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Chapter

Emotional Intelligence and Leadership Development: Implications for Family Medicine Residency Programs

Seul Jee Ha, Sridhar Reddy Patlolla and Thomas Robert Wojda

Abstract

High-level emotional Intelligence (EI) and leadership skills are crucial for physicians to prioritize responsibilities and successfully interact with numerous stakeholders in an every-increasingly complex healthcare system. Although recent research has shown an association between emotional intelligence and leadership, few studies have examined this relationship among family and primary care physicians. Family physicians play an essential role in the evaluation and treatment of illnesses as well as health and wellness promotion. These providers are often the first point of contact with the patient and the use of emotional intelligence and development of leadership abilities of primary care physicians are vital to the maintenance, sustainability, and optimization of a medical organization. Furthermore, high- level emotional intelligence and sharpened leadership skills may aid the patient-provider relationship and dealings with coworkers. This chapter explores key themes of EI and physician leadership as it pertains to Family Medicine Residency.

Keywords: emotional intelligence, family medicine, leadership, self-awareness, burnout

1. Introduction

Medical organizations are under pressure from consumer and regulatory demands to reduce costs and boost quality and value. Patient-centered medical homes, accountable care organizations, and various other advances will have substantial influence on the future of the US health care system. These modern paradigms involve high-level cooperation among physicians and various stakeholders. Unfortunately, physicians have often been judged by their inability to effectively collaborate. What's more comparatively little consideration has been given to collaboration as it pertains to traditional physician education and career advancement [1]. The reasons behind sub-optimal collaboration are multifactorial; however they may be more broadly divided into personal and structural reasons. On a personal level, it may be that physicians traditionally reveled in self-sufficiency.

Also, persons attracted to and selected for medical careers may have been customarily independent, self-directed, and assured [2]. Because physicians basked in autonomy, they may have inadvertently propagated a culture that prioritizes individuality. Subsequently, today healthcare systems are repeatedly designed like silos, which further undercut teamwork [1, 3–5]. Consequently, any effective health network must concentrate on a move from a philosophy that the physician is the sole provider to one that fosters and promotes strong relationships and effective communication [2]. Strong physician leadership is vital to the implementation and success of this shift.

Emotional intelligence (EI) is the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others [6]. It has been considered an essential leadership proficiency [7]. In medicine, its applicability may range from the boardroom to the patient's bedside [7, 8]. There are various representations of different evaluative methods for EI. One of the more mainstream depictions includes self-awareness, self-regulation, social awareness, and relationship management (**Figure 1**) [9]. The cells are further populated by component competencies that define EI (**Figure 1 legend**) [10].

EI, rather than being something one is born with, is a set of skills that can be improved upon to boost performance [11, 12]. This is in stark contrast to hard to define views of professionalism or leadership as an EI template is clear, teachable, and allows for an honest assessment of where one is and where one needs to be in regards to development. Ample evidence supports the importance of EI as a key leadership competency in business [13–15]. Conversely, far less attention has been paid to EI as it pertains to health care.

