

# Innovations in Dental Hygiene Education

## Factors Influencing the Professional Identity of Student and Licensed Professional Members of the American Dental Hygienists' Association

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### Abstract

**Purpose:** Professional identity formation is positively influenced by roles models, mentors, and experiential learning. The purpose of this study was to investigate the role membership in the American Dental Hygienists' Association (ADHA) plays in developing and sustaining professional identity, and to explore whether differences exist between how students and licensed professionals perceive this role.

**Methods:** A 48-item survey consisting of multiple choice, Likert scale, and open-ended items was created, and pilot tested before dissemination to student (SM) and licensed professional members (LM) of the ADHA via an electronic survey platform. Descriptive and inferential statistics were used to analyze the data.

**Results:** Of the 31,479 surveys sent to ADHA members in the database, 1,983 were completed, for a response rate of 6.3%. Most respondents were licensed professionals (86%, n=1,699), female (98%, n=1,940) and White (84%, n=1,668). Over one-third were over 55 years of age (37%, n=727). Continuing Education and Evidence-based Research resources were identified as positively affecting professional identity (4.0 or higher means). Advocacy efforts, the *Journal of Dental Hygiene*, and *Access Magazine* had a significantly greater positive influence on LMs professional identity ( $p < 0.05$ ) while SMs reported patient care resources and career support had a greater influence on their professional identity ( $p < 0.05$ ).

**Conclusion:** Member benefits in the ADHA positively influence the professional identities of students and licensed professionals. Dental hygiene students most value benefits that will support their roles as future health care professionals, while licensed professionals identified evidence-based resources and advocacy efforts as instrumental in sustaining their professional identity.

**Keywords:** dental hygienists, professional identity, professional development, professionalism, dental hygiene education

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### Introduction

Professional identity is the internal adoption of the norms of a profession.<sup>1</sup> The concept was first introduced in 1957 when Merton et al. reported that the goal of medical education should not only be to impart the best possible knowledge and skills to a student in order for him to become an effective practitioner, but also to create the student's professional identity such that he begins to think, act, and feel like a physician.<sup>2</sup> Hilton and Slotnick further defined professional identity as the transformation a student makes when moving

from being a layperson into a skilled professional.<sup>3</sup> It is through this process of socialization that the student's knowledge and skills are melded with an altering sense of self to create their professional identity.<sup>4</sup>

Consensus across multiple authors is that professional identity formation (PIF) is a multifaceted, dynamic process with periods of growth and regression.<sup>1,3, 5-7</sup> Students in healthcare professions, in particular, enter their respective educational programs with a personal identity, but as they

internalize the norms of the profession, they begin to overlay their personal identity with a professional identity.<sup>3,5-6</sup>

Recent literature across various health science disciplines, including dental and dental hygiene, has focused on understanding what educational strategies influence professionalism and ultimately help a student develop their professional identity.<sup>8-13</sup> Over the past decade there has been a significant educational shift in the approach to helping students develop their professional identity. Previously, the philosophy was that the teacher teaches professionalism and through this process, the student begins to develop their professional identity. More recently, this approach has been replaced by the student playing a critical role in their PIF while the teacher's position is to support the student through the developmental process of fusing their personal and professional identities.<sup>14-15</sup> Literature reports the critical role of learner engagement in the process of professional identity formation.<sup>5,15-17</sup>

Kwon et al. recently published work exploring key components of PIF in dental students as well as students' perceptions toward their PIF. The qualitative study interviewed a group of 18 students and thematic analysis was used to ascertain fundamental elements of PIF.<sup>8</sup> Five themes emerged from the analysis: 1) domain-specific self-efficacy, 2) role modeling and mentoring, 3) professional socialization with peers, 4) learning environment, and 5) reflection.<sup>8</sup> Significant factors, such as role models, mentors, and individual learning experiences, have been identified to be highly influential to the PIF in other health care students.<sup>4-5, 8,16,18-19</sup> Existing literature also shares that these PIF factors do not function simultaneously or even exert their influence at the same period during the student's educational training.<sup>5-6</sup>

