A Schematic Representation of the Professional Identity Formation and Socialization of Medical Students and Residents: A Guide for Medical Educators

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Abstract

Recent calls to focus on identity formation in medicine propose that educators establish as a goal of medical education the support and guidance of students and residents as they develop their professional identity. Those entering medical school arrive with a personal identity formed since birth. As they proceed through the educational continuum, they successively develop the identity of a medical student, a resident, and a physician. Each individual's journey from layperson to skilled professional is unique and is affected by "who they are" at the beginning and "who they wish to become."

Identity formation is a dynamic process achieved through socialization; it results in individuals joining the medical community of practice. Multiple factors within and outside of the educational system affect the formation of an individual's professional identity. Each learner reacts to different factors in her or his own fashion, with the anticipated outcome being the emergence of a professional identity. However, the inherent logic in the related processes of professional identity formation and socialization may be obscured by their complexity and the large number of factors involved.

Drawing on the identity formation and socialization literature, as well as experience gained in teaching professionalism, the authors developed schematic representations of these processes. They adapted them to the medical context to guide educators as they initiate educational interventions, which aim to explicitly support professional identity formation and the ultimate goal of medical education—to ensure that medical students and residents come to "think, act, and feel like a physician."

During the past two decades, attention has been directed at the nature of medical professionalism and how best to teach and assess it. The concept of professional identity has received some mention, albeit relatively little in medical education. Recently, educators have suggested that the objective of teaching medical professionalism is to support students and residents as they develop their own professional identity.[1–3] In this context, teaching professionalism becomes a means to an end, with the end being the development of a professional identity. An extensive literature in developmental psychology illuminates how individuals develop a personal identity,[4–8] and during the past decade, this scholarship has served as the basis of original and creative work examining the nature of physicians' professional identities and the factors that influence their emergence.[9–22]

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A 2010 Carnegie Foundation Report proposed that professional identity formation should be a major focus for medical education,[1] an opinion echoed by others in the field.[2,3,9,10] For this to occur, medical educators must understand the nature of professional identity, professional identity formation, and the process of socialization through which a professional identity is formed. The inherent logic of these issues, however, may be obscured by their complexity. We have therefore developed schematic representations of identity formation, socialization, and learners' roles and responses to this process to assist medical educators to better understand these issues. We hope that such schemata prove useful in designing educational interventions to more effectively guide identity formation in medicine as students and residents come to "think, act, and feel like a physician."[23]

Personal and Professional Identity Formation

Conceptually, professional identity formation must be congruent with the processes through which human beings develop a personal identity.[24] Psychological theories propose that individuals proceed through life continuously organizing their experiences into a meaningful whole that incorporates their personal, private, public, and professional "selves."[4–8,24,25] As they pass through each stage, from infancy to childhood, adolescence, and beyond, individuals gain experience and become capable of constructing an increasingly complex persona. The theoretical approaches to identity formation suggest three domains through which identity is influenced and developed, all relevant to medical education: individual identity, relational identity, and collective identity.[24] The identity of an individual at any moment represents the sum of the influences impacting these three domains. The individual domain includes personal characteristics, self-chosen or mandated commitments, beliefs about one's self, and the impact of multiple life experiences. The relational domain expresses the influence on identity of significant individuals, such as family members, friends, mentors, and coworkers. The collective domain reflects the impact of the social groups to which an individual belongs or wishes to join. An individual's status within the group and the group's status within society are important contributors to this identity component.[24,25]

Some aspects of an individual's identity are relatively stable throughout life, whereas others are more dynamic and change as the individual passes through each developmental stage and as his or her individual, relational, and collective relationships are altered. Some changes are brought about consciously, whereas others are more "automatic and implicit."[24] Although identity stabilizes in early adulthood, transformation continues throughout life, with an enduring core being ever-present.[6,21,24]

Building on the long-held belief that human beings develop their personal identity in stages, our current knowledge of identity formation is based on the theories of Piaget and Inhelder,[4] Goffman,[5] Erikson,[6] Kohlberg,[7] and others. Continuing their work, Kegan[8] proposed a framework for the longitudinal development of the self into a moral and meaning-making entity, which has helped us to understand the development of a professional identity in dentistry,[3] the military,[3,26] and medicine.[2,3,9] His classification, which refers to identity formation in general, consists of six stages, beginning in childhood and extending into adult life. They include (0) incorporation, (1) impulsion, (2) imperial, (3) interpersonal, (4) institutional, and (5) interindividual. The early and final stages are not pertinent to the development of a young adult, such as a medical student or resident. Thus, a medical identity, including one's professional identity, is thought to develop sequentially throughout Kegan's Stages 2, 3, and 4.

