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Review

A practitioner's guide to interpersonal communication theory: An overview and exploration of selected theories

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ABSTRACT

Objective: To provide a brief overview of selected interpersonal theories and models, and to present examples of their use in healthcare communication research.
Results: Nine interpersonal communication theories and their application to healthcare communication are discussed.
Conclusion: As healthcare communication interactions often occur at an interpersonal level, familiarity with theories of interpersonal communication may reinforce existing best practices and lead to the development of novel communication approaches with patients.
Practice implications: This article serves as an introductory primer to theories of interpersonal communication that have been or could be applied to healthcare communication research. Understanding key constructs and general formulations of these theories may provide practitioners with additional theoretical frameworks to use when interacting with patients.

1. Introduction

By its very nature, the provider–patient encounter *is* interpersonal communication. During the last several decades, an impressive body of interpersonal communication theory has been amassed (see [1]). Although theoretical approaches have been used to explain healthcare interactions, (e.g., [2,3]) many interpersonal communication theories remain overlooked and have been applied only sparingly to healthcare communication. Theory in healthcare communication research is used to understand, explain and predict health beliefs, attitudes, intentions, and behaviors of individuals, dyads, groups, and mass audiences. In her 2009 piece on persuasion theories [4], Cameron noted that many textbooks exist regarding communication theories, yet "practitioners seldom have the opportunity to engage in such deep study and reflection" (p. 309). We sought to fill that gap for practitioners by providing a selective overview of interpersonal communication theories with relevance to healthcare communication and proposing ways that research may be furthered through the application of these theories.

Theories presented herein were selected following careful deliberation among the authors as well as experts in the field of healthcare communication. Not all theories presented here were developed by interpersonal communication scholars; however, each chosen theory has had recent and robust work in communication. Some have been applied already to healthcare communication; others have not. For those theories not yet applied to healthcare communication, we discuss potential applications through which we believe the theories could further our understanding of interpersonal interactions within a healthcare context.

We begin with a few notes of explanation. First, we have chosen to use the term *provider* to encompass the broad range of healthcare practitioners that care for patients. Second, some theories discussed in this manuscript were developed initially for understanding social interaction. We posit that part of the provider–patient interaction is, by nature, social, yet recognize that provider–patient relationships are inherently different than those between friends and family members, particularly when considering issues of equality, power balance, expectations of tasks to be accomplished, and specific interests or expected outcomes. Third, we recognize that many existing interpersonal communication theories are not discussed here. Ultimately, we chose theories and related concepts that in our collective experience researching and teaching in this area seemed relevant to the healthcare context.

We have constructed this manuscript based on three broad approaches to interpersonal communication, as proposed in Baxter

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Table 1
Interpersonal communication theories applied to the provider–patient interaction.

Theoretical approach	Theories discussed
Individually centered theories	Goals–Plans–Action Theory Uncertainty theories: Uncertainty Reduction Theory Uncertainty Management Theory Action Assembly Theory
Interaction-centered theories	Communication Accommodation Theory Facework and Politeness Theory Speech Codes Theory
Relationship-centered theories	Social Penetration Theory and the norm of reciprocity Communication Privacy Management Theory

and Braithwaite's 2008 text, *Engaging Theories in Interpersonal Communication* [1]. Each of these three approaches – individually centered, interaction-centered, and relationship-centered – allows us to focus on distinct dimensions of the provider–patient relationship: an individual's state of mind, messages exchanged between a provider and patient, or the relationship that the two may form. These approaches present an overview of numerous theories and the related body of research that exists in interpersonal and healthcare communication (see Table 1).

2. Individually centered theories

Theories outlined in this section seek to explain how individuals plan, activate and create effective (and sometimes ineffective) goals and messages, and how individuals process, appraise and cope with incoming information and uncertainty, situations that are very common in healthcare. Scholars using these theories often focus on how individuals' cognitive activities shape their interactions with others, and concentrate on "mental representations that influence how people interpret information and how they behave" [1] (p. 5).

