Transdisciplinary Strategies for Physician Wellness: Qualitative Insights from Diverse Fields

Rachel Schwartz, PhD[1,2], Marie C. Haverfield, PhD[1,2], Cati Brown-Johnson, PhD[3], Amrapali Maitra, MD, PhD[4], Aaron Tierney, BA[2,5], Shreyas Bharadwaj, MS[6], Jonathan G. Shaw, MD, MS[5], Farzad Azimpour, MD[7], Sonoo Thadaney Israni, MBA[8], Abraham Verghese, MD, MACP, FRCP(Edin)[8], and Donna M. Zulman, MD, MS[2,5]

[1]Center for Health Policy and Center for Primary Care and Outcomes Research, Stanford University School of Medicine, Stanford, CA, USA; [2]Center for Innovation to Implementation (Ci2i), VA Palo Alto Health Care System, Menlo Park, CA, USA; [3]Evaluation Sciences Unit, Stanford University School of Medicine, Stanford, CA, USA; [4]Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA; [5]Division of Primary Care and Population Health, Stanford University School of Medicine, Stanford, CA, USA; [6]Stanford Prevention Research Center, Stanford University School of Medicine, Stanford, CA, USA; [7]Stanford University School of Medicine, Stanford, CA, USA; [8]Presence Center, Department of Medicine, Stanford University, Stanford University School of Medicine, Stanford, CA, USA.

BACKGROUND: While barriers to physician wellness have been well detailed, concrete solutions are lacking.

OBJECTIVE: We looked to professionals across diverse fields whose work requires engagement and interpersonal connection with clients. The goal was to identify effective strategies from non-medical fields that could be applied to preserve physician wellness.

DESIGN: We conducted semi-structured interviews with 30 professionals outside the field of clinical medicine whose work involves fostering effective connections with individuals.

PARTICIPANTS: Professionals from diverse professions, including the protective services (e.g., police officer, firefighter), business/finance (e.g., restaurateur, salesperson), management (e.g., CEO, school principal), education, art/design/entertainment (e.g., professional musician, documentary filmmaker), community/social services (e.g., social worker, chaplain), and personal care/services (e.g., massage therapist, yoga instructor).

APPROACH: Interviews covered strategies that professionals use to initiate and maintain relationships, practices that cultivate professional fulfillment and preserve wellness, and techniques that facilitate emotional presence during interactions. Data were coded using an inductive thematic analysis approach.

KEY RESULTS: Professionals identified self-care strategies at both institutional and individual levels that support wellness. Institutional-level strategies include scheduling that allows for self-care, protected time to connect with colleagues, and leadership support for debriefing after traumatic events. Individual strategies include emotionally protective distancing techniques and engagement in a bidirectional exchange that is central to interpersonal connection and professional fulfillment.

LIMITATIONS: In this exploratory study, the purposive sampling technique and single representative per occupation could limit the generalizability of findings.

CONCLUSION: Across diverse fields, professionals employ common institutional and personal wellness strategies that facilitate meaningful engagement, support collegiality, and encourage processing after intense events. The transdisciplinary nature of these wellness strategies highlights universal underpinnings that support wellbeing in those engaging in people-oriented professions.

KEY WORDS: doctor-patient relationships; medical humanities; professional burnout; physician satisfaction; qualitative research.

The intense emotional demands of providing care to patients in today's fast-paced clinical setting have resulted in high rates of physician burnout,[1,2] a recognized hazard for those engaging in people-oriented professions that is characterized by emotional exhaustion, depersonalization, and a sense of inefficacy.[3] The costs of burnout have been associated with increased medical errors,[4–6] job attrition,[7] and high rates of physician distress, with physician suicide rates estimated at 70% (for males) up to 400% (for females) higher than the general population.[8] New solutions that address both systems-level and individual-level threats to wellness are crucial.

