If Every Fifth Physician Is Affected by Burnout, What About the Other Four? Resilience Strategies of Experienced Physicians

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Abstract

Purpose
To identify health-promoting strategies employed by experienced physicians in order to define prototypical resilience processes and key aspects of resilience-fostering preventive actions.

Method
From January 2010 to March 2011, the authors conducted 200 semistructured interviews with physicians of different ages, disciplines, and hierarchical status from across Germany. The interview transcripts were analyzed according to the Content Analysis method.

Results
Analysis revealed 30 subcodes in three dimensions: (1) job-related gratifications derived from treatment interactions, (2) practices, such as leisure-time activities, self-demarcation, limitation of working hours, and continuous professional development, and (3) attitudes, such as acceptance of professional and personal boundaries, a focus on positive aspects of work, and personal reflexivity.

Conclusions
The reported strategies and attitudes helped to develop mental, physical, and social resource pools that fostered effective decision making. Successful coping, in turn, encouraged the maintenance of resilience-promoting abilities. In relation to Conservation of Resources Theory, physician resilience emerged as the ability to invest personal resources in a way that initiates positive resource spirals in spite of stressful working conditions. Enriching traditional stress management approaches with the dynamic of positive as well as negative resource spirals would thus appear to be a promising approach.

Editor's Note: A commentary by R.M. Epstein and M.S. Krasner appears on page 301.

Physicians' health matters, not only to the physicians themselves but also to their patients. Mental health is an important component of overall health, and research shows that approximately 15% to 20% of physicians will have mental health problems at some point in their careers.[1–3] In spite of a lack of sound prospective studies on the topic, available studies suggest that burnout levels are high among residents and may be associated with depression and problematic patient care.[4,5]

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In a survey by Cohen and colleagues,[6] one-third of 1,999 residents reported their life as "quite a bit" to "extremely" stressful. In their review of 40 studies on psychological distress in medical students (depression, anxiety, burnout, and related mental health problems), Dyrbye and colleagues[7] consistently identified a greater degree of depression and anxiety in medical students in the later years of training compared with the nonstudent (general) population. Similarly, Goebert and colleagues[8] found prevalence rates of 12% for major depression and 9.2% for mild/moderate depression in 2,000 medical students and residents. Others have shown that this trend is accompanied in the course of the four years of medical training by an increase in cynicism, an erosion of humanitarian attitudes, and a decline in empathy.[4,7,9] Although depression rates tend to decline in later years, suicide remains one of the major causes of early death in practicing physicians, the male-physician suicide rate being 1.4 times higher and the female-physician rate 2.3 times higher than in the average population.[10]

These alarming data on physician distress have fostered awareness for the necessity of prevention. One common preventive strategy is the traditional Balint group model (named for Hungarian psychoanalyst Michael Balint) in which a group of physicians meet regularly and present clinical cases to better understand the physician–patient relationship. Two additional conceptual approaches seem to prevail: (1) mindfulness-based stress reduction, a training program focusing on meditation techniques that promote relaxation through the nonjudgmental awareness of moment-to-moment sensations, experiences, and reactions, and (2) cognitive behavioral stress prevention with a focus on psycho-education about physical and cognitive components of the stress reaction, relaxation techniques such as progressive muscle relaxation, and cognitive interventions (e.g., challenging irrational and negative thoughts). Mindfulness-based stress reduction has frequently proved effective for reducing distress, rumination, and negative feelings and enhancing the capacity for empathy.[11,12] Cognitive behavioral approaches reported a similarly significant effect on job-related distress and general well-being.[13,14]