2.1. Goals–Plans–Action Theory

Social interaction is often a goal-driven process. For example, patients or providers may enter into a healthcare conversation to clarify instructions or to alter the other's stance on medical issues such as breast cancer screening. Goals–Plans–Action Theory (GPA) [5–7] conceptualizes this process, explaining the process behind messages intended to influence others. GPA focuses on three components: *goals*, or desired outcomes; *plans*, which map different routes to reach the goals; and *action*, the implementation of the selected plans.

Interaction goals are defined here as "states of affairs that individuals want to attain through talk" [8] (p. 22), and also include a desire to maintain the current state of affairs [5]. Primary goals, also known as influence goals, are reasons for entering into conversation; they are an individual's desire to modify the other's behavior. Some of the most frequent types of primary goals, also used in healthcare settings, include obtaining permission, changing the relationship, changing the other's stance toward an issue and providing counsel [9].

While primary goals serve to guide and bracket the interaction, they seldom are the only consideration when communicating with others. For example, a scenario of altering a patient's stance on breast cancer screening may be a primary goal, yet the provider also may be concerned about not damaging the relationship with the patient, nor offending the patient. Such concerns would be considered *secondary goals*, which serve to shape, and even limit, the interaction.

Plans, the second step of the GPA sequence, represent both verbal and nonverbal actions, the goal of which is to modify behavior [6]. After the primary and secondary goals are considered, the communicator will retrieve a number of "boilerplate" plans from memory that are likely to bring about the influence goal [10], and choose one. These plans vary in levels of abstraction, complexity and completeness. If the original plan fails during the action stage, the communicator may try to create a new plan to bring about the primary goal, or may tweak the existing plan on a strategic or tactical level [7].

While the conceptualization of goals and GPA Theory have not been used extensively in healthcare communication, they have been used to promote disclosure of genetic risk information to relatives [11]; to frame why patients do not mention Internet health research when talking with providers [12]; and to aid patients in initiating goal-work with their providers [13]. GPA Theory also was used in the development of the Comskil Model of communication skills training for physicians [14].

2.2. Uncertainty theories

Uncertainty theories seek to explain how individuals assess, manage and cope with ambiguous and complex situations, such as being presented with a terminal diagnosis. Some scholars contend that humans are consistently motivated to reduce uncertainty, while others propose that there are situations where there is a desire to maintain, or even increase, uncertainty.

2.2.1. Uncertainty Reduction Theory

Uncertainty Reduction Theory (URT) was originally developed to explain initial communication interactions between strangers. Central to its claim is the assumption that an individual's primary goal in initial communication is to increase predictability and decrease uncertainty of one's own behaviors and the behaviors of others [15]. Individuals do so by striving to *predict* the communication behaviors of themselves and others before an interaction and retroactively seeking to *explain* behavior after interaction.

In time, theorists began to broaden URT's scope of application to explain uncertainty in interpersonal communication in general as opposed to solely in initial interactions. One such application was in healthcare communication. Scholars found uncertainty to play a vital role in shaping provider–patient interactions as patients face uncertainty, including symptom attribution, state of the illness, treatment options and prognosis, social roles and predicting the effect of the illness on friends, family, and personal long-term plans [16].

Although widely used, URT often has been criticized for its core supposition that people are *always* motivated to decrease uncertainty and that uncertainty can *always* be reduced [17]. An alternative theory, Uncertainty Management Theory (UMT), was developed to address this criticism.

2.2.2. Uncertainty Management Theory

UMT postulates: (a) that uncertainty causes a wider range of emotions than anxiety, and similarly, (b) that people are not always motivated to decrease their uncertainty. UMT also expands the context of "uncertainty" to describe a state of mind where people feel insecure about their surroundings or situations, regardless of the actual amount of information they have [18].

In a healthcare setting, UMT posits that patients will evaluate uncertainty as negative (anxiety-producing, stressful or distressing), positive (associated with opportunity, hope or optimism), or neutral (seeing the uncertainty as simply a "fact of life") [16].

