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Chapter

Creating Long-Lasting Clinical Connections: A Trainee-Centered, Leadership-Based Perspective on Provider-Patient Relationship

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Abstract

The nature of provider-patient relationship (PPR) goes far beyond the simplified paradigm of “chief complaints,” “clinical problems” and corresponding “therapeutic solutions.” In order to more comprehensively explore the scope of PPR in the context of leadership-based partnership (LBP), various factors and their contributions were researched in terms of both the success and optimization of health-care interactions. This is especially relevant to graduate medical education (GME) and advanced practice (AP) training programs. There are numerous nuances to PPR, including various communication, behavioral, ethical and leadership considerations. Body language and tone of voice are essential in establishing rapport, beginning with the so-called ‘first impression,’ which serves as a foundation for developing the PPR. Health-care providers (HCPs) with greater ability to empathize with their patients may achieve higher levels of treatment adherence, better clinical outcomes, and ultimately increased patient satisfaction. The inclusion of a patient as a co-leader and an essential member of their health-care team (HCT) should be a natural step and a top priority for GME and AP trainees. Such collaboration requires an open-minded approach by all stakeholders. Finally, recognizing patient well-being in all domains, including physical, emotional and spiritual, is critical to the holistic approach toward maximizing the benefits of an optimal PPR. Same can be said about the HCP. In this chapter, we will explore key aspects of PPR in the context of both the trainee and the patient being co-leaders within the bounds of the LBP framework.

Keywords: graduate medical education, GME, advanced practice, health-care provider, leadership-based partnership, provider-patient relationship

1. Introduction

Provider-patient interactions constitute a foundation upon which a durable therapeutic relationship can be built. The same is inherently true for trainee-patient interactions. Beyond some of the more superficial factors, patient-provider relationship (PPR) has profound implications on numerous domains, from clinical outcomes

Advanced practice providers – A group of medical professionals that include physician assistants and advanced practice registered nurses [14, 15].

Body language — The expression of thoughts and feelings by means of nonverbal bodily movements, for example, gestures or facial expressions [16].

Empathy — A term that describes a process wherein a provider/trainee tries to understand what the patient is feeling and experiencing, physically and emotionally, and communicates that understanding to patient [17].

Graduate medical education – Also known as GME, is a system of postgraduate medical training whereby medical school graduates participate in a step-wise, long-term program to transition into practice within their intended specialties and subspecialties [18].

Leadership-based partnership — A partnership that engages all stakeholders as co-leaders to achieve a common goal or a set of common goals. It is distinct from the more traditional patient-provider partnerships, which tend to be more paternalistic in nature.

Motivational interviewing — A technique in which a person becomes a helper in the change process and expresses acceptance of his/her client; a style of counseling that can help resolve the ambivalence that prevents clients from realizing personal goals [19, 20].

Patient-centric approaches — Approaches that emphasize patient needs and priorities within the overall context of a therapeutic relationship and the healthcare system.

Patient satisfaction — Indicator or set of indicators for measuring the quality in health-care, including the overall performance of doctors and hospitals [3, 21]. More recently this has been evolving toward a more comprehensive term ‘patient experience’ which encompasses a much broader set of variables and provides a much broader context [22].

Servant leadership - Servant leadership is a leadership philosophy in which the main goal of the leader is to serve, with focus on empathy, positive reinforcement, selflessness, awareness, foresight and stewardship [23, 24].

Social determinants of health - Conditions in the places where people live, learn, work, and socially interact affect a wide range of health risks and outcomes [25].

Telemedicine — The use of telecommunication in the delivery of health services to enable provider–patient and provider–provider consultation despite geographical separation [26, 27].

Thorough approach — The doctor/provider/ trainee is conscientious and persistent [17].

Tone of voice — The quality of someone’s voice which expresses a mood or emotion [28].

3. Discussion

Long-established as a positive modulator of health-care quality and effectiveness, the importance of developing and sustaining a constructive and PPR cannot be overstated [29, 30]. The PPR itself is a relatively complex and multi-factorial concept, with contributing inputs from various closely inter-related domains, including effective communication, mutual respect, empathy, good listening ability, body language, tone of voice, leadership skills, cultural awareness, conceptual openness and joint decision-making, in addition to clear evidence of professional/technical competency [5, 31–34]. It is therefore not surprising that, over time, PPR became a key component and focus of medical school, GME, and AP training curricula [35–40]. In the subsequent sections of this chapter, we will discuss various

nuances and aspects of the PPR, focusing specifically on the importance of adaptive leadership in the overall framework of therapeutic effectiveness, long-term sustainability, and LBP [11, 38, 41].

3.1 Body language and tone of voice

During a health-care visit, whether with physician, trainee, or AP provider, it is important for the patient to feel comfortable, respected and listened to [42]. The focus should be on developing and sustaining a PPR that is based on mutual trust and the ability to relate with one another, utilizing primarily patient-centric approaches (PCAs) [43–45]. This helps facilitate the development of interpersonal respect and a bond (also known as a rapport) between the individuals involved [45], optimally resulting in the emergence of a LBP.

It is well known that a first impression, or the intuitive opinion of another person, can be formed in a matter of minutes based on appearance, body language, and tone of voice [17, 46]. Although it is not always accurate or correct, it nonetheless creates a basis for further interaction and relationship growth. The first essential tool is body language, which can be defined as “the expression of thoughts and feelings by nonverbal bodily movements” [16]. The second is tone of voice, including word choice, defined as the quality of someone’s voice with which one expresses a mood or emotion [28]. As a whole, nonverbal and verbal characteristics are key to successful PPR, mainly because a negative first impression is difficult to overcome [47].

