Portland State University

PDXScholar

OHSU-PSU School of Public Health Faculty **Publications and Presentations**

OHSU-PSU School of Public Health

3-2024

Primary Care as a Protective Factor: A Vision to Transform Health Care Delivery and Overcome Disparities in Health

Edward L. Machtinger University of California, San Francisco

Alicia F. Lieberman University of California, San Francisco

Christina D. Bethell Johns Hopkins University

Marguerita Lightfoot OHSU-PSU School of Public Health, lightfom@ohsu.edu

Follow this and additional works at: https://pdxscholar.library.pdx.edu/sph_facpub



Part of the Medicine and Health Sciences Commons

Let us know how access to this document benefits you.

Citation Details

Machtinger, E. L., Lieberman, A. F., Bethell, C. D., & Lightfoot, M. (2024). Primary Care as a Protective Factor: A Vision to Transform Health Care Delivery and Overcome Disparities in Health. The Permanente Journal, 1-5.

This Article is brought to you for free and open access. It has been accepted for inclusion in OHSU-PSU School of Public Health Faculty Publications and Presentations by an authorized administrator of PDXScholar. Please contact us if we can make this document more accessible: pdxscholar@pdx.edu.



COMMENTARY

Primary Care as a Protective Factor: A Vision to Transform Health Care Delivery and Overcome Disparities in Health

Edward L Machtinger, MD¹; Alicia F Lieberman, PhD²; Christina D Bethell, PhD, MPH, MBA³; Marguerita Lightfoot, PhD⁴

Perm J 2024:23.109 • https://doi.org/10.7812/TPP/23.109

D ELM, 0000-0002-1624-1015

Corresponding Author Edward L Machtinger, MD Edward.machtinger@ucsf.edu

Author Affiliations

¹Department of Medicine, University of California, San Francisco, CA, USA

- ² Department of Psychiatry, University of California, San Francisco, CA, USA
- ³ Department of Population, Family and Reproductive Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA
- ⁴ Oregon Health Sciences University-Portland State University School of Public Health, Portland, OR, USA

Author Contributions

All authors contributed to the design, review, drafting, and submission of the final manuscript. All authors have given final approval to the manuscript.

Acknowledgments

The authors thank Jayme Congdon, MD, Suzanne Gordon, Krista Kotz, PhD, Mikah Owen, MD, and Nicholas Thompson, MD, for their thoughtful assistance in the preparation and/or review of the manuscript.

Disclosures

Conflict of Interests: None declared Funding: None declared

Copyright Information

© 2024 The Authors. Published by The Permanente Federation LLC under the terms of the CC BY-NC-ND 4.0 license https:// creativecommons.org/licenses/by-nc-nd/4.0/.

Introduction

A large body of research demonstrates that experiences of trauma, especially when they occur in the absence of safe. stable, nurturing relationships (SSNRs) and environments known as protective factors interrupt healthy development and predispose both children and adults to the most common causes of physical and mental illness and early death.^{1,2} Because minoritized and low-income populations are exposed to more trauma and have access to fewer protective factors. they experience higher rates of trauma-related health and social problems and severe disparities in health.¹⁻⁴ Primary care clinicians increasingly recognize the role that trauma plays in the health and well-being of their patients. Many nonetheless feel they lack the knowledge, skills, resources, and time to effectively address the causes and consequences of trauma. There also is little recognition that primary care, itself, can be a protective factor.

Despite the profound limitations of our current primary care system, there are prominent examples of primary care practices and health systems that function as protective factors. Drawing on these examples,

this commentary offers a vision of primary care as a protective factor that can transform the experience of care for both patients and practitioners, improve health outcomes and health equity, and contribute to efforts to rebuild the foundation of primary care in America.⁵

The Impact of Trauma on Health and Health Disparities

The science linking traumatic experiences to preventable illness, disruptions in healthy development, and disparities in health for children and adults is clear.^{1,2,6} Experiences of trauma (Figure), especially during childhood and/or in the absence of sufficient protective factors. cause prolonged activation of the biological stress response, referred to as toxic stress.⁶ Toxic stress disrupts the neuroendocrine, immune, metabolic, and genetic regulatory systems in the brain and body, predisposing people to physical and mental illness and early death.^{2,5,7}

Because the developing brain and body are most sensitive to trauma and toxic stress, discussions about the impact of trauma often focus on adverse childhood Trauma is defined as an event, series of events, or set of circumstances that an individual experiences as physically or emotionally harmful or threatening and that has lasting adverse effects.

Trauma exposure can occur at multiple levels, including threats to safety and stability within families, violence in local communities, racism and discrimination in society, worldwide crises like COVID-19, and historical events such as genocide and slavery.