Although some effort has been put into epidemiological surveys on physicians'

health, less information is available on physician resilience.[15–18] If approximately every fifth physician is affected by burnout or other stress-related disorders,[1–3] what about the other four? How do they deal with the challenges, strains, and restrictions of their professional lives? Studies of resilience available so far are based on very small samples and restricted to few disciplines. Jensen and colleagues,[15] for example, conducted in-depth interviews with 17 family practitioners. They identified four main aspects of physician resilience: (1) attitudes and perspectives, which include valuing the physician role, maintaining interest, developing self-awareness, and accepting personal limitations, (2) balance and prioritization, which include setting limits, taking effective approaches to continuing professional development, and honoring the self, (3) practice management style, which includes sound business management, having good staff, and using effective practice arrangements, and (4) supportive relations, which include positive personal relationships, effective professional relationships, and good communication. Stevenson and colleagues[17] also conducted semistructured interviews with 15 primary health care practitioners. Their study highlights the importance of respect and appreciation toward patients and an intellectual engagement with the work itself. Further, they demonstrated that resilient physicians recognize and celebrate small gains and show the ability to control their working hours.[17] The cross-sectional survey of Keeton and colleagues[19] confirms the latter: Having some control over schedule and hours worked was the strongest predictor of work–life balance and burnout.

In our study, we also used a qualitative, bottom-up approach to identify resilience strategies, but we considerably broadened the sample, interviewing 200 physicians of different ages, specialties, and hierarchical status. In a second step, we have conceptualized the reported strategies in terms of the resilience process underlying them.

Method

The research team consisted of the two authors, five medical students, and one postgraduate psychologist. To ensure homogeneity of interviewing, each member of the research team first accompanied the first author (J.Z.) for three interviews. Then, each team member conducted three individual interviews, which were supervised post hoc using the audio tapes. Once team members had completed this process, they conducted their remaining interviews without additional supervision. Altogether, the research team conducted 200 semistructured interviews with residents (employed junior physicians working on hospital wards), assistant medical directors, and registered doctors (self-employed physicians in the ambulant field). Participation was based on physicians' interest to share and pass on their own experiences; there was no further incentive.

Recruitment of participants

Recruiting followed a pyramid approach. Because motivation to share personal insights and experiences represented the key precondition for participation in the study, we used a convenience sample but made sure to integrate a broad range of specialties, ages, hierarchical status, and settings. We started recruiting at the University Hospital Heidelberg by contacting physicians of different disciplines and hierarchical status (residents, assistant medical directors, and registered doctors) known by members of the research team. We further contacted self-employed physicians by information letters followed by phone calls. Contact information for these physicians was obtained from the telephone book. During the research process, we extended our regional focus to eight other cities all over Germany. At the end of each interview, we asked for a recommendation of a colleague ("Do you know someone who could be interested in sharing his or her experiences and insights with us?"). Following this snowball approach, we managed to recruit a diversified pool of interview participants. The institutional review board of the University of Heidelberg reviewed and approved this study.

First, we conducted 83 interviews across 21 disciplines. Unexpectedly, reported resilience strategies differed little across specialties. To find out whether this was due to the low numbers of participants per specialty, we decided to focus further data collection on three specialties, whose professional day-to-day routines differed substantially. Thus, in a second phase we conducted interviews with 117 physicians working as psychiatrists, surgeons, and general practitioners. To work out potential differences, we explicitly asked for specialty-specific stressors and coping strategies within each discipline. Altogether, the research team interviewed 51 general practitioners, 38 psychiatrists, 45 surgeons, and 66 physicians from other disciplines.

Data collection

For screening purposes, all physicians completed a German-language paper version of the Maslach Burnout Inventory (MBI) at the beginning of the qualitative interview. The MBI assesses the frequency of symptoms referring to three subdimensions (Emotional Exhaustion, Depersonalization, Personal Accomplishment) on a six-point scale: 1 = "never," 2 = "seldom," 3 = "sometimes," 4 = "often," 5 = "frequent," and 6 = "very often."[20,21] Filling in the 22 items takes about five minutes. Whereas for Emotional Exhaustion and Depersonalization, higher scores indicate higher levels of burnout, Personal Accomplishment is reverse-scored, with high scores indicating more personal efficacy.

The field manual (see Appendix 1) was developed by J.Z. and focuses on the main research question: Which strategies do you apply to deal with the stressors of your professional life? The field manual was developed and communicatively validated through 10 trial interviews conducted between October and December 2009. Half of the trial interviews were with self-employed doctors, half with hospital-employed doctors; the trial sample included four female and six male doctors belonging to four different disciplines. Each interview closed with a summary by the interviewer and two questions: "Are these the most important resilience strategies in your professional life?" and "Is there anything else we should have asked?"