There are certain techniques trainees in particular are encouraged to learn and embrace in order to optimize the odds of a positive first impression. First, and perhaps most fundamentally, they should study the patient’s medical records and be aware of his/her name and reason for the visit. In doing so, the provider/trainee can confidently enter the room properly addressing the patient, introducing themselves with a first and last name, and making good eye contact with a firm handshake (of course with a consideration of specific scenarios where such well-meant gestures may not be culturally acceptable) [17]. Before asking the patient to explain their reason for the appointment, the provider/trainee may consider inquiring about other aspects of his/her life [17]. In addition to promoting openness and trust, such questions may bring out important details about social determinants of health (SDH) [48]. Omission of these simple and effective measures may cause the patient to experience discomfort and distrust, causing them to neglect to share important information with the HCP. After moving to address the patient’s chief complaint, the provider/trainee should follow-up with increasingly more specific inquiries, appropriately moving from broader to more focused questions that follow a logical process. Appropriate expectations should be set along the way. This helps reduce any misunderstandings and ensures that information is communicated and processed in a controlled fashion. Taken together, the above approach helps facilitate the relationship-building process and inherently promotes the impression of a health-care visit as being both successful and meaningful.

It has been said that effective communication between a patient and a provider is “the heart and art of medicine” when building a therapeutic PPR [49]. At all times, providers should be aware of, and pay close attention to, their verbal expressions and word choices. Even though they have an extensive vocabulary of complex clinical terms, it is possible to confuse and even scare the patient depending on how medical information is delivered [50]. For example, when talking about having a surgery to remove an anatomic structure, using the word “excise” or “resect” can be easily misunderstood and using the phrase “cutting it out” sounds pain inflicting [17]. Consequently, using the term “removing” could be less stressful for the patient

while still conveying the main point of treatment. Also, during consultations, it is important to take note of the general tone of the conversation (i.e., friendly and engaged versus tense and business-like). Patients may perceive the interaction more positively if the HCP has a more constructive and approachable demeanor about the visit as a whole, including polite greetings and farewells and conversing about non-medical details [51]. On the other hand, the emergence of tension during a conversation can cause negative effects on patient satisfaction compared to a more light-hearted but professional tone. Of course, the context of a conversation must be respected, with matters of great impact being discussed at an appropriately more formal but equally empathetic and sympathetic level. Thus, if a provider communicates difficult diagnostic findings or therapeutic options through careful language selection, a patient may still report a more positive experience [51].

In addition to the importance of different 'verbal behaviors' within the overall PPR framework, 'non-verbal behaviors' may be just as important. For a provider/trainee, noticing a patient's non-verbal behavior can help better understand carefully hidden emotions, such as anxiety and/or fear [17]. For example, fidgeting can reveal that the patient is anxious or may feel overwhelmed. Catering to his/her needs via word choice by the HCP guides the patient to feel sufficiently secure to calmly talk about their condition or other concerns. For patients, noticing that the HCP has their arms crossed, frowns, or makes faces may indicate disinterest and cause the patient to be equally closed off [52–54]. An HCP should incorporate eye contact, attentiveness, body movements, and time conscientiousness in order to make the patient feel as though he/she can be open while building the overall relationship [17, 55]. Gaining positive feedback from patients and doctors/trainees in non-verbal behaviors (i.e., attitudes, gestures, expressions, etc.) is vital in order to avoid confusion and misinterpretation which ultimately damages the rapport [55].

Finally, one must remember that good first impressions should not be taken for granted and must be sustained [56, 57]. This often entails a considerable effort over time. Consequently, PPR needs to be fostered with the long-term in mind, including focused and ongoing efforts by the entire HCT to maintain appropriate levels of communication, respect and trust. Most importantly, once a bad impression emerges, it is much more difficult to overcome when compared to the efforts required in maintaining an ongoing and sustained positive relationship (and thus mutual impression) [47].

3.2 Empathy is critical in provider-patient relationship

Within the past few decades, the idea has gained traction that maintaining a strong PPR requires both the provider and patient to be empathetic and play equal roles as co-leaders within the overall, multi-dimensional therapeutic interaction [58, 59]. Empathy entails the consideration of combined cognitive and affective components – both very important aspects of a provider's and a patient's well-being [60, 61]. When demonstrating cognitive empathy, HCPs should be able to recognize, reflect, and consider a patient's emotions, while affective empathy allows them to support a patient's mental state when they undergo similar feelings themselves [62, 63]. HCPs do not need vast experience nor introspection about a patient's emotions to truly relate; previous studies have shown that empathy is a skill which can be both taught and/or enhanced through specific interventions [63–65]. The latter is especially important in the setting of medical, GME and AP education [66]. In fact, approximately two-thirds of medical schools have been teaching these skills, in some form, since the mid-2000's [67]. Empathetic communication skills are a vital part of provider education, and are powerful tools that enhance the understanding of the patient's point-of-view, and over time help build a robust LBP between the stakeholders.

It is important to recognize that effective empathy in clinical care is best facilitated in settings where the provider is neither overwhelmed nor affected by burnout. The ability to adequately reflect and identify oneself with another person's feelings requires one to 'slow down and take a deep breath.' Stress from excessive workload, antisocial behavior, unappreciated gender/cultural/racial differences, failure to meet the patient face-to-face, and time constraints can manifest externally as lack of empathy, even if not intentional [67]. While there is no quantitative way to measure empathy, certain actions will help psychologically improve patients' perception of their healthcare experience and the overall provider quality. The Accreditation Council for Graduate Medical Education (ACGME) recommends that through effective listening, thorough explanations and counseling, and decisions considering a patient's information and choice, physicians (with emphasis on trainees) will enhance the patient's perception of the overall care process, experience, and will help create and maintain mutual trust [67]. By avoiding apathy and any artificial barriers to patient-provider communication, HCPs are not only showing active personal and professional leadership, but also facilitate the growth and development of patient leadership, including the ability and the initiative to maintain interest in self-care and long-term health prevention [68].