Role models and mentoring are two of the most powerful impacts on PIF.<sup>8,16,19-20</sup> Role models exert their influence both consciously and unconsciously.<sup>19,21</sup> Conscious influence on the student's PIF happens through direct observation, imitation, and practice, while unconscious influence takes place without the student directly knowing that they have been positively impacted by the role model.<sup>19,21</sup> Conversely, role models can have a negative impact on, or even inhibit, a student's PIF if the individual acts in an unprofessional manner or has a destructive interaction with the student.<sup>22-23</sup> In both role modeling and mentoring, providing feedback is essential as it helps to enforce learning and substantiate the student's self-perception.<sup>8,18</sup>

Experiential learning is another formidable factor in PIF.<sup>4,5,16</sup> It is through direct patient encounters and engaged patient care that the student connects concepts learned in the classroom with field practice.<sup>4,5,16,24</sup> Additionally, the structure of the learning environment has been reported to play a role

in the student's PIF, both positively and negatively.<sup>4,8,13,18,25</sup> In the Kwon study, the importance of a healthy and inclusive learning environment was shown to help students model acceptable behaviors and develop PIF.<sup>8</sup> Conversely, studies on negative influences of PIF report that a hostile environment or one where role mentors model unprofessional behavior can inhibit PIF.<sup>4,13</sup>

The importance of reflection, particularly guided reflection with role models and mentors, cannot be emphasized enough in a student's PIF.<sup>4,16,21</sup> Schon introduced the concepts of "reflection-in-action" and "reflection-on-action" to describe their significance in PIF.<sup>26</sup> When a student is faced with a situation, they recognize it as new but inherently compare it to previous situations, devise possibilities for a solution, and ultimately decide a course of action. When the student reflects "on action" there is a lapse of time between the event and when the student steps back to assess the situation. Schon suggests that both types of reflection are instrumental in PIF.<sup>26</sup>

Medical literature suggests that a student's PIF is heavily influenced by communities of practice.<sup>5,15-17</sup> It is through these networks that members share a common set of knowledge, beliefs, values, history, and experiences. Additionally, communities of practice provide a resource by which students observe and ultimately acquire aspects of their professional identity from wider members of the community, often through social relationships.<sup>1,16,27</sup>

Other factors which play a role in PIF include family, friends, home environment, and outside interests. These factors all impact the development of a student's professional identity.<sup>28</sup> Symbols and rituals, such as participating in a white coat ceremony in which the health care student is donned in a white coat signifying their rite-of-passage from their preclinical studies and pledging their commitment to their future patients, continues to cultivate the students' professional identity.<sup>4,16,29</sup>

Until recently, most of the existing literature on PIF focused on medical students. However, more literature about PIF in allied health students is now available. Specifically, the themes of early exposure to the profession, reflection upon their experiences, and communities of practice have been reported as pivotal in PIF.<sup>9,10</sup> In the nursing literature, Akhtar-Danesh et al. reported that nursing faculty and students identified membership in a professional organization as a behavior that is strongly associated with professionalism.<sup>30</sup> Additional research reported by Burford et al. purport that belonging to a professional organization promotes professional development.<sup>31</sup> While not specifically identified in these studies, one can speculate that being a member of a

professional organization provides an environment through which members can feel like they are part of a community of practice and participate in events which provide opportunities for individual members to build one's professional identity.

The American Dental Hygienists' Association (ADHA) is the largest national dental hygiene organization representing over 226,000 registered dental hygienists in the United States. The mission statement of the ADHA supports dental hygienists throughout their career lifecycle, from student until retirement.<sup>32</sup> Within the association, there are two main types of memberships, student membership (SM) and licensed professional membership (LM). Dental hygiene students may join a student chapter of ADHA offered through their educational program. These chapters function to involve students in the ADHA, provide networking opportunities within their program, leadership opportunities, a virtual mentoring program, as well as all the benefits of association membership. The ADHA strives to provide various benefits to support its members throughout their career. Resources include continuing education courses, annual conferences, journal subscriptions, insurance programs, and clinical and employment resources. The purpose of this study was to investigate the role membership in the American Dental Hygienists' Association (ADHA) plays in developing and sustaining professional identity, and to explore whether differences exist between how students and licensed professionals perceive this role.

## Methods

This quantitative, cross-sectional, non-experimental study was deemed exempt by the University of Michigan Institutional Review Board for Health and Behavioral Sciences (HUM00162414). Inclusion criteria included being eighteen years or older, holding either a current ADHA student membership (SM) or a licensed professional (LM) and having shared an email address with the ADHA prior to survey distribution.