The remainder of this chapter will focus on EI and its implications on Graduate Medical Education (GME) specifically Family Medicine Residency. The chapter will examine the association between EI and leadership traits among family physicians as well as the effects of different EI implementation strategies such as coaching, Balint Seminars, advisor and focus groups, and their impact on physician trainees as well as further commentary on future best practices.
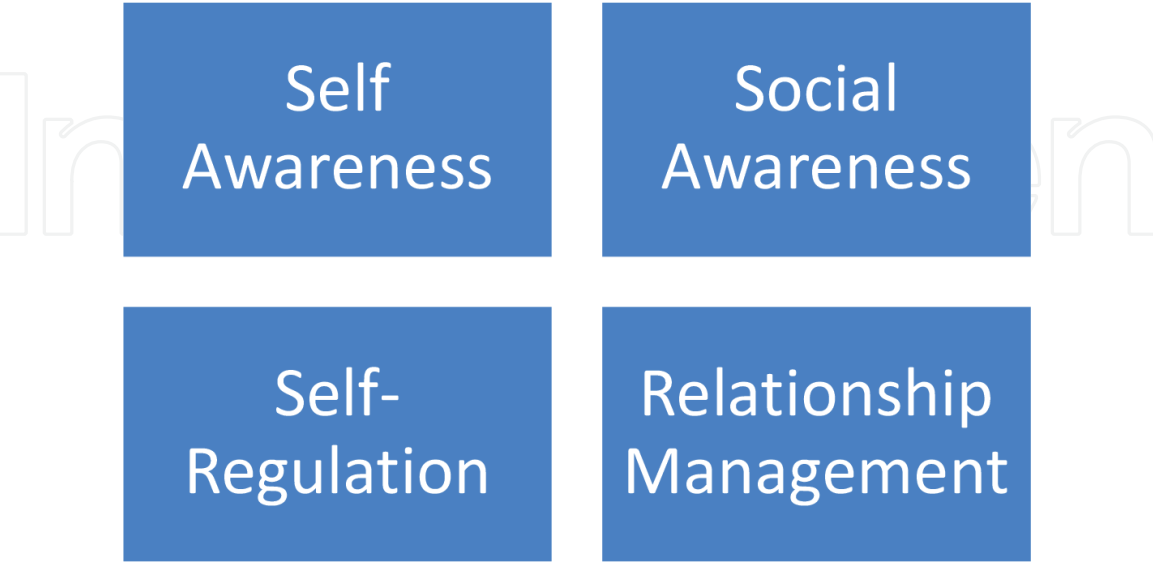
Self Awareness	Social Awareness
Self-Regulation	Relationship Management

Figure 1.
Four components of emotional intelligence. *Further divided into competencies self-awareness: Emotional self-awareness, accurate self-awareness, self-confidence; social awareness: Empathy, organizational awareness, service orientation; self-management: Self-control, trust-worthiness, conscientiousness, adaptability, achievement orientation, initiative; social skills: Influence, leadership, developing others, communication, change catalyst, conflict management, building bonds, team work and collaboration.

2. Emotional intelligence and leadership traits among family physicians

Emotional intelligence and leadership traits are intimately linked [16–18]. A common thread that weaves these explorations is the idea that leaders with high EI are more effective in management than those with low EI [17, 19]. Leadership traits may be illustrated on an organizational and personal level (**Figure 2**) [16, 20].

EI requires self-discipline, self-efficacy, self-evaluation, and self-criticism, which enhances leadership and job fulfillment [21–23]. What's more, through the enrichment of strong relationships with their patient's and colleagues, any physician may be considered a leader. Therefore, it behooves the physician to foster these aptitudes to deliver excellent care [16]. Moreover, physicians' EI has bearings on their interactions and relationships with patients. Although it is crucial to exhibit competence in medicine, insufficient EI may hinder the ability to fully understand the complexities of a patient's being during their evaluation and treatment. In fact! Compared to physicians with higher EI those will low EI are less likely to foster empathic connections with their patients and appreciate or make out their emotions [23, 24]. EI may facilitate the patient–doctor rapport [22–24]. It shapes judgments concerning patient management, encourages self-control in demanding circumstances, and the avoidance of emotionally charged behaviors and decisions. Physicians who can identify and manage their emotions can remain calm when faced with patients who are under stress, anxious, or trigger the provider in some way. EI will allow the physician to convey their thoughts and feelings empathically and without judgment to the patient, which affords the most advantageous care [25].

EI plays a part in the physicians' ability to acclimate well with other people, optimize team-based care, and respond appropriately to external pressures. Healthcare providers with noticeable levels of EI may drive forward institutional missions. Besides the personal and relational aspect of EI, there may also be administrative benefits. For example, it may lower hospital costs by reducing burnout, medical errors, and litigation [23–25].