Several approaches to improving physician wellness have emerged from within the field of medicine;[9] however, there is value in taking an interdisciplinary approach to tackling complex problems. In recent years, "design thinking" methods, which emphasize a human-centered approach to problem-

solving and value multidisciplinary collaboration,[10] have been employed to provide new frameworks for exploring complex issues from a multidisciplinary perspective.[11] By drawing analogies from other industries, a new range of viable possibilities becomes available.[11,12]

We conducted interviews with non-medical professionals to examine interpersonal strategies that promote presence and human connection. There have been efforts to understand and support resiliency among soldiers,[13] teachers,[14] and psychotherapists,[15] yet these insights from different disciplines have not been translated for use in a medical context. In this paper, we explore diverse professionals' strategies for preserving and enhancing wellbeing and describe opportunities to adopt these strategies in medicine to support physician wellness.

METHODS

In this qualitative study, we interviewed 30 professionals from outside the field of medicine whose work involves intense interpersonal interactions with clients, students, or other service recipients. Work professions were initially drawn from the most recent version of the Standard Occupational Classification Manual.[16] We adapted this classification system to identify individuals from seven categories of professions: management; business and finance; community and social service; educational instruction; arts, design, entertainment, and media; protective services; personal care and service occupations. Participation was voluntary and uncompensated. Study activities were designated as exempt from review by the Stanford University Institutional Review Board.

PARTICIPANT SELECTION

A purposive sampling technique was used to identify 38 professionals (3 to 5 from each professional domain), prioritizing equal representation from men and women, and racial and ethnic diversity. Eight individuals out of the 38 contacted (21%) declined to participate (four prospective interviewees did not respond, three agreed to participate but had scheduling conflicts, and one declined).

INTERVIEW PROCESS

One-on-one interviews were conducted in-person ($n = 22$) or by telephone ($n = 8$) by members of an interdisciplinary research team (six females, three males) composed of three PhD-level researchers with training in qualitative methods, an MD/PhD with ethnographic training, a family medicine MD with training in health services research, and four research staff who received training in conducting qualitative interviews.

DATA COLLECTION AND ANALYSIS

As part of a broader multiphase project focused on furthering human connection in medicine, we developed an interview guide with input from a design researcher (FA), with the goal of using a design thinking approach to identify novel strategies for doctor-patient interactions. Questions focused on how non-medical professions foster interpersonal connection in their work, with an emphasis on strategies for managing intense interactions, often in high-pressure settings. The guide was pilot tested and adjusted prior to data collection (Appendix A). Interviews ranged from 20 min to slightly over an hour and were audio recorded. Data saturation determined the appropriate sample size and was achieved.

We used an inductive thematic analysis approach to identify latent themes (see Braun and Clark[17]), reviewing and coding transcripts as a group and individually to confirm the existence of the most salient themes. Dedoose software, version 8.0.35,[18] was used for coding. Six coders iteratively developed an initial codebook, coded 16 transcripts, then refined the codebook and applied revised codes to the remaining 14 interviews. The final coding guide appears in Appendix B.

RESULTS

Participant demographics and professional roles are presented in Tables 1 and 2, respectively. A range of wellness strategies was presented that comprised institutional and individual approaches that permit autonomy, provide time and resources for self-care and peer support, foster emotionally protective distancing techniques, and allow for a bidirectional exchange that promotes professional fulfillment. A thematic summary of transdisciplinary strategies and potential applications for medicine is presented in Table 3.