The survey instrument was created in an online platform (Qualtrics, Provo, UT, USA); the final version was reviewed by the ADHA. The instrument consisted of 48 items including multiple-choice, Likert-scale, and open-ended questions. The University of Michigan Survey Research Center was consulted during the survey development to establish content validity. In addition, the survey was pilot tested by 20 dental hygiene students who were ADHA SMs and 10 dental hygienists who were LMs in the ADHA. Reviewer feedback was incorporated into the survey and the final version was reviewed by the ADHA prior to dissemination.

Demographic information collected from all participants included: 1) age, 2) gender, 3) race/ethnicity, and 4) type of ADHA membership. In addition, SMs were asked about: 1) expected degree, 2) expected graduation year, 3) employment in the dental field, 4) questions about their involvement in ADHA. The LMs were asked additional questions about: 1) educational degrees, 2) total years working as a dental hygienist, 3) primary professional role as a dental hygienist, 4) number of years being an ADHA member, and 5) whether or not they were involved in the ADHA at the local, state or national level.

For the purpose of the survey, professional identity was defined as the way one views their profession and their perception of self-worth in their career. Respondents were asked to rate how ADHA benefits helped to develop or maintain their professional identity using a scale of 1 (not influential at all) to 5 (highly influential). The list of benefits compiled from the ADHA website and included; 1) advocacy efforts at the local, state, and national levels that represented issues important to you as well as to the profession as a whole, 2) *Access Magazine*, 3) *Journal of Dental Hygiene*, 4) ADHA resources and information available via the website, 5) continuing education offerings (webinars, continuing education courses at the state and local levels), 6) the ADHA annual conference, 7) access to information and resources for patient care, 8) information on latest innovations and technologies in oral health care, 9) access to evidence-based research, 10) volunteer opportunities focused on making a difference in your community, 11) opportunities to develop professional and personal relationships, 12) support

throughout one's career, 13) resources and information on maintaining a work life balance, and 14) guidance on how to enjoy the most productive and positive work environment. An optional open-ended question was included asking participants to identify any additional resources ADHA could offer that were not included within the survey but would help develop and/or preserve one's professional identity.

An introductory email that presented the purpose of the survey, informed consent details, and a link to the electronic survey was disseminated by the ADHA to 31,479 members whose email addresses were current in the association database (student members, n=10,991 and licensed professional members, n=20,488). The survey was open from early May 2019 to mid-June 2019. A priori power analysis was conducted with a confidence level of 95% and a confidence interval of 5 for a sample size of 31,479 (all ADHA members); a minimum of 380 completed surveys were needed for the analysis.

Statistical software (SPSS version 25; IBM, Armonk, NY, USA) was utilized for data analysis. Descriptive statistics were used to determine means, standard deviations, and frequencies. A Paired sample t-test was employed to explore for statistical differences between SM and LM responses, Statistical significance was set at  $p < 0.05$ . Open-ended responses were coded to determine common themes, followed by a determination of the frequency of occurrences.

## Results

Of the 31,479 surveys sent, 2,307 were returned and 1,983 were fully completed and used in the analysis for a response rate of 6.3%. Most participants were LM (85.7%,  $n=1,699$ ) while the remainder were SM (14.3%,  $n=284$ ). Most respondents were female (97.8%,  $n=1,940$ ), and White (84.1%,  $n=1,668$ ); about a third (36.7%,  $n=727$ ) were aged 55 or older, a A summary of participant demographics is shown in Table I.

Most of the SMs expected to earn an associate degree (68.0%,  $n=193$ ). Graduate year results showed the SM participants expected to graduate from their program in 2020 (74.6%,  $n=212$ ), suggesting they were first year dental hygiene students. Nearly all (94%,  $n=267$ ) of the respondents said that their dental hygiene program had a student ADHA chapter, and most (86.5%,  $n=231$ ) reported that ADHA membership was required. Over half (67.4%,  $n=180$ ) of the respondents indicated that they planned to convert their membership to licensed professional after graduation, however nearly a third (30.3%  $n=81$ ) were undecided (Table II).