Depending on how one evaluates the situation, she will strive to decrease, maintain or increase uncertainty. Patients may avoid information acquisition if they perceive themselves unqualified to understand medical information, feel the need to defer to the authority of providers, or simply do not believe that information seeking will help manage their personal care [19].

UMT emphasizes that an individual's perception of uncertainty can change over time. Thus, information seeking can be a balancing act for patients who have multiple and changing health goals (e.g. preserving hope, learning about treatment options, and maintaining good heath). For example, a cancer patient who avoids information from her oncologist at diagnosis might actively seek information later during the course of treatment. It is important for providers and patients to continually reevaluate patients' goals to recognize and allow for such changes. UMT is an interpersonal theory that has been applied extensively in healthcare communication, with a large body of work focusing on patient involvement and information preferences for those diagnosed with HIV/AIDS [19–21]. UMT also has been applied to end-of-life care [22–24], oncology [25,26], breast self-examination [27] and spinal cord injury patients' adjustment to disability [28].

2.3. Action Assembly Theory

Action Assembly Theory (AAT), developed by Greene [29,30], explains the processes and mechanisms underlying an individual's thoughts and messages. According to AAT, one's memory is comprised of numerous independent *procedural records*, each preserving a relationship between a specific action, its subsequent outcome, and the context where the action occurred. These records range in levels of abstraction, from simple low-level motor behaviors to high-level thoughts and ideas [31].

While individuals hold a large number of records in memory, only a relatively small subset is relevant to any given situation. For example, low-level procedural records related to the motor skills of riding a bike would not be used, or *activated*, during a provider–patient interaction. Thus, Greene posits that there must exist an activation threshold level where only the most relevant procedural records are manifested in one's behavioral output. AAT posits that the two main factors determining which procedural records are activated include: (1) the strength of the record (i.e., how frequently it has been activated in the past), and (2) its relevance to the current situation or goal.

Once activated, select records progress through the second process of AAT, *output representation*, which connects the activated procedural records in a logical manner [30]. Greene uses the analogy of a child playing with Legos to explain the two processes [31,32]. First, the child selects a small number of Legos from the set to play with (the activation process), and then he stacks and connects the Legos in a logical way to build a coherent structure (the assembly process). These processes demonstrate how thoughts and behavior can be both repetitive (as one utilizes the same procedural records over and over), yet unique in how the records are combined and assembled.

Although most application of AAT has been outside of healthcare communication, Street used AAT axioms to call for intensive, active communication training for providers (e.g., role playing, group discussion, feedback from patients and experts). These methods strengthen procedural records related to patient-centered responses, and therefore can be called upon quickly and efficiently in real-life medical interactions [33].

2.4. Summary

These individually centered theories present individual cognitive processes as not simply an ancillary tool in the communication process, but the core of social interaction. By creating this paradigm shift, GPA Theory, uncertainty theories and AAT focus providers' attention on better communicating and understanding the goals, messages and thought processes of patients and themselves.

3. Interaction-centered theories

Below we describe three theories of interpersonal communication focusing primarily on the interaction itself, or the ways in which participants use verbal and nonverbal behavior to manage the communicative process. This group of theories focuses on "the content, forms, and functions of messages and the behavioral interaction patterns between persons" [1] (p. 145). We present three interaction-centered theories that, in our experience, have the greatest potential for useful application in healthcare communication. An important underlying assumption of the theories presented is that interpersonal communication is transactional. In the healthcare setting, transactional suggests that when a provider and patient interact, they are affected by and affect each other simultaneously.

3.1. Communication Accommodation Theory

Communication Accommodation Theory (CAT) focuses on the ways individuals modify their communicative behavior as a result of their communication with each other. Applied to healthcare communication, CAT allows us to predict and explain nonverbal and verbal behavioral modifications that providers and patients make to create, maintain, or decrease social distance in interaction. CAT explains how behavioral strategies (e.g., rate of speech, eye contact, gestures) are utilized to accommodate speech and nonverbal behavior, and conversely how providers and patients may not accommodate their speech and nonverbal behavior [34,35].

