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Consideration of Doctors' Identity and Socialization Mechanisms through Variation Theory

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Abstract

Doctors' socialization emerges from the interaction of professional identity formation (PIF) and context. We previously reported that medical students considered their career and junior residents adapted as physicians in forming their PIF. Following this, four patterns of doctors' socialization emerged, all in the interaction of contexts, such as organization. In the present paper, we add consideration of the variation theory to these four patterns. This theory explains the discernment and variation of the interaction between PIF and context, and provides one hint to explain the mechanism of differentiated patterns in doctors' socialization. Medical educators who are in a position to influence the context in which doctors' socialization occurs should recognize that oscillations in the learner's state and emotions in the liminal space can lead to subjective change in the learner.

Keywords: Professional identity formation; Professional socialization; Context; Threshold concept; Variation theory

Introduction

Professional socialization aims to promote professional identity formation and to adapt people to their professional role [1]. Professional Identity Formation (PIF) for doctors is an important aspect of medical education [2]. Identity is categorized into the self as an occupant of a role, and is incorporated into the self as the meanings and expectations associated with that role and its performance [3]. Doctors' socialization is shaped by the interaction of identity formation with contexts such as organization and society [4].

Against this background, we asked how does doctors' socialization, in which relational and collective professional identities are formed, emerge in the context of medical education.

Cruise proposed a PIF model in which existing individual identities and new professional identities based on the context in which the individual is placed as doctors are merged, and that through such processes, doctors are socialized [5]. PIF takes place via a long process of socialization through previous experiences; involvement with society, role models and mentors; involvement with patients; experiential learning; and acquisition of explicit and implicit knowledge. Professional identity as a doctor is also formed by internalization of the context, characteristics, values, and norms of the medical profession. The ego is acquired, and the learner comes to "think, act, and feel" like a physician. As a result, they will become "good doctors" who are sought by society. As an example of doctors' socialization, our previous research revealed how this process can be categorized when viewed as a process of socialization from medical student to staff doctor [6]. The research method was based on semi-structured individual interviews with 21 individuals, 16 of whom were primary care physicians, followed by narrative analysis. Medical students embrace a concrete image of a physician during clinical training and try to fulfill their responsibilities and roles as physicians during their junior residency. Thereafter, four patterns emerge. The first type of physician establishes his or her own learning style and image of the role of the physician in the organization and society, and "legitimate peripheral participation" progresses with the reflective practitioner model, resulting in smooth socialization of the physician. The second type of physician develops an image of the individual physician from individual social interactions rather than "peripheral periphery participation," such as adapting to the organization. In training that is congruent with the learning style and image of the doctor's role, socialization progresses, but in training that is not congruent, dilemmas are encountered. Sometimes it is necessary for the doctor to change his or her learning style and discover a new role. The third type of doctor establishes a learning style and image of the physician through peripheral participation in the organization and expectations from the organization. Our previous study showed that organ specialists socialized easily, while family physicians and emergency physicians adapted reasonably well in their rotations but struggled with their physician identity in comparison to others and with outside opinions [6]. The fourth type of physician adapted to the organization's way of doing things and relied on the expectations and perceptions of others for their learning style and image of a physician in order to perform their duties. These physicians were unable to establish their own learning style, lacked confidence as physicians, and tended to confirm the validity of their decisions from trustworthy staff. They continued to explore the established image of a doctor and pursued training to compensate for their lack of knowledge. In our previous study, we examined this process of socialization of physicians in terms of institutional theory, professional persona, legitimate peripheral participation and threshold concepts.

Literature Review

Our previous study is one of the few that clarifies the doctors' socialization process in relation to their own professional identity and contexts such as organization and society. Nevertheless, this paper lacked a discussion on the emergent mechanisms of differentiation of doctors' socialization. One possible theory to explain the mechanism of this differentiation is the variation theory of learning [7-9].

Variability theory is an idea that arose from phenomenographical research, and starts from the point of view that discernment of the important features of things occurs under systematic interaction between learners and learning objects [9,10]. Variations are the agents that arise in these interactions. The theory regards learning as the ability to discern different features and perspectives of a learning object. To achieve this type of learning, the learner needs to discern the parts and the whole, and aspects and relations, while holding an aspect of the phenomenon in focal awareness and contrasting the aspect with their environment [10].