Table III represents demographic information of the LMs ( $n=1,699$ ). Nearly half of the respondents held an associate degree (45.8%,  $n=778$ ) and over one third had been practicing dental hygiene for 30 years or more (37.8%,  $n=644$ ). Most had held a membership in ADHA for ten years or less (40.2%,  $n=684$ ). A majority were employed in a clinical setting (66.0%,  $n=1,124$ ). The LM participants represented a wide range of roles in the profession as shown in Figure 1.

**Table I. Respondent demographics (n=1983)**

Characteristic	Student Members n (%)	Licensed Professional Members n (%)	Total n (%)
<b>Membership Type</b>			
Student or Licensed Professional Membership	284 (14.3)	1699 (85.7)	1983 (100)
<b>Age</b>			
18-24			173 (8.7)
25-34			387 (19.5)
35-44			316 (15.9)
45-54			376 (19.0)
55+			727 (36.7)
Declined to Answer			4 (0.2)
<b>Gender</b>			
Male			37 (1.9)
Female			1940 (97.8)
Declined to Answer			6 (0.3)
<b>Ethnicity</b>			
White ( Europe, Middle East, North America)			1668 (84.1)
American Indian/ Alaskan Native			7 (0.4)
African American/Black			42 (2.1)
Asian			73 (3.7)
Hispanic/Latino			112 (5.6)
Native Hawaiian/ Other Pacific Islander			6 (0.3)
Selected More than One Ethnicity			56 (2.8)
Unknown/Undisclosed			19 (1.0)

When examining how ADHA benefits influenced one's professional identity, the highest mean scores for both SMs and LMs were continuing education and evidence-based research, both means were 4.0 (influential) or higher (highly influential). Paired sample t-tests compared differences between the two membership groups regarding how ADHA benefits impacted their professional identity. Statistically significant higher means

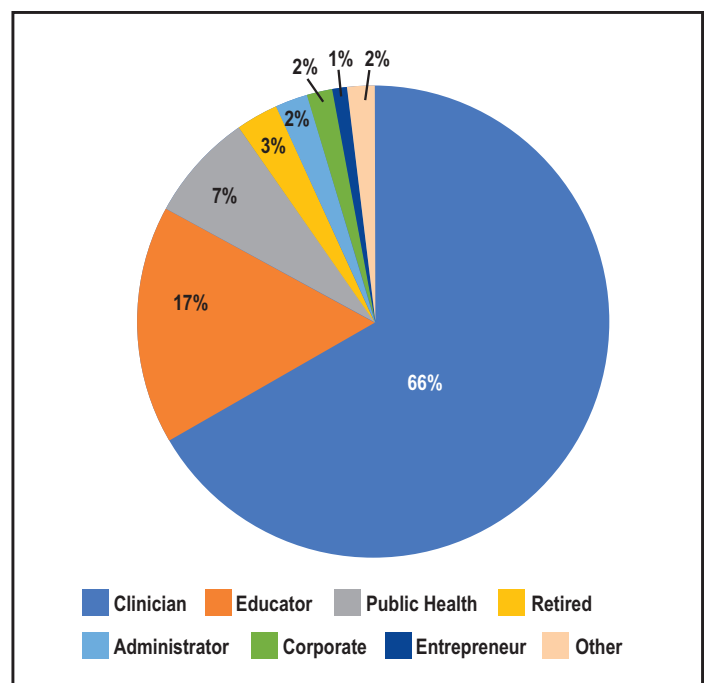
**Table II. Demographics of student member respondents (n=284)**

Characteristic	n (%)
<b>Degree conferred upon graduation</b>	
Certificate	7 (2.5)
Associate	193 (68.0)
Bachelor	84 (29.5)
<b>Expected graduation year</b>	
2019	57 (20.1)
2020	212 (74.6)
2021	14 (4.9)
2022	1 (0.4)
<b>Currently working in the dental field</b>	
Yes	78 (27.5)
No	206 (72.5)
<b>Role if currently working in the dental field</b>	
Dental Assistant	52 (66.7)
Shadowing	11 (14.1)
Office/Practice Manager	2 (2.5)
Receptionist/Front Office	5 (6.4)
Other	8 (10.3)
<b>Student ADHA chapter at dental hygiene school</b>	
Yes	267 (94.0)
No	17 (6.0)
<b>Dental hygiene program requires ADHA student membership</b>	
Yes	231 (86.5)
No	36 (13.5)
<b>Plans to convert ADHA student membership to licensed professional membership</b>	
Yes	180 (67.4)
No	6 (2.2)
Undecided	81 (30.3)

