prevention and anticipation of predictable stressors related to burnout in medical training and practice. Examples of positive progress and several programs designed to promote physician health and wellness are reviewed. Areas where more research is needed are highlighted. Pediatrics 2014;134:830–835

INTRODUCTION

Physician health and wellness is an issue garnering national interest because of the high prevalence of burnout in medical practitioners and trainees. Burnout takes a steep toll on physicians and has negative effects on patients and health care systems.1 Research advances detailing the detrimental effects of chronic stress, including impaired immune function, inflammation, elevation of cardiovascular risk factors, and depression,2–9 are directly relevant to pediatric practitioners and create a need for organized efforts to address physician health and well-being in the pediatric community. The purpose of this report is to provide an update on the issue of physician health and wellness with regard to how they relate to pediatricians. Rather than reviewing programs already in place to address substance abuse and other serious conditions in distressed

Hilary McClafferty, MD, FAAP, Oscar W. Brown, MD, FAAP, SECTION ON INTEGRATIVE MEDICINE, and COMMITTEE ON PRACTICE AND AMBULATORY MEDICINE

KEY WORDS
burnout, physician health and wellness, stress, lifestyle change, mindfulness

ABBREVIATIONS
AAP—American Academy of Pediatrics
ACGME—Accreditation Council for Graduate Medical Education

This document is copyrighted and is property of the American Academy of Pediatrics and its Board of Directors. All authors have disclosed conflict of interest statements with the American Academy of Pediatrics. Any conflicts have been resolved through a process approved by the Board of Directors. The American Academy of Pediatrics has neither solicited nor accepted any commercial involvement in the development of the content of this publication.

Clinical reports from the American Academy of Pediatrics benefit from expertise and resources of liaisons and internal (AAP) and external reviewers. However, clinical reports from the American Academy of Pediatrics may not reflect the views of the liaisons or the organizations or government agencies that they represent.

The guidance in this report does not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

doi:10.1542/peds.2014-2278

All clinical reports from the American Academy of Pediatrics automatically expire 5 years after publication unless reaffirmed, revised, or retired at or before that time.
PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).
Copyright © 2014 by the American Academy of Pediatrics
physicians, this report focuses on forward progress in the field, with an emphasis on the need for prevention and anticipation of predictable stressors related to burnout in medical training and practice. Although specific recommendations are beyond the parameters of this report, examples of positive progress and national programs to promote physician health and wellness will be reviewed.

**BURNOUT: THE ANTITHESIS OF WELLNESS**

Physician burnout is commonly assessed using the Maslach Burnout Inventory, which uses 3 general scales to measure characteristics of burnout. These include emotional exhaustion, depersonalization, and sense of personal accomplishment.\(^\text{10,11}\) Burnout is higher in physicians than in the general population and peaks during training\(^\text{12}\) as well as mid-career.\(^\text{13}\) Prevalence of burnout in pediatrics mirrors rates in other medical specialties (30%–50%),\(^\text{14,15}\) with higher rates documented in specialties such as hematology-oncology, neonatal and intensive care, and pediatric surgery.\(^\text{16-19}\) In a periodic survey of American Academy of Pediatrics (AAP) members (\(n = 1616\); response, 63%), 22% of surveyed physicians agreed they were currently experiencing burnout, and 45% agreed they had experienced burnout in the past.\(^\text{20}\) Burnout has also been documented in pediatric trainees. A longitudinal prospective study of pediatric residents at Stanford University Lucille Packard Children’s Hospital showed a significant increase in all burnout characteristics (emotional exhaustion, depersonalization, and sense of personal accomplishment) by February of their internship year; reaching prevalences of 24% to 46% (depending on burnout criteria used). High burnout rates persisted throughout residency training.\(^\text{21}\) Multiple studies have documented high levels of burnout in medical and premedical students.\(^\text{22-25}\)

Drivers of physician burnout are multifactorial and have been widely reported in the literature, and include an expectation of unrealistic endurance, time pressure, excessive work hours, threat of malpractice suits, difficult patients, coping with death, unprocessed grief, sleep deprivation, and unsupportive work environments. Professional demands coupled with personal stressors, such as financial worries, limited free time, isolation, uncertainty, a culture of silence, and a lack of effective stress management skills, further compound burnout risk.\(^\text{26}\) Even reduction in resident duty hours, instituted by the Accreditation Council for Graduate Medical Education (ACGME) in 2003 in the United States, has had the unintended consequence of increased attending physician workload and decreased teaching time while increasing burnout and job dissatisfaction.\(^\text{27}\)

