Understanding healthcare providers' professional identification: The role of interprofessional communication in the vocational socialization of physicians

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ABSTRACT

As physicians' roles continue to change in the US, scholars have called for more research in interprofessional communication—communication between physicians and other healthcare providers to help interprofessional healthcare teams work together to examine, design, and deliver quality medical care to patients. Here, we examine the role of interprofessional communication in fostering professional identification among physicians. Survey results from physicians showed the unique role that mutual support plays in strengthening healthcare providers' professional identities. This study contributes to the current communicative-based identification literature by looking beyond formal socialization practices to show how day-to-day interprofessional interactions influence physicians' identity. In addition to expanding theory, this research also adds to practice by demonstrating the need to train physicians not only on when and how to consult other physicians and medical teams, but also to trust, depend on, and work in concert with other specialties.

During the last decade, the roles and expectations of healthcare providers in the United States healthcare system have changed. Physicians in particular, are now dealing with reduced autonomy, increased organizational control, and greater influence of third-party payers,[1] which may affect physicians' professional identity. In response to these growing issues,[2] recently called for more research in health-related organizational communication to understand physicians' professional identity.

Although some studies have taken a communicative approach to explore physicians' identities, current research focuses solely on early vocational socialization experiences. For example, several studies have focused on socialization during pre-clinical years, such as Harter and Kirby (2004)[3] who investigated how medical students came to understand their professional roles through interactions with standardized and virtual patients. Similarly, Harter and Krone's (2001)[4] study of osteopathic medical students, found that students' identities were embedded in socialization discourses. Other research has looked at medical residents, including Apker and Eggly's (2004)[5] study of how professional identity is constructed during morning report, and Pratt, Rock, and Kaufmann's (2006)[6] study of residents and identity construction. Similar to research that explores how people learn and become part of corporations, most studies of physician identification focus on newcomers' experiences.[7]

The identification process, however, is fluid and changes over time.[8,9] Beyond formal socialization, scholars must consider how day-to-day interactions influence physicians' identities. This study explores how experiences beyond early socialization influence physicians' professional identities. Specifically, we examine the role of interprofessional communication—communication between physicians and other healthcare providers in fostering professional identification. Real, Bramson, and Poole's[10] research has demonstrated the importance of environment and context in understanding physicians' identities. Beyond the traditional socialization that physicians receive, we investigate how communication in the medical environment shapes professional identity.

Scholars need to better understand the role of interprofessional communication in fostering physicians' professional identities because their professional identities are being challenged in today's

environment. Decades ago, sociologists suggested that physician identity was structured around power, autonomy, and prestige (e.g.[11]). Today, increased cost control, administrative rationality, the rising numbers of physicians, and patients' ability to access medical information online are shifting these longstanding beliefs about physicians.[1,10] Physicians' professional identities have implications for how physicians and other healthcare providers make decisions and communicate with patients, so scholars need to better understand the day-to-day experiences and communicative dynamics that shape physicians' connection to their profession.[2,10]

Review of literature

The socialization process

Scholars have defined socialization as the primary process by which people "learn the ropes" of an organization and adapt to new roles within it ([12] p. 211). Through socialization, people adjust to occupational practices and gain the "social knowledge essential for assuming an organizational role and for participating as an organizational member," ([13] p. 229—230). Several theorists have argued that socialization is multidimensional (e.g.[14]). Scholars have explored the dimensions of learning and adapting as well as the communication sources surrounding the socialization process. Kramer[15] has summarized seven socialization studies that presented various dimensions of how newcomers learn and adapt (see Table 1). Primarily, vocational socialization involves 1) meeting people, 2) adopting the professions' values, 3) learning language, and 4) understanding the history of the profession.

First, newcomers engage in relational learning and adapting—getting to know their workgroup and developing relationships with others. Relationships include (but are not limited to) peers, supervisors, and staff members.[16] Second, people must learn the goals and values of their profession. This includes explicit and implicit rules or principles that maintain the integrity of the profession.[17] Third, socialization involves learning the profession's technical language, including "acronyms, slang, and jargon," ([14] p. 732). Fourth, new members must understand the history of the profession and its members, such as traditions, customs, myths, and rituals.[18]

For many vocations, such as police officers[19] and firefighters,[20] newcomers enter a structured socialization process to help them learn and adapt to these four socialization dimensions. We explain this complex socialization process for physicians next.