Table 1 adapts Kegan's stages of personal identity formation to describe the development of a professional identity. In Kegan's Stage 2, individuals take on a professional role, but it is not fully integrated into their identity. In Stage 3, individuals begin to identify with the profession, to the point that they become totally immersed in and integrated with it, as the concepts of altruism and service begin to take hold. Those who reach Stage 4 are characterized as the self-defining professional; they can negotiate conflicts between professional values and their core belief system and criticize or challenge aspects of the profession. Their reason is in control of their emotions and desires. At this stage, a deep, authentic, and unshakable incorporation occurs with professional identity and the other

Table 1

Kegan's Stages 2 to 4 of Identity Formation Adapted to Describe the Development of a Professional Identity in Medicine

Stage	Personal characteristics	Manifestations in a professional context
2: Imperial	An individual who takes into account the views of others but whose own needs and interests predominate	An individual who can assume professional roles but is primarily motivated to follow rules and to be correct; self-reflection is low. Emotions can overwhelm reason.
3: Interpersonal	An individual who is able to view multiple perspectives simultaneously and subordinate self-interest; who is concerned about how she or he is perceived by others	An individual who can assume professional roles and is oriented towards sharing obligations; tends to seek out those to emulate; is idealistic and self-reflective. Emotions are generally under control, and she or he generally does the right thing.
4: Institutional	An individual who can assume a role and enter into relationships while assessing them in terms of self-authored principles and standards; the self is defined independently of others	An individual who is able to understand relationships in terms of different values and expectations. The external values of the professional become internal values. Reason is in full control over needs, desires, and passion.

Note: Adapted from Kegan R. The Evolving Self: Problem and Process in Human Development. Cambridge, Mass: Harvard University Press; 1982.[8]

enduring identities defining the self. Those who transition to Stage 5 do not perceive themselves as having a single identity and are open to other influences. Information from the military indicates that few individuals are able to reach this stage in a lifetime.[3,26] Bebeau[3] described professional identity formation using Kegan's framework in this way:

> Individuals move from self-centered conceptions of identity through a number of transitions, to a moral identity characterized by the expectations of a profession—to put the interests of others before the self, or to subvert one's own ambitions to the service of society.

Preparation and training for a career is an important part of identity development. An individual's vocation is a stabilizing and integrative force in his or her personal identity.[25] The process is highly individual with each person proceeding at a different pace.[8] However, as society and the profession determine norms of behavior, each individual wishing to join the profession must adhere to these norms.[9]

Identity Formation and Medical Education

The following schematic representations were developed on the basis of the literature on identity formation and

the authors' experiences in teaching professionalism. They have been modified substantially following interactive sessions with members of McGill University's Centre for Medical Education and in response to feedback from workshops at national and international meetings and at other medical schools. We hope that the diagrams will assist medical educators in determining where they can intervene in the process of identity formation to cultivate a more supportive, consistent, and effective process.

Identity formation and communities of practice

Figure 1 places identity formation within the context of medical education. Students enter medical school in late adolescence or early adulthood (Kegan's Stage 2 or 3).[8] Their identity is partially formed, with the classic nature and nurture influences having been active for almost two decades. Their genetic inheritance, including their sex, race, and personal characteristics, in part determines "who they are."[6,24] Their life experiences, including culture, religion, and socioeconomic status, represent major influences, as do their education and sexual orientation.[24] Finally, their multiple personal relationships have

an important formative impact.[5,6,24] Acceptance into medical school is symbolically significant as it begins the long process of socialization through which students transform from members of the lay public to skilled professionals.[27] This process has several stages—the identity of a medical student is distinct from that of a resident, which differs from that of a practicing physician.[9,19,23,28,29] It is difficult to "skip" stages as, for example, issues facing a resident may be incomprehensible to a first- or second-year medical student who is less developmentally advanced and has not yet participated in the full process of socialization.[9]

