Dental hygiene scholarship development exists on a continuum. At one end of the continuum, scholarship begins in entry-level dental hygiene programs and then progresses to increasing higher levels of scholarship in research-oriented master’s degree programs and in research-oriented doctoral degree programs that require learners to conduct original independent research. Although nursing, physical therapy, and audiology have developed doctoral programs to prepare graduates to engage in discipline-specific research, to date there are no U.S. dental hygiene doctoral programs.

The question needs to be asked: Why is dental hygiene so far behind other health professions in establishing doctoral programs to conduct rigorous discipline-specific research? Could it be that dental hygienists are not fully aware of the discipline’s hierarchy of knowledge and of the importance of developing a “Scholarly Identity” related to it? Could it be that there are maladaptive patterns of behavior among dental hygienists that create roadblocks to moving the discipline forward of which we are unconscious? And, if these threats are real, then what can be done to counteract them? The purpose of this paper is to challenge our thinking about these questions and to provide some essential information to consider in answering them. Specifically, this paper will discuss (1) the dental hygiene discipline’s hierarchy of knowledge; (2) the dental hygiene “Scholarly Identity” and its importance to the discipline’s advancement; (3) the “Imposter” Phenomenon and the “Queen Bee” Syndrome as roadblocks that may jeopardize our discipline’s ability to move forward; and (4) the role of “Followership” in diminishing these potential roadblocks.

The Structural Hierarchy of Knowledge

A discipline’s structural hierarchy of knowledge specifies the discipline’s unique perspective and distinguishes one discipline from another. Its components consist of the discipline’s definition, its paradigm concepts, which are the major concepts selected for study, global definitions of the paradigm concepts, and conceptual models that shape the direction and methods of the practitioners, educators, and researchers (Figure 1). The dental hygiene discipline is defined as “the study of preventive oral healthcare including the management of behaviors to prevent oral disease and to promote health.” This definition is unique because its focus is on oral disease prevention and health promotion directed by the dental hygienist.

Dental hygiene’s four paradigm concepts selected for study, the “Client,” the “Environment,” “Health/Oral Health,” and “Dental Hygiene Actions,” are defined very broadly to allow for the development of conceptual models about the concepts that are defined by specific theories. For each conceptual model, related theories are tested by scholars who ascribe to a particular conceptual model. Findings contribute to the discipline’s body of knowledge providing evidence that influences dental hygiene practice, education and research. To build the discipline’s body of knowledge, dental hygiene graduate learners and established researchers need to develop and promote a dental hygiene “Scholarly Identity” in addition to mastering research-related competencies needed for the development of dental hygiene scientists.

The Scholarly Identity

Dental hygiene researchers who have a scholarly identity are dental hygiene scientists who:

- Ask and answer research questions central to the discipline while reaching across disciplines
- Have a sense of the dental hygiene discipline as a whole
- Incorporate the norms and values of the practitioners, and conceptualize theory central to
the discipline as the basis for further knowledge development
- Have a life-long commitment to the development of the discipline’s knowledge base
- Welcome philosophical debate about the discipline
- Use evidence to support their viewpoint
- Report one’s own results in the context of those of others in the field as well as those of other disciplines
- Disseminate the findings of one’s work through scientific publication
- Have a dedicated and passionate commitment to how their science relates to our discipline’s mission, its values, and its effects on humanity.

Equating the development of a scholarly identity only with research methods, statistics, and design courses in isolation from the context of the dental hygiene discipline constrains the development of the dental hygiene scholarly identity. Knowledge gained in research methodology courses needs to be augmented with a critical knowledge of the dental hygiene discipline’s research priorities in conjunction with learning how interdisciplinary approaches can be used in addressing those priorities. Moreover, professional socialization and peer interaction are critical for developing the dental hygiene scholarly identity. A dental hygiene “scholarly identity” is not realized unless a whole culture is created to promote and nurture it. It must be acknowledged that dental hygiene doctoral educational programs are needed to enhance the dental hygiene’s scholarly identity and this evolution is the essential next step for continued progress in the dental hygiene discipline.