Figure: Definition of trauma.8

experiences (ACEs).⁹ Children with ACEs are more likely to have childhood medical and psychological conditions and to miss school.¹⁰ The impact of ACEs on later adult health and well-being is well documented. The Centers for Disease Control and Prevention document that 10 categories of ACEs alone account for 44% of adult depression, 33% of smoking, 27% of chronic lung disease, 24% of heavy drinking, and 24% of asthma.¹ ACEs are also correlated with unemployment, poverty, and homelessness.² Although they occur in all populations, those marginalized by race, sexual orientation, and gender identity have higher rates of ACEs.^{1,2}

The impact of trauma on health outcomes and health equity, however, is far greater than ACEs research describes. Research on ACEs does not account for the full range of childhood traumas or the many forms of adult trauma (eg, intimate partner violence, sexual assault, homelessness, discrimination) that are highly prevalent and strongly correlated with the most common causes of illness, death, and disparities in health.^{2,11}

Protective Factors Can Mitigate the Impact of Trauma

When we look at population-level data, trauma exposure is a determining factor in health and well-being. However, there can be considerably different life outcomes even among people who have experienced comparable amounts of the most severe trauma.

Consider 2 individuals. Both grew up in poverty. As children, both experienced sexual abuse, discrimination, housing instability, and the loss of a parent. One might expect that they would both have serious mental and/or physical illnesses as adults. Yet their lives could not be more different. One struggles with depression, alcohol use, abusive relationships, and serious medical issues. The other is healthy, married, has 3 children, and is a high school teacher.

When we look more deeply, the child who became a healthy adult benefited from critical protective factors. She had an attentive single parent and a trusted aunt who supported her during difficult times; she felt a sense of belonging at school and church; and she had close friends who supported her. The other child lacked most of these supports.

What exactly are protective factors? Researchers have described 4 broad categories of protective factors that can interrupt the physiological impacts of trauma and promote healthy development and resiliency when faced with future trauma¹²:

- Safe, stable, nurturing relationships (SSNRs)
- Safe, stable environments in which to live, learn, and play
- Social and civic engagement to develop a sense of belonging and connectedness
- Opportunities for social, emotional, and cognitive growth.

It is well documented that protective factors during childhood positively impact learning, behavior, and health throughout the lifespan.^{2,6} Several types of positive childhood experiences have been identified that can act as powerful protective factors to mitigate the impact of ACEs and toxic stress.¹² In one important study, the highest number of positive childhood experiences during childhood reduced the likelihood of adult depression and poor mental health by 72%, even among adults that experienced the highest number of ACEs as a child.¹³ The American Academy of Pediatrics now reports that forming and maintaining SSNRs, which they refer to as relational health, is the foundation for a public health approach to preventing and mitigating the damaging impacts of ACEs and toxic stress.⁶

Protective factors during adulthood similarly reduce the onset and severity of many of the most common forms of physical and mental illnesses.²

The likely physiologic mechanisms for the mitigating impact of protective factors, in both children and adults, are physical and functional changes in the neurologic, endocrine, immune, and metabolic systems that occur in response to positive stimuli.^{2,7}

Primary Care as a Protective Factor

Although the literature on protective factors usually focuses on childhood experiences in families and communities, pediatric and adult primary care itself can, and needs to, become a powerful protective factor that interrupts the impact of trauma on health outcomes and health disparities. Well-designed, well-resourced, and team-based primary care can do this in several ways.

First, primary care clinicians and teams can develop SSNRs with patients and families that, in and of themselves, have the potential to provide physiological healing and protection from past and ongoing trauma. ^{2,6,14} Clinicians and teams that establish long-term, nonjudgmental, attentive relationships with patients and families also help patients feel comfortable revealing painful or stigmatized experiences and behaviors. The disclosure, for example, that a patient or caregiver is using substances, is not taking prescribed medications, or is being abused is critical to providing effective prevention and treatment for many conditions that contribute to health disparities.

In addition to being sources of SSNRs, primary care teams can help patients develop such relationships outside the context of the clinic. To do this, the American Academy of Pediatrics suggests a layered public health approach by promoting, reducing barriers to, and repairing SSNRs.⁶

In pediatrics, fostering SSNRs can include:

- universal promotion of SSNRs by supporting positive parenting, healthy attachment, and access to programs such as Maternal, Infant, and Early Childhood Home Visiting, Triple P Positive Parenting, and Reach Out and Read
- 2. universal education and inquiry about barriers to SSNRs, including ACEs and social determinants of health (SDOH)
- 3. targeted secondary interventions such as HealthySteps, which integrates a child development specialist within a primary care team

- for families at higher risk for toxic stress due to ACEs, maternal depression, or SDOH
- 4. evidence-based therapies that promote SSNRs (eg, attachment and biobehavioral catch-up, child-parent psychotherapy, trauma-focused cognitive behavioral therapy) for patients with conditions such as anxiety, developmental delay, or behavioral problems.