Although the achievement of a professional identity appropriate for graduating medical students or emerging residents is a valid educational objective, we emphasize that identity is not static and that the identity of a practicing physician will continue to evolve throughout his or her practice.[3,6,8,24]

The response of each individual to socialization will vary, but all must enter into a series of personal negotiations as they acquire their new identity. The "readiness" of individuals to alter their existing identity differs[25]; some navigate the process with little difficulty. Erikson[6] believed that frequently some degree of "repression" of one's existing identity is required. This repression can lead to "identity dissonance" as aspects of one's new identity conflict with one's old

identity.[14] Such negotiations can result in the individual accepting all or part of the new identity, arriving at a compromise between the new and old identities, or rejecting the new identity. For example, recent generations have distanced themselves from the lifestyle of those whose professionalism has been described as "nostalgic"[30] and have committed to configuring a different balance between lifestyle and work.[31]

The bottom of Figure 1 invokes social learning theory to help understand the acquisition of a professional identity within medical education. The concepts of communities of practice and situated learning articulated by Lave and Wenger[32,33] are instructive.[1,3,9] These authors propose that social interaction between individuals promotes learning and that a community of practice is created when those who wish to share a common body of knowledge engage in activities whose aim is to become knowledgeable and skilled in a defined field. The learning takes place within the defined domain and thus is "situated." As a consequence, the individual moves from "legitimate peripheral participation" to full participation in the community. An important aspect of full participation, according to these authors, is the acquisition of the identity associated with the community.[32] This activity is voluntary—the individual wishes to join the community and, over time, accepts the norms established by it.[9] The movement from peripheral participation

to the center occurs in stages, proceeding from observation to imitation, then to carrying out uncomplicated tasks, culminating in more complex activities.[32,33] This description applies to the transformation of a medical student from a member of the lay public to a professional. The sense of belonging, an important component of a community of practice, translates into the collegiality of the profession.[34] Finally, the profession exerts a compelling social influence on its members as compliance with professional norms eventually emerges from within the individual.[24,25,34]

The norms of medicine's community of practice change over time as the social contract between medicine and society evolves, altering the expectations of patients, society, and physicians.[35] Each individual wishing to join the community must adhere to these norms. Failure to do so can inhibit progress to full membership or elicit sanctions or exclusion from the community.[24]

In the past, the identity of physicians has been exclusionary as the profession was dominated by white males of the dominant religion.[3,11,13,17] Even though progress has been made, with the community becoming more representative of the society it serves, minority and class distinctions still exist, making entry challenging for many.[3,10,11,17] In addition, tension may arise between the imperative to impose norms and standards in an effort to homogenize
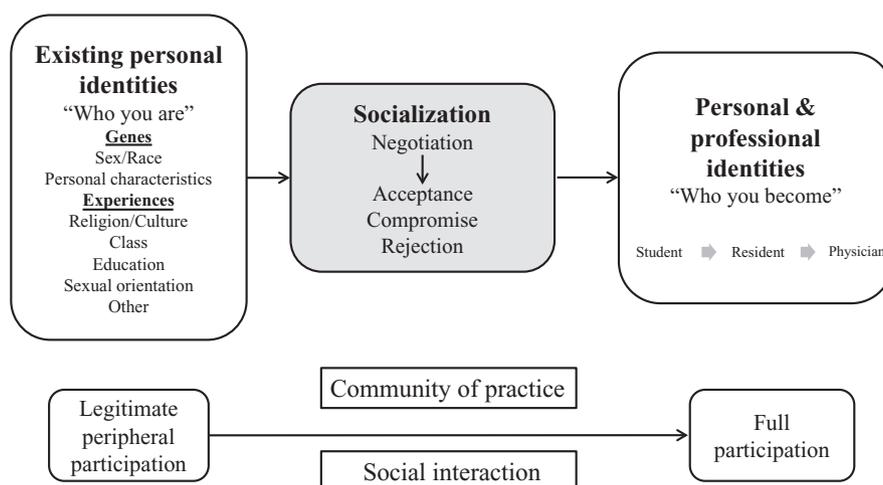

Figure 1 A schematic representation of professional identity formation, indicating that individuals enter the process of socialization with partially developed identities and emerge with both personal and professional identities (upper portion). The process of socialization in medicine results in an individual moving from legitimate peripheral participation in a community of practice to full participation, primarily through social interaction (lower portion).

values and the desire of individuals to maintain important aspects of their own identity as they join the community of practice.[10,11,13]

