

Professional and Cultural Development of Medical Students Mentoring Adolescents in a Predominately Native Hawaiian Community

Malia S. Lee MD; Sachi K. Kaulukukui MEd; Mai S. Smith MSW, MPH;
Jerrick J.K. Laimana BA; and Kelli-Ann N.F. Voloch MD

Abstract

First year medical students (MS1s) increase their skills in medical professionalism and their understanding of adolescent needs and cultural humility through an intermediate and high school health career pathway/mentoring program. Teaching and service-learning activities incorporate health promotion and traditional Native Hawaiian practices and provide experiences that help MS1s to understand concepts important to medical professional development and adolescent mentoring. The content of this article was presented as a workforce development session at the 2018 Pacific Region Indigenous Doctors Conference. Methods: This article describes the program curriculum for MS1 community health electives mentoring rural, underserved, predominantly Native Hawaiian students and examines the training elements and reflections from 40 MS1s participants in the first four years of the Nānākuli Pathways to Health teen mentoring program. Student reflections were themed and analyzed for content discussing the students' professional development and experience in mentoring. Results: Analysis of four separate medical student cohorts enrolled in a teen mentoring community health elective demonstrate that mentoring relationships and program curricula helped them to develop skills in medical professionalism including establishing relationships, self-reflection, self-evaluation, communication, compassion, excellence in teaching, and a deepened understanding of native Hawaiian culture and health disparity.

Keywords

medical student, professionalism, teen mentoring, health pathway, Hawaiian, culture

Abbreviations

BBBS = Big Brothers/Big Sisters
DNHH = Department of Native Hawaiian Health
JABSOM = John A. Burns School of Medicine
MS1s = First year medical students
NHIS = Nānākuli High and Intermediate School
NPH = Nānākuli Pathways to Health
NHCOE = Native Hawaiian Center of Excellence

Introduction

H. Swick's definition of medical professionalism acknowledges altruism, excellence, social responsibility, humanistic values, accountability, competency, self-regulation and self-reflection as essential professional behavioral characteristics to be developed.¹ In the past 25 years, there has been a movement to reform professional development curricula in physician training programs.² Medical schools continue to explore the best methods for

developing qualities of professionalism and cultural humility.³ Curricula on medical professionalism ranges in spectrum from formal didactic sessions to reflections on informal experiences emphasizing characteristics of medical professionalism.³ New approaches are continually sought.

Native Hawaiian Center of Excellence (NHCOE) faculty have responded to the need for innovative and effective curricula in professional development by creating community health electives that place first year medical students (MS1s) in an adolescent mentoring/health career pipeline program called the Nānākuli Pathways to Health (NPH). The combination of a community health elective with a pathway program provides a unique setting for the exploration of professionalism in medicine in the context of community service, adolescent mentoring, and cultural service-learning. This article describes the development of the NPH program, since its inception in 2013, and explores the impact it has had on students' professional development while serving in a rural, underserved, Native Hawaiian community. It also explains the curriculum design and an analysis of student reflections in the first four years of program delivery.

While the state of Hawai'i continues to face a growing shortage of physician providers, neighboring islands and rural areas outside of Honolulu, O'ahu are noted to have the greatest need.⁴ The mission of the NHCOE at the John A. Burns School of Medicine (JABSOM) is to improve the health of Native Hawaiians through education, research and community engagement. NHCOE programs address a growing need to increase the competitive applicant pool for medical school, improve cultural humility in healthcare, and increase Hawai'i's physician workforce especially in the rural areas. Schiff, et al, compared the early school origins of JABSOM medical students to post-residency practice locations, and found that JABSOM students from rural areas were nine times more likely to return as physicians to practice in rural locations.⁵ Thach, et al, explains that exposing medical trainees to rural communities cultivates interest in choosing a future rural practice.⁶ Additionally, the NHCOE community health electives/health pathway combination introduce medical student trainees to the unique qualities and needs of adolescents from a rural, predominantly native Hawaiian community.

Program Origins and Objectives

Building Community Relationships and Program History

In 2008, Kelli-Ann Voloch MD, a JABSOM Department of Native Hawaiian Health (DNHH) faculty member and pediatrician in west O‘ahu, established a relationship with Nānākuli High and Intermediate School (NHIS) when she perceived a need for mentoring and positive role models for Nānākuli’s adolescent population. Upon further investigation, she soon discovered disparities in high school completion and graduation rates were significantly lower at NHIS than other public schools on O‘ahu and, in fact, were among the lowest in the state.^{7,8} In response, Dr. Voloch developed a JABSOM community health elective called Kuaola. Operating out of Big Brothers/Big Sisters (BBBS), she brought the first cohort of first year medical students (MS1s) to mentor eighth graders enrolled in NHIS’ college preparatory class called AVID (Advanced Via Individual Determination). With the high density of Native Hawaiians in Nānākuli, the initial intent was for MS1 mentors to inspire Native Hawaiian youth to become physicians by developing meaningful mentor relationships, discussing relevant adolescent health topics, encouraging high school completion, and exploring college pursuit and health careers.