Providers and trainees utilizing consistent communications and fostering overall patient comfort are more likely to achieve positive medical outcomes, including patient satisfaction [68, 69]. Data show that physicians with high empathy scores are more likely to have patients with good clinical outcomes, fewer complications, and symptomatic improvement [70, 71]. In one study, researchers studied how physician empathy affects diabetic patients using the Jefferson Scale of Empathy (JSE), an instrument measuring empathy through a physician's understanding of the patient's pain and apprehension, and a willingness to help. The results showed that patients whose practitioners had higher JSE scores were more likely to have an improved hemoglobin A1c and cholesterol level [72]. Another study suggested that patients with the common cold who highly rated their physicians' empathy scores, experienced overall 'milder symptoms' and were more satisfied with therapy [73].

Empathy can have direct positive influence on patients' health and their perception of HCP support [74, 75]. In one study, patients and physicians completed a questionnaire assessing their perceived emotional skills and quality of life. Results showed that even when highly empathetic doctors share negative results, patients with lower emotional skills experienced a primarily unfavorable impressions and feelings [76]. Of note, patients with high emotional skills reported greater perceived benefit from HCP empathy when hearing 'bad news' and not necessarily in a follow-up consultation [76]. Accordingly, interventions to provide additional patient support may be beneficial in cases where significant mismatch in emotional coping skills exist within a particular PPR.

In cases where patient-perceived HCP empathy helps enhance overall stakeholder experience and satisfaction, the therapeutic adherence also appears to be positively impacted. In one study, more than 500 outpatients participated in a questionnaire demonstrating that "information exchange, perceived expertise, interpersonal trust, and partnership" were among factors greatly affecting their compliance [77]. This, in turn, allows the HCP to actively enhance patient healthcare experience and associated outcomes, and do so in a relatively shorter period of time [77]. Being aware of the patients' fears and emotions, as well as the practice of self-reflection has been seen as a core competency for physicians and advanced practitioners, especially those who are in training. Within this dynamic, patients will also play a critical role in seeking help and following through on what is asked of them. Meanwhile, it is very important that providers strive to avoid misplacement within their patients' emotional milieu [78]. This approach, known as 'clinical empathy', has been

suggested as an optimal way for physicians to maintain an emotionally healthy and balanced PPR [78]. By trying to understand the inner experiences of a patient and seeing ‘an individual’ rather than ‘a case,’ HCPs are taking on an active leadership role by making empathy a key instrument for therapeutic effectiveness.

While the information regarding HCP empathy as it relates to patient outcomes continues to be somewhat limited, studies have shown that medical empathy is important to improve patient satisfaction, compliance, and level of anxiety/distress [79, 80]. Simple word choices displaying empathy can have tremendous impact on the perceived quality of communication. It is essential that HCPs maintain compassionate care during consultations, with active awareness of the positive power of empathy, its ability to foster a meaningful connection, and a number of other potentially beneficial effects.

3.3 Patient leadership

The first step in becoming an effective leader is taking the initiative [23]. To some extent, patients assume a leadership role when they choose to seek medical care, with preventive and long-term maintenance interventions being most impactful manifestations of ‘patient as a leader’ [81–83]. Furthermore, shared decision making between patients and their providers is critical to the effectiveness of any PCA [84, 85]. In one example, a recent study examined the involvement of patients in clinical research, with an objective to foster greater patient involvement during pre-study, intra-study, and post-study activities. Data were gathered based on a set of priorities that consider the needs of patients during research related activities, defining an engaged patient as an ‘expert’ participant [86]. The importance of active patient involvement and self-directed leadership is most critical in the setting of oncology clinical trials, with significant missed opportunities due to poor overall patient enrollment or participation [87]. This is especially striking when one considers that the proportion of patients partaking in clinical trials typically does not exceed 5% of those with a diagnosis of cancer [88]. Consequently, encouraging patient leadership and initiative is important to improving clinical trials participation and potentially improving outcomes related to lack of active patient engagement.

Within the broader context of LBP, both patients and HCPs must remember that only relationships based on mutual trust can be successful in the long run [89]. Such leadership-based approaches and considerations are especially important when dealing with chronic health conditions and increasingly complex HCTs [90, 91]. It has been said that “the best follower is a leader-in-the-making,” and within the long-term PPR these words become especially relevant [92]. Consequently, it is important to persistently and consistently promote leadership qualities and behaviors within each and every PPR.

3.4 Patient wellness

The self-management of a patient’s health and well-being is a complex and multifactorial issue [93, 94]. HCTs should approach medicine with a clear focus on PCAs. In addition, it is important to maintain a holistic approach, with considerations given to factors well beyond topics such as ‘medication compliance’ or ‘long-term follow-up’ [95]. It is therefore critical that pharmacologic therapies appropriately balance biophysiological needs with highly individualized patient quality-of-life considerations to achieve sustainably healthy lifestyle and long-term well-being [96]. Finally, adequate self-reflection, deliberate mindfulness, focus on mental health/hygiene, and non-judgmental approaches are required to achieve optimal outcomes in this important domain [97–100]. HCPs should be well-versed

with the above issues and topics, and there should be ample time devoted to patient wellness as a core element of medical school, advanced practice training, and graduate medical education curricula [101, 102].

3.5 Provider wellness

HCPs and trainees are inherently attentive to the signs and symptoms of their patients, yet they often fail to properly tend to their own well-being [103]. Workaholism is all-too-prevalent among HCPs and is closely tied to burnout and various associated adverse secondary health sequelae [104–106]. Consequently, doctors and other members of HCTs should strive to preserve their own well-being, thus ensuring that quality of patient care is not negatively affected by provider burnout [107, 108]. The statistics of burnout in healthcare are staggering, with reported incidence of 30–68%, depending on the area of professional training/specialization [107].