Identity formation and socialization

Figure 2 outlines the multiple factors that influence the process of socialization in shaping a physician's professional identity. Not all of these factors exert equal influence. The most powerful are role models, mentors, and the accumulation of individual experiences.[9,12,16,18,20,22] In Figure 2, we have grouped these influences together in the center box, both because of their importance and because they shape professional identity through complex conscious and unconscious processes that can lead to both explicit and tacit knowledge.[24,25]

Although role modeling and experiential learning are important, the impact of each factor on individual learners varies widely. For example, how an individual is treated by others may have a more significant impact on those individuals from visible minorities or those from lower socioeconomic backgrounds.[11,13,17] More mature medical students who have a more developed identity may respond differently compared with students proceeding directly from secondary education to medical school.

In addition, not all factors operate simultaneously or at the same stage of education. For example, the nature of the health care system may have little effect during the early phases of medical education, but its impact may grow as learners approach the end of their formal education.

Role models, mentors, experiences, and reflection. Role models are "individuals admired for their ways of being and acting as professionals."[36] Mentors, characterized as being "experienced and trusted counselors,"[37] have closer and more prolonged contact with learners and can have a greater impact on their professional identity.[38] Role models and mentors are members of the community of practice that students and residents wish to join.[9,25] Becoming like them in action, appearance, and beliefs facilitates the move from the periphery towards the center of the community.

Role models and mentors generally exert their influence in two ways.[39,40] First, learners consciously acquire knowledge through observation, imitation, and practice, a process made more effective by guided reflection.[39,41,42] Second, the unconscious patterning of behaviors to which learners are exposed is equally powerful[39] and results in the acquisition of tacit knowledge, "that which we

know but cannot tell."[43] The learner is generally unaware that she or he is developing a professional identity through this process.[20,21] Although it is clearly preferable for role models to be explicit about what they are modeling, unconscious patterning will always be present and powerful.[39]

The literature on role modeling highlights the potential negative impact of lapses in professional behavior exhibited by role models, as students and residents may replicate these behaviors in their own practice.[39,44] However, every practicing physician has both consciously and unconsciously patterned his or her behavior on that of respected individuals, and the overall impact of role models remains powerful and positive.[42]

Both clinical and nonclinical experiences also impact the development of a learner's medical professional identity through conscious and unconscious pathways.[40] Experience gained from direct encounters with patients and their families is foundational to the identity of a physician.[9,12,15,16]

Reflection on individual experiences with role models and mentors as well as on clinical and nonclinical experiences during medical education is fundamental to socialization.[9,12,14,15] It leads to a
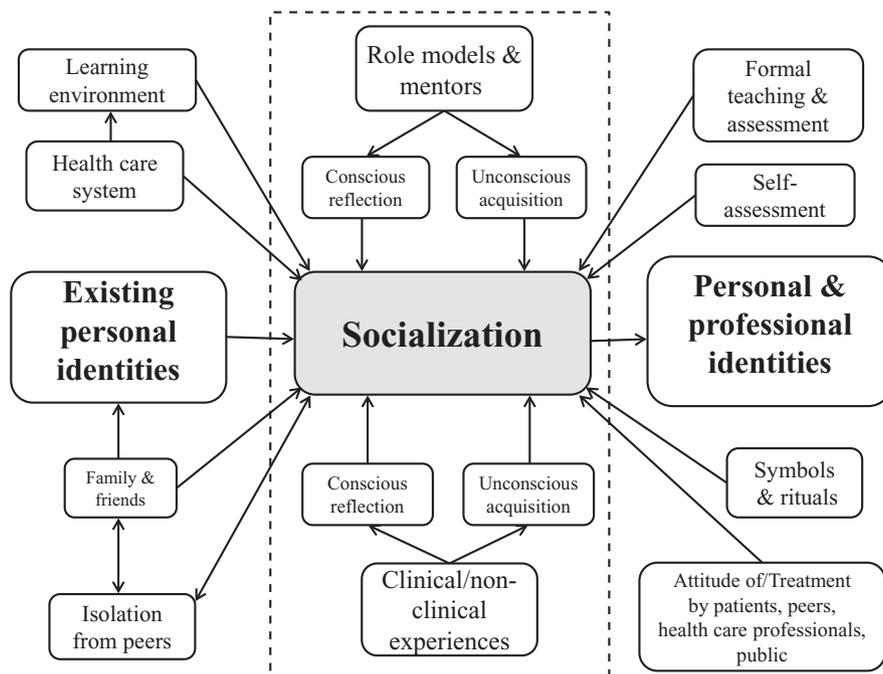