Ironically, many of the character traits valued in pediatricians, such as compassion, altruism, and perfectionism, also predispose to burnout when clinicians are pushed to mental or physical extremes. Although the warning signs and symptoms may be subtle, burnout is often accompanied by anxiety or depression. Suicidal ideation and, tragically, completed suicide are not uncommon. It is a sobering fact that an estimated 300 to 400 physicians in the United States commit suicide annually. Women physicians are at highest risk, with an estimated relative risk ratio of 2.7 for suicide in relation to the general female population;\(^\text{28-30}\) cause for heightened awareness in pediatrics, a field in which women now make up the majority of trainees.\(^\text{\text{31}}\)

**STIGMA AND SANCTIONS**

Recognition of burnout in one’s colleagues or in oneself raises challenging questions, especially in light of the relative lack of available resources and the lingering stigma of disciplinary sanctions. In fact, it was only after a 1973 “landmark” policy paper in the *Journal of the American Medical Association*\(^\text{32}\) linking addictive behavior and other mental health issues in physicians with the term “sick” rather than “disciplinary problems” that The Federation for State Physician Health Programs was developed. The *Journal of the American Medical Association* article offered a rare public glimpse into the closed medical community and acted as a powerful catalyst for change. By 1980, 51 of the 54 medical societies of all states and jurisdictions had authorized or implemented impaired physician programs, mandated to identify, treat, and rehabilitate physicians struggling with burnout-related drug and alcohol addiction.\(^\text{33}\) Although these programs have benefitted many physicians, a culture of stoicism still permeates the practice of medicine, slowing progress in the push for a more open dialogue about physician health and wellness.

**REDUCING BURNOUT: A SHIFT TO PREVENTION**

Recognized steps to reduce physician burnout include: providing physicians and trainees a greater sense of control, absence of role conflict, a sense of fair treatment, positive social support, appropriate financial, institutional, and social rewards, and proper alignment between the values of an individual and his or her workplace.\(^\text{10}\)

The need for systems-based, rather than individual efforts, to reduce burnout is reflected in 2 important initiatives. The first is the 2009 Joint Commission guidelines mandate that medical staff “…implement a process to identify and manage matters of individual health for licensed independent practitioners which is separate from actions taken for disciplinary purposes.”\(^\text{34}\) The second, specific to the field of pediatrics, is the Pediatric Milestone Project, a major collaborative effort between the ACGME and the American Board of Pediatrics tasked with updating core competencies.
in pediatric training. Language in the newly developed Personal and Professional Development competencies speaks directly to cultivation of skills that address burnout prevention and finally shift the perspective toward preventive wellness. For example, the Personal and Professional Development competency identifies a need for regular physical activity, healthy nutrition, and supportive social connections as well as development of skills in stress management, self-awareness, and the ability to engage in help-seeking behaviors to maintain health and well-being. Cultivation of empathy, humanism, and compassion are identified in the new Professionalism competency.35

The challenge will be in implementation and measurement of these new competencies, which will require the full engagement of pediatric mentors who place a high value on physician well-being and recognize the importance of preventing burnout at all stages of pediatric training and practice.

**PHYSICIAN HEALTH AND WELLNESS IN THE AAP**

The mission of the Special Interest Group on Physician Health and Wellness is to raise awareness throughout every level of the AAP and to develop educational programming and resources on physician health and wellness that are accessible to all members. Stewardship of the Special Interest Group transitioned to the Section on Integrative Medicine in 2011. In part, this occurred because a primary educational focus of the Section on Integrative Medicine is preventive health, including core topics such as nutrition, physical activity, healthy sleep, stress management, and self-regulation skills, which provide a useful blueprint for preventive physician health.