Physicians' vocational socialization

Physicians' vocational socialization begins with the decision to attend medical school and pursue a career as a healthcare provider. Students who are accepted into medical education programs are highly motivated individuals, who are focused on achieving personal success.[21] Although students' experiences of the education

process will differ based on the program they attend, most programs require two years of basic science training followed by two years of clinical training.[22] During the basic science training, students acquire new knowledge and a new set of technical skills to enable them to care for patients.[23] During clinical training, students learn at the bedside of patients and are taught tasks such as how to organize a patient's history and how to examine patients. Attending physicians oversee this process by walking students through a calm and deliberate analysis of clinical information and providing instruction on how to treat various conditions.[22]

Because medical students are highly motivated to achieve personal success, they are often very control-oriented and fear that their team's performance may fall short of what they could achieve as an individual.[21] Medical education then adds a system of rewards based on individual grades, which further creates a competitive versus collaborative environment among students. Through this type of training, medical students learn the culture of a new "in-crowd," which encourages emerging physicians to see specialties they interact with as "other."[24] Even during this early stage in the education process, medical students are socialized to be the "best" even among other physicians.[21] At the conclusion of the four-year education program, students graduate and enter programs of residency, as they are not yet ready to practice in the absence of supervision.[25]

Residency is differentiated from the hands-on training students receive in the last two years of medical school, in that the training becomes more intense.[23] Because residents already graduated medical school and are now junior physicians, they are required to care for an increased number of patients, which bears a greater amount of responsibility related to clinical care and an immense pressure to perform.[23] During residency, residents rotate through different departments under the guidance of supervising physicians and perform additional tasks that are characteristic of the profession, such as being on call and attending report sessions.[22,26,27]

Residency is a difficult time for residents as they must find a balance between what is expected of them and live up to those expectations, all while providing care to patients.[27] Physicians are trained like soldiers[23] in that they are taught to suppress emotions and block natural responses to what they see and what they must do.[22] The goal of medical education is to professionalize physicians so that they are able to function under stress, focus on the task at hand, make the right diagnosis, and perform the appropriate procedures in a high stress environment.[23]

Developing a professional identity

According to social identity theory (Tajfel & Turner, 1986), "people tend to classify themselves and others into various social categories, such as organizational membership, religious affiliation, gender and age" (Ashforth & Mael, 1989, p. 20). For example, people define themselves in terms of their organization—"I am a

Table 1
Dimensions of socialization (adapted from Kramer, 2010[15]).

Chao et al.[14]	Louis (1982)	Miller & Jablin (1991)	Morrison (1995)	Myers & Oetzel (2003)[16]	Nelson & Quick (1991)	Ostroff & Kozlowski (1992)
Performance proficiency	Task/procedures	Referent	Technical/task referent	Job competency	Tasks	Task
Organization goals/values	Image/identity	Relational	Culture/normative	Role negotiation	Roles	Role
Organization history	Workplace frame	Appraisal	Organization information	Organization acculturation	Make sense of experiences	Culture/norms
Politics	Power/players		Political/power	Supervisor familiarity	Relationships	Group
People/relationships	Task/social networks		Relationships	Involvement	Performance	
Language	Local language		Appraisal	Recognition	Isolation	

3Mer"—or their profession—"I am a salesperson." When a person perceives a strong sense of oneness or belongingness with a social category, whether that be an organization or a profession, that person experiences identification (Mael & Ashforth, 1992). Thus, professional identification refers to the extent to which people define themselves in terms of a profession.