Figure 2 A schematic representation of the multiple factors involved in the process of socialization in medicine. The large center box surrounded by the dotted line, which includes role models and mentors and experiential learning, indicates their importance to this process. The direction of the arrows from existing personal identities to personal and professional identities indicate the dynamic nature of this process.

repetitive pattern that begins with the exploration of new knowledge and experiences and results in the learner's assimilation into an existing identity.[45] When explicitly encouraged to reflect, learners become active participants in the formation of their own identity.[9,10,14] According to Mann and colleagues,[39] "as one's professional identity is developed, there are aspects of learning that require understanding of one's personal beliefs, attitudes, and values, in the context of those of the professional culture; reflection offers an explicit approach to their integration." The effectiveness of reflection is strengthened when facilitated by a role model or mentor or carried out as a group activity.[9,12,39]

Other factors. Although many factors that have an impact on professional identity formation contribute to the experiential learning of individuals, those listed independently in Figure 2 exert a direct influence. We discuss them individually here because they can be affected by educational interventions.

First, formal teaching can impact professional identity formation; educators can make identity formation an educational goal and can explicitly outline the nature of the socially negotiated identity agreed on by the profession and society.[46] The aim is to present the norms and standards of the profession and to foster a common sense of the ideal.[16,24,46] A guided self-assessment of an individual's progress in the acquisition of a professional identity encourages active participation in the process, with individuals monitoring the course of their own journey.[9,14,18,39]

Next, the impact of the learning environment on students' attitudes and learning is well documented.[47,48] Viewed through the lens of communities of practice, a healthy and inclusionary environment is welcoming and models appropriate behaviors.[48] Conversely, an exclusionary, hostile or negative environment, or one populated with individuals who model unprofessional behavior, can impact identity formation by failing to welcome learners into the community or by communicating unacceptable norms of behavior.[12,13,15,16,19,21,47]

In addition, as individuals progress through their educational experience,

they are influenced by the health care system within which they must practice,[49] resulting in several types of "professionalism" and professional identities.[30] Market forces in health care systems may result in "entrepreneurial professionalism"[30] that will impact the emerging identity of the young physician.[49] This effect can be direct, as learners must function within the health care system. However, the health care system also can impact the learning environment, for example, by leaving too little time for teaching or reflection. Providing an opportunity for learners to reflect on such issues during their formative years can foster their awareness of the potential impact of the health care environment on their professional identity formation and can encourage them to cultivate a conscious framing of their own responses to it.[39]

Subsequently, a constant in medical education through the ages has been the relative isolation of students and residents and its role in identity formation.[12,13,23,28,29] Family, friends, home environments, and other outside interests and influences provide a background for acculturation and impact the identity formation process. They also can either support the commitment required to become a medical professional or inhibit it. These factors in the environment external to the culture of medicine have become increasingly important as recent generations of students, residents, and medical practitioners attempt to readjust the balance between commitment to medicine, personal health and well-being, and lifestyle, in part by reinterpreting altruism.[31]

Symbols and rituals also have a powerful role to play in shaping identity.[9,12,14,18,21] By participating in these activities, individuals publicly indicate that they are joining a community of practice, and the act of doing so helps to form their identity.[25] Thus, symbols and rituals, such as the wearing of a stethoscope, participating in a white coat ceremony, and reciting the Hippocratic Oath, have special significance.[12] Experiences, such as a learner's first contact with a cadaver, the death of a patient, and the first viewing of an operation, take on symbolic importance as transformative events cannot and bring students closer to full participation in the community of practice.[12,15,50]

Finally, the way in which students and residents are treated by those with whom they have relationships has a significant impact on their sense of self.[14–16,18–20,24] Patients, peers, family, other health care professionals, and the general public tend to view medical students and residents as members of the wider medical profession, which can have a profound impact on how the proto-professionals view themselves.[9,21,24]

Learners' role and responses to socialization

Figure 3 depicts learners' roles and their responses as their identity is being formed.