Institutional Initiatives

Professionals described institution-level practices in three domains that contribute to their wellbeing: scheduling flexibility that allows for self-care, social support, and protocols for

Table 1 Participant Demographics

Characteristic	n	Percentage of sample
Gender		
Male	16	53
Female	14	47
Race/ethnicity		
Caucasian	20	67
Asian	5	17
Latino/a	2	7
Middle Eastern	2	7
Pacific Islander	1	3
Age (years)		
20–29	4	13
30–39	11	37
40–49	4	13
50–59	7	23
50–59	7	23
60+	4	13

Table 2 Professional Domains and Roles of Participants

Professional domain	Participant roles
Management	CEO of a technology company
	Hospice program director
	School principal
	Restaurateur
	Software company manager
Business/finance	Television sales and marketing
	Startup sales
	Specialty beverage importer
	Realtor
Community/social service	Chaplain
	LCSW
	Health promoter
Education	High school teacher
	Music teacher
	Health teacher
	Psychology professor
	Special education teacher
Arts/design/entertainment/media	Documentary filmmaker
	Design researcher
	Professional musician
	Creative design tech
	Journalist
Protective service	Fire captain
	Lawyer
	Police officer
	EPA enforcement agent
Personal care/service	Hospice volunteer
	Massage therapist
	Recreational therapist
	Yoga instructor

collective debriefing after distressing events. They described these factors as fundamental to their ability to perform well, explaining that institutions that emphasized employee wellness through scheduling flexibility as well as practices that demonstrated leadership commitment to employee wellbeing had a major impact on individuals' ability to engage in self-care.

SCHEDULING

Institution-level scheduling practices were reported to have a direct impact on professionals' ability to maintain their own wellness. Those whose work demanded interacting with clients in high-stress or emotional situations highlighted the importance of institutional practices that allowed them to engage in basic self-care (i.e., scheduling that permitted time for meals, adequate rest, and occasional adjustment of work hours in instances of unusual emotional demands). When working within an environment with rigid work hours, professionals described the value of feeling able to take space when needed. One person explained:

"I think just being okay allowing myself to have space from the work when I needed it [allows me] to be able to do the work well when I'm there. I don't want to be detached and not present and depleted and tired when I'm there. So sometimes that means if I go to court and I get out at 3:30, I might not go back to work because I'm just like, 'Okay. I need to recharge.'" (Lawyer, female)

Professionals described how their own ability to perform adequately was dependent upon scheduling that allowed for the fulfillment of basic needs:

"I have to be very careful of my scheduling and travel. If I have resting place or a good meal. Not just throwing something down. Because in order to be that present for one person after another, I try not to see too many people in one day." (Chaplain, female)

In work environments that permitted innovative scheduling practices, professionals described opportunities for unconventional scheduling that facilitated creativity and increased productivity without detracting from the total number of hours worked:

"Part of the work-life balance I found that helps…is to allow what's called the 9/80 work week… you work 80 hours over a two-week period, but you get every other Friday off. And that work-life balance I think is a great tool for people to use. They get three-day weekends every other week... They come back refreshed, they come back more creative, they come back more inventive." (Software company manager, male)

SOCIAL SUPPORT

Professionals described social support as central to their ability to maintain wellness. On an institutional level, this took the form of scheduled time during the workday to connect with colleagues. As one educator described:

"I get to work ideally an hour before I have to interact with students, so I get to work at 7:30, the students come at 8:00, but I don't talk to them until 8:30. That's for me to have some time with my colleagues, with my space, then after school to have a bit of time to debrief with my colleagues… just to be like, 'That was a weird day,' or, 'This happened,' so when I come home I'm not burdened with that." (Teacher, female)

Professionals working in leadership roles emphasized fostering wellness by creating a culture of caring. They did so by consciously engaging in community building activities, both during professional development workdays and by hosting extracurricular happy hours. As one person explained:

"The leader, whoever that is, is the emotional nexus of the organization, and the tone they set is pervasive… There are some tasks, some paper things that are important. But it's checking in on a human that's the key." (School principal, male)

Table 3 Transdisciplinary Self-care Strategies That Support Wellness, and Their Translation to Medical Practice