Medical education programs provide their students with the necessary knowledge and skills to enter the healthcare field, which allows students to strengthen their professional identification as they learn what it means to be a physician.[28,29] Some scholars have even suggested that medical students are stripped of their previous identities during the education process.[25] Although students may enter medical education programs with certain perceptions of the profession, those perceptions are likely altered by the influences of role models during the professional socialization process.[23,30,31] Much of the knowledge that medical students and residents learn about their professional role and communicating within that role is acquired informally outside of the classroom.[32–34] Scholars use the term "hidden curriculum" to describe the learning that occurs outside of the formal medical curriculum,[35] and it is this implicit and unintended learning process that may explain the gap between what is formally taught in medical training and actual outcomes in professional settings.[36]

Several studies have found support for this argument, indicating the importance of informal learning. In Barry et al.'s[32] study, a sample of medical students, house officers, and physicians indicated that they learned the most information about unofficial rules and regulations of the profession during informal discussions. In Kuziemsky et al.'s[33] study, two healthcare teams indicated that even though their teams held regular meetings, they often engaged in informal discussions with each other to exchange organizational information and issues related to the team. Sibbald et al[34] reported similar results in their study that indicated mentorship as the main way students learned information, citing senior residents as the main source of information for junior staff members. Likewise, Pratt et al.'s[6] research showed the importance of feedback in physicians' identity construction. In sum, these findings imply that professional rules, norms, and expectations are unique to each healthcare setting; thus, students must learn a great deal about their physician identity "on the job." However, these studies only acknowledge how learning about specific tasks shapes professional identities. What is the role of communication in fostering professional identities?

The role of interprofessional communication

Physicians' feedback to medical students often concentrates solely on the medical content of the interaction, disregarding the inherent importance of communication.[37] Perhaps, as Cary and Kurtz[38] suggest, physicians perceive communication as a "soft skill" that is less important than other aspects of the medical education agenda. Unfortunately, physicians are not born with effective communication skills, so they have to first be introduced and then practiced to be mastered.[39] Bongiovanni et al[24] echo this, suggesting that interprofessional healthcare teams aren't just made, but also require communication skills that can be taught.

As there is a push for increased collaboration between physicians and other healthcare providers, medical education curriculums are increasingly including communication skills for professional health communication,[40] with favorable results. Medical students in Bennett and Lyons'[41] study indicated that they felt more confident in their communication skills following training exercises, and 97% of those students viewed communication skills as highly important overall. Ross[42] suggested that training students in communication skills is most effective when educators utilize a combination of teaching strategies which engage students in activity, and include as much realism as possible. Educators who are able to link communication to medical content play an important role in motivating students to learn how to communicate well.[37]

However, teaching medical students about the equal importance of *interprofessional* communication skills is less common than physician-patient communication.[43] In fact, physician education programs pay little attention to teaching their students the importance of interprofessional communication.[31,44] This is cause for concern, because ineffective communication between physicians and other providers has direct implications for patients, such as the potential for medical errors, delays in patient care,[45] a reduction in the quality of patient care, and overall dissatisfaction among healthcare providers.[46] This lack of education about how to trust, depend on, and work in concert with other specialties has resulted in providers' inability as a house of medicine to optimally work alongside one another, which poses considerable risks for both their professions and more importantly, their patients.[24]

Physicians, who were once socialized as "experts" in their field and solely responsible for all aspects of patient care,[47] now share in the delivery of healthcare services.[48] When patients receive care from a healthcare team, their physician is likely one of several healthcare providers who engage in shared decision-making with patients and other providers. Team-based patient care has gained popularity in response to problems such as a smaller pool of general practice physicians,[49] growing financial challenges in medical practices,[50] and new regulations such as the Affordable Care Act, which places greater emphasis on continuous communication between patients and providers.[51] With these new changes, scholars need to explore this communication between physicians and other healthcare providers.

This study explores the role that interprofessional communication plays in fostering professional identification. Beyond traditional socialization (meeting people, adopting values, learning language, and understanding the history of the profession), interprofessional communication at work should also play a role in the formation of physicians' identities. Madlock and Horan[52] studied the relationship between socialization, people's judgments about the value of engaging in future interactions with others, and commitment. Their research demonstrated that people's judgments were the strongest predictor of the amount of identification or attachment people felt to their work, beyond organizational, workgroup, and task socialization. Although we know that socialization fosters professional identity, Madlock and Horan's[52] findings show the importance of further examining the role of communication in this process. Instead of exploring people's judgments about future interactions, this study investigates actual communication within a profession to determine the role that interprofessional communication plays in establishing professional identification, beyond traditional socialization. Therefore, we propose the following hypothesis.