From definitional perspective, burnout is characterized by the presence of 3 distinct manifestations: Emotional exhaustion (e.g., loss of enthusiasm for work or feeling drained); Depersonalization (e.g., manifest as cynicism or a callous approach toward others); and “Low sense of personal accomplishment” (e.g., a perception of clinical ineffectiveness and a feeling that the work is no longer meaningful) [109]. Medical students and trainees are among the most severely affected groups, but no one in the healthcare industry is truly spared [109–111]. Among physicians, high scores on the “Emotional exhaustion” and “Depersonalization” scales are seen more frequently [112]. Within the established core competencies, the ACGME places emphasis on professionalism, stating that residents must demonstrate a “responsiveness to patient needs that supersedes self-interest” [113]. Medical providers who feel emotionally or physically ‘drained’ or are unable to effectively recuperate outside of the workplace are less likely to achieve adequate (and sufficient) personal fulfillment and well-being. Self-sacrifice prevails as a part of professional identity as it applies to medical students and graduate medical education trainees [114, 115]. In one randomized study, data was collected from 74 practicing physicians in an attempt to learn more about burnout reduction and associated interventions consisting of a facilitated small-group curriculum. The authors concluded that physicians felt more empowered and engaged at work following the implementation of such targeted intervention(s) [113].

3.6 Teaching of physician-patient interactions: the role of simulation

Body language, tone of voice, empathy, and the ability to perform patient tasks/procedures competently are all critically important projections in regard to patient interactions. The question arises as to whether such important concepts can be taught and understood through simulation based medical education (SBME). The answer is “yes” in the case of most HCPs [116–122]. The next question then arises as to which is better, immersive or non-immersive simulation.

From definitional perspective, simulation generally refers to “noting or relating to digital technology or images that actually engage one’s senses and may create an altered mental state [123].” For the sake of this discussion, we will not include the interviewing of standardized patients or the use of manikins, but confine ourselves to digital technology. It must be acknowledged, though, that working directly with a patient is the true, most valuable, real world experience [124]. The rapidly changing world of SBME allows the opportunity to use digital technology in order to create an environment where much can be learned and experienced in order to minimize the chance for medical error or culturally inappropriate behaviors, to

name only two of many possible use cases. More specifically, we will address the use of immersive technology that uses virtual reality (VR), a '360-degree experience' vs. images on a desktop computer, while noting that VR is clearly preferred to using a desktop simulation. In a way of pre-simulation caution, instructors must be aware that immersive VR technology can result in disorientation, nausea, headaches, and difficulties with vision (i.e., cybersickness) [125].

Body language, tone of voice, taskings/procedures, and empathy can be taught using both methods. However, considerable evidence is emerging that immersive digital VR architecture works best [126–129]. At the same time, it is evident that desktop non-immersive simulation can work better than regular lecture formats [130]. Tanvir et al. found that VR-based simulation of patients with disability allowed learners to perform better when compared to learners using a desktop model (e.g., non-immersive simulation) as reflected by information recall regarding the patient and the reduction in implicit bias [129]. Ventura, et al., performed a memory assessment of participants in an immersive vs. non-immersive environment to explore memory assessment and found the data supported the use of '360-degree' technology in the evaluation of cognitive function [128]. Additionally, even behavioral counseling for primary care providers can be enhanced through the use of VR as a learning tool [127]. Everson, et al., believe that cultural empathy is an antecedent to cultural competence, and found that a 3D simulation experience impacted empathy in a positive manner among nursing students who dealt with a culturally and linguistically diverse population [126].

Any simulation, whether it is immersive, non-immersive, or real face-to-face meetings with actual humans, that puts a learner in the "patient's shoes" warrants a dedicated educational effort [131, 132]. The exciting aspect of medical simulation, whether with standardized patients, manikins, immersive VR, or non-immersion desktop modeling, is that the instructor can mitigate the risks of anything 'going wrong' when learners are actively engaged in a real-world situation. Immersive VR, in particular, can be used in the pre-clinical arena to teach not only facts and procedures, but also reduce implicit bias thereby increasing empathy; cultural, physical, or otherwise. Finally, simulation may be a way to help providers maintain readiness, especially in the setting of patient volume fluctuations where procedures (e.g., cardiac catheterization) and protocols (e.g., trauma resuscitation) require ongoing provider competency [133, 134].

4. Conclusion

Literature provides significant insight into the workings of physician-patient interactions and PPR. In this chapter, key aspects of PPR and associated patterns of interaction were described. It is well established that tone of voice, body language, empathy, empowering patients to co-lead, encouraging patient wellness, and fostering physician wellness can all positively affect the PPR, resulting in improved patient satisfaction, adherence, and even clinical outcomes. While these aspects of HCP-patient interaction were explored and documented, there still remain opportunities to study other factors, such as patient education and engagement of care-takers and family members. To summarize, the authors of this chapter emphasize that LBP can be a versatile tool in building a sustainable, long-term, positive, and therapeutically effective PPR.