The way we experience a situation depends on how we discern its meaningful features [11]. In other words, learning is produced not by the situation itself, but by the discernment provided by the situation and its variations. Adding to the variation theory, the threshold concept (TC) can explain the process of discernment and variation [12]. TC, as utilized in our previous paper [6] is usually transformative, integrative, irreversible, bounded, and often troublesome, and provides an opportunity to formalize professional identities with vague professional images [13,14] The variation theory posits that to discern something in an internal or external structure requires discerning it as a particular "something" and assign a meaning to it. Without this meaning and the "shape" of something, it cannot be separated from its context [15]. This is termed the referential aspect, and represents the overall meaning of the whole phenomenon. The referential aspect can be explained by using terms of both the internal and external horizons [15]. The internal horizon is connected to the internal structure of the phenomenon (e.g. how the parts are connected to the whole), while the external horizon is the perceived context or situation that "holds" the phenomenon (e.g. other similar contexts or situations). Our perception of something depends on our prior understanding of the thing. Runessoon suggested that our awareness is dependent on the totality of all our experiences; that we should understand that our discernment is promoted by a center of attention; and that contextual background is hidden outside of our attention [7]. Discernment emerges from oscillations in the learner's state and emotions that occur in the liminal space. The state and emotions are disconnected from and ambiguously associated with each other, and when subject to the learner's oscillating mental processes, constitute a state of readiness for transformation. The liminal space of readiness for transformation may be a troublesome tunnel in which the discernments and oscillation of existing perspectives and values occur. By exiting it, professional identity and perceptions of context can be transformed.

Discussion

We propose the variation theory as a means of explaining the mechanism by which the patterns of doctors' socialization resulting from the interaction of professional identity and context is differentiated. Previous research on PIF and socialization, based on legitimate peripheral participation, showed that PIF requires the elicitation of both autonomy to learn on one's own and authenticity to perceive a place as appropriate for growth, such as one experiences growth and/or challenge in clinical practice [16]. In a previous paper, identity formation was focused primarily on autonomy, and autonomy has been considered a prerequisite for personal identity formation [16]. Similarly, authenticity was considered a prerequisite for a sense of development in clinical education [16,17]. This authenticity needed to be realistic in order to create a sense of the importance of the place, its relevance and meaning to the learner, and to have a strong impact on learning. In our previous study, clinical practice had a great impact on the learners: learning was triggered by the decisions and actions of students during their participation in the institution and the exertion of influence on the situations of individual patients. When their actions and decisions had a consequential impact on a patient's well-being and living situation, the relevance of the actions and decisions and the meaning of experience were created [18].

Our previous paper showed that anticipatory socialization of medical doctors may be similarly achieved, and that professional socialization may be affected by the extent to which medical doctors establish their professional identity; the extent to which their professional image matches that of their organization; and the extent to which the professional image is externally recognized [9]. In the present paper, we have added the variation theory, which can explain the mechanisms that produce this autonomy and authenticity. Our previous findings revealed that physicians who were able to discern the internal and external structure in a balanced manner acquired a sense of autonomy as a physician and authenticity based on the relationship between society and themselves. As a result, professional identity was formed and doctors' socialization was achieved smoothly. On the other hand, when the focus of discernment was placed on internal structure, autonomy was elicited. However, authenticity was not elicited and organizational socialization was less likely to proceed. This type of learner was disgruntled with the emphasis on comparison with others in their organization since the focus of discernment was more focused on internal structure, namely their own role as doctor, than on external structure, such as the role of their institution. In contrast, if the individual doctor nurtures their professional development without discernment of their own doctor's roles in focal awareness and in contrast with the roles of their institution, some may lose both autonomy as a doctor and authenticity as a goal and/or objective, and continue to be a physician in a suspended or interrupted status in which they remain stuck in gathering information and discovering how they fit the role of doctor.

Additionally, the focus of discernment changed over the phases of the doctors' careers. This heightened awareness of external connections may occur during the transition from residency to staff physician, when organizational responsibilities and duties as doctors increase. Medical students and junior residents tended to focus on the internal structures of the physician that integrate knowledge, and were likely to ignore the external structure as context. These considerations may provide useful insights into the implementation of medical education.

Thus, to facilitate and smoothen the socialization of doctors, leaners need to be trained to discern between internal and external structures in a balanced manner. Marson suggests the following four skills: “Contrast”, for example whether a certain condition is met or not; “Separation”, or discernment by key features, such as the distinction between part and whole, or by differences in dimensions; “Generalization”, or finding patterns that can be attributed to certain characteristics; and “Fusion”, or the integration of key features into a

dimension of variation as a whole in which some change is occurring [19]. Thus, to facilitate and smoothen the socialization of doctors, leaners need to be trained to discern between internal and external structures in a balanced manner. Marson suggests the following four skills: “Contrast”, for example whether a certain condition is met or not; “Separation”, or discernment by key features, such as the distinction between part and whole, or by differences in dimensions; “Generalization”, or finding patterns that can be attributed to certain characteristics; and “Fusion”, or the integration of key features into a dimension of variation as a whole in which some change is occurring.

Conclusion

The variation theory is one key to understanding the mechanisms of doctors' socialization that are manifested in the interaction between PIF and context.

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