The recruiting and data collection period extended from January 2010 to March 2011. To activate a broad range of resilience strategies, interviewers framed the main research question from different perspectives (e.g., strategies found with colleagues, advice one would give to a medical student). Interviewers encouraged participants to give examples for all

strategies reported. The average interview duration was 42 minutes (range = 18 minutes to 2:08 hours; standard deviation = 19 minutes). All interviews were audio-taped and transcribed in their entirety and analyzed in accordance with the Content Analysis method.[22,23]

Analysis of the data

Preliminary data analysis followed categories derived from the main research questions. To restrict distortions due to social desirability, we only coded mental as well as behavioral strategies that could be illustrated ("the way I do this …"). We differentiated between "general sources of gratification," "behavioral routines and practices," and useful "attitudes and mental strategies." Building on these core dimensions, we inductively educed subcategories. For this purpose, we first grouped interview statements according to the three core dimensions. Second, we identified and marked key themes within each dimension. Building on these key themes, we developed a preliminary system of subcategories. All interview statements were assigned to this category system. To ensure a high reliability of assignments, we conducted trials by four independent coders and worked over category definitions until we reached an average accordance of at least 80%. For 10% of the data (20 interview records), two independent coders tested category reliability with Cohen kappa ranging from 0.74 to 0.91.

Results

Participant characteristics are summarized in Table 1. Thirty-eight percent of the sample (n = 76) were self-employed. The hospital-employed physicians (n = 124) included 55% residents (n = 68), 2% scientists (n = 2), 28% assistant medical directors (n = 35), and 15% head physicians (n = 19).

Analyses of the MBI revealed that, in line with the research focus, the physicians interviewed reported low levels of Emotional Exhaustion ($\overline{X}$= 2.38; sd=0.8) and Depersonalization ($\overline{X}$ = 2.03; sd=0.66) and high levels of Personal Accomplishment ($\overline{X}$ = 4.76; sd = 0.71).

The following sections reveal the themes and subcategories that emerged from our analyses of the three dimensions of general sources of gratification, behavioral routines and practices, and attitudes and mental strategies. For context, we specify the role, affiliation, and age of the speaker in parentheses after each quotation in this section. For a survey of all resilience strategies and a comparison between different disciplines, see Table 2.

Table 1

Demographic Characteristics of 200 German Physicians Participating in Semistructured Interviews About Resilience Strategies, 2010–2011

Characteristic	Total sample (n = 200)	Males (n = 134)	Females (n = 66)
Average age in years*	42.5	46	39
No. of children*	1.2	1.7	0.8
Professional experience in years*	14.5	18	11
Married, no. (%)	146 (73)	105 (78)	41 (63)
Divorced, no. (%)	16 (8)	9 (7)	7 (10)
Single, no. (%)	38 (19)	21 (16)	17 (27)
Self-employed, no. (%)	76 (38)	55 (41)	21 (31)
Hospital-employed, no. (%)	124 (62)	80 (60)	44 (69)

*Significant difference ($P < .05$) between groups. Chi-squared testing for marital status and professional setting did not reveal significant differences between male and female physicians ($P > .05$).

Job-related sources of gratification

Comments in this category discussed participants' sources of strength, meaning, and energy in routine professional life. Two main sources emerged.

Gratification from the doctor–patient relationship. Experiences of efficacy in the immediate doctor–patient relationship represented a crucial aspect of professional activity. Showing interest in the "person behind the symptoms" (general practitioner, own practice, 57) was one decisive factor protecting participants against monotony. Participants noted the importance of the feeling of being someone whose opinion counts, someone who is "given a part to play when there are vital decisions to make" (neurosurgeon, own practice, 47). Success in establishing good relations between doctor and patient is often reflected in the patients' appreciation and gratitude, which was another recurrent source of strength reported by participants.

Finally, participants' comments illustrated that encounters with patients deliver occasions for self-reflection. With the patient as a mirror, the physician's own problems could be more clearly perceived and at the same time put into perspective.