H1. After accounting for the traditional dimensions of vocational socialization, interprofessional communication will predict professional identification.

Method

Participants and procedure

Participants were recruited in a multi-step process. First, a flyer containing information about the study and a link to the survey was shared with students at a large southern university who had existing relationships with physicians. Second, information about the study was sent to research offices at several local hospitals.

Third, the same information was shared with medical residents at a medical residency program.

A total of 48 physicians (24 males, 20 females, 4 unreported) completed the online survey. Participants represented a broad range of professional experiences. On average, physicians had 14 years of professional experience and were between the ages of 26–71, with an average of 41 years. About half of the sample was White ($n = 26$). Other physicians listed their ethnicity as Hispanic ($n = 5$), African-American ($n = 1$), Asian ($n = 10$), Indian ($n = 1$), and Puerto Rican ($n = 1$). Four participants did not report their ethnicity.

Physicians in this study reported their professional credentials as Doctor of Medicine (MD; $n = 35$), Doctor of Osteopathy (DO; $n = 3$), Attending Physician ($n = 10$), and Medical Resident ($n = 7$). Ten participants reported two professional affiliations (e.g., MD and Attending Physician). The majority of participants indicated they currently worked in a hospital setting ($n = 30$), but a few participants also worked in public clinics ($n = 5$) or private practices ($n = 14$).

Instrumentation

The survey included seven scales representing the three primary variables in the study: professional socialization, interprofessional communication, and professional identification. All items were measured on seven-point Likert-type scales that indicated participants' agreement or disagreement with various statements, where 1 = "strongly disagree" and 7 = "strongly agree." Table 2 summarizes means, standard deviations, and Cronbach's alphas for each measure.

Professional socialization

Chao et al.'s[14] 34-item Socialization Scale was used to measure participants' perceptions of their levels of socialization into the medical profession. Participants completed adapted versions of four of the six subscales that were most relevant to professional socialization: people, values, language, and history. Participants responded to statements such as, "I know my profession's long held traditions."

Interprofessional communication

The TeamSTEPPS Teamwork Perceptions Questionnaire[53] is a well-known, and widely accepted national standard for team training in healthcare. This 35-item measure provided a lens to assess participants' perceptions of interprofessional communication. Participants completed adapted versions of two of the five subscales that were most relevant to interprofessional communication: mutual support and communication. Participants responded to statements such as, "Feedback between all team members is delivered in a way that promotes positive interactions and future change."

Professional identification

The 6-item Affective Occupational Commitment Scale[54] was used to determine physicians' perceptions of their professional identification. We operationalized professional identification with a measure of participants' commitment because prior studies have shown commitment to measure the relative strength of an individual's identification.[55] Specifically, Reichers[56] notes that, "commitment occurs when individuals identify and extend efforts" (p. 468). Participants completed an adapted version of this scale, responding to statements such as, "Being a physician is important to my self-image."

Results

Before analyzing data, the researchers screened the data for univariate outliers, multivariate outliers, and normality assumptions. The researchers found no outliers and no departure from normality, so they did not remove any cases or transform any variables. Table 3 shows correlations among all the variables used in the study.

The authors also conducted a post hoc power analysis using the software package G*Power 3.[57] The effect size for our study was .538, which we calculated with the formula $(R^2)/(1-R^2)$. Cohen[58] recommends the following values of the effect size f^2: small ($f^2 = .02$), medium ($f^2 = .15$), and large ($f^2 = .35$). Using an alpha level of $p < .05$ for the statistical power analysis, the post hoc analysis revealed the statistical power for this study was .96. Thus, there was more than adequate power.

Hypothesis 1 predicted that interprofessional communication would explain additional variance in professional identification beyond that explained by the traditional dimensions of vocational socialization. This hypothesis was addressed using hierarchical linear regression, with two blocks of variables entered according to theoretical relevance.