**Table III. Demographics of licensed professional members (n=1699)**

Characteristic	n (%)
<b>Highest dental hygiene degree obtained</b>	
Associate	778 (45.8)
Bachelor	642 (37.8)
Masters	279 (16.4)
<b>Hold a degree in another field</b>	
Yes	706 (41.6)
No	993 (58.4)
<b>Years as a registered dental hygienist</b>	
1-10	458 (27.0)
11-20	305 (18.0)
21-30	292 (17.2)
31 or More	644 (37.8)
<b>Years of ADHA membership</b>	
1-10	684 (40.2)
11-20	348 (20.5)
21-30	304 (17.9)
31 or More	363 (21.4)

**Figure 1. Licensed members' primary professional role**





for SMs were observed compared to LMs in the categories of patient care resources, professional and personal relationships, support in your career, volunteer opportunities, positive work environment, and work life balance (all  $p$ -values < 0.05). LMs had statistically significant higher mean scores compared to SMs in the categories of advocacy efforts, subscriptions to the *Journal of Dental Hygiene*, and *Access* magazine (all  $p$ -values < 0.05). (Table IV).

An optional open-ended question provided an opportunity for participants to provide their thoughts on additional resources they would like ADHA to offer members to help develop and/or preserve their professional identity. Three themes emerged from the LM responses (n=121): increased mentorship and networking opportunities (n=49), increased advocacy efforts (n=24) and public education and involvement (n=13). Open-ended results for both SMs and LMs are shown in Tables V and VI.

## Discussion

Study results indicate both SMs and LMs felt that several ADHA membership benefits supported the development and

sustainment of their professional identity, however differences between the two groups exist. Of the 14 ADHA benefits listed in the survey, both SM and LM selected continuing education and evidence-based research as being very influential in relation to their professional identity (development and sustainment of). One would have assumed that these differences would have been seen, especially in the category of continuing education, since SMs are still engaged in their educational programs and LMs are in the sustainment phase of PIF. While previous literature has reported the importance of mentors and mentoring, experiential learning, reflection, and community of practice as being key elements in PIF, it has not explicitly identified continuing education and evidence-based research as being influential in PIF. Perhaps these two factors tie into the element of community of practice and therefore align with previously published literature. Licensure renewal requirements call for the licensee to complete continuing education courses directly related to the practice of dental hygiene. Prior to the COVID pandemic, these courses were in-person, providing an additional opportunity for attendees to network with colleagues and additional opportunities to gain a sense of belonging and membership. Earlier literature has studied PIF in health care

**Table IV. ADHA membership benefit influence on the development and sustainment of professional identity: Differences between student and professional members\* (n=1,983)**

ADHA Membership Benefit	Student		Licensed Professional		T-test
	Mean (SD)	n	Mean (SD)	n	
Continuing Education	4.068 (1.007)	264	4.124 (1.040)	1682	$p = .413$
Evidence-Based Research	4.149 (.964)	268	4.050 (1.018)	1674	$p = .134$
Advocacy Efforts	3.657 (1.082)	268	3.902 (1.163)	1675	$p = .001^{**}$
Innovations and Technologies	3.978 (.983)	268	3.875 (1.031)	1673	$p = .126$
Patient Care Resources	3.943 (.977)	265	3.763 (1.066)	1660	$p = .010^{**}$
Professional and Personal Relationships	3.850 (1.087)	267	3.633 (1.151)	1642	$p = .004^{**}$
Support in Your Career	3.989 (.972)	269	3.602 (1.158)	1649	$p < .001^{**}$
ADHA Resources on ADHA.org	3.636 (1.026)	269	3.625 (1.103)	1645	$p = .881$
Annual Conference	3.580 (1.067)	238	3.561 (1.226)	1545	$p = .824$
Journal of Dental Hygiene	3.467 (.959)	240	3.631 (1.098)	1639	$p = .028^{**}$
Access Magazine	3.243 (.982)	263	3.488 (1.091)	1689	$p = .001^{**}$
Volunteer Opportunities	3.876 (1.106)	265	3.348 (1.106)	1590	$p < .001^{**}$
Positive Work Environment	3.747 (.964)	261	3.338 (1.135)	1646	$p < .001^{**}$
Work Life Balance	3.663 (1.005)	261	3.266 (1.144)	1633	$p < .001^{**}$

\*Participants rated the resources from 1, not influential at all, to 5, highly influential, in helping them develop and/or maintain their professional identity.