Becoming competent is a fundamental objective of medical education, and achieving competence is a necessary component of professional identity formation. With increasing competence, learners both feel and are regarded by their peers and instructors as being more secure in their role; thus, they move away from peripheral participation in medicine's community of practice.[32,33] This perceived competence feeds back into the socialization process, reinforcing an altered sense of self and helping learners to define and stabilize their identity.[25,50] Alternatively, if an individual does not feel comfortable in the required role or is perceived as lacking important capabilities, professional identity formation may be compromised.[24]

Individuals entering medical school, beginning clerkships or residency, and entering practice must modify their existing identity.[9,10,14,28] This process entails deconstructing elements of their previous identities and filling a new role for which their previous life experiences may not have fully prepared them.[28,51] Nevertheless, they are expected to fill the new role and demonstrate that they are acquiring the attitudes and values of a physician. They therefore pretend that they understand and act accordingly.[5,9,10,12,14,24] In addition to becoming knowledgeable about disease and its management, students have many things to learn about the profession and how it functions. For example, medicine has its own language to be mastered[9,10,28,29] and a hierarchy to be learned. Power generally is distributed in line with that hierarchy.[9–13] Although most students come to medicine believing that it is characterized by certainty, they must

come to recognize and account for the ambiguity and uncertainty that are the norm.[51] Finally, adopting the norms of dress, behavior, and relationships with patients, peers, and other health care professionals is fundamental.[52] Although each individual usually begins by "pretending" to be a physician, with time he or she ceases to act and "becomes" one.[5,9,10,18,24,25]

The rigor required by medicine and the necessity of deconstructing a portion of a pre-existing identity is potentially stressful and can lead to "identity dissonance."[14] Some of this stress is unavoidable.[12,20,21] However, becoming a physician is a source of satisfaction and often joy, a fact that is sometimes underemphasized.[25,53] Both the stress and the satisfaction that may be derived from the socialization process can impact a student's emerging identity. Resentment may result from overwork or humiliation-induced stress, inhibiting identity formation.[38,48] Alternatively, if stress results from constructive feedback, its impact may be positive.[38]

Medical students and residents respond to anxiety and stress by using the coping mechanisms of all human beings. Throughout the ages, medical students, residents, and practitioners have relied on humor, appropriate or not, to deal with stress.[54] However, some also have used silence as a means of disengagement from difficult situations.[55] The awareness of, and continued effort to balance,

emotional engagement and detached concern is part of the emotional process of becoming a physician.[50] Finally, some learners have exhibited cynicism and loss of innocence as they progress through the educational continuum.[9,14,48]

From Theory to Practice

The experience gained in teaching professionalism[56] and the emerging literature on identity formation can help educators to develop programs specifically directed at promoting and guiding identity formation during medical education.[2,3,10] The features of successful programs devoted to the teaching of professionalism include longitudinal integration of material throughout the educational continuum, a cognitive base outlining the nature of professionalism and professional obligations, and programmed opportunities for reflection on experiences relating to professionalism.[56] Most programs have been implemented gradually around a conceptual framework that serves as its foundation.

The schematics in this article (see Figures 1–3) depict the processes of identity formation, socialization, and learners' roles and responses. Ideally, these diagrams will enable medical educators to view these processes holistically and to identify each factor, analyze its role in their learning environment, and intervene appropriately to facilitate achieving

the educational goal of supporting professional identity formation.

Suggested actions

Establishing professional identity formation as an educational objective with the full support of the educational establishment is a necessary first step.[1–3] Educators should delineate, communicate, and model an identity appropriate for the current practice of medicine.[1,10,13,21] Historically, the accepted professional identity of a physician has stressed individual accomplishment, responsibility, and accountability, an approach that has been difficult to merge with the reality of modern practice, which necessitates interprofessional collaboration.[57] For example, a "merged individual and organizational identity" is required[58]—one that encourages behaviors that do not revolve "around individuals acting and thinking in isolation, but as a group process in which leaders and followers are joined together and perceive themselves to be joined together in a collaborative endeavor."[59]