Family physicians are indispensable health-care workers who evaluate, treat, and manage acute and chronic diseases, promote health and wellness, and enhance the well-being of patients and communities through the application of the therapeutic relationship. Because family physicians may be a patient's first and potentially only contact with a healthcare provider, the development of EI for primary
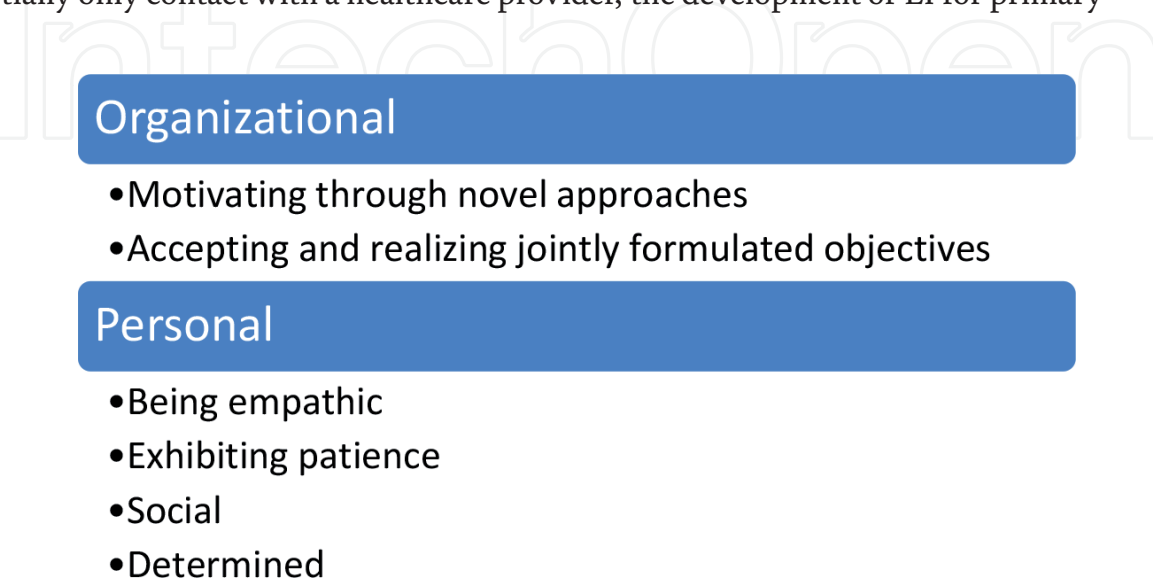
Organizational
- Motivating through novel approaches
- Accepting and realizing jointly formulated objectives

Personal
- Being empathic
- Exhibiting patience
- Social
- Determined

Figure 2.
Organizational and personal examples of leadership traits.

care physicians is essential to the healthcare system. What's more, a high level of EI in family physicians may help in team-based care [22, 25].

A study by Coskun et al. aimed to determine the association of different variables and *trait emotional intelligence* (TEI). TEI consists of four basic factors that include: well-being, self-control, emotionality, and sociability [26]. This was a descriptive population-based study conducted from September 2013 to December 2014. The total population comprised 20,185 family physicians working at family healthcare centers across the seven regions of Turkey [27]. Women scored higher than did men for well-being, emotionality, and global TEI, which reflect similar GME outcomes. For instance, female medical students have exhibited significantly higher EI, empathy, and utilization of emotions than their male counterparts [28]. Society and environment may play a crucial role in the way women construct their personal and business lives. In this study, the sex differences gap was not particularly large, which may point to a shift in societal sex roles. Still, higher EI and leadership skills promote empathic communication, trust, and positive interactions between physicians and patients regardless of sex; therefore, both female and male physicians may benefit from training related to improving EI and leadership. Additionally, significant differences were found in well-being, self-control, and emotionality according to age and health-care experience. There may be a positive correlation between EI and experience, which hints that EI raises as a person advances through their career [24]. It may also be that as people age they are more likely to gravitate toward emotions that give them joy and avoid negative emotions if possible [23, 24]. Inexperienced physicians may struggle to adapt to their new role, thus displaying decreased EI. Fascinatingly, leadership traits of family physicians have not shown to vary significantly based on age or years of experience. Although it may be assumed that advanced age and years of experience would be associated with increased leadership traits, these variables appear to exert an insignificant effect on leadership styles in general [29]. Tenure has no effect on leadership ability either [18]. It may well be that age and experience optimize results with leadership experience.