The theoretical construct of accommodation is made up of two constructs: *convergence*, or matching another's communication style, is indicative of perceived or desired similarity, while *divergence* indicates a desire to accentuate differences in communication style. Other ways in which providers or patients may accommodate another include taking into account others' conversational needs and the power or role relations of the individuals in the interaction. Those traditionally perceived as having greater power tend to be accommodated more than those with less power [34].

Street [36] was the first to apply CAT to the provider–patient interaction, noting that due to the unique nature of the provider–patient relationship, accommodation would not be expected in all matters of the clinical interaction. Some behaviors should be complementary, as patient and provider work to maintain communicative differences related to their roles. For example, providers may have specific questions they ask patients during the history-taking portion of the consultation, with the patient responding. Alternatively, behaviors related to fostering rapport would be expected to follow the principles of CAT. Many behaviors are nonverbal, including frequency of gestures, speech rate, and smiling.

CAT has had limited application to healthcare communication studies. Studies using CAT include those examining intergroup conflict among multi-specialty physicians [37]; using raters to assess the degree to which videotaped physicians and patients used behaviors derived from CAT (e.g., control the conversation, attend to relationship needs) [38]; and operationalizing and analyzing nonverbal accommodation in physician–patient interactions [39].

3.2. Facework and Politeness Theory

In his classic work on facework in social interactions, Goffman proposed that participants in an interpersonal interaction perform a set of nonverbal and verbal acts that display their evaluation of both the situation and the players in the situation, including oneself [40]. Goffman defined *face* as "the positive social value a person effectively claims for himself by the line others assume he has taken during a particular contact" (p. 5). Face can be thought of as the image others and the individual have about the self.

Within an interpersonal interaction, such as a healthcare interaction, both a provider and patient are concerned with, and even attached to, their face. Goffman stated that information given during an interaction that establishes a better face than one has assumed for him or herself will lead to positive feelings, while information consistent with one's face will probably be unnoticed. Disconfirming information transmitted during an interaction may damage one's face, resulting in sadness or hurt feelings [40].

Facework is the actions a provider and patient may take to either maintain face or save a threatened face. Gottman grouped facework into the avoidance process, where persons avoid contexts where face threat might occur, and the corrective process, where face threat has occurred and individuals attempt to restore face.

Brown and Levinson's Politeness Theory [41] is grounded in this conceptualization of face. Brown and Levinson maintained that in interactions, not only do individuals try to save or maintain their own face, but also often they are cognizant of saving or maintaining another's face. Face can be positive face – the desire a patient or provider has to be accepted, liked, and included, and negative face – the desire a patient or provider has to maintain autonomy. Brown and Levinson proposed four types of face threat: (1) threatening one's own positive face (e.g., an admission of guilt); (2) threatening one's own negative face (e.g., making a promise); (3) threatening another's positive face (e.g., an insult); or (4) threatening another's negative face (e.g., asking a favor). They further develop strategies used in conjunction with these types of face threatening communicative acts.

These ideas of face can be applied when looking broadly at provider–patient interactions. The patient enters the interaction with a face, which has developed in part from previous interactions with this or other providers as well as from the patient's views about her own health, her abilities to understand the information discussed with the provider, and her ability to communicate her concerns and questions effectively. The provider also enters the interaction with a face, defined as how she sees herself as a provider in relation to all patients, as well as in relation to this specific patient. As collaborators in a social interaction, both parties are likely to show concern for the other's face.

Researchers have applied facework theories in the realm of provider–patient interaction through supporting the development of a coding system for empathic communication [42], understanding how patients introduce Internet information to providers in more or less face threatening ways [43,44], and in examining how pharmacists and physicians interact [45,46].