Target level	Topic	Examples by profession	Application for medicine
Institutional	Scheduling that allows for self-care	*Chaplain* schedules nutrition and rest between clients; *Lawyer* may not return to work after attending trial; *Software company manager* provides scheduling options with longer days but 3-day weekends	Physician lounge with food and water, and leadership-enforced (and modeled) break time; A variety of scheduling options could allow for a better lifestyle match
	Protected time for peer support	*Police officer* debriefs calls with beat partner, has formal mentoring program in place; *Teacher* builds in time for connection with colleagues before and after class; *Principal* hosts off-site community building activities for staff	Protected regular time for Balint groups and Schwartz Rounds; greater leadership emphasis on the importance of social support as central to professional wellness
	Debriefing protocol, modeling self-care	*Fire captain* has "Code Green" suicide prevention and critical incident debriefing protocol	Regular debriefing opportunities to support the emotional demands of healthcare delivery
Individual	Emotional distancing techniques	Visualization techniques and mantras *Design researcher* envisions a rose between self and client that absorbs pain; *Fire captain*, "It's not my emergency"; *Environmental protection agency agent* sets boundaries around scope of role *Lawyer* brushes self off to not absorb client's distress	Training for providers around gaining skills for emotional self-protection
	Bidirectional exchange for improved professional fulfillment	*Hospice volunteer* learning about the patient's religious practices; *Documentary filmmaker* being open to being changed by film subjects; *Police officer* soliciting an essay from a student instead of giving her a citation	Emphasis on identifying moments of meaningful connection and learning as central to wellness

DEBRIEFING PROTOCOL: MODELING SELF-CARE

Professionals across multiple work domains described the crucial wellness benefits of having an institution-level protocol for debriefing after traumatic events. In all cases, these initiatives were fostered by leaders who modeled appropriate communication and self-care strategies for staff. A Fire Captain described an institution-level intervention designed to address threats to employee wellness:

> "A thing called 'Code Green,' which is a suicide prevention for fire and police and EMS. They're starting to put their staffs together, because a lot of times they consider off-duty suicides not part of [work]….[But] now they're going, 'Hey, wait a sec. This is work-related. This poor guy'."

The Fire Captain explained additional programs and processes in place to reduce first responder distress:

> "We do have a critical incident stress debriefing team…There's so many guys trained throughout the department. They meet monthly. We have a couple psychiatrists that work with them... If I go on a bad call and it's bugging me, I'll tell my crew that I think we need to talk about it. They'll bring somebody and we just kind of talk about it, chat, and if I still feel bad about it, we have access to professional help."

Professionals acknowledged the stigma associated with seeking help or engaging in self-care, particularly when their job involved caring for others. Individuals, particularly those in leadership roles, overcame this stigma by choosing to take responsibility for modeling healthy practices as a way of being compassionate and protective of others. As one person explained:

> "Our self-care, both the practice and tools that we use, can model for whoever we're working with... We can not only provide the specific intervention or recommendation. We can also do that in a way that is a demonstration of that intervention." (Yoga instructor, male)

Individual Strategies

Many professionals described personal strategies that helped preserve their wellbeing. The two most common types of strategies involved emotional distancing during distressing situations and fostering a bidirectional exchange in which professionals were consciously open to being changed by the client.

DISTANCING STRATEGIES FOR EMOTIONAL WELLNESS

Professionals highlighted the difficulty of being present without absorbing the client's distress. They explained the importance of maintaining some emotional distance

in order to be able to fulfill their responsibilities to the client. An ethnographic design researcher described a strategy in which she envisioned a rose between herself and the client that could absorb the client's pain but preserve the beauty of the client's story. A lawyer physically brushed herself off so as not to internalize a client's distress. Others employed mantras, such as "It's not my emergency" from a first responder, which provided the interpersonal distance necessary to perform emotionally challenging tasks. Multiple professionals spoke to the importance of setting boundaries and connecting clients to additional resources as a strategy for protecting their own wellness. Professionals described techniques used to navigate the balance between inviting clients to freely share while moderating the conversation to ensure that neither party is overwhelmed:

> "You have to let them get a certain amount of that information out and you have to listen to it. But you also have to, at some point, draw a line and say, 'This is beyond the scope of what I can do for you, or what my inquiry is. There are other resources you may want to go find for that, but it's not me.'" (Environmental protection agency agent, male)

FOSTERING A BIDIRECTIONAL EXCHANGE

Professionals described the value of allowing themselves to be meaningfully affected by engagement, as a means to both strengthen the interpersonal connection and provide professional fulfillment. Techniques for fostering that openness included the lack of a prescriptive agenda going into the interaction, focusing on authentic aspects of the connection, and maintaining a mindset that allowed them to be changed by the engagement, arriving at a new understanding of the client or themselves through the process.

In describing the times when they had formed effective connections with clients, professionals shared stories about gaining a new perspective or appreciation of shared similarities by learning from the client. One person, who is trained to accompany dying patients at the hospital, shared his experience:

> "I'm not a Christian by faith. I'm a Hindu by faith. But there was a lady who felt comforted by having the Psalms read to her. I'm not familiar ... I have not read the Bible, or read the Psalms… I didn't have a Bible, but I picked up my iPad and looked for stuff, and then I started to read them out. I found that a lot of them, if you look back, a lot of religions have the same generic ideas. So, you learn something in that process, too." (Hospice Volunteer, male)

Professionals described moments of authentic connection that were characterized by shared positive regard and concern for the client as a whole person, not just the aspects of the client that were circumscribed by the professional-client relationship. As a police officer described:

> "I connected with this girl who I didn't give a ticket for having marijuana at school. Instead of giving her a ticket, I asked her to write an essay for me…I kind of made [it] up on the spot. It was tough. I told her, 'Look, I want you to write an essay. Tell me what your top qualities about yourself are, what your goals are in life, what you want to do. How do you think doing this or going down this path will affect you and how it affects everyone else around you.' I still have her essay today. It's one of those things I keep in my shoebox."

In order to be open to being changed by the interaction, professionals spoke about needing a certain mindset. As one person explained:

> "[The goal is] just to be in a place where you open your heart, and your mind, to being changed by somebody...It's more about that I set an intention for my unconscious mind and my heart to be shaped by a conversation, and not for it to be practical." (Documentary filmmaker, male)

DISCUSSION

In this study, we drew on the experiences of non-medical professionals across diverse fields to identify strategies that foster interpersonal connection and wellness. Interviewees highlighted the importance of pairing institutional and individual approaches that permit autonomy, encourage self-care, and facilitate social support. Leadership engagement and modeling of self-care practices were central to creating a culture in which employee wellness was valued and encouraged. Professionals highlighted strategies largely within their control that heightened their sense of professional fulfillment. The novelty of this study lies in the elucidation and synthesis of effective strategies for wellness that transcend professional domains.

We found that professional wellness in emotionally demanding roles—regardless of discipline—depends on the ability to fulfill universal needs through social support, basic self-care, and meaningful engagement. These findings are aligned with previous studies in the medical literature.[19,20] Notably, the solutions revealed in this study directly address each of the conceptual components of burnout: emotional exhaustion,

depersonalization, and a loss of personal and professional satisfaction.[21] Our objective in sourcing strategies from diverse professionals was to identify concrete actions currently employed in other professions that could be adopted in medicine to support professional wellbeing.

The proposed strategies of emotional distancing techniques, institutionally supported opportunities for social support, and a bidirectional exchange to improve professional satisfaction, if applied to health systems, could provide opportunities to improve physician wellness. Previous articles on physician burnout have highlighted the importance of leadership engagement and support for wellness, scheduling flexibility that permits work-life integration, and cultivating community at work.[19] However, to the best of our knowledge, the strategies our diverse professionals shared of employing emotional distancing strategies and emphasizing a bidirectional exchange that allows for more meaningful engagement have yet to be explored in the medical realm.