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References

- [1] Buller, M.K. and D.B. Buller, *Physicians' communication style and patient satisfaction*. Journal of health and social behavior, 1987: p. 375-388.
- [2] Stewart, M.A., *Effective physician-patient communication and health outcomes: a review*. CMAJ: Canadian Medical Association Journal, 1995. **152**(9): p. 1423.
- [3] Tamblyn, R., et al., *The feasibility and value of using patient satisfaction ratings to evaluate internal medicine residents*. Journal of general internal medicine, 1994. **9**(3): p. 146-152.
- [4] Burke, S.E., *The doctor-patient relationship: an exploration of trainee doctors' views*. 2008, University of Birmingham.
- [5] Teutsch, C., *Patient-doctor communication*. Medical Clinics of North America, 2003. **87**(5): p. 1115-1146.
- [6] Crosse, L. and G. Lutheran, *Physicians' Communication Skills: Overcoming the Emerging Caring/Business Conflict*. philosophy, 2004.
- [7] Christie-McAuliffe, C.A., *PATIENT-CENTERED CARE*. Introduction to Quality and Safety Education for Nurses: Core Competencies for Nursing Leadership and Management, 2018: p. 179.
- [8] Tamblyn, R., et al., *Can standardized patients predict real-patient satisfaction with the doctor-patient relationship?* Teaching and Learning in Medicine: An International Journal, 1994. **6**(1): p. 36-44.
- [9] Egnew, T.R. and H.J. Wilson, *Role modeling the doctor-patient relationship in the clinical curriculum*. Family Medicine-Kansas City, 2011. **43**(2): p. 99.
- [10] Rogers, C.R. and R.E. Farson, *Active listening*. 1957: Industrial Relations Center of the University of Chicago.
- [11] Bailey Jr, D.E., et al., *Studying the clinical encounter with the Adaptive Leadership framework*. Journal of healthcare leadership, 2012. **2012**(4).
- [12] Tarone, D.M. and D.M. Sabol, *Selected long abstracts from the St. Luke's university health network quality awards program (2015-2016)*. International Journal of Academic Medicine, 2017. **3**(3): p. 176.
- [13] Bissonnette, J.M., *Adherence: a concept analysis*. Journal of advanced nursing, 2008. **63**(6): p. 634-643.
- [14] Keiffer, M.R., *Utilization of clinical practice guidelines: barriers and facilitators*. Nursing Clinics, 2015. **50**(2): p. 327-345.
- [15] McCarthy, C., N.C. O'Rourke, and J.M. Madison, *Integrating advanced practice providers into medical critical care teams*. Chest, 2013. **143**(3): p. 847-850.
- [16] Miller-Keane Encyclopedia and Dictionary of Medicine, N., and Allied Health. *body language*. 2003 [cited 2019 July 8]; Seventh: Available from: <https://medical-dictionary.thefreedictionary.com/body+language>.
- [17] Bakić-Mirić, N.M. and N.M. Bakić, *Successful doctor-patient communication and rapport building as the key skills of medical practice*. Facta Univers, 2008. **15**(2): p. 74-9.
- [18] Stawicki, S.P., et al., *Contemporary Topics in Graduate Medical Education*. 2019.
- [19] Treatment, C.f.S.A., *Motivational interviewing as a counseling style*. Center for substance abuse treatment. Enhancing motivation for change in substance abuse treatment, 1999: p. 39-56.

- [20] Miller, W.R. and S. Rollnick, *Motivational interviewing: Helping people change*. 2012: Guilford press.
- [21] Prakash, B., *Patient satisfaction*. J Cutan Aesthet Surg, 2010. **3**(3): p. 151-5.
- [22] Berkowitz, B., *The patient experience and patient satisfaction: measurement of a complex dynamic*. The Online Journal of Issues in Nursing, 2016. **21**(1).
- [23] Stawicki, S. and M.S. Firstenberg, *Fundamentals of leadership for healthcare professionals*. Health care in transition. 2018, New York: Nova Medicine & Health. xvii, 269 pages.
- [24] Stawicki, S.P., M.S. Firstenberg, and T.J. Papadimos, *Fundamentals of leadership for healthcare professionals, Volume 2*. 2019: NOVA Science Publishers, Inc.
- [25] Marmot, M. and R. Wilkinson, *Social determinants of health*. 2005: OUP Oxford.
- [26] Miller, E.A., *The technical and interpersonal aspects of telemedicine: effects on doctor-patient communication*. Journal of telemedicine and telecare, 2003. **9**(1): p. 1-7.
- [27] Chauhan, V., et al., *Novel coronavirus (COVID-19): Leveraging telemedicine to optimize care while minimizing exposures and viral transmission*. Journal of emergencies, trauma, and shock, 2020. **13**(1): p. 20.
- [28] Dictionaries, O.L.s., *tone of voice*, in *Oxford Learner's Dictionaries*. 2019, Oxford University Press.
- [29] Matthews, D. and R. Hingson, *Improving patient compliance: a guide for physicians*. Medical Clinics of North America, 1977. **61**(4): p. 879-889.
- [30] Fiscella, K., et al., *Patient trust: is it related to patient-centered behavior of primary care physicians?* Medical care, 2004: p. 1049-1055.
- [31] Bellet, P.S. and M.J. Maloney, *The importance of empathy as an interviewing skill in medicine*. Jama, 1991. **266**(13): p. 1831-1832.
- [32] Kaba, R. and P. Sooriakumaran, *The evolution of the doctor-patient relationship*. International Journal of Surgery, 2007. **5**(1): p. 57-65.
- [33] Squier, R.W., *A model of empathic understanding and adherence to treatment regimens in practitioner-patient relationships*. Social science & medicine, 1990. **30**(3): p. 325-339.
- [34] Cooper, L.A. and N.R. Powe, *Disparities in patient experiences, health care processes, and outcomes: the role of patient-provider racial, ethnic, and language concordance*. 2004: Commonwealth Fund New York, NY.
- [35] Rider, E.A., R.H. Nawotniak, and G. Smith, *A practical guide to teaching and assessing the ACGME core competencies*. 2007: HC Pro, Inc.
- [36] Gee, H.H., *Learning the physician-patient relationship*. JAMA, 1960. **173**(12): p. 1301-1304.
- [37] Summers, L.C., *Mutual timing: an essential component of provider/patient communication*. Journal of the American Academy of Nurse Practitioners, 2002. **14**(1): p. 19-25.
- [38] Thygeson, M., L. Morrissey, and V. Ulstad, *Adaptive leadership and the practice of medicine: a complexity-based approach to reframing the doctor-patient relationship*. Journal of Evaluation in Clinical Practice, 2010. **16**(5): p. 1009-1015.
- [39] Berry, J.A., *Nurse practitioner/patient communication styles in clinical practice*. The Journal for Nurse Practitioners, 2009. **5**(7): p. 508-515.