According to Goleman, the most effective leaders are those who possess emotional intelligence [21]. Emotional understanding, emotional management, empathy, social flexibility, and adaptability are essential for individual growth and development as well as indispensable for societal regulation in the work setting [30]. Whereas low EI may lead to less effective teamwork, diminished work satisfaction, and heightened anxiety among physicians, higher EI preserves good physician–patient relationships, superior teamwork and communication skills, healthier stress management, and top-quality commitment and leadership [18, 20, 23, 31]. Personal well-being, empathy, teamwork, and leadership skills are all staples to a physician's work [17–20].

Youthful physicians with less experience may have lower EI scores compared to older, more experienced ones, which implies that EI may increase throughout training. GME programs that integrate EI and leadership competencies allow for students to attain these skills earlier and perhaps most importantly provides a platform to generate meaningful results [19]. This curriculum needs to be supplemented by coaching, mentorship, or other directives to ensure sustainable change in self-awareness and emotional intelligence among physicians.

3. Coaching emotional intelligence

The Accreditation Council for Graduate Medical Education (ACGME) mandates that residents be taught and assessed in six general competencies, which include:

patient care, medical knowledge, practice-based learning and improvement, inter-personal and communication skills, professionalism, and systems-based practices [32]. EI has been proposed for teaching interpersonal and communication skills as well as professionalism [33]. EI contains the skill to carry out precise interpretation on the subject of feelings and the aptitude to exercise emotions and emotional knowledge to boost thought [34]. Moreover, abundant positive correlations that link EI with desirable outcomes exist (**Table 1**) [35].

Although much is known about the numerous positive impacts EI may have, there is still much to elucidate in regards to proper implementation, maintenance, and enhancement of EI skills. In a quasi-experimental design, with an intervention and control group composed of one class each of family medicine residents researchers assessed the Emotional and Social Competence Inventory (ESCI), a 360-degree EI self and peer reported survey for 12 EI competencies (**Table 2**) to determine if coaching would enhance emotional intelligence [36].

Unfortunately, there was no significant difference in ESCI scores in the intervention versus control group. Interestingly, teamwork significantly declined. Regrettably, a drop in aspects of EI during training is not unique. Specifically, Wagner et al. found a decline in self-reported medical student EI scores [37]. A deterioration in humanitarianism, enthusiasm and idealism experienced by medical students has also been ascribed to the fall of EI throughout training [38].

Despite the lack of significance, this study was plagued by implementation barriers, which are important to understand. First, no faculty were given protected time for coaching. Second, resident's comments suggested that increasing EI was not a priority for them at this juncture in their training. Third, resident's EI scores were already relatively high; therefore additional time spent may not have been felt to be justified. Finally, there remains a lack of validity of ESCI for the medical community.

It is vital that if EI is to be tested and enhanced in a residency program that it be implemented properly. For example, EI coaching should have built-in protected time. It may be beneficial for residents toward the end of training when they appear to be less stressed and more focused on future goals. Alternatively, in view of its time-intensive make-up, EI training could selectively center on residents with low EI ratings. Post-residency it may be provided as continuing medical education for stress management, remediation of deficiencies, or advanced training.

It should be stressed that EI coaching requires a high level of trainee engagement and commitment. This course may include cognitive behavioral assignments between coaching sessions. An EI training session may include a trainee's initial statement of ideal career goals along with a guided review of EI survey results.

| Leadership Success |
| Employee Self-Esteem |
| Job Satisfaction |
| Job Commitment |
| Teamwork |
| Customer Satisfaction |
| Decreased Turnover |
| Less Work/Family Conflict |

Table 1.
Positive outcomes associated with emotional intelligence.