Gratification from medical efficacy. The experience of meaningful professional activity was typically conditioned by symptom-related before-and-after comparisons.

> What I still derive energy from is the experience of success, of healing.… Many of the patients we discharge have fully regained their health. They've had their appendix, their gallbladder, or a tumor removed—whatever. They are completely cured (senior hospital surgeon, general and visceral, 39).

The responding physicians considered complex diagnostic issues as intellectual challenges that helped them to enhance their professional stature. They consciously perceived treatment successes both large and small as such, and these successes represented a source of professional satisfaction even in cases that required routine skills only. Self-discipline in connection with diagnosis and information for the patient was a significant factor in gratification, notably in connection with routine measures, as it ensured the prevention of complications and (subjectively) unforgivable errors.

Resilience practices

What do physicians do to ensure that their profession remains satisfying and fulfilling? Comments related to the second dimension addressed this question and discussed the practices that help physicians deal with the many stress factors involved in their profession.

Leisure-time activity to reduce stress. Participants used leisure activities in general to relieve stress, but closer inspection indicates that these activities fulfill a number of different functions. Sporting activity was mostly an immediate way of reducing tension

Table 2

Resilience Strategies and Their Frequency According to Discipline as Reported in 200 Semistructured Interviews With German Physicians, 2010–2011

	Theme	Whole sample (n = 200)	General practitioners (n = 51)	Psychiatrists (n = 38)	Surgeons (n = 45)	Other disciplines (n = 66)
Job-related sources of gratification						
1	Gratification from doctor–patient relationship	134 (67)	38 (75)	28 (74)	19 (42)	49 (74)
2	Gratification from medical efficacy	118 (59)	16 (31)	17 (45)	39 (87)	44 (67)
Resilience strategies 1: Practices and routines						
3	Leisure-time activity	158 (79)	42 (82)	33 (88)	31 (69)	52 (79)
4	Quest for and cultivation of contact with colleagues	110 (55)	26 (51)	26 (69)	27 (60)	31 (47)
5	Cultivation of relations with family and friends	102 (51)	25 (49)	25 (66)	27 (60)	25 (38)
6	Proactive engagement with the limits of one's own skills, complications that crop up and treatment errors when communicating with colleagues and disciplinarians	88 (44)	20 (39)	16 (42)	16 (36)	36 (55)
7	Proactive engagement with the limits of one's own skills, complications that crop up and treatment errors when communicating with patients	80 (40)	19 (37)	6 (16)	20 (44)	37 (56)
8	Personal reflection and goal setting	80 (40)	23 (45)	13 (34)	21 (47)	23 (35)
9	Self-demarcation with patients	80 (40)	28 (54)	16 (42)	14 (31)	22 (33)
10	Talking about job-related stress with private relations	76 (38)	17 (33)	12 (32)	9 (20)	38 (58)
11	Self-organization with bureaucracy and regular chores	72 (36)	21 (41)	16 (42)	14 (31)	21 (32)
12	Self-demarcation with colleagues and disciplinarians	68 (34)	8 (16)	22 (58)	19 (42)	19 (29)
13	Cultivation of one's own professionalism	64 (32)	19 (38)	18 (47)	12 (27)	15 (23)
14	Limitation of working hours	62 (31)	13 (25)	14 (37)	14 (31)	21 (32)
15	Error management	54 (27)	13 (25)	5 (13)	10 (22)	26 (39)
16	Ritualized time-out periods	52 (26)	18 (35)	9 (24)	7 (16)	18 (27)
17	Institutionalized exchange forums (i.e., quality circles or Balint groups)	40 (20)	20 (40)	9 (24)	2 (4)	9 (14)
18	Supervision, coaching, psychotherapy	30 (15)	9 (18)	9 (24)	6 (13)	6 (9)
19	Long-time, nonprofessional fields of interest	28 (14)	14 (27)	3 (8)	3 (7)	8 (12)
20	Self-discipline in connection with diagnosis and information	24 (12)	5 (10)	4 (11)	3 (7)	12 (18)
21	Prioritization of basic needs	24 (12)	4 (8)	2 (5)	10 (22)	8 (12)
22	Spirituality	18 (9)	5 (10)	8 (21)	3 (7)	2 (3)
Resilience strategies 2: Useful attitudes						
23	Acceptance and realism	112 (56)	28 (55)	25 (66)	20 (44)	39 (59)
24	Self-awareness and reflexivity	106 (53)	44 (86)	12 (32)	22 (49)	28 (42)
25	Active engagement with the downside(s) of the medical profession	94 (47)	32 (63)	21 (55)	17 (37)	24 (36)
26	Accepting personal boundaries	88 (44)	34 (67)	21 (55)	9 (20)	24 (36)
27	Recognizing when change is necessary	66 (33)	13 (25)	21 (55)	13 (29)	19 (29)
28	Creating inner distance by taking an observer perspective	48 (24)	8 (16)	9 (24)	18 (40)	13 (20)
29	Appreciating the good things	48 (24)	18 (35)	11 (29)	10 (22)	9 (14)
30	Interest in the person behind the symptom	36 (18)	10 (19)	6 (15)	9 (20)	11 (17)