- [40] Boykins, A. and C. Carter, *Interpersonal and cross-cultural communication for advance practice registered nurse leaders*. Journal of Advanced Nursing Pracfice, 2012. **11**(2).
- [41] Trastek, V.F., N.W. Hamilton, and E.E. Niles. *Leadership models in health care—a case for servant leadership*. in *Mayo Clinic Proceedings*. 2014. Elsevier.
- [42] Ong, L.M., et al., *Doctor-patient communication: a review of the literature*. Social science & medicine, 1995. **40**(7): p. 903-918.
- [43] Wanzer, M.B., M. Booth-Butterfield, and K. Gruber, *Perceptions of health care providers' communication: relationships between patient-centered communication and satisfaction*. Health communication, 2004. **16**(3): p. 363-384.
- [44] Suchman, A.L., et al., *Physician satisfaction with primary care office visits*. Medical care, 1993: p. 1083-1092.
- [45] Leach, M.J., *Rapport: A key to treatment success*. Complementary therapies in clinical practice, 2005. **11**(4): p. 262-265.
- [46] Curhan, J.R. and A. Pentland, *Thin slices of negotiation: Predicting outcomes from conversational dynamics within the first 5 minutes*. Journal of Applied Psychology, 2007. **92**(3): p. 802.
- [47] Baumeister, R.F., et al., *Bad is stronger than good*. Review of general psychology, 2001. **5**(4): p. 323-370.
- [48] Nuruzzaman, N., et al., *Making the social determinants of health a routine part of medical care*. Journal of health care for the poor and underserved, 2015. **26**(2): p. 321-327.
- [49] Ha, J.F. and N. Longnecker, *Doctor-patient communication: a review*. Ochsner Journal, 2010. **10**(1): p. 38-43.
- [50] Wilcox, L., et al. *Characterizing patient-friendly" micro-explanations" of medical events*. in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. 2011.
- [51] Williams, S., J. Weinman, and J. Dale, *Doctor-patient communication and patient satisfaction*. Fam Pract, 1998. **15**(5): p. 480-92.
- [52] Shorter, E., *Doctors and their patients: A social history*. 2017: Routledge.
- [53] Ekman, P. and W.V. Friesen, *Unmasking the face: A guide to recognizing emotions from facial clues*. 2003: Ishk.
- [54] Rakel, R.E., *Establishing rapport*. Textbook of Family Medicine E-Book, 2007. **5**(8): p. 269.
- [55] Benbenishty, J.S. and J.R. Hannink, *Non-verbal communication to restore patient-provider trust*. Intensive care medicine, 2015. **41**(7): p. 1359-1360.
- [56] Ybarra, O., *When first impressions don't last: The role of isolation and adaptation processes in the revision of evaluative impressions*. Social Cognition, 2001. **19**(5): p. 491-520.
- [57] Dean, R.A.K. and J.E. Major, *From critical care to comfort care: the sustaining value of humour*. Journal of clinical nursing, 2008. **17**(8): p. 1088-1095.
- [58] Bayne, H.B., *Training medical students in empathic communication*. The Journal for Specialists in Group Work, 2011. **36**(4): p. 316-329.
- [59] Liegner, L., M, *Humanizing the physician*. Modern Psychoanalysis, 1977. **2**(2): p. 209-215.
- [60] Gibson, A., *Shared Decision-Making in Counselling and Psychotherapy*. Unpublished doctoral dissertation, 2019.

- [61] Togashi, K., *The Psychoanalytic Zero: A Decolonizing Study of Therapeutic Dialogues*. 2020: Routledge.
- [62] Strayer, J., *10 Affective and cognitive perspectives on empathy*. Empathy and its development, 1990: p. 218.
- [63] Roter, D.L., et al., *The expression of emotion through nonverbal behavior in medical visits*. Journal of general internal medicine, 2006. **21**(1): p. 28-34.
- [64] Kelm, Z., et al., *Interventions to cultivate physician empathy: a systematic review*. BMC medical education, 2014. **14**(1): p. 219.
- [65] Lipp, M.J., et al. *Showing you care: an empathetic approach to doctor-patient communication*. in *Seminars in Orthodontics*. 2016. Elsevier.
- [66] Aomatsu, M., et al., *Medical students' and residents' conceptual structure of empathy: a qualitative study*. Education for Health, 2013. **26**(1): p. 4.
- [67] Travaline, J.M., R. Ruchinskas, and G.E. D'Alonzo Jr, *Patient-physician communication: why and how*. Journal of the American Osteopathic Association, 2005. **105**(1): p. 13.
- [68] Orlando, J.P., et al., *Impact of Flinders chronic condition management program on rural health patient outcomes*. International Journal of Academic Medicine, 2017. **3**(3): p. 176.
- [69] Levinson, W., P. Hudak, and A.C. Tricco, *A systematic review of surgeon-patient communication: Strengths and opportunities for improvement*. Patient education and counseling, 2013. **93**(1): p. 3-17.
- [70] Flickinger, T.E., et al., *Respecting patients is associated with more patient-centered communication behaviors in clinical encounters*. Patient education and counseling, 2016. **99**(2): p. 250-255.
- [71] Roter, D. and J.A. Hall, *Doctors talking with patients/patients talking with doctors: improving communication in medical visits*. 2006: Greenwood Publishing Group.
- [72] Del Canale, S., et al., *The relationship between physician empathy and disease complications: an empirical study of primary care physicians and their diabetic patients in Parma, Italy*. Academic Medicine, 2012. **87**(9): p. 1243-1249.
- [73] Rakel, D., et al., *Perception of empathy in the therapeutic encounter: effects on the common cold*. Patient Educ Couns, 2011. **85**(3): p. 390-7.
- [74] Derksen, F., J. Bensing, and A. Lagro-Janssen, *Effectiveness of empathy in general practice: a systematic review*. British Journal of General Practice, 2013. **63**(606): p. e76-e84.
- [75] Decety, J. and A. Fotopoulou, *Why empathy has a beneficial impact on others in medicine: unifying theories*. Frontiers in behavioral neuroscience, 2015. **8**: p. 457.
- [76] Lelorain, S., et al., *In which context is physician empathy associated with cancer patient quality of life? Patient education and counseling*, 2018. **101**(7): p. 1216-1222.
- [77] Kim, S.S., S. Kaplowitz, and M.V. Johnston, *The effects of physician empathy on patient satisfaction and compliance*. Evaluation & the health professions, 2004. **27**(3): p. 237-251.
- [78] Zenasni, F., et al., *Burnout and empathy in primary care: three hypotheses*. 2012, British Journal of General Practice.
- [79] Zachariae, R., et al., *Association of perceived physician communication style with patient satisfaction, distress, cancer-related self-efficacy, and perceived control over the disease*. British journal of cancer, 2003. **88**(5): p. 658-665.