The first regression equation with the traditional dimensions of vocational socialization, including people, values, language, and history (block 1) was significant, $F(4,35) = 2.94$, $p < .05$, $R^2 = .25$. There were no significant predictors in the first model. The second regression model (block 2) added the two dimensions of interprofessional communication (mutual support and communication) to the traditional dimensions of vocational socialization. This second model was also statistically significant, $F(6,33) = 2.94$, $p < .05$, $R^2 = .35$.

Although the first dimension, communication, did not significantly add additional variance in professional identification ($p > .05$), the second dimension of interprofessional communication, mutual support, was a significant predictor ($p < .05$) related to professional identification. Table 4 shows the results from the regression equations in which professional identification is regressed into the traditional dimensions of vocational socialization and interprofessional communication.

Table 2
Means, standard deviations, and Cronbach's alphas by measure.

	M	SD	α
Professional socialization			
People	5.55	.80	.78
Values	5.58	.77	.83
Language	5.86	.78	.75
History	5.58	1.13	.91
Interprofessional communication			
Communication	5.20	.97	.85
Mutual support	5.16	.98	.90
Professional identification	5.69	.91	.70

Table 3
Correlations between variables in study.

	1	2	3	4	5	6	7
1. People	1.00						
2. Values	.35*	1.00					
3. Language	.30*	.62**	1.00				
4. History	.16	.53**	.65**	1.00			
5. Communication	.57**	.35*	.27	.28	1.00		
6. Mutual support	.64**	.36*	.35*	.24	.76**	1.00	
7. Professional identification	.33*	.52**	.40**	.21	.34*	.46**	1.00

$^{**}p < .01$; $^{*}p < .05$.

Table 4
Predictors of professional identification from regression equations.

Predictors	β_1	β_2	R^2	ΔR^2
Block 1			.25*	
People	.06			
Values	.24			
Language	.36			
History	-.07			
Block 2			.35*	
People		-.18		
Values		.21		
Language		.32		
History		-.07		
Communication		-.08		
Mutual support		.39*		
				.10

*$p < .05$.

Discussion

This purpose of this study was to examine how experiences beyond early socialization influence physicians' professional identity. Specifically, we examined the role of interprofessional communication in fostering professional identification. The hypothesis predicted that after accounting for the traditional dimensions of vocational socialization, interprofessional communication would uniquely predict professional identification for physicians. This hypothesis was partially supported. Mutual support did predict physicians' identification with their profession. In other words, when physicians perceived an environment of trust, respect, cooperation, coordination, and shared responsibility from other healthcare providers in their care teams, they reported increased identification with their profession. This study makes a significant contribution to both theory and practice.

Implications for theory

The current study notably contributes to theory by demonstrating the importance of physicians' perceptions of mutual support in cultivating their professional identities. Whereas research has yet to identify this aspect of communication as central to the process of identification, it follows that this dimension of interprofessional communication significantly predicts physicians' attachment to their occupation.

For example, these results align with Myer et al.'s (1993) contention that when nurses perceive their profession as satisfying, they develop a stronger attachment with their profession. Because responses from other providers can confirm or disconfirm a physician's professional identity,[59] it would make sense that the more mutual support physicians receive from their colleagues, the more they identify with being a physician. Furthermore, Mickan and Rodger[60] found that physicians developed a sense of camaraderie with fellow providers with whom they worked for extended periods of time. These physicians exhibited a unique and identifiable team spirit that included sharing enjoyment and taking pride in their achievements. Therefore, when physicians witness the benefits of establishing positive professional relationships, it makes sense that they would continue to work to maintain such relationships in order to reap similar benefits in the future and maintain their professional identity. The current study also adds support to research showing the relationship between positive horizontal communication (i.e., talk among colleagues) and professional identification.[61]

Although the mutual support dimension of interprofessional communication significantly predicted professional identification, the communication dimension did not uniquely contribute variance to the model. More specifically, physicians' perceptions of positive communication instances—such as ensuring clarity and paying special attention to detail when providing information about a patient, or attempting to enhance the group climate by making sure everyone feels involved—did not predict professional socialization in this study. Perhaps physicians in this study viewed such technical aspects of their job as organization-specific requirements that were not related to their professional identity.