Trait	Definition
Emotional self-awareness	Recognizing one's emotions and their effects
Emotional self-control	Keeping disruptive emotions and impulses in check
Adaptability	Flexibility in handling change
Achievement Orientation	Striving to improve or meeting a standard of excellence
Positive Outlook	Persistence in pursuing goals despite obstacles, setbacks
Empathy	Sensing others' feelings/perspectives, taking active interest
Organizational Awareness	Reading group's emotional currents and power relationships
Coach and Mentor	Sensing other's development needs and bolstering their abilities
Inspirational Leadership	Inspiring and guiding individuals and groups
Influence	Wielding effective tactics for persuasion
Conflict Management	Negotiating and resolving disagreements
Teamwork	Working with others toward shared goal, creating group synergy

ESCI norms apply to other ratings only and are based on a North American sample of workers all ages and job levels. Achievement orientation is the highest rated competence in the norms, and self-awareness the lowest [36].

Table 2.
Emotional intelligence competency definitions.

The coach could then emphasize EI strengths of the trainee while simultaneously employing schemes to build upon areas of improvement for the trainee. The trainee and coach would then set performance goals, negotiate assignments, time frames, frequency of coaching sessions, and add or modify selected goals based upon progress.

EI has been proclaimed fundamental for leaders who are coping with change management [39]. This skill is all the more important as it relates to physicians and the current health care landscape. Even so, much work remains to be done to provide clear-cut proof that investment in EI training is warranted. A reasonable next phase would be to substantiate approaches that consistently boost physician EI. Advantages and disadvantages to implementation are shown (**Table 3**).

Potential research ought to emphasize the elaboration of an expedient reasonably priced 360-degree EI instrument for physicians. Ideally, this would be enhanced by providing established external validity measures that further correlate medical outcomes, patient satisfaction, and physician satisfaction. Multi-institution collaboration may possibly evaluate EI development in distinctive training paradigms and fields of practice. Perhaps longitudinal research will explore EI development post training, specifically in relation to physician impairment or disruptive behavior. If EI tools demonstrate sustained value in the domains of physician selection, education, training, and remediation, they may well become more generalizable and important to the medical community as a whole.

Advantages	Disadvantages
Validated 360-degree assessment instruments	Time and labor intensive
Access to well-developed training models	Expense
Published norms	Lack of physician norms

Table 3.
Potential advantages and disadvantages to emotional intelligence training.

4. Emotional intelligence, feelings, responses, and burnout

Hungarian-born British psychoanalyst Michael Balint pioneered Balint groups among practicing physicians in the 1950s to explore the doctor–patient relationship [40]. Balint groups help make physicians aware of their blind spots during their interactions with patients as well as use their feelings and responses to patients as instruments to better comprehend the physician–patient relationship [41]. These seminars consist of longitudinal experiential learning over a period of time as well as a group of residents who periodically meet and are accompanied by two Balint leaders. A case that bothers one of the residents is presented, which is followed by a discussion from the point of view of the patient, doctor, and their relationship with the caveat that medical care not be discussed [42–44]. After, Balint leaders help the residents in the expansion, consideration, and illumination of their thoughts and feelings related to the case from both the patient and physician's perspective. Examples of benefits and detriments to these sessions are found (**Table 4**) [45–47].

Given Balint training is closely linked with the ability to understand and regulate emotions, a quasi-experimental observational study aimed to measure the effects of Balint seminars on EI and burnout among internal medicine residents [48]. Bi-weekly Balint seminars were delivered throughout the academic year. Two major outcomes were measured using validated instruments: EI using the Mayer Salovey and Caruso Emotional Intelligence Test (MSCEIT) and burnout using the Maslach Burnout Inventory (MBI). The MSCEIT, based on a four-branch model of EI, is the most comprehensive measure of EI as an ability [49]. The MBI is the gold standard for measuring burnout [50]. Depictions of these instruments are found in **Figures 3**–**5** respectively. A total of 20 Balint seminars were delivered; however on average, residents attended six sessions. The total post-Balint EI score improved among women versus men. Many residents showed severe burnout levels on at least one of the three domains of burnout at baseline; however, Balint seminars did not have any effect on any of the burnout domains even when accounting for gender, attendance or training level.