The concept of communities of practice offers a lens through which many aspects of the educational environment can be examined and altered as needed. Students and residents are the colleagues of the future; thus, conscious efforts to ensure that the community is welcoming to all are prudent.[1,3,9,25] Despite efforts to make the profession more inclusive, differences in gender,[60] class,[11] and other factors[17,18] still can create a learning
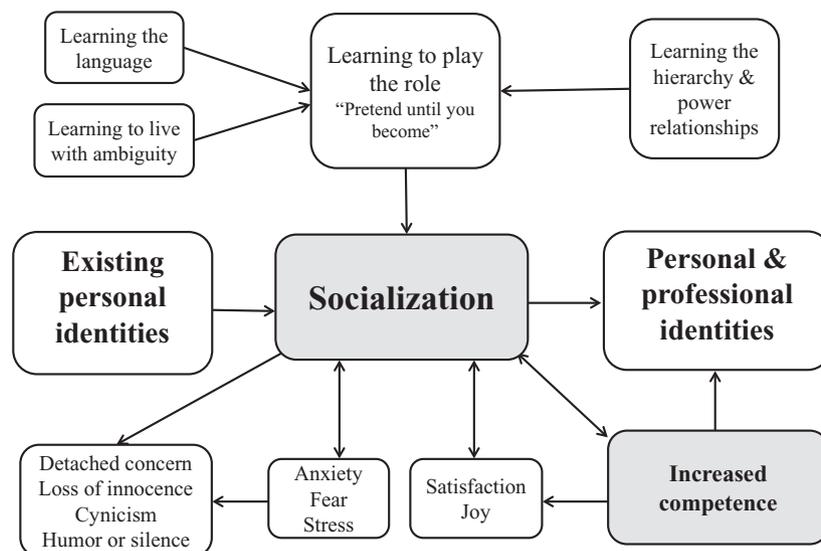

Figure 3 A schematic representation of the roles that medical students and residents play during the process of socialization and their potential responses to this process.

environment that is antithetical to acquiring a professional identity. Finally, the norms established by the community must be flexible enough to ensure professional behavior while allowing individuals to remain true to themselves.[10]

A lesson we learned from developing programs to teach professionalism is that faculty development is an essential early step in altering the curriculum.[61] These activities allow faculty members to become a part of the professional formation process of students, understand educational goals and methods, and become knowledgeable and skilled in communicating and modeling a professional identity.

Many of the influences depicted in the presented schematics are directly affected by the curriculum. Formal teaching and assessment, role models and mentors, and the learning environment can be examined individually in the context of identity formation, and actions can be taken to align them with educational objectives. Scheduled time for guided reflection on clinical and nonclinical experiences and their impact on identity formation is fundamental.[39] Understanding that students acquire their identity by playing a role over time until the details of that role become internalized can guide the nature of educational interventions.[3,24] Expectations should be established based on recognizing the developmental stage of each student.[1,3,9,25] Personalized curricular approaches contextualizing students' clinical and other experiences through guided, individualized feedback on their reflections can facilitate the professional identity formation process.[39] Identifying and encouraging reflection on the impact of the factors beyond the formal curriculum that can influence students and residents, such as the nature of the health care system[48] or the attitudes of family and friends,[12,24] may contribute to professional identity formation by deepening students' understanding of who they are and who they wish to be.[38]

No tools are currently available in medical education to follow an individual's progress towards the acquisition of a professional identity, although such frameworks do exist for dentistry and the military.[3,25] The utility of current methods to evaluate professionalism[57,62,63] may be considered within a context of identity formation with appropriate adjustments, adaptations, and/or redevelopment for relevancy.

Finally, admissions criteria can be examined from the perspective of identity formation. A significant disconnect between the identity of an incoming student and the desired professional identity of the institution can lead to increased dissonance and stress. Therefore, institutions should attempt to select students who already possess many of the dispositions of a professional. Multiple mini-interviews, for example, offer an opportunity to accomplish this goal by selecting applicants who demonstrate the qualities of the "good physician."[64]

Final thoughts

In a classic 1957 study of undergraduate medical education, sociologist Robert Merton[23] stated that the task of a medical school is to "shape the novice into the effective practitioner of medicine, to give him the best available knowledge and skills, and to provide him with a professional identity so that he comes to think, act, and feel like a physician." He articulated what unquestionably has been understood as the dual roles of medical education through the ages—to ensure that all individuals entering the practice of medicine are clinically competent and adhere to the standards of conduct expected of a professional. The inclusion of identity formation as an educational objective throughout the continuum of medical education promotes the explicit pursuit of these goals. The presented schematic representations can assist educators and learners in this valuable enterprise.

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