- [80] Olson, J.K., *Relationships between nurse-expressed empathy, patient-perceived empathy and patient distress*. Image: The Journal of Nursing Scholarship, 1995. 27(4): p. 317-322.
- [81] McCalla, P., *A movement toward health: A case study of the pregnancy recovery center*. 2014, University of Pittsburgh.
- [82] Weberg, D. and S. Davidson, *Patient-centered care, evidence, and innovation*. Leadership for evidence-based innovation in nursing and health professions, 2017: p. 111-142.
- [83] Fox, A. and S. Reeves, *Interprofessional collaborative patient-centred care: a critical exploration of two related discourses*. Journal of Interprofessional Care, 2015. 29(2): p. 113-118.
- [84] Bernabeo, E. and E.S. Holmboe, *Patients, providers, and systems need to acquire a specific set of competencies to achieve truly patient-centered care*. Health Affairs, 2013. 32(2): p. 250-258.
- [85] Légaré, F. and H.O. Witteman, *Shared decision making: examining key elements and barriers to adoption into routine clinical practice*. Health affairs, 2013. 32(2): p. 276-284.
- [86] Sacristán, J.A., et al., *Patient involvement in clinical research: why, when, and how*. Patient preference and adherence, 2016. 10: p. 631-640.
- [87] Newman, L.A., N.K. Roff, and A.D. Weinberg, *Cancer clinical trials accrual: missed opportunities to address disparities and missed opportunities to improve outcomes for all*. Annals of surgical oncology, 2008. 15(7): p. 1818-1819.
- [88] Michelle, R., *PACE Cancer Perception Index Fact Sheet*. 2013, PACE.
- [89] Nuutila, L. and S. Salanterä, *Children with a long-term illness: parents' experiences of care*. Journal of pediatric nursing, 2006. 21(2): p. 153-160.
- [90] Thorne, S.E. and C.A. Robinson, *Guarded alliance: Health care relationships in chronic illness*. Image: The Journal of Nursing Scholarship, 1989. 21(3): p. 153-157.
- [91] Ratanawongsa, N., et al., *Challenges in primary care relationships: Seeing it from both sides*. Patient education and counseling, 2011. 85(1): p. 40-45.
- [92] Substance, S. and P.S. Tolleson-Rinehart, *Do Women Leaders Make a Difference? The Impact of Women in Public Office*, 2001. 17(23): p. 129.
- [93] Sevick, M.A., et al., *Patients with complex chronic diseases: perspectives on supporting self-management*. Journal of general internal medicine, 2007. 22(3): p. 438-444.
- [94] Whittemore, R. and J. Dixon, *Chronic illness: the process of integration*. Journal of clinical nursing, 2008. 17(7b): p. 177-187.
- [95] Remde, A., S. DeTurk, and T. Wojda, *Teaching Balanced Patient Care Using Principles of Reductionism and Holism: The Example of Chronic Low Back Pain*, in *Contemporary Topics in Graduate Medical Education*. 2018, IntechOpen.
- [96] Williams, G.H., *Assessing patient wellness: new perspectives on quality of life and compliance*. American Journal of Hypertension, 1998. 11(S8): p. 186S-191S.
- [97] Bränström, R., P. Kvillemo, and J.T. Moskowitz, *A randomized study of the effects of mindfulness training on psychological well-being and symptoms of stress in patients treated for cancer at 6-month follow-up*. International journal of behavioral medicine, 2012. 19(4): p. 535-542.