In 2012, the funding support for Kuaola shifted from BBBS to NHCOE and a grant from Kamehameha School’s Community

Investing helped start the Nānākuli Pathways to Health NHIS Medical Student/Teen Mentoring Program. With the new funding, a second MS1 community health elective group Healthy Keiki Can! (now known as *Na ‘Ōpio o Nānākuli* • Youth of Nānākuli) joined Kuaola to provide additional medical student mentoring support for the NHIS health academy. NHIS’ Global Health and AVID college preparatory classes serving 7-12th graders enrolled in the NPH mentoring program. MS1s provided service to the classes while they cultivated their own skills in mentoring, professionalism, teaching, curriculum development, communicating with adolescents, and cultural understanding.

Curriculum Objectives

A 10-month community health elective is a required course for JABSOM MS1s. As described in the JABSOM Community Health Handbook, the objectives of the community health elective are to “explore methods for promoting health and improving the quality of life for patients by working with a community organization throughout the entire first year.” These objectives were further expanded to include the activities and objectives of the NPH program such as developing skills in lifelong learning, teaching, communication, and professionalism, introducing students to rural Native Hawaiian community and adolescent care, and expanding their understanding of cultural humility and patient/public health advocacy. Figure 1 describes the formative and summative skills proposed for participating MS1s.

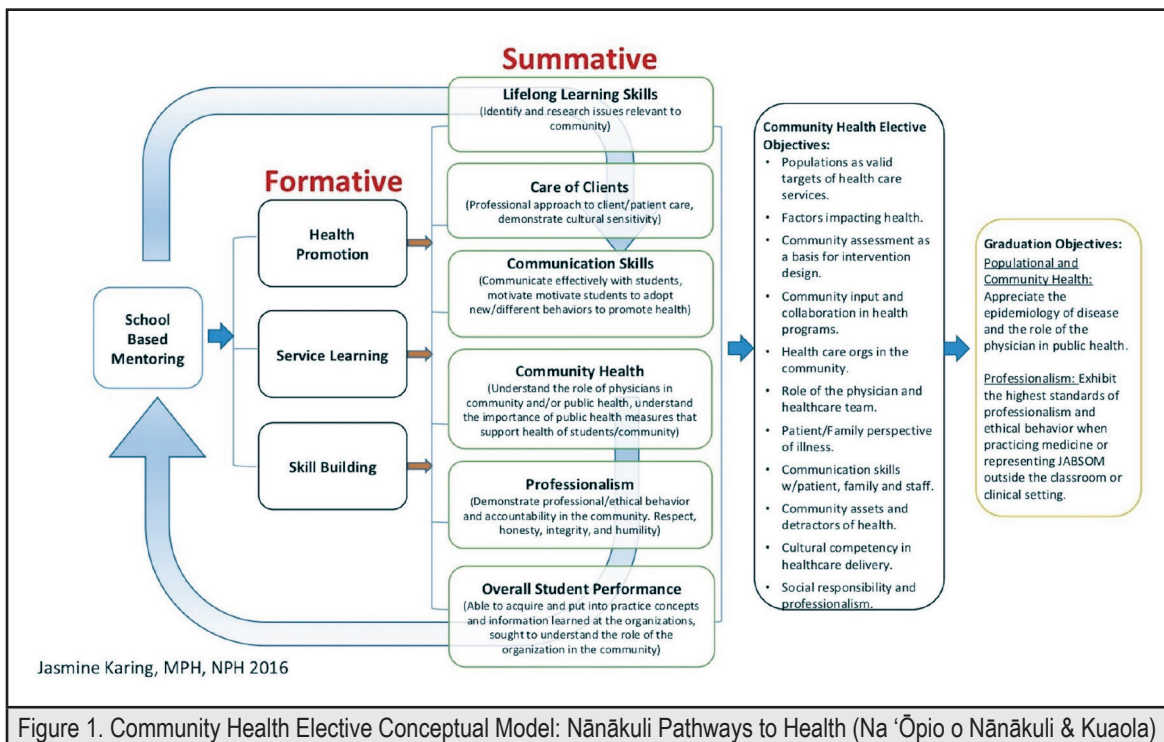


Figure 1. Community Health Elective Conceptual Model: Nānākuli Pathways to Health (Na ‘Ōpio o Nānākuli & Kuaola)