A discourse analysis approach also has been used to examine how facework emerges in the detail of the talk during provider–patient interactions, examining non-compliance [47], giving bad news [48], parent–child–pediatrician encounters [49], and the effect of politeness and facework on clarity [50].

3.3. Speech Codes Theory

Every culture has a distinct way of speaking. The term *speaking* means more than the language that is used, but a code by which interpersonal communication is produced, interpreted and evaluated [51]. A *code* of communication provides providers and patients with both a set of rules and practices when communicating with others, and a cognitive framework to make sense of others' communicative practices. The significance of communication is dependent on the speech code that is used to interpret it; providers and patients also use speech codes to evaluate and explain others' communication behavior [52].

Speech Codes Theory proposes that individuals encounter multiple speech codes during their lifetime; these speech codes are related to the people and relationships of that culture. Although culture as is often thought of as akin to nationality or ethnicity, Philipsen identified culture as "a socially constructed and historically transmitted pattern of symbols, meanings, premises and rules" [53] (p. 7–8). Using this definition of culture, speech codes of providers and patients differ. A patient's code of communication is central to his ability to obtain, process, and understand health information and services. Patients' communication codes guide their entire communication experience, including but not limited to the written word. Research applying Speech Codes Theory to provider–patient communication is limited. Our search identified only one study applying Speech Codes Theory in a healthcare setting, examining how acupuncture providers talk with each other about how acupuncture works [54].

3.4. Summary

Interaction-centered theories focus on how providers and patients continuously affect and are affected by each other during their interactions. Taken together, these theories help us to better understand elements of the provider–patient interaction, such as why the way a patient makes a request of a provider may affect the response or how a different speech code may result in the patient's non-adherence.

4. Relationship-centered theories

The theories discussed in this section relate to processes of disclosure of information within the context of personal relationships. We posit that the elements of the relationship, topics discussed, and the patient's personal disclosure qualify the provider–patient interaction to be looked at through the lens of relationship-centered theories of interpersonal communication [1]. This grouping of theories focuses on the understanding of how communication fits in the processes of relationships – through their development to their potential termination.

4.1. Social Penetration Theory and the norm of reciprocity

Social Penetration Theory [55] was developed to explain relational closeness, and proposes that relationships develop over time, through a process of self-disclosure. Social Penetration Theory commonly is described using an onion metaphor, to suggest the levels, or layers, of self-disclosure. Often only the outer layer, referred to as the *surface* layer, is the layer seen by others; people may make inferences based upon this general information (height, weight, etc.). Upon peeling back this first layer, more information about an individual is revealed in the *peripheral* layer. This information is still fairly general – the type of information shared in an introduction in most social situations. *Intermediate* layers contain information that is infrequently shared, but not hidden. The final *central* layers encompass more private information, often disclosed with caution to select individuals. Such information could include deep emotions, core values and beliefs [55,56].

Many individuals know surface information about oneself, but far fewer are aware of private information contained in an intermediate or central layer. As interpersonal relationships

develop, a reciprocal pattern of self-disclosure is observed. Self-disclosure increases after individuals have had satisfactory or rewarding interactions with others.

Social penetration is defined by breadth (number of topics discussed) and depth (how personal is the information being discussed) [55]. In interactions between providers and patients, topics in the surface and peripheral layers may be discussed; the interaction may move quickly to the provider probing for information contained in the patient's intermediate or central layers. The provider may question the patient regarding sexual practices, drug and alcohol use, history of depression, etc. The vast amount of this information is one-sided with the provider asking multiple questions, but not sharing equally private information with the patient. Hence, the normal pattern of social penetration, occurring over time and being reciprocal, is often violated in provider–patient relationships.

A related and underlying tenet of Social Penetration Theory is the norm, or *rule of reciprocity*, which states that "we should try to repay, in kind, what another person has provided us" [57] (p. 21). Reciprocation is a strong motivation in human behavior; individuals perceive a sense of obligation to repay what has been provided to them [58]. This rule is so well ingrained in human society, that those who continually avoid reciprocation (whether it be kindness, time, money, etc.) are viewed negatively by others [57]. Providers cognizant of this norm may be able to activate it simply, such as complimenting a patient or offering some new information; this behavior then may be perceived by the patient as a benefit afforded to him [59].