- [98] Cloninger, C.R., *The science of well-being: an integrated approach to mental health and its disorders*. World psychiatry, 2006. 5(2): p. 71.
- [99] McGrady, A., J. Brennan, and D. Lynch, *Effects of wellness programs in family medicine*. Applied psychophysiology and biofeedback, 2009. 34(2): p. 121-126.
- [100] Manfredi, R.A. and A.S. Chung, *Reframing Wellness: It's Not a Personal Issue Anymore*.
- [101] Madray, H., C.A. Pfeiffer, and A. Ardolino, *Teaching patient wellness to first-year medical students: the impact on future ability to perform the history of present illness*. Medical education, 2000. 34(5): p. 404-408.
- [102] Frenkel, M., et al., *Lessons learned from complementary and integrative medicine curriculum change in a medical school*. Medical education, 2007. 41(2): p. 205-213.
- [103] Sanchez-Reilly, S., et al., *Caring for oneself to care for others: physicians and their self-care*. The journal of supportive oncology, 2013. 11(2): p. 75.
- [104] Schaufeli, W.B., et al., *Workaholism, burnout and well-being among junior doctors: The mediating role of role conflict*. Work & Stress, 2009. 23(2): p. 155-172.
- [105] DeCaporale-Ryan, L., et al., *The undiagnosed pandemic: burnout and depression within the surgical community*. Current problems in surgery, 2017. 54(9): p. 453-502.
- [106] Stawicki, S.P., *Short timer's syndrome among medical trainees: Beyond burnout*. International Journal of Academic Medicine, 2017. 3(3): p. 150.
- [107] Tolentino, J.C., et al., *What's new in academic medicine: Can we effectively address the burnout epidemic in healthcare?* International Journal of Academic Medicine, 2017. 3(3): p. 1.
- [108] Uchino, R., et al., *Focus on emotional intelligence in medical education: From problem awareness to system-based solutions*. International journal of academic medicine, 2015. 1(1): p. 9.
- [109] Patrick, K. and J.F. Lavery, *Burnout in nursing*. Australian Journal of Advanced Nursing, 2007. 24(3): p. 43.
- [110] Dyrbye, L.N., et al., *Burnout and suicidal ideation among US medical students*. Annals of internal medicine, 2008. 149(5): p. 334-341.
- [111] Dyrbye, L.N., et al., *Burnout among US medical students, residents, and early career physicians relative to the general US population*. Academic Medicine, 2014. 89(3): p. 443-451.
- [112] Eckleberry-Hunt, J., et al., *Changing the Conversation From Burnout to Wellness: Physician Well-being in Residency Training Programs*. Journal of Graduate Medical Education, 2009. 1(2): p. 225-230.
- [113] West, C.P., et al., *Intervention to Promote Physician Well-being, Job Satisfaction, and Professionalism: A Randomized Clinical Trial Intervention to Promote Physician Well-being*. JAMA Internal Medicine, 2014. 174(4): p. 527-533.
- [114] Irby, D.M. and S.J. Hamstra, *Parting the clouds: three professionalism frameworks in medical education*. Academic Medicine, 2016. 91(12): p. 1606-1611.
- [115] Abdel-Razig, S., et al., *Creating a framework for medical professionalism: an initial consensus statement from an Arab nation*. Journal of graduate medical education, 2016. 8(2): p. 165-172.

- [116] Lipps, J.A., S.P. Bhandary, and L.D. Meyers, *The expanding use of simulation for undergraduate preclinical medical education*. International Journal of Academic Medicine, 2017. 3(1): p. 59.
- [117] Jenkins, K.D., et al., *High-fidelity anesthesia simulation in medical student education: Three fundamental and effective teaching scenarios*. International Journal of Academic Medicine, 2017. 3(1): p. 66.
- [118] Bhandary, S.P., et al., *Scenario development strategies and process for simulation-based education in anesthesiology*. International Journal of Academic Medicine, 2017. 3(1): p. 72.
- [119] Stroud, J.M., et al., *Putting the pieces together: the role of multidisciplinary simulation in medical education*. International Journal of Academic Medicine, 2017. 3(1): p. 104.
- [120] Strosberg, D.S., et al., *Medical simulation and the surgical resident: Creating synergies through focus on education and morbidity reduction in general laparoscopy*. International Journal of Academic Medicine, 2017. 3(1): p. 90.
- [121] Vanderbilt, A.A., et al., *The importance of laparoscopic simulation in the continuing medical education of community surgeons*. International Journal of Academic Medicine, 2017. 3(1): p. 84.
- [122] Pappada, S.M. and T.J. Papadimos, *Clinical decision support systems: From medical simulation to clinical practice*. International Journal of Academic Medicine, 2017. 3(1): p. 78.
- [123] Dictionary.com. *Definition of Immersive*. 2020 February 25, 2020; Available from: <https://www.dictionary.com/browse/immersive>.
- [124] Levett-Jones, T., et al., *Measuring the impact of a 'point of view' disability simulation on nursing students' empathy using the Comprehensive State Empathy Scale*. Nurse education today, 2017. 59: p. 75-81.
- [125] Stanney, K.M., et al., *What to expect from immersive virtual environment exposure: Influences of gender, body mass index, and past experience*. Human factors, 2003. 45(3): p. 504-520.
- [126] Everson, N., et al., *Measuring the impact of a 3D simulation experience on nursing students' cultural empathy using a modified version of the Kiersma-Chen Empathy Scale*. Journal of clinical nursing, 2015. 24(19-20): p. 2849-2858.
- [127] Gavarkovs, A.G., *Behavioral counseling training for primary care providers: Immersive virtual simulation as a training tool*. Frontiers in public health, 2019. 7: p. 116.
- [128] Ventura, S., et al., *Immersive Versus Non-immersive Experience: Exploring the Feasibility of Memory Assessment Through 360° Technology*. Frontiers in Psychology, 2019. 10.
- [129] Chowdhury, T.I., S.M.S. Ferdous, and J. Quarles, *VR Disability Simulation Reduces Implicit Bias Towards Persons with Disabilities*. IEEE Transactions on Visualization and Computer Graphics, 2019.
- [130] Dubovi, I., S.T. Levy, and E. Dagan, *Now I know how! The learning process of medication administration among nursing students with non-immersive desktop virtual reality simulation*. Computers & Education, 2017. 113: p. 16-27.
- [131] Halton, C. and T. Cartwright, *Walking in a patient's shoes: an evaluation study of immersive learning using a digital training intervention*. Frontiers in psychology, 2018. 9: p. 2124.
- [132] Engbers, R.A., *Students' perceptions of interventions designed to foster empathy: An integrative review*. Nurse Education Today, 2019: p. 104325.

[133] Stawicki, S.P., et al., *A seven-center examination of the relationship between monthly volume and mortality in trauma: a hypothesis-generating study*. *European journal of trauma and emergency surgery*, 2019. **45**(2): p. 281-288.

[134] Marcks, V., K. Hayes, and S.P. Stawicki, *Operating room trauma simulation: The St. Luke's University Health Network experience*. *International Journal of Critical Illness and Injury Science*, 2020. **10**(1): p. 4.

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