Location

Less than 40 miles west of Honolulu, the Nānākuli community is largely underserved with a high school demographic of nearly 71% Native Hawaiian students, disproportionate levels of high school retention, and low graduation rates.^{9,10} In 2013, Hawai‘i state reported NHIS had a high school dropout rate of 20.1% and an on-time graduation rate of 76%.⁸ Native Hawaiians makeup about 26% of the entire state population and remain underrepresented, and often disadvantaged, minority within their own homelands. The native people of Hawai‘i are defined in the Native Hawaiian Homes Commission Act (NHHCA) of 1921 as those who inhabited the island of Hawai‘i prior to the arrival of Captain James Cook in 1778 and the aboriginal settlers are thought to have arrived in the islands between 300 and 800 AD from the Polynesian islands.¹¹ Designed by the US government, the NHHCA is a program intended to “aid Native Hawaiians in rehabilitation and economic self-sufficiency” through very low cost leasing of residential property at a rate of \$1 per year. Those with an ability to prove Native Hawaiian blood quantum levels greater than 50% are eligible.¹² NHIS is located in a designated homestead area.

The setting of Nānākuli High and Intermediate School (NHIS) was chosen as an ideal site for the community health elective due to its make-up of over seventy percent Native Hawaiians and the additional opportunities the pathway program would provide to students from a remote, rural, public intermediate/high school. In Nānākuli, medical students are positioned to learn about the health and socioeconomic challenges that may contribute to health disparities while sharing their own pathway stories, teaching NHIS students about health professions, encouraging high school completion, and performing Saturday, off-campus, cultural, ‘āina (land)-based service-learning community projects.

Methods

Student Selection

The two NHC OE community health electives, named Kuaola and Na ‘Opio o Nānākuli, require MS1s to mentor high school and/or intermediate students while encouraging communication, healthy lifestyles, and the pursuit of higher education and health careers. Potential MS1 mentors are selected during a community health fair where a variety of elective programs are showcased. The MS1s learn details about the different electives from former mentors and/or mentees and lead faculty, then rank the community health electives they are most interested in. The community health sites select the MS1s based on student ranking and familiarity with the applicants. Between 5-7 students are selected for each elective every year. Ideal applicants are those with an interest in working with adolescents who are open to experiencing knowledge exchange and professional growth within the community.

Curriculum

MS1s meet up to four times a month; two meetings with mentees occur, once in the NHIS classroom and another at a Saturday, off-campus, service-learning site; and 1-2 meetings at JAB-SOM allow for preparation of classroom presentations as well as debriefing and reflection upon encounters with mentees. A “kick-off” event is held early in the year to allow for mentor and mentee introductions and the natural selection of MS1 mentors with at least one NHIS mentee. Large group activities are held at least twice a year to expose other NHIS students to NPH program benefits. Throughout the year, NHC OE lead faculty also discuss topics with MS1s such as humanism, mindfulness, spirituality, professional well-being, professionalism, and Native Hawaiian history and health disparities.

Orientation

Orientation to Native Hawaiian Cultural, Sense of Place, and the Wai‘anae Coast Tour activities are described in Table 1. Native Hawaiian cultural experts and social workers, introduce MS1s to the concepts of Native Hawaiian protocol practices, sense of place, language, historical trauma, and cultural values. Sense of place exercises encourage students to reflect on where they came from in relation to their childhood, hometown, upbringing, parental and ancestral influences. The cultural orientation also includes a bus tour of Nānākuli and the surrounding Wai‘anae coast on O‘ahu, as well as a discussion about regional stereotypes, myths, legends, and misconceptions about the area. Monthly, off-campus, culture-/land-based community service-learning projects using traditional native Hawaiian practices that once sustained the communities (such as fishing, farming, foresting) allow students to develop relationships through teamwork, cooperation, *kuleana* (responsibility), and *mālama ‘āina* (caring for the land).

Adolescent Safety Training

To prepare for mentoring adolescents, MS1s are briefed by faculty and specialists on adolescent development, current issues facing teens in the community, and professional behaviors expected throughout the elective. Adolescent safety training covers mandated reporting for known or suspected abuse or harm, methods of building rapport, the importance of maintaining professional boundaries, confidentiality, appropriateness of social media, challenges in communication, and tips to finding common ground. Introductions to mindfulness concepts, local environment and foods, age appropriateness, and perceptions of outsiders are also discussed.