**THE COMPONENTS OF WELLNESS**

Hundreds of studies have confirmed the high prevalence of burnout, yet relatively few have examined or quantified the characteristics of physician wellness. Some studies have demonstrated that issues such as work-life balance, social and family support, adequate rest, and regular physical activity correlate with career satisfaction, improved sense of well-being, increased empathy, and decreased burnout.37,38 As opposed to physicians who neglect their health,39 physicians with healthy lifestyle habits have been perceived as more credible and motivating to their patients and the residents under their supervision.40-42 It has been shown that wellness behaviors in physicians are additive; therefore, individuals should be encouraged to adopt a variety of approaches to best suit their individual needs.43

Comparison of 2 AAP periodic surveys (Periodic Survey No. 54 in 2003 and Survey No. 81 in 2012) examined work hours, presence of minor children at home, perceived stress of balancing work/home responsibilities, and satisfaction with amount of time available to spend in several personal activities. In 2012 pediatricians reported less stress balancing home and work than in 2003. This reduction in perceived stress was correlated with reduced work hours and not having minor children at home. In 2012, pediatricians reported higher satisfaction with time to spend with spouse/partner, friends, hobbies, community activities, and spiritual needs.44,45

**EXAMPLES OF PROGRESS: CREATING A NATIONAL CULTURE OF PHYSICIAN WELLNESS**

Although some programs have been established after tragic losses of colleagues, such as the comprehensive Suicide Prevention and Depression Awareness Program at the University of California, San Diego School of Medicine,48 other residency programs and medical schools in the United States have taken the opportunity to proactively institute comprehensive wellness programs. Support from administrative faculty leaders has been identified as integral to most of these programs. Some characteristics of these programs include creation of a wellness mission statement for the organization; identification of key components for developing and maintaining wellness; measuring and tracking burnout in residents and faculty; creation of a lecture series on wellness topics; resident support groups early education about stress management; cultivation of resilience; development of a confidential fast-track referral source for mental health services; annual resident retreats focused on health and wellness; raising awareness of the correlation between resident wellness and faculty wellness; online curriculum on self-care and wellness; and selection of primary care physicians unrelated to the training program available to residents for ongoing health care. Example programs include:

- **Learner Advocacy and Wellness at the University of Alberta, Edmonton, Canada**
- **Physician Well-Being Program, William Beaumont Hospitals, Troy Family Medicine Residency Program, Detroit, Michigan**
- **Vanderbilt Wellness Program, Vanderbilt School of Medicine, Nashville, Tennessee**
- **Resiliency and Wellness Education Program, University of California, San Diego Department of Emergency Medicine**
- **Integrative Medicine in Residency Program, University of Arizona**

Collectively, these programs demonstrate the power of developing an organized plan to promote wellness in their physician communities and highlight the importance of institutional efforts to alter the status quo.
NEW FRONTIERS OF WELLNESS: MINDFULNESS IN MEDICINE

Recognition of the detrimental health effects of chronic stress has catalyzed the search for better approaches to stress reduction in physicians. Although numerous lifestyle approaches are under consideration, research on the use of mindfulness in the medical setting currently has substantial supporting evidence. This can be traced back to the early work of Jon Kabat-Zinn, PhD, who has described mindfulness as “conscious, moment-to-moment awareness, cultivated by systematically paying attention on purpose in a particular way.”

Mindfulness as a self-regulation tool aligns with the new ACGME core competencies and has been used by physicians in various formats. Some examples include mindful communication programs that involve meditation, self-awareness exercises, processing of clinical experiences, and appreciative interviews. Reduction in burnout measures, such as depersonalization and emotional exhaustion, and improvements in mindfulness, empathy, and feeling of personal accomplishment were observed. Use of mindfulness has also resulted in significant improvement in burnout scores and mental well-being when offered on a recurring basis as a continuing medical education course, or as online modules for residents and faculty.

The effect of education in mindful communication has been examined in physicians in a structured training program, which produced 4 main themes of feedback from participants: (1) participants felt a decrease in sense of personal isolation; (2) mindfulness training helped physicians listen more deeply and attend to the patient’s concerns more effectively; (3) adaptive reserve was increased; and (4) participants experienced a feeling of greater self-awareness that proved, in many cases, to be transformative. Mindfulness may also support more thoughtful decision-making and can enhance empathic communication. Precedent in the use of mindfulness exists in law and business, where it is used to reduce reactivity in stressful situations. The use of mindfulness and guided imagery is also gaining acceptance in the military to reduce stress and enhance performance.

One of the few available randomized controlled clinical trials in physician burnout intervention demonstrated substantial decrease of rates of depersonalization, emotional exhaustion, and overall burnout in the treatment group and resulted in improved sense of meaning and engagement in work in 74 practicing internal medicine physicians who attended 9 months of biweekly facilitated discussion groups that incorporated elements of mindfulness, reflection, shared experience, and small group learning. More research is needed to identify programs that will best serve the needs of pediatricians at various stages of training and practice.