Prior research supports the notion that physicians view their professional identities as separate from the organization where they work. When physicians in Pratt et al.'s[6] study experienced a conflict between their occupational and organizational identities, they turned to organizational rules and norms for guidance on how they should behave in a given situation. This could explain why the communication dimension of interprofessional communication did not predict physicians' identification with their profession. Because different organizations have different expectations for healthcare providers with regard to interprofessional communication about patients,[43] perhaps physicians consult their organizational guidelines when faced with questions about such collaborative communication.

Implications for practice

In addition to its contribution to our understanding of professional identification, this study holds important implications for practice by providing statistical support for the importance of effective communication in the workplace. Although socialization is an important factor related to professional identity, mutual support was the single significant predictor of physicians' professional identification in this study. Because learning effective communication skills increases physicians' self-efficacy in relation to communication with colleagues,[45] emphasizing the importance of interprofessional communication during medical education is an important step towards ensuring that medical students internalize such communication as a part of their professional identity. At the start of this paper, we discussed physicians' extensive socialization process, during which students learn about the people, values, language, and history that uniquely constitute a physician's role. Although these socialization activities encourage professional identification, this study shows the importance of interprofessional communication. Our research demonstrates the importance of training physicians—both new and tenured—on how to communicate effectively with other healthcare providers. Communication training is based on learning how to direct and refine messages that are sent and received between two or more individuals. For the purposes of training physicians how to effectively communicate within healthcare teams, trainings approached at the small group level will be most effective. Medical curriculums should be revised to place a greater emphasis on educating physicians how to assist one another in teams, request assistance from other healthcare providers, and provide feedback to team members—all of which are key aspects of mutual support. Instituting this training early in physicians' careers – during their clinical years – will help them incorporate such information into their professional identities, and allow them the opportunity to practice those skills when communicating with other providers. To reach tenured physicians, such trainings could also be offered as continuing medical education credits.

This training is crucial in today's healthcare system, where the roles and expectations of physicians have changed. Although physicians have traditionally been socialized as autonomous healers and have dominated the medical hierarchy,[44,47,62] physicians and other healthcare providers must engage in interprofessional communication. Therefore, reshaping how these individuals think about

interprofessional communication in relation to their professional roles is imperative, and can be achieved through training on the importance of quality communication professional relationships.

Limitations and conclusions

Although the results of this study contribute significant understanding to the role of interprofessional communication in physicians' professional identification, a few limitations should be acknowledged. The first limitation concerns the relatively small number of participants included in the sample of this study. With 48 physicians, it is difficult to generalize the results of the study to the general population of physicians. However, experts suggest that in order for parametric tests to be used, an adequate sample size of at least 5 to 10 observations per group must be reported.[63] Moreover, real and simulated data provide evidence that parametric tests are more accurate and robust than non-parametric tests, even when statistical assumptions such as a normal distribution or sample size are violated.[64] Despite the relatively small sample size, results from the power analysis determined a large effect size (.538), with more than adequate statistical power (.96) for this study.

A second limitation concerns the lack of cohesive groups of physicians by subspecialties. Due to the small sample size, we could not examine the variability among physicians throughout the trajectory of their careers to determine if differences exist based on the *type* of physician and their status in the profession or organization. Because physicians are steered towards different subspecialties of medicine based on their communication skills,[43] the results of this study might differ based on whether the participant was a resident, attending physician, family medicine physician, oncologist, or surgeon. Future research should replicate this study using such subspecialties of physicians to determine if interprofessional communication is viewed as more or less favorable based on the exact task roles of physicians. In addition, future studies should also observe or record physicians' and other healthcare providers' communication at work, rather than relying on self-report measures, to further explore the relationship between interprofessional communication and identification.

In conclusion, this study contributes to the current communicative-based identification literature by looking beyond socialization practices to explore the role of interprofessional communication on physicians' professional identification. Under the Affordable Care Act, physicians are compensated based on the quality of care given to patients.[51] Because patients receive the best quality of care from coordinated groups of healthcare providers who work together,[51] developing successful professional relationships in the workplace is the first step towards achieving successful interprofessional communication between physicians and other healthcare providers and in turn enhancing the quality of care that patients experience. This study provides support for the unique role that communication plays in shaping physicians' professional identities.

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