Most research using Social Penetration Theory or the norm of reciprocity is focused on relationships (e.g., roommates, friendships, romantic, marital); fewer studies have applied the theory to the healthcare communication context. One qualitative study using a grounded theory approach identified "institutional social penetration" as a concept emerging from the data [60]. The authors suggested that this expansion of Social Penetration Theory assisted in explaining how family caregivers of elders with dementia interacted with the formal and informal care systems within a nursing home. Others have identified Social Penetration Theory and the norm of reciprocity in conjunction with Social Exchange Theory as a foundation for their research, applying it to the pharmacist–patient domain [61].

One Dutch study reported that medical residents perceiving reciprocal relationships with supervisors were less likely to perceive emotional exhaustion and depersonalization than those perceiving that they were under-benefiting in such relationships [62]. Many other studies have assessed the effect of physician self-disclosure on patient outcomes such as satisfaction and visit content and others have sought to describe physician disclosures [63,64]. However, these studies have not specifically identified Social Penetration Theory or the norm of reciprocity as underlying theoretical foundations. Numerous scholars also have assessed or commented on the topic of professional boundaries between patients and providers, (e.g., [65,66]) noting that there have been extensive study of boundaries, particularly in the psychiatric literature.

4.2. Communication privacy management

The theory of communication privacy management (CPM) was developed to understand the process of both concealing and revealing private information. Originally applied to personal relationships, but quite relevant to the provider–patient relationship, CPM suggests that both individual and collective boundaries are constructed around information deemed private. Boundaries regulate who is perceived to have control over the private information, who has access to the information, and how to protect that information from those outside the applied boundaries [67]. The most recent overview of CPM discusses six underlying principles of the theory: (1) public–private dialectical tension; (2) conceptualization of private information; (3) privacy rules; (4) shared boundaries; (5) boundary coordination; and (6) boundary turbulence [68]. The first three principles are characterized as "assumption maxims," relating to managing presumably private information, whereas the latter three are characterized as "interaction maxims," relating to how communication interactions are controlled when one chooses to reveal or conceal private information. Per CPM, an inherent push–pull is constant when revealing private information, often creating a dialectic tension, or opposing perspective.

A critical understanding of the theory necessitates understanding that private information is usually believed to be owned, or possessed, and that personal and collective boundaries are constructed around this information. Recognition of these principles is critical when communicating among various "owners" (such as a provider or a patient) of information. CPM argues that successful communication is more likely when those involved explicitly acknowledge the existence of private information and together determine privacy rules and boundaries (e.g., if family members are to be made aware of the information).

In health-related contexts, CPM, or its predecessors, has been used to explore communication related to child sexual abuse [69], disclosure of HIV information/status to family members [70] and understanding how family and friends may function as informal healthcare advocates for patients [71]. More recently, CPM has been used in the context of stressors associated with the early survivorship of breast cancer [72], as well as exploring how physicians may deliver bad news [73].

4.3. Summary

Theories categorized as relationship-centered tend to focus on the disclosure of information within a communication encounter. These theories may apply to initial interactions between individuals, as well as to longer-standing "relationships" such as those among patients with a constant primary care physician. Application of these theories allows us to better understand and further explain the communication, or lack thereof, of information within a medical encounter among multiple individuals.

5. Discussion and conclusion

5.1. Discussion

Due to the interpersonal nature of healthcare communication, an understanding of interpersonal communication theories can affect both research and practice. Unlike Cameron's review piece on persuasion [4], theories described herein that have been applied to healthcare communication have been applied in a descriptive, rather than interventional, manner. Results can address questions arising in provider–patient contexts and lead to additional questions for future exploration.