Classroom Presentations

MS1s are challenged to create lessons that are innovative, meaningful and engaging. Students are briefed by NHIS teachers of global health and AVID classes on how to create appropriate

NHCOE Community Health Curriculum Overview	Students and faculty introductions, program origins, structure, objectives, and syllabus are reviewed
Hawaiian ways of learning	A session with a well-respected Native Hawaiian cultural expert introduces Native Hawaiian historical trauma, health disparities, the practice of 'Oli (Hawaiian chant), and the purpose of protocol
Sense of Place trainings	A workshop on genealogy, legends and myths, history of Nānākuli is presented by a community expert and a bus tour of the Wai'anae coast is given
Adolescent Safety Training	Establishing Rapport, professional boundaries, confidentiality, social media, communication tips, age appropriate behavior and attire, reporting suspected abuse or harm
Instructions for creating health presentations and communicating with adolescents	Students are briefed on key elements of curriculum development including the importance of understanding learning styles, classroom management, topics relevant to adolescents, consideration of educational core standards, and teacher suggestions and feedback.

	Discussed in Reflection	% (N=40)
Engaged in meaningful conversation(s)	28	70
Aware of having made a positive impact on the mentee	28	70
Established a rapport with their mentee(s)	25	63
Felt mentee demonstrated trust in mentor	21	53
Expressed having a better understanding of students in rural community	17	43
Mentee was able to discuss significant concerns or questions	13	33

presentations in accordance with the Department of Education guidelines, learning styles, curriculum development, and classroom management. NHIS curriculum plans are relayed to the MS1s through NHCOE faculty liaisons. Presentation topics have included understanding stress and vital signs, exploration of health careers, healthy food alternatives, exercise and meditation, bullying/cyber bullying, coping with stress, decision making, college life, college readiness, writing personal statements, interviewing skills, and college financial aid.

Evaluation

At midyear, MS1s participating in the ten-month NPH program are asked to complete a reflection essay on one or more areas of professionalism that they felt were enhanced or developed during the community health elective. Post-event surveys from adolescents and debriefings with NHCOE and NHIS faculty are used to enhance curriculum development and are not reported in the scope of this article.

Results

Forty medical student reflections were deidentified, themed and independently reviewed for content relating to 1) mentoring and 2) professional character development. Subthemes on mentoring included engaging in meaningful conversation, establishing a strong relationship, having a positive impact, mentee demonstrating trust, and mentee discussing significant concerns or

questions. Subthemes in professional character development included self-reflection/self-evaluation, communication, excellence in teaching, compassion, leadership, listening, altruism, empathy, respect, positive attitude, gratitude, integrity, and understanding students from an underserved community.

Mentoring experiences described in student reflections (Table 2) indicate that seventy percent of students had meaningful conversation(s) with their mentee, 63% indicated that they were able to establish rapport with their mentee(s), and (70%) felt they had made a positive impact on their mentee. Fifty-three (53) percent described establishing a trusting relationship with their mentee(s) and 33% discussed significant concerns or questions with their mentees.

In regards to professional character development (Table 3), reflections indicate that overall 90% of students had increased their knowledge, understanding, or skills in professionalism in medicine through adolescent mentoring. Subtheming identified the top three skills developed as self-reflection/self-evaluation (90%), communication (70%), and teaching (63%). Fifty (50) percent or more of students also described how compassion, accountability, and positive attitude played an important role in their mentoring experience. Others described how mentoring helped them to develop or improve skills in leadership, listening, altruism, empathy, and respect, as well as a better understanding of adolescents in an underserved community.

Table 3. Medical Student Professional Character Development While Mentoring Teens in Community Health		
	Discussed in Reflection	% (N=40)
Increased understanding/knowledge/skills of professionalism in medicine	36	90
Developed skills in self-reflection/self-evaluation	36	90
Developed skills in communication	28	70
Identified developing skills in/striving for excellence in teaching	25	63
Developed understanding of how they can be accountable for their actions	20	50
Valued developing or maintaining a positive attitude in mentoring	20	50
Experienced compassion	20	50
Experienced empathy	19	48
Learned more about respect for others in their community	19	48
Improved skills in listening	18	45
Demonstrated a role in leadership	16	40
Altruism: was able to put the needs of others over my own	15	38

Discussion

Historical trauma and sense of place exercises helped students gain a better understanding of Native Hawaiian culture, protocol, and traditions. Medical students also learned about physician wellness and life balance during the exercises on *lokahi* (unity and balance) that took place during the sense of place exercises. In addition, the service learning events and adolescent mentoring enhanced MS1s' understanding of cultural humility, native Hawaiian rural student life, professionalism, humanism in medicine, responsibility, empathy, communication, compassion, and the need for self-reflection.