Evidence suggests no predetermined gender differences in EI ability among medical residents according to specialty [51]. Nevertheless, Balint seminar results may be affected by gender, learning style, and training year. Indeed, Balint interventions may be more effective among women than men [52]. The openness of women to such educational activities could explain why the female residents improve their EI. Also despite lack of statistical significance in this study, EI still improved in a small number of trainees, which could be due to various learning styles, personality and level of training. Criticisms of Balint seminars include a lack of focus on problem solving and firm structure that may not meet residents' developmental needs [53]. Different levels of training may explain the non-uniform effectiveness of this intervention [54].

| Pros	Cons
Communication skills and professionalism	Time Consuming
Awareness of feelings/values, develop appropriate treatment based on psychological needs of patient	Significant Resources required
Positive effects on self-efficacy, burnout and job satisfaction, breaking bad news, empathy	Measurable outcomes still controversial

Table 4.
Pros and cons of Balint group.
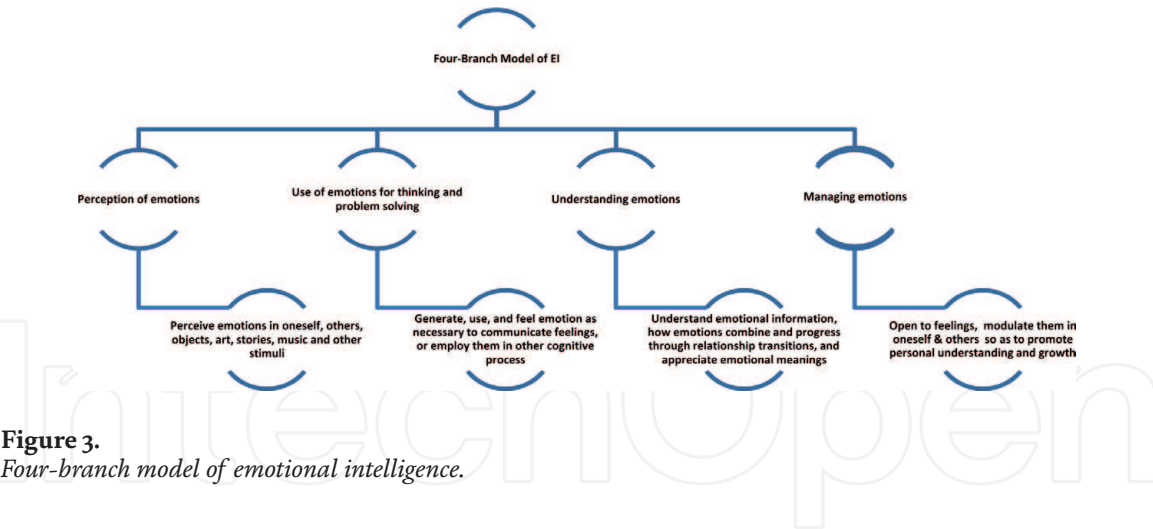
Figure 3.
Four-branch model of emotional intelligence.

Score	Meaning
<69	Develop
70-89	Low average score
100-109	High average score
110-119	Competent
120-129	Strength
>130	Significant Strength