\*\*2-sample t-test to determine statistical differences between the two groups,  $p$ -values < 0.05.

**Table V. Licensed professionals open-ended comments (n=121)**

ADHA Resource Area	n
Increased mentorship and networking	49
Increased advocacy	24
Public education and involvement	13
Leadership seminars	8
Decrease fees	6
Reciprocity, equal board exams and education	6
Fix online web issues	6
Health insurance and other benefits	5
Focus on multiple degree levels	3
Success stories	1

**Table VI. Student member open-ended comments, SM (n=11)**

ADHA Resource Area	n
Mentorship and networking opportunities	3
Guidance in future career	3
Student outreach programs	1
Student only events	1
Have not accessed ADHA resources	3

students but not necessarily focused on those who are already licensed and practicing.<sup>4,5,8-12, 27-28</sup>

Statistically significant differences were observed between SM and LM responses in several categories. Specifically, SM rated patient care resources, professional and personal relationships, support in their career, volunteer opportunities, maintaining a positive work environment, and having a solid work life balance higher than the LM rated these factors. Kwon et al also found a similar result in their study of dental students. Dental students reported that having relationships with peers played a significant role in their PIF as it provided an opportunity to gain a sense of belonging to their professional community of practice.<sup>8</sup> Snell et al also supports the theme that an important influence in the PIF of allied health professional students is through social relationships and informal sharing of information among the students communities of practice.<sup>27</sup>

It appears that SMs sought benefits which might aid in their transition from student to licensed dental hygienist. Kwon's study of dental students reported the importance of a positive, supportive learning environment in PIF.<sup>8</sup> In this study, SMs seemed to expand that factor to their future work environment, stating that a healthy work environment positively affects their professional identity. Furthermore, one could argue that life-long learning never ends, so the fact that SM identified this factor as influencing the PIF seems logical. These respondents may have selected ADHA benefits which they believe are integral in their overall job satisfaction, such as a personal well-being work life balance.

ADHA's support of SM and new graduates as they enter the profession and begin their careers is evident by the multitude of resources dedicated to this population including career path webinars, student loan repayment resources, and advice for new professionals.<sup>32</sup> Additionally, ADHA's website offers an array of continuing education courses covering a variety of topics, including several patient care, which also was an important factor SM identified as being involved in their professional identity.<sup>32</sup>

The student members rated the *Journal of Dental Hygiene (JDH)* and *Access Magazine* as the two least important ADHA benefits which they perceived as playing a role in developing or sustaining their professional identity. The demographic results of the study indicate that the majority of the SM were first year students and may not have been exposed to these publications. Dental hygiene educators may want to utilize the *JDH* in their courses as a way of encouraging students to better appreciate the role that original, peer-reviewed research plays in establishing a unique body of knowledge for the dental hygiene discipline and providing a framework for evidence-based decisions.

The licensed professional members ranked advocacy efforts, the *Journal of Dental Hygiene*, and *Access Magazine* as statistically more influential in terms of their professional identity development and sustainment than the SMs. Given the importance of communities of practice, these publications may fulfill LM's need for a sense of belonging to a wider professional community as a way to support their professional identity.<sup>8,27</sup> Role models, mentoring, and experiential learning experiences has been reported to be key factors influencing PIF, yet it is interesting that LM did not rank these ADHA factors higher.<sup>8,16,19-20</sup>

Snell et al. found that PIF was positively impacted when allied health students were introduced early to their professions and communities of practice.<sup>27</sup> While the majority of SMs reported being required to join ADHA, well over half of the

SMs indicated that they planned on converting their SM to a LM after graduating. The question to be asked is whether or not simply being a member of ADHA has some influence on dental hygiene students' PIF.<sup>27</sup>

A majority of LMs had been a dental hygienist for thirty-one years or more, but most have only held an ADHA membership for ten years or less. The discrepancy between years working in relation to the years holding a membership may have influenced how the LM answered the survey questions. During the years when a member was not an ADHA member, it is unknown what factors influenced their professional identity.