While much attention has been paid to clinical interventions designed to improve physician-patient communication and satisfaction,[22–24] little research has explored what communication strategies would best foster a clinical interaction in which the goal is for the physician to be meaningfully affected by the interaction. Traditionally, the emphasis has been on improving patient satisfaction and care outcomes, but given the known costs of physician turnover to the health care system,[25,26] new solutions designed to improve physician professional fulfillment are needed.

STUDY LIMITATIONS

In this exploratory study, the purposive sampling technique and single representative perspective per occupation could limit the generalizability of findings. Future studies that synthesize expertise from multiple individuals both within and across disciplines would yield valuable perspectives about the extent to which wellness strategies are industry-specific as opposed to being driven by a combination of individual and occupational factors. In addition, the interview guide was designed to focus broadly on strategies for fostering connection with clients and did not include detailed questions explicitly about wellness strategies. The fact that wellness strategies surfaced as central to diverse professionals' ability to establish and maintain interpersonal connections speaks to the central importance of such strategies in human service professions, and the need for additional studies that more deeply explore concrete strategies that enable healthcare professionals to preserve their own wellness while serving others.

CONCLUSIONS

Given current levels of distress among physicians and medical trainees, there is a need for practical strategies to improve provider wellness. Our findings suggest there are universal underpinnings to professional wellness. Across disciplines, opportunities for a bidirectional exchange, social support, and self-care throughout the work day appear to be essential to professionals' ability to meaningfully engage with others. Given the suggested direct link between physician burnout and medical errors,[4,6] the wellbeing of those who pass through the healthcare system is at stake. Our findings speak to the need for additional research that leverages multidisciplinary perspectives to address complex, persistent issues in healthcare.

By sourcing strategies for preserving wellness from diverse non-medical fields whose work involves navigating intense interactions in high-pressure settings, we propose targeted opportunities for providing physicians with the support needed to foster meaningful professional engagement.

Corresponding Author: Rachel Schwartz, PhD; Center for Innovation to Implementation (Ci2i)VA Palo Alto Health Care System, Menlo Park, CA, USA (e-mail: raschwartz@stanford.edu).

Compliance with Ethical Standards:

Conflict of Interest: Farzad Azimpour is the Chief Medical Officer at MYIA Labs and Health Portfolio Advisor at IDEO. Abraham Verghese receives royalties from Simon and Schuster and Random House publishers and is on the Gilead Health Policy Advisory Board, and the Leigh Speakers Bureau. The other authors report no conflicts of interest.

REFERENCES

1. **Shanafelt TD**, **Boone S**, **Tan L**, **Dyrbye LN**, **Sotile W**, **Satele D**, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. Arch Intern Med. 2012;172(18):1377–85.
2. **Rotenstein LS**, **Torre M**, **Ramos MA**, **Rosales RC**, **Guille C**, **Sen S**, et al. Prevalence of burnout among physicians: a systematic review. Jama [Internet]. 2018;320(11):1131–50. Available from: https://jamanetwork.com/journals/jama/fullarticle/2702871
3. **Maslach C**, **Leiter MP**. Understanding the burnout experience: Recent research and its implications for psychiatry. World Psychiatry. 2016;15(2):103–11.
4. **Shanafelt TD**, **Balch CM**, **Bechamps G**, **Russell T**, **Dyrbye L**, **Satele D**, et al. Burnout and medical errors among American surgeons. Ann Surg. 2010;251(6):995–1000.
5. **Kwah J**, **Weintraub J**, **Fallar R**, **Ripp J**. The effect of burnout on medical errors and professionalism in first-year internal medicine residents. J Grad Med Educ [Internet]. 2016;8(4):597–600. https://doi.org/10.4300/JGME-D-15-00457.1
6. **West CP**, **Tan AD**, **Habermann TM**, **Sloan J**A, **Shanafelt TD**. Association of resident fatigue and distress with perceived medical errors. JAMA. 2009;302(12):1294–300.