Figure 4.
*Scoring system of Mayer Salovey and Caruso emotional intelligence test (MSCEIT). *The MSCEIT provides 15 main scores: Total EIQ score, two area scores, four branch scores, and eight task scores. It can be scored using both the consensus and expert scoring methods. There are guidelines on how to interpret the score. The average MSCEIT score is 100 with a standard deviation of 115. There are 7 score ranges based on empirical percentiles.*
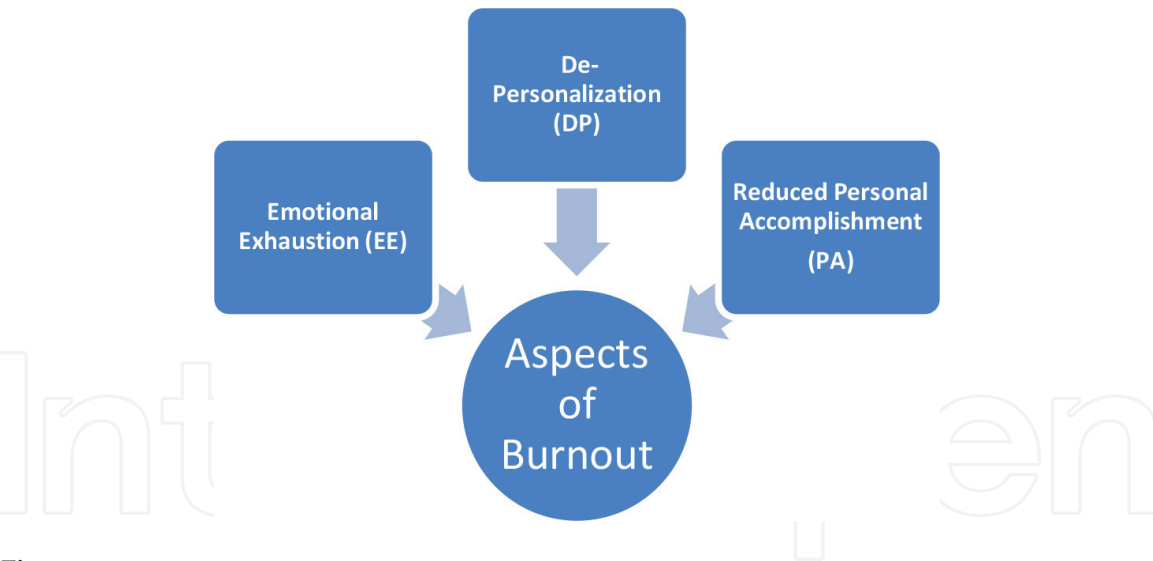

Figure 5.
Aspects of burnout according to Maslach burnout inventory.

Finally, EI measurement immediately post-intervention may be suboptimal. In two studies, the influence of an EI educational intervention was only measurable as a delayed positive effect several months after the intervention [55, 56]. Therefore, interventions to improve EI and decrease burnout levels may have more long term effects that may not immediately come to light.

5. Emotional intelligence, wellness, and cultural transformation

Physician burnout remains a sobering affair [57, 58]. It may be particularly egregious in medical residency [59]. Family medicine, internal medicine, and

emergency medicine residents may be at particularly high risk given they are often on the "front lines" of care [60]. The side effects of burnout may include: unethical and bad-mannered behavior [61], patient-care mistakes [60, 62], and physicians quitting their practice [63, 64].

The benefits of cultivating psychosocial proficiencies in medical learners may include mitigation of contempt, anxiety, and improvement in clinical ability [65]. It may also further reduce grave medical oversights as well as better-quality bonds with contemporaries and patients [66]. Rather than focusing on the diagnosis and treatment of emotional fatigue and depersonalization among residents, there has been a more recent push in the direction of the formation of a scholastic philosophy of wellness [67]. An alternative residency culture has been proposed as a framework [68]. **Figure 6** is a schematic representation of an emotionally intelligent learning community [69].

With physician burnout a grave concern and a scarcity of evidence on successful tactics to diminish it during residency, an intervention to lower burnout through an emphasis on wellness, safety, and interpersonal skills in a family medicine program was proposed. In a mixed-methods case study that utilized results from three quantitative self-reported instruments for well-being, along with content analysis of transcripts from 20 focus groups and 33 resident advising sessions described experiences of family medicine residents in a single site enrolled between July 2007 and June 2012 [69].

In this intervention, no statistically significant quantitative differences in the well-being of residents compared with the family medicine faculty and staff was discovered; however residents in general recognized the nurturing culture of the program. While individuals' commentaries about experiences during residency were unique, analysis revealed six recurrent themes (**Figure** 7). Although well-being scores for residents and the community did not change during the intervention, resident feedback over the five years showed they acknowledged purpose of the curriculum changes, recognized the new curricular practices, and respected the importance of physical and emotional wellness.