**Potential Roadblocks to Developing a “Scholarly Identity” and Dental Hygiene Doctoral Education**

Two behavior patterns prevalent among women who have succeeded in their careers that are potential roadblocks to developing a “scholarly identity” and dental hygiene doctoral education are the Impostor Phenomenon and the Queen Bee Syndrome. The Impostor Phenomenon, prevalent among high achieving women, was first described as the perception of oneself as having an “intellectual phoniness”. Although studies report that men also experience the phenomenon, the impostor phenomenon’s characteristics have a more deleterious effect upon a woman’s career. Women who experience it believe that, despite outstanding academic and professional accomplishments, they really are incompetent — and that anyone who believes otherwise has been fooled. Anxiety, self-doubt, inability to accept positive feedback, fear of failure, and guilt about success undermine their ability to function at their highest level. For example, a high achieving dental hygiene leader who suffers from the impostor phenomenon may not be able to find her voice to defend her support of dental hygiene doctoral education when confronted by skeptical questions from members of a more dominant group perceived as having greater prestige, power and status.

To counteract the potential for the “Imposter Phenomenon” each one of us must realistically assess our traits and celebrate our individual strengths and successes while forgiving our imperfections and mistakes. Being aware of and sensitive to the “Imposter Phenomenon” allows one to establish control and identity driven by inner strength, not fear, with an on-going desire to improve ourselves and to be of service to others.

The Queen Bee Syndrome, first defined in 1973, describes a woman in a position of authority who treats subordinates more critically if they are female. The “Queen Bee” is one who has succeeded in her career, but refuses to help other women who have succeeded in their careers that are entrenched with self-centered motivation. “Queen Bee” leaders often shun their dental hygiene affiliation to align themselves with what they perceive as the more powerful reference group, such as dentists. These talented but mal-adaptive dental hygiene leaders often have the opportunity to support dental hygiene goals, but frequently do not. For example, the “Queen Bee”
who has risen to the level of a deanship or higher and who has considerable influence on academic decisions about establishment of innovative academic programs may sabotage a proposal for the establishment of a doctoral dental hygiene program. Instead of being supportive, the “Queen Bee” is a barrier to power and achievement for other women, especially if they are members of a subordinate group from which the “Queen Bee” originally was a member. Therefore, it is critical that we seek and only count on her support if we already have received the endorsement of someone else in the dominant culture who has more prestige than she.

“Queen Bee” leadership often leads to divisiveness and competition among dental hygienists and cannot be counted on to foster united efforts to develop a scholarly identity, establish dental hygiene doctoral programs, or to initiate any changes in the system that would benefit the dental hygiene community. Dental hygienists must engage in self-reflective processes and look beyond the role of the “Queen Bee” for other leadership styles that will complement not only the needs of the leader incumbent, but also those of the dental hygiene profession and its members and clients. Leadership behaviors needed may lie in the concept of "Followership" that is discussed below.

Followership

Taking action to adopt effective follower characteristics may be key to counteracting roadblocks to developing a “Scholarly Identity.” Followership theory\textsuperscript{17-24} views leaders and followers as “two sides of one process, two parts of a whole.”\textsuperscript{24} It points out that “…performance challenges -- not position -- should determine when one should follow and when one should lead.”\textsuperscript{21} The term “Followership” honors and recognizes the crucial role followers play in organizational life and recognizes that followers and leaders are dynamic roles that can be exchanged. Much of a leader’s success depends on effective followers and both roles deserve equal weight. We should no longer equate leaders with supervisors and followers as subordinates.

Conclusion

Having a community of passionate dental hygiene scholars with their doctorate in dental hygiene who will ask and answer questions related to the discipline’s whole while reaching across disciplines for assistance is essential for our discipline and profession to reach parity with other health professions and to address the oral health challenges of our nation and elsewhere.\textsuperscript{25}

References