7. **Doan-Wiggins L**, **Zun L**, **Cooper MA**, **Meyers DL**, **Chen EH**. Practice satisfaction, occupational stress, and attrition of emergency physicians. Wellness Task Force, Illinois College of Emergency Physicians. Acad Emerg Med. 1995;2(6):556–63.

8. **Hampton T.** Experts address risk of physician suicide. JAMA 2005;294(10):1189–91.

9. **West CP**, **Dyrbye LN**, **Erwin PJ**, **Shanafelt TD**. Interventions to prevent and reduce physician burnout: A systematic review and meta-analysis. Lancet. 2016;388(10057):2272–81.

10. **Kimbell L.** Rethinking Design Thinking: Part I. Des Cult [Internet]. 2011;3(3):285–306. https://doi.org/10.2752/175470811X13071166525216

11. **Roberts JP**, **Fisher TR**, **Trowbridge MJ**, **Bent C**. A design thinking framework for healthcare management and innovation. Healthcare [Internet]. 2016;4(1):11–4. https://doi.org/10.1016/j.hjdsi.2015.12.002

12. **Matheson GO**, **Pacione C**, **Shultz RK**, **Klügl M**. Leveraging human-centered design in chronic disease prevention. Am J Prev Med [Internet]. 2015;48(4):472–9. https://doi.org/10.1016/j.amepre.2014.10.014

13. **Cornum R**, **Matthews MD**, **Seligman MEP**. Comprehensive soldier fitness: building resilience in a challenging institutional context. Am Psychol. 2011;66(1):4–9.

14. **Beltman S**, **Mansfield C**, **Price A**. Thriving not just surviving: A review of research on teacher resilience. Educ Res Rev [Internet]. 2011;6(3):185–207. https://doi.org/10.1016/j.edurev.2011.09.001

15. **Hernández P**, **Gangsei D**, **Engstrom D**. Vicarious resilience: A new concept in work with those who survive trauma. Fam Process. 2007;46(2):229–41.

16. Standard occupational classification manual [Internet]. 2018. Available from: https://www.bls.gov/soc/2018/soc_2018_manual.pdf

17. **Braun V**, **Clarke V**. Using thematic analysis in psychology. Qual Res Psychol. 2006;3(2):77–101.

18. Dedoose Version 8.0.35, web application for managing, analyzing, and presenting qualitative and mixed method research data [Internet]. Los Angeles, CA: SocioCultural Research Consultants, LLC; 2018. Available from: https://www.dedoose.com

19. **Shanafelt TD**, **Noseworthy JH**. Executive leadership and physician well-being: nine organizational strategies to promote engagement and reduce burnout. Mayo Clin Proc [Internet]. 2017;92(1):129–46. https://doi.org/10.1016/j.mayocp.2016.10.004

20. **Swensen SJ**, **Shanafelt T**. An organizational framework to reduce professional burnout and bring back joy in practice. Jt Comm J Qual Patient Saf [Internet]. 2017;43(6):308–13. https://doi.org/10.1016/j.jcjq.2017.01.007

21. **Maslach C**, **Jackson SE**. The measurement of experienced burnout. J Occup Behav. 1981;2:99–113.

22. **Beck RS**, **Daughtridge R**, **Sloane PD**. Physician-patient communication in the primary care office: a systematic review. J Am Board Fam Pract. 2002;15(1):25–38.

23. **Zolnierek KBH**, **DiMatteo MR**. Physician communication and patient adherence to treatment: a meta-analysis. Med Care. 2009;47(8):826–34.

24. **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.

25. **Waldman JD**, **Kelly F**, **Arora S**, **Smith HL**. The shocking cost of turnover in health care. Eff Health Care. 2010;2(2):51–9.

26. **Buchbinder SB**, **Wilson M**, **Melick CF**, **Powe NR**. Estimates of costs of primary care physician turnover. Am J Manag Care. 1999;5(11):1431–8.