(e.g., "freeing myself physically") and facilitated a change of mental focus:

> Today I play golf, like every Wednesday. It's an anchor for me. All the problems I have are whittled down to one single problem: how to hit the ball. And that lasts four hours (general practitioner, 54).

Alongside physical activity, participants engaged in cultural matters (music, literature, art) to extend horizons and put professional concerns into perspective. Cultural activities were also a rich source of aesthetic pleasure and harmony. As one participant noted:

> You need something you can steep yourself in. For me music is that kind of thing, it has to do with ideal beauty. Even when things are not going too well otherwise, it takes me out of myself (psychiatrist/neurologist, own practice, 58).

For some respondents, compensatory activity transcended the limits of a mere hobby. These individuals reported that long-time nonprofessional fields of interest provided a "second leg to stand on" (gynecologist, 53) and frequently called for the investment of substantial time resources.

Through the experiences of success that they enabled, compensatory activities contributed much to participants' feelings of inner freedom. Respondents did not simply pursue hobbies when they had time to do so. Rather, they made sure to find the time they needed to pursue the hobbies that were important to them.

Quest for and cultivation of contact with colleagues. The exchange of views and experiences with colleagues was the central resource for reduction of professional insecurity.

> What I always say is, if something's not going well, call the colleagues who sent the patient to you and discuss the matter with them. This way you can build up a network that maybe takes up some of your time but also makes your name familiar and gives you a tremendous degree of human security in your work as a physician (head physician, cardiology department, 59).

Feedback from colleagues was also seen as a source of, and an incentive for, enhanced professional knowledge and expertise at the routine level. Exchanges with colleagues served as a direct way of reducing emotional pressure caused by participants' own fallibility and inadequacies in dealing with difficult patients and complex medical issues.

> Things that help me stay healthy? The friendships and professional alliances that one enters into. Cultivating a network means sowing the seed and seeing that in some places it bears fruit and in others it doesn't. Strategically, the best bet is perhaps to sow the seed as widely as possible, in other words to go in search of contacts (neurosurgeon, own practice, 47).

Participants revealed efforts toward conscious decisions made in a spirit of fairness (i.e., with regard to payment, distribution of night shifts, and extra work), friendly gestures, and mutual support. One in five respondents also made use of institutionalized exchange forums like quality circles or Balint groups.

Cultivation of relations with family and friends. Reliable family relations and friendships represented an oasis of stability and understanding. They provided relaxation through a change of focus and were beneficial for putting things in perspective.

> When my children say, "Mummy, you're hardly ever home these days," I know things are not as they should be. When I really am home and we do something together, I know that I can only communicate properly if I have reserves of strength. Whenever I'm on my last legs, I lose my bearings—at work as well (senior physician, oncology department, 52).

Physicians also found it helpful to have relationships with people who are prepared to bring them "down to earth" when necessary.

> It's important to find the right balance between self-overestimation and a lack of self-confidence. You need an environment of family and friends who will tell you when you start behaving badly. My wife is my severest critic (general practitioner, 59).