It should be pointed out that not every learner will embrace the innovations of emotional intelligence, leadership-development, or other form of wellness curriculum and some may even have utter contempt for the methodology. Still, even being able to articulate this disdain creates a culture of safety and helps dissipate the "culture of silence" that is all too often pervasive in academic medicine [70].
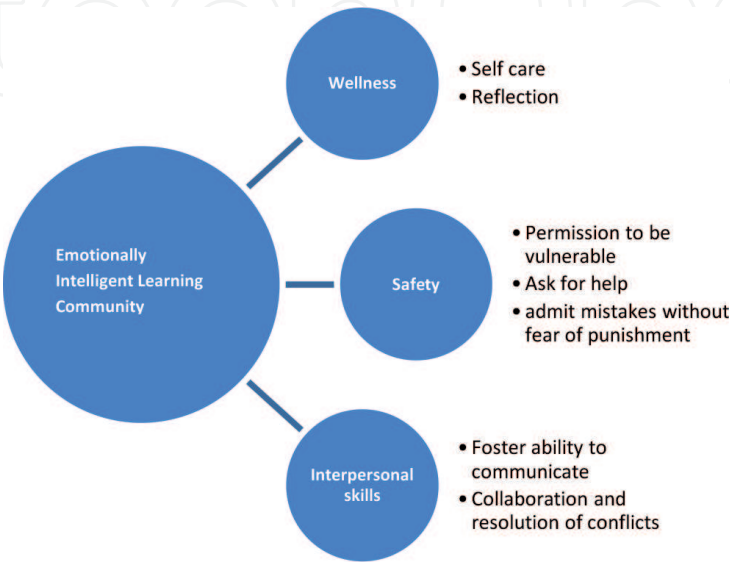

Figure 6.
Representation of an emotionally intelligent learning community.

Figure 7.
Six recurrent themes of an emotionally intelligent learning community.

What's more, scholastic culture change utilized by a program that focuses on EI may provide ample time and space for residents to reflect on what it means to be a doctor without any modifications to the day-to-day clinical obligations of the residents. Lastly these interventions may help regulate resident's feelings as they move between different stress levels throughout their training [71].

It has been difficult to find interventions that reduce burnout during residency. Limited evidence supports duty hour reductions, a revised grading system, mindfulness training, and self-development groups to prevent burnout in medical students and residents [72]. An electronic reflective writing portfolio has been created as a professional identity development tool, which provides opportunities for residents to explore work-life balance, resiliency, and burnout prevention [73]. There are calls for GME to reform the way medicine is taught and to place more emphasis on the heart and mind of a clinician [74]. Future research should include multisite studies and control sites with less emphasis on well-being as well as studies that follow residents into practice to determine if long-term benefits exist.

6. Conclusion

In summation, there remains a scarcity of valuable research about EI in family medicine residency that obviously welcomes more consideration. Studies are needed to further address each of the themes that emerged in this chapter. Certainly, increased focus must be given to the standardization and applicability of EI measurement in healthcare providers. Additionally, the benefits and shortcomings of the instruments that have been used in health care studies such as the Emotional Competence Inventory, Mayer-Salovery-Caruso Emotional Intelligence Test, or specially designed 360-degree evaluations must be further explored. Likewise, greater attention must be paid to the particular components of EI, the most optimal time to focus on them during the training period, and how enhancing these competencies may shape the career trajectory of physicians. A real discussion must take place if all physicians should receive formal emotional intelligence and leadership development training, or if it should be only for those who are

specifically recruited or express an interest. Finally long-term outcomes of EI training on family physician, patient, and hospital systems are needed. Solutions to these enquires will command extraordinary leadership to solve imminent healthcare challenges.

Author details

Seul Jee Ha[1], Sridhar Reddy Patlolla[2] and Thomas Robert Wojda[3]*

1 Department of Family Medicine-Warren Campus, St. Luke's University Health Network, United States

2 Department of Internal Medicine, Suburban Community Hospital, United States

3 Department of Family Medicine, Conemaugh Memorial Medical Center, United States

*Address all correspondence to: trwojda@gmail.com

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