Fostering SSNRs in adult primary care can include:

- universal access to support groups and psychotherapy that reduce isolation and support healthy relationships
- universal education and inquiry about impediments to SSNRs, such as intimate partner violence, ACEs, depression, addiction, and SDOH
- evidence-based treatments that promote SSNRs for toxic stress-related conditions (eg, Seeking Safety, a flexible, modularized therapy for co-occurring substance dependence and posttraumatic stress disorder).¹⁵

Second, primary care clinics can become safe, stable environments for those experiencing the impacts of trauma. Clinic staff who understand the manifestations of trauma are often more patient and less likely to react defensively when a patient is demanding, "on edge," or difficult to engage with. Clinics can replace punitive policies with approaches that are compassionate and equitable. For example, rather than denying care to patients arriving late, staff can acknowledge challenges to arriving on time and offer access to services that meet patients' immediate needs. Primary care teams can also screen for and respond to barriers to safe environments outside the clinic, like housing instability or school bullying.

Third, primary care clinics can promote social and civic engagement by creating patient/family advisory boards and organizing participation in community events (eg, pride marches). Clinics can partner with community-based organizations that provide access to after-school programs, sports, the arts, peer support, and opportunities for learning, employment, and advocacy. Clinics can also help prevent the disruption of social engagement and connectedness, referring patients at risk of experiencing incarceration, deportation, or homelessness to legal, housing, and financial services.

Finally, primary care clinics can promote social, emotional, and cognitive growth. Pediatricians can utilize Bright Futures Guidelines to screen for and address emotional, social, and developmental problems. Social, emotional, and cognitive growth can also be facilitated, at any age, by recognizing and appreciating patients' strengths, reinforcing patients' sense of autonomy and self-control, helping patients name and manage their emotions, and utilizing motivational interviewing to help patients reach goals that they themselves define. For patients presenting with social, emotional, and cognitive problems, clinical teams can facilitate warm hand-offs to educational, developmental, and mental health specialists with expertise in caring for patients experiencing the impacts of trauma.

The Profound Limitations of Our Current Primary Care System

Realizing this vision of primary care as a protective factor may seem like a mission impossible given the profound limitations of our underfunded and underresourced primary care system. Excessively large patient panel sizes and a lack of interdisciplinary team-based care have produced an epidemic of clinician burnout, with greater numbers of primary care clinicians retiring than joining the field.¹⁷ This has led to severe impediments to access, long-term relationships with patients, and quality care for everyone, but especially for low-income individuals and families.

The result? Many primary care clinics are literally traumatized. Traumatized clinics manifest many of the same symptoms as traumatized people. They can be reactive, detached, hierarchical, and fragmented. Traumatized clinics are traumatizing to both patients and the people who work within them.

Rays of Hope: Existing Models of Primary Care as a Protective Factor

Learning from practices that function as protective factors can help reverse this downward spiral. An example is the national Ryan White HIV/AIDS Program (RWHAP). For 30 years, this federally funded program has provided grants to supplement primary care services for low-income individuals and families living with HIV, allowing clinics to have smaller panels and more time with patients. RWHAP clinics also have robust interdisciplinary teams that

include mental health and social work services and partnerships with community-based organizations that are often co-located in clinics. Compared to patients in standard primary care, patients in RWHAP clinics have far better health outcomes.¹⁸

Another example is the Veterans Health Administration (VHA), the nation's largest publicly funded health care system. VHA patients benefit from fully integrated mental health and primary care teams, access to trauma-specific treatments, and peer support networks. Primary care treatment and prevention outcomes in the VHA, and its record of overcoming health disparities, are superior to those in the private sector.¹⁹ Rates of practitioner burnout in the VHA are also lower than in the private sector.²⁰

Critical Importance of This Vision

We cannot rebuild the foundation of primary care and overcome entrenched disparities in health without an evidence-based vision and models to inspire and guide future action. RWHAP and the VHA, among other examples, provide evidence that primary care as a protective factor is both possible and effective. Individual clinics and practitioners can use these examples, and the guidance cited above, to increase their role as protective factors in the lives of their patients. Because these examples receive federal support not available to most primary care clinics, scaling up these models to transform primary care into a protective factor will require a substantial infusion of public funding and/ or a strategic reallocation of health care resources. Our hope is that practitioners, researchers, and policymakers focused on trauma-informed care, ACEs, toxic stress, health equity, and health care reform will view their goals as interdependent and join together to make this vision a reality.