It was surprising that the ADHA annual conference was not selected by either respondent group as being an important factor influencing one's professional identity, especially since continuing education was identified as a factor. Perhaps the respondents did not associate the annual session as a source of continuing education courses. Monrouxe reported that one factor which plays into a student developing their professional identity is the sense that they are joining community of practice.<sup>5</sup> Since the ADHA annual conference is an event which brings dental hygienists of all ages and career lengths together to network and engage in continuing education sessions to advance their professional skills, one would think that it would have been perceived by the participants as playing a more important part in their professional identities. However, it is possible that the annual conference is misperceived in terms of what it actually offers the attendees.

ADHA advocacy efforts were rated statistically higher by LMs than SMs. One could speculate that LMs simply had more career experiences and opportunities to witness the role of ADHA in advancing the profession of dental hygiene through their state and national efforts. Dental hygiene students may be too novice to appreciate the critical role ADHA has in representing the profession and across their lifelong careers.

LM were asked whether they had active roles in ADHA at the local (component), state (constituent), or national levels and if not, why (data not shown). The fact that LMs stated they were somewhat or not active may be deceiving as one could argue that by voluntarily paying membership dues to belong to the ADHA constitutes a level of activity. New marketing strategies by the ADHA have focused on its SMs which will hopefully have a positive impact on the transition from SM to LM status. New benefits have been directed toward students to promote their involvement in the organization. In addition to the National Board Dental Hygiene Examination Resources and volunteer opportunities, students are also

able to apply for scholarships through the ADHA.<sup>32</sup> Student engagement through the ADHA can impact the student chapters, which provides students with the opportunity to engage with faculty role models and mentors. As previously reported, the impact of role models and mentors during the formative years of training plays a critical role in a student developing their professional identity.<sup>8,16,19-20</sup>

Professional identity also plays a pivotal role in the success of interprofessional collaborative teams in health care settings. To be an effective collaborative team member, one must have a clear understanding of one's professional identity in order to confidently participate with other professionals to provide improved health care outcomes for patients.<sup>33</sup> Morison et al. also reported the importance of each collaborative team member having a sense of their professional identity and stated that this is an essential factor in the development of the team.<sup>33</sup> Considering the impact on collaborative health care, understanding the factors which influence the professional identity in dental hygienists is critical. Given that ADHA is a national organization representing the dental hygiene profession, it is even more important that ADHA support its members with this collaborative model in mind and seek resources which strengthen a member's professional identity. Findings from this study also have direct implications for dental hygiene educators and programs as structuring learning experiences which help a student develop their professional identity can aid in the overall development of the student.

This study had limitations. The response rate was low and cannot be generalized to represent all ADHA members or the profession as a whole. Electronic surveys have historically low return rates and the timing of this study over the summer may have negatively impacted the results. The length of the survey may have impacted the respondents desire to complete it. While the survey had been pilot-tested for clarity, the wording may still have caused confusion. In addition, SMs may have interpreted the questions based on what benefits might be beneficial in the future while LMs may have viewed the items based on present day needs. Other methods of participant recruitment would have been beneficial to increase the number of respondents and include non-member students and licensed professionals.

Over the past few decades common themes in PIF among health care students have emerged and implications for educators have been recommended. One key goal of dental hygiene educators is to develop the next generation of dental hygiene oral health care specialists. Dental hygiene educators need to understand the critical role they play in the PIF of dental hygiene students and make a concerted effort to incorporate PIF strategies into the curriculum.



## Conclusion

Results of this study demonstrate the influential role ADHA has on its members. Member benefits, including continuing education and evidence-based research resources, were the most influential in the development and sustainment of SM and LM professional identities. Dental hygiene student members seek association benefits aimed toward supporting their next role as a licensed dental hygienist, whereas licensed professionals identified association advocacy efforts and research publications as instrumental in sustaining their professional identity. The ADHA can utilize the results of this study to develop member resources to target members' professional identity needs more specifically. Further research into specific target populations of ADHA members would provide a more in-depth approach to determining more exact factors influencing the professional identity of both entry-level students and licensed dental hygienists.

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