Hall and Mast explain there are multiple ways of "being theoretical" in scholarly work [74]: grounding, referencing, study design and analysis, interpretation of findings and impact. We find this framework particularly useful in thinking about how to apply interpersonal communication theories to healthcare communication practice and research. Three of these ways of being theoretical (grounding, referencing, and interpretation) are particularly relevant to the theories presented here, both in terms of past and future uses. First, studies can be grounded by using a theory as a starting point. A researcher might choose to test GPA Theory in healthcare communication by designing a study asking physicians to watch a recording of themselves interacting with a patient and

write down their thoughts at regular intervals in the interaction. Second, researchers often reference theory when discussing a conceptual framework for a particular study. For instance, healthcare communication researchers studying empathy may reference face-work as a contributing theory to the conceptual framework used in their study. Finally, theories can contribute to the interpretation of study findings, such as using Uncertainty Management Theory as a framework when analyzing focus group data.

Opportunities for utilization of interpersonal communication theories in healthcare communication research are vast. *Individually centered theories*' emphasis on the effects of thought processes on communication behavior provides researchers a useful perspective to enhance provider–patient communication. Additional research in GPA Theory might focus on understanding more fully the link between a "team approach" to goal creation and patient health. UMT can continue to serve as a foundation for studies seeking to explain why some patients actively search for information in health contexts while others avoid it, which can aid providers in better tailoring their communication to the needs and preferences of their patients. AAT's focus on the connection between repetition and memory recall has strong applications for communication skills training and interventions.

Interaction-centered theories provide thorough descriptions of what happens in healthcare communication. Connecting these descriptions with patient outcomes could occur via the application of CAT to healthcare. Building upon previous work in operationalizing the theory in healthcare interactions [39], further work might examine how specific acts of convergence and non-convergence contribute to a patient-centered interaction. Face-work and politeness theories could be applied to healthcare consultations wherein a provider is discussing health risks with patients. For example, do more face-saving strategies lead to better outcomes in the context of tobacco cessation discussions? Rigorous study of speech codes in provider–patient interactions could lead to a better understanding of misunderstandings and non-adherence.

To apply *relationship-centered theories*, we must first recognize that often we are violating *rules* of Social Penetration Theory and that such unequal and rapid penetration can have an effect on the future of the provider–patient relationship. However, reciprocity does not operate in every context. Future research may consider identifying contexts or types of interactions (e.g., providers in varying specialties) where conforming to the rule of reciprocity is both the most and the least effective.

There are certainly some limitations to note about our discussion of these theories. The theories discussed were not originally developed for application within the healthcare context. However, as many aspects of interpersonal communication, both verbal and non-verbal, arise in healthcare encounters, both providers and researchers can learn a great deal from these interpersonal theories. The theories noted herein need to be tested further in the healthcare context to fully understand their worth and applicability for advancing the field. In a sense, the healthcare context itself almost serves to violate some of the assumed principles of some of these theories. Originally, these theories have often been used in personal relationships where we might expect a more similar power balance; power imbalance may be seen more often in the healthcare context. Although these theories are both useful and applicable in the healthcare communication context, they may need to be molded to fit this unique situation.

5.2. Conclusion

This manuscript presented nine selected interpersonal theories relevant to the practice of healthcare and the provider–patient relationship. In the past these theories have been used to describe and explain interpersonal relationships such as friendships, romantic relationships, marital relationships, and familial relationships. Some theories have been used in the healthcare context to explain self-disclosure, goal creation and accommodation.

5.3. Practice implications

This article serves as an introductory primer to theories of interpersonal communication that have been or could be applied to healthcare communication research. Understanding key constructs and general formulations of these theories may offer providers additional theoretical frameworks to improve healthcare communication. Providers may find it useful to consider these theories when problem-solving a difficult interaction with a patient or to consider the theories more generally as part of a self-reflective learning process. We believe even a glancing knowledge of these theories and their related constructs may serve to help the provider, whether engaged in clinical care, in research, in teaching, or in all such areas to improve healthcare communication and, ultimately, patients' experiences.

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Conflicts of interest

None.

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