REFERENCES

- Merrick MT, Ford DC, Ports KA, et al. Vital signs: Estimated proportion of adult health problems attributable to adverse childhood experiences and implications for prevention 25 states, 2015-2017. MMWR Morb Mortal Wkly Rep. 2019;68(44):999-1005. DOI: https://doi.org/10.15585/mmwr.mm6844e1
- Bhushan D, Kotz K, McCall J, et al. The Roadmap for Resilience: The California Surgeon General's Report on Adverse Childhood Experiences, Toxic Stress, and Health. Office of the California Surgeon General; 2020:xxvi-xxvii. DOI: https://doi.org/10.48019/PEAM8812

- Crouch E, Radcliff E, Merrell MA, Brown MJ, Ingram LA, Probst J. Racial/ethnic differences in positive childhood experiences across a national sample. Child Abuse Negl. 2021;115:105012. DOI: https://doi.org/10.1016/j.chiabu.2021. 105012
- Agency for Healthcare Research and Quality (US). 2022
 National Healthcare Quality and Disparities Report. 2022.
 Accessed May 29, 2023. http://www.ncbi.nlm.nih.gov/books/NBK587182
- National Academies of Sciences, Engineering, and Medicine. *Implementing High-Quality Primary Care: Rebuilding the Foundation of Health Care*. Washington, DC: The National Academies Press; 2021. DOI: https://doi.org/10.17226/25983
- Garner A, Yogman M, Committee on Psychosocial Aspects of Child and Family Health, Section on Developmental and Behavioral Pediatrics, Council on Early Childhood. Preventing childhood toxic stress: Partnering with families and communities to promote relational health. Pediatrics. 2021;148(2):e2021052582. DOI: https://doi.org/10.1542/peds. 2021-052582
- Boyce WT, Levitt P, Martinez FD, McEwen BS, Shonkoff JP. Genes, environments, and time: The biology of adversity and resilience. Pediatrics. 2021;147(2):e20201651. DOI: https://doi.org/10.1542/peds.2020-1651
- Substance Abuse and Mental Health Services
 Administration. SAMHSA's Concept of Trauma and Guidance
 for a Trauma-Informed Approach. Published online 2014.
 Accessed https://ncsacw.acf.hhs.gov/userfiles/files/
 SAMHSA Trauma.pdf
- National Center for Injury Prevention and Control, Division of Violence Prevention, Centers for Disease Control and Prevention. About the CDC-Kaiser ACE Study. Accessed https://www.cdc.gov/violenceprevention/aces/about.html# print
- Bethell CD, Newacheck P, Hawes E, Halfon N. Adverse childhood experiences: Assessing the impact on health and school engagement and the mitigating role of resilience. Health Aff. 2014;33(12):2106–2115. DOI: https://doi.org/10. 1377/hlthaff.2014.0914
- Rivara F, Adhia A, Lyons V, et al. The effects of violence on health. Health Aff. 2019;38(10):1622-1629. DOI: https://doi. org/10.1377/hlthaff.2019.00480

- Sege RD, Harper Browne C. Responding to ACEs with HOPE: Health Outcomes from Positive Experiences. Acad Pediatr. 2017;17(7S):S79–S85. DOI: https://doi.org/10.1016/j. acap.2017.03.007
- Bethell C, Jones J, Gombojav N, Linkenbach J, Sege R. Positive childhood experiences and adult mental and relational health in a statewide sample: Associations across adverse childhood experiences levels. JAMA Pediatr. 2019;173(11):e193007. DOI: https://doi.org/10.1001/ jamapediatrics.2019.3007
- Street RL, Makoul G, Arora NK, Epstein RM. How does communication heal? Pathways linking clinician-patient communication to health outcomes. Patient Educ Couns. 2009;74(3):295-301. DOI: https://doi.org/10.1016/j.pec.2008. 11.015
- 15. National Center for PTSD. United States Department of Veteran's Affairs. Treatment for PTSD and Co-occurring conditions. Accessed August 3, 2023. https://www.ptsd.va.gov/professional/treat/cooccurring/index.asp
- Hagan JF, Shaw JS, Duncan PM. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents. 4th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2017. DOI: https://doi.org/10.1542/ 9781610020237
- 17. Bodenheimer T. Revitalizing primary care, part 1: Root causes of primary care's problems. Ann Fam Med. 2022;20(5):464-468. DOI: https://doi.org/10.1370/afm. 2858
- Cahill SR, Mayer KH, Boswell SL. The Ryan White HIV/AIDS Program in the age of health care reform. Am J Public Health. 2015;105(6):1078-1085. DOI: https://doi.org/10.2105/ AJPH.2014.302442
- O'Hanlon C, Huang C, Sloss E, et al. Comparing VA and non-VA quality of care: A systematic review. J Gen Intern Med. 2017;32(1):105-121. DOI: https://doi.org/10.1007/s11606-016-3775-2
- Rinne ST, Mohr DC, Swamy L, Blok AC, Wong ES, Charns MP. National burnout trends among physicians working in the department of veterans affairs. J Gen Intern Med. 2020;35(5):1382–1388. DOI: https://doi.org/10.1007/s11606-019-05582-7