- “the presentations from cultural experts helped me to understand how social determinants of health contribute to Native Hawaiian health disparities.”
- Some students described how they were able to utilize what they learned about social determinants of health in classroom presentations.

Service learning activities helped MS1s to know more about the cultural resources available in Hawai'i.

- “We went to a lot of places that I've never gone to and I've lived here for twenty something years.”
- “I get to go out and do things like hiking or these team building activities which I probably wouldn't have done at all had it not been for those Saturdays ... it forced me to be more active, which is a really positive thing because I wouldn't have been that active if I wasn't given the opportunity. It was really important to have something else besides going to school and studying.”

Others felt humbled and described feeling compassion for the adolescents noting the following:

- “...the lack of access to resources on the west side”
- “how outside perceptions (of Nānākuli) can influence personal perception in Nanakuli.”

While mentoring, some MS1s felt that it was their *kuleana* (responsibility) to adopt healthier living choices, to strive for work-life balance, and to deliver their presentations with integrity.

- “(The elective) has helped me to be healthy, too, because now (I'm) trying to better the community and (I) have to do the same thing.”
- “[I have] someone looking up to me, telling them to eat healthy, and all this stuff. And I'm telling myself, you know, I have to practice what I preach.”
- One medical student learned the importance of being a source of kindness, and another felt the importance of having a “... positive attitude, and it's like, they (Nanakuli students) don't necessarily get those affirmations and that's where we're supposed to come in.”

Stronger communication skills were developed through mentoring where students felt they were able to:

- “address personal and reserved issues with Nānākuli students.”

Empathy for mentee(s) is expressed in the following reflections;

- “I thought my life was hard, but they went through way more than what I could have ever experienced. I think that that was one thing as a medical student that kind of opened my eyes...”
- “learning about where they (the adolescents) come from, what they've been through...made me realize the bounds of human resilience are just so much greater. They've been through so much and are so resilient...”
- “...(it) makes me realize the capacity of people.”

Medical students learned to look beyond the surface of barriers and health issues and to approach relationships with adolescents without judging.

- “...recognizing the back story and how it's not necessarily noncompliance that's a barrier to people's health,

but it can also be their aunts or uncles who are really the barriers, physical barriers, from going to the Comp, or seeking a women's health doctor . . . Just to recognize that as a physician, to not pass that judgement. You see something. . . to just dig deeper than, you know, that they don't care.”

For some students communicating with an adolescent meant going beyond their comfort zone.

- “Prior to this experience, I had never worked with students and was actually afraid to do so.”
- “I learned more about how I adapt to new environments and ways to adjust my speech/actions to be more relatable.”

A second-year medical student reflects on how his own sense of responsibility was enhanced through this rotation; “The opportunity to work with the NPH program has provided me with an invaluable experience that has and will continue to influence my career as a physician. Many of the youth that participated in the program were of Native Hawaiian ancestry, like me. Working and interacting with (the NHIS) students served as a reminder of my humble upbringing and all the obstacles and hardships that I faced as a young Native Hawaiian navigating through a western world. Participating in this program has solidified my *kuleana* as a doctor, as a Native Hawaiian, and as a member of a larger community. The experiences afforded to me through the NPH program will continue to shape the way I practice medicine. NPH has shown me the power (that) role models and positive influences (can) play in the foundation of our futures. When I begin to practice medicine, I will be sure to engage with my community outside of the typical clinical setting, working to remain connected and visible with the next generation. I will strive to be someone that my community can look towards as not only just a doctor, but also as a leader and role model.”

Conclusion

The NPH program is an innovative program model for medical schools interested in linking medical student development with health career pipeline programs. Mentoring of middle and high school students in Nānākuli has enhanced medical student understanding of professionalism in medicine and adolescent mentoring while supporting academic achievement and health career interest. Interactions with adolescent mentees provides MS1s with experiences that they relate to the development of skills in professionalism including self-evaluation, self-reflection, teaching, and communication. Some students also noted that their ability to develop trusting and comfortable relationships with adolescents enhanced their ability to establish stronger patient relationships.

Conflict of Interest

None of the authors identify a conflict of interest.

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Authors' Affiliations:

- John A. Burns School of Medicine, University of Hawai'i, Honolulu, HI (JJKL)
- Native Hawaiian Center of Excellence, Department of Native Hawaiian Health, John A. Burns School of Medicine, University of Hawai'i, Honolulu, HI (MSL, SKK, MSS, KNFV)

Correspondence to:

Malia S. Lee MD; Native Hawaiian Center of Excellence, Department of Native Hawaiian Health, John A. Burns School of Medicine, University of Hawai'i, Honolulu, HI; Email: msl@hawaii.edu

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