The cultivation of these relations normally took place in the framework of ritualized contexts (e.g., going shopping together, sporting activities, lunch with the family, weekly meetings with friends in the local pub) and via conscious presence (e.g., "When I'm home, I'm not anywhere else").

Proactive engagement with the limits of skills, complications, and treatment errors. Participants recommended owning up to uncertainties about how to proceed and not trying to conceal errors one has committed. Recommendations for addressing these challenges ranged from spontaneous phone calls between colleagues to informal inquiries at lunch with fellow physicians to regular, established quality circles or explicit error management meetings openly addressing misgivings about treatment decisions, actual errors, or unanswered questions. Participants' comments supported the notion that physicians accustomed to communicating uncertainties and complications openly and proactively enhance both their emotional and professional security by doing so. Also, the feeling of having learned from one's mistakes or enhancing patient security by frankly addressing such problems made it easier for many physicians to move on after an adverse event and not to agonize fruitlessly over any complications and mishaps for which they were partly or entirely to blame.

Personal reflection. Consciously and regularly taking time out to reflect on one's personal situation in its entirety was another health-promoting strategy.

> I regularly ask myself questions like: Where am I right now? Where do I want to go? What do I find uncongenial? Why am I dissatisfied? What can I do to change that? Another good idea is to do this at a particular time. Ask yourself: Where were the perks last year? Where are they this year? (senior dentist, maxillary surgery department, 47).

For many physicians, the motives for attempting to define one's own situation and to change track in the near future (e.g., cutting down on working hours, changing jobs or specializing in a different sector, cultivating extraprofessional resources) were perceptible physical repercussions, feelings of general disinclination, or obstinate doubts about how meaningful their lives were.

Self-demarcation. Physicians' ability to maintain clearly defined boundaries between themselves and their patients and to draw a clear line between themselves and their colleagues/superiors was considered essential by many respondents. These lines of demarcation could be professional (e.g., "What do I stand for professionally and what do I reject?"), temporal (e.g., "I refuse to be available at all times"), or personal (e.g., "Who do I agree to associate with and who not?"). The conscious management of proximity and distance in the patient–doctor relationship was prophylactic and relieving in various ways. Refusal to collude with unrealistic expectations about healing prospects and the provision of assistance prevented disappointments and accusations from the patient. Participants also drew conscious demarcation lines out of loyalty to individual professional standards. As such, they served to protect professional identity and encourage a feeling of self-worth. The clear definition of boundaries helped physicians with a practice of their own to enhance their professional profile and attract a body of patients with whom they had a higher degree of affinity. This increased the likelihood of opportunities for experiences of efficacy in the doctor–patient relationship. Accordingly, reliable demarcation mechanisms emerged as one of the basic prerequisites for resilient, long-term doctor–patient relationships, in accordance with the motto "demarcation is better than disillusion."

When dealing with boundary-violating patients, participants recommended assuming an observer position and

looking at the situation with inner detachment:

> I look at things from the outside and never lose my composure. My motto is, All right, I might let this really annoy me, but then again I might not (assistant physician, dentistry department, 27).

Cultivation of one's own professionalism. Continuing education, reading medical literature, or attending quality circles played a decisive role in the assurance of professional efficacy.

> The free time you need to attend congresses is time that I take to prevent myself from losing interest. Then you're simply not there and people notice it. They say, "You weren't available, you were on one of those refresher courses." But that's the way it is. I say, "If I don't go on those courses, you'll have a doctor who's behind the times and that's the last thing you want." I insist that you can't have one without the other (psychiatrist, own practice, 61).

In addition to continuing education, one in five participants also took advantage of external assistance in the shape of supervision, coaching, or psychotherapy.

Self-organization. The primary features of self-organization were the creation of individual routines and of time structures for dealing with bureaucracy and regular chores. Both reduced the feeling of depletion caused by pointless repetition of tasks and extra work and had a positive effect on the subjective experience of efficiency. Self-organization also involved systematic delegation of activities and the ability to set priorities.