CONCLUSIONS

Physician health and wellness is a complex topic, relevant to pediatricians at all stages of training. Advances in our understanding of the harmful effects of chronic stress and consequent shifts in ACGME core competencies prioritizing pediatric resident wellness create a need for programs that will help practicing pediatricians not only keep pace but also become leaders and role models in shaping a healthier culture of pediatric practice.

A primary purpose of this clinical report is to shift the focus from burnout treatment to preventive physician health and wellness and identify factors that will increase career satisfaction and longevity, including promotion of a balanced lifestyle that includes physical activity, healthy nutrition, restorative sleep, supportive relationships, and effective stress management skills. The Section on Integrative Medicine hopes this clinical report serves as a catalyst for more open discussion of physician health and wellness within the AAP and will lead to the development of meaningful programs with the potential to benefit all AAP members.

LEAD AUTHORS
Hilary McClafferty, MD, FAAP
Oscar W. Brown, MD, FAAP

SECTION ON INTEGRATIVE MEDICINE EXECUTIVE COMMITTEE, 2012–2015
Sunita Vohra, MD, FAAP, Chairperson
Hilary McClafferty, MD, FAAP
Michelle L. Bailey, MD, FAAP
David K. Becker, MD, FAAP
Timothy P. Culbert, MD, FAAP
Erica M. Sibinga, MD, FAAP
Michelle Zimmer, MD, FAAP

COMMITTEE ON AMBULATORY MEDICINE, 2012–2013
Geoffrey R. Simon, MD, FAAP, Chairperson
Amy Peykoff Hardin, MD, FAAP
Oscar W. Brown, MD, FAAP
Kelley E. Meade, MD, FAAP
Chadwick Taylor Rodgers, MD, FAAP
Scott Benton Moore, MD, FAAP
Cynthia N. Baker, MD, FAAP
Graham Arthur Barden III, MD, FAAP
Herschel Robert Lessin, MD, FAAP

LIAISON
Xylina D. Bean, MD – National Medical Association

STAFF
Teri Salus, MPA
Elizabeth Sobczyk, MPH

FINANCIAL DISCLOSURE: The authors have indicated they do not have a financial relationship relevant to this article to disclose.

POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.

ACKNOWLEDGMENTS
The authors gratefully acknowledge Ms Kathleen Kennedy and Ms Callie Miller for their administrative support.
REFERENCES


19. Leigh JP, Tancredi DJ, Kravitz RL. Physician career satisfaction within specialties. BMC Health Serv Res. 2009;9:166


44. PAS.


47. Drolet BC, Rodgers S. A comprehensive medical student wellness program—design and implementation at Vanderbilt School of Medicine. Acad Med. 2010;85(1):103–110


Physician Health and Wellness
Hilary McClafferty, Oscar W. Brown, SECTION ON INTEGRATIVE MEDICINE
and COMMITTEE ON PRACTICE AND AMBULATORY MEDICINE
Pediatrics 2014;134;830
DOI: 10.1542/peds.2014-2278 originally published online September 29, 2014;

Updated Information & Services
including high resolution figures, can be found at:
http://pediatrics.aappublications.org/content/134/4/830

References
This article cites 37 articles, 3 of which you can access for free at:
http://pediatrics.aappublications.org/content/134/4/830.full#ref-list-1

Subspecialty Collections
This article, along with others on similar topics, appears in the following collection(s):

Medical Education
http://classic.pediatrics.aappublications.org/cgi/collection/medical_education_sub

Workforce
http://classic.pediatrics.aappublications.org/cgi/collection/workforce_sub

Current Policy
http://classic.pediatrics.aappublications.org/cgi/collection/current_policy

Section on Integrative Medicine
http://classic.pediatrics.aappublications.org/cgi/collection/section-on-integrative-medicine

Permissions & Licensing
Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
https://shop.aap.org/licensing-permissions/

Reprints
Information about ordering reprints can be found online:
http://classic.pediatrics.aappublications.org/content/reprints

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since . Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2014 by the American Academy of Pediatrics. All rights reserved. Print ISSN: .
Physician Health and Wellness
Hilary McClafferty, Oscar W. Brown, SECTION ON INTEGRATIVE MEDICINE
and COMMITTEE ON PRACTICE AND AMBULATORY MEDICINE
Pediatrics 2014;134;830
DOI: 10.1542/peds.2014-2278 originally published online September 29, 2014;

The online version of this article, along with updated information and services, is
located on the World Wide Web at:
http://pediatrics.aappublications.org/content/134/4/830