> An internal list of priorities … is very important for me. It's an instrument for identifying what's essential and also for self-preservation. Otherwise, if I am asked to do things that are either genuinely urgent or are described as urgent by others, I will be tempted to agree automatically instead of asking myself whether it's really so important or whether I have even more important things to do (senior psychiatrist, 47).

Limitation of working hours. Adherence to a time table was regarded as an essential feature of self-care that in the medium term benefits both patients and employers. The prerequisites for limitation of this kind were overcoming the belief in one's own indispensability and conscious formulation of resolutions.

> I have to plan and organize my leisure time as if it were important working time, otherwise the whole thing collapses. I invariably have so much to do, not least in the research sector, that I could easily work nonstop 24 hours a day. That's why there has to be a limit, a point at which I say: "Okay, that's it for now." And that point has to be laid down beforehand and stuck to (senior neurosurgeon, 39).

Ritualized time-out periods. Participants' strategies for guaranteeing regular breaks from work ranged from unchanging vacation schedules to power naps or fixed times for meals or snacks. Firmly established time-out routines on a daily, weekly, or annual basis took some of the pressure out of related decisions and justifications (e.g., "Under what circumstances is it okay to keep patients waiting?" "Can I really go on vacation when there's so much to be done?"). Respondents used time-outs to create distance and enjoy a (brief) respite. Accordingly, physicians felt that these breaks played an important part in maintaining professional stamina.

Spiritual practices. Finally, many participants (particularly psychiatrists) indicated that they obtained support and regeneration from spiritual practices or regular meditation.

> My advice is, if you're interested in meditation, yoga, or any of those methods for greater concentration and awareness, then follow it up. If you're not, then you should take an interest—and quickly! (neurologist, own practice, 58).

Useful attitudes

We also asked participants about any attitudes that helped them achieve greater inner freedom in dealing with everyday stressors.

Acceptance and realism. Chief among resilience-promoting attitudes was the ability to refrain from wishful thinking and to accept external realities. Realistic expectations vis-à-vis patients, general parameters, and the professional environment acted as a foundation for coping with stress effectively. They guarded against disappointments, resentment, and self-blame and protected against wasting energy on futile attempts to change things.

> What really helps is to focus on your core activity and to accept the fact that our job doesn't only have to do with operating and looking for medical solutions but also involves a great deal of paperwork. Once you've accepted that and let go, you feel much better. You have to say, "It's 10 o'clock at night and this patient has to go and break his ankle. But I'm going to help him to get over it." Approaching things this way has done me good. It's no use saying, "Why did he have to play football at this time of night?" or "Why does he turn up at 2 o'clock in the morning with his bellyache, although he's had it for five days?" It's a change of mind-set. And it makes me feel better (senior general surgeon, 44).

Self-awareness and reflexivity. For all disciplines, awareness of personal schemas (notably in terms of professional proficiency) and their roots in one's life history, as well as the ability to evaluate life experience, were significant factors. Frequently, crucial events in the lives of these physicians had prompted reflection and self-recognition (e.g., "How do I function?" "Does it have to be that way?") and had become turning points in personal self-care.

Active engagement with the downside(s) of the medical profession. Participants noted the importance of addressing challenges realistically, especially the express rejection of regarding oneself as a victim.

> Ineffectuality is something I produce myself, not what my environment does to me. Whenever the administrative side of the job starts getting on top of me, I ask myself should I expose myself to that or not, should I write to my local [Member of Parliament] or whatever. In such cases I get obstinate and resentful (assistant psychiatrist, 40).

Recognizing when change is necessary. The inner freedom and flexibility to change one's professional location or position, especially in the face of intolerable permanent stress with no prospects of change, was another important attitude. Notably, younger physicians indicated that staying too long in a debilitating or unsatisfactory first job hinders the development of professional self-confidence. They noted that, in such cases, a move at the right time can put a physician back on track.

Appreciating the good things. This strategy referred to the ability to perceive positive events that occur in everyday professional life and not to take them for granted. Participants

registered with conscious gratitude a number of characteristics, including degrees of freedom in the exercise of one's profession, good health, and the opportunity to pursue a meaningful activity. Focusing on these assets was felt to be an important factor in achieving a generally positive attitude toward life and work, which in turn engendered positive experiences with others, and was thus a source of personal gratification.

Discussion

The data reported here confirm resilience strategies identified in the literature.[24] They further highlight the fact that long-term job satisfaction mainly relies on gratifications derived from medical and relational efficacy. These in turn are fostered by practices and strategies described above. Put briefly, our findings suggest that whether the stressor in question is a demanding patient, excessive paperwork, or time pressures, a well-diversified pool of social resources and fields of interest, together with realistic expectancies and good self-knowledge, will support sustainable coping. This, in turn, creates experiences of efficacy that confirm health-promoting attitudes and practices.

This circular process between resource pooling and stress resistance is well described in the Conservation of Resources Theory.[25] In this theory, burnout is a continuous process caused by ongoing, usually low-level, resource depletion resulting from either actual loss of resources or the failure to acquire fresh resources after significant resource investment. Paradoxically, resource loss is also a consequence of energy-saving measures. Both physical and emotional exhaustion frequently lead to social withdrawal, physical inactivity, or adherence to mental and behavioral routines. Though intended as a way of "recharging the batteries," the likely consequence is a feeling of being drained.

Our findings are useful for individuals and groups seeking to develop physician resilience through preventive behaviors. Programs that take these findings into account should sensitize physicians to defensive negative spirals resulting from strain, retreat, and a shrinking resource pool.[26] In addition to relaxation techniques and stress-related coping strategies, physicians should learn to reflect on the extent to which social, physical, and mental resources are actually available. What resources are well cultivated or neglected? The attitudes and practices identified in this study may serve as a blueprint for this kind of reflection. In the next stage of prevention, the logic of positive resource spirals can be used: Physicians who take the time to reinvest in neglected resources in spite of perceived lack of time can be encouraged to observe the positive effects on well-being and professional efficacy. As our study demonstrates, a diversified resource landscape facilitates effective and discriminating decisions about problem-oriented, as opposed to emotion-centered, coping strategies. These, in turn, reduce the perceived stress level and leave more capacities for self-care. Continuous self-awareness as supported by mindfulness-based stress reduction is an important precondition for this process because it helps avoid stereotypic reactions and motivational incongruity.

The reported findings are subject to methodological limitations. First, the self-selection of the sample may lead to a positive bias toward currently resilient physicians. However, this bias is advantageous in terms of the research question. In this case, voluntariness and motivation to share personal insights and experience are indispensable. Second, the frequency of coded attitudes and practices does not reveal their relative importance for individual health. Third, like all survey data, the answers given may be state-dependent. We cannot claim that they are exhaustive. Last, all coded strategies rely on self-reports. Their behavioral validity has not been proven. However, only strategies that could be exemplified by the interview partner were coded.

Conclusions

What characterizes resilient physicians? As our study demonstrates, it is their ability to invest personal resources in a way that initiates positive resource spirals in spite of stressful working conditions. Enriching traditional stress management approaches by encouraging this dynamic would thus appear to be a promising approach. Developing physician resilience is critical not only for physicians themselves but also for the patients they serve.

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Appendix 1

Field Manual Guide for 200 Semistructured Interviews With German Physicians About Their Resilience Strategies, 2010–2011

1. General demographic data: professional experience, specialization, hierarchical status, marital status
2. On a scale from 1 to 10 (1 = extremely negative and 10 = extremely positive), how much enjoyment do you get from your work? What exactly do you like about your job?
3. If you had a second chance, would you still want to be a doctor? If so, why?
4. Which are the major challenges of your profession to your mental and physical health and job satisfaction? How successful would you consider your personal coping?
5. How can a physician remain healthy and satisfied? Which strategies do you apply? Which strategies do you find with your colleagues?
6. If a medical student asked you what he/she could do to prevent burnout: Which advice would you give? Which mistakes you made yourself would you warn against?
7. Do you know feelings of burnout? How do you deal with them? What helps you out?
8. What are your personal risk situations?
9. Do you know colleagues who suffer from burnout? How do they deal with specific professional stressors?
10. Imagine a burnout prevention you would feel interested in. What would it have to look like?