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Developing Program Infrastructure for Relationship-Building Between
Native Communities and Premedical Students in South Dakota

by

Andrew Nerland

A Thesis Submitted in Partial Fulfillment
Of the Requirements for the
University Honors Program

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The University of South Dakota
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ABSTRACT

Developing Program Infrastructure for Relationship-Building Between Native Communities and Premedical Students in South Dakota

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Rural health disparities are an ongoing issue in the state of South Dakota (SD), specifically within rural and Native American communities. An explicit goal of the Sanford School of Medicine (SSOM) is to improve health care for the citizens of the state with an emphasis on rural and Native communities. Many initiatives have been undertaken by SSOM to address these disparities; however, few opportunities exist for undergraduate premedical students to contribute. A well-designed cultural immersion program has the potential to influence the career paths of pre-professional students. The ultimate goal of the program is to facilitate relationship-building between medical pre-professionals and their potential patient populations to influence future generations of SD medical professionals to address rural health disparities. Specific goals for individual program participants include engaging in critical self-reflection, learning Native history, and developing cultural humility. The program goals are to be accomplished through a variety of theoretical frameworks and best practices established through a comprehensive literature review. Discussion includes relevant theories, methods, logistical considerations, evaluation tools, practical applications, and other considerations for accomplishing the previously stated goals of an undergraduate cultural immersion program.

KEYWORDS: Service-learning, Cultural Immersion, Native Health Disparities, Rural Physician Retention

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CHAPTER ONE

INTRODUCTION

Rural health disparities are an ongoing issue in the state of South Dakota (SD), specifically within its rural Native American communities.¹⁻³ According to the National Institutes of Health, a definition of health disparities is, “differences in incidence, prevalence, morbidity, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups.”⁴ In general, rural communities suffer from higher incidence rates of numerous health conditions, many of which are preventable in nature.^{5,6} The infrastructural conditions that lead to rural health disparities are often amplified in Native communities. Native American populations statistically experience higher rates of cardiovascular disease, cancer, diabetes, infant mortality, alcoholism-related diseases, and other preventable diseases as compared to other ethnic groups within the United States.⁷⁻¹⁰ More specifically, Native Americans living within Tribal Nations of the northern plains (e.g. South Dakota, North Dakota, Minnesota) experience significant health disparities, lower life expectancies, and higher rates of health-risk behaviors relative to the general population and other ethnic groups in the United States.^{7-9,11} To make matters worse, rural health disparities within South Dakota are exacerbated by rural physician shortages. According to the 2010-2015 Primary Care Needs Assessment conducted by the South Dakota Department of Health, 58 of 66 total counties within SD are designated as medically underserved in some form (e.g. geographic, population group, facilities). Furthermore, it is reported that, “there are 86 primary care shortage area designations of various types across South Dakota; of those, 60 have a [Health Professional Shortage Area] Score of 10 or higher [on a scale from 1-

25, 25 being the most severe]. Three of the 60 scored designated areas have a HPSA Score greater than 20; all three are located on tribal land or are Indian Health Service Facilities.”¹²

Greater efforts are needed to achieve an enduring solution to Native health disparities. While statistics provide a clear overview of the existing problem, the complexity of the disparities cannot be overstated. To work towards an effective solution, Native health disparities should be addressed through a multifaceted approach with an emphasis on long-lasting change. A potential medium for initiating long-lasting change exists on the college campus among future generations of professionals. One currently underutilized approach to reducing health disparities in SD is to carefully expose pre-professional undergraduate students to affected communities in an attempt to garner interest and awareness among them as they discern their career paths.

Introducing University of South Dakota (USD) undergraduate students to rural health disparities firsthand could indirectly benefit the university beyond the initiative itself. In 2020, USD published a strategic plan that established institution-level themes and goals to “shape [USD’s] time, attention and resources over the next five years.” Specific goals listed under the strategic theme of “Serving South Dakota” are (1) Address key statewide issues by leveraging USD expertise (2) Collaborate with underserved populations to improve the quality of life in South Dakota. To determine achievement of these goals, measures of success listed by USD include understanding and communicating service within SD, increasing projects and service related to statewide issues, and increased collaboration with Tribal Nations.¹³ These institutional aims can be

targeted through a collaborative service-learning program between undergraduate students and Tribal Nations within the state.

The benefits of this program could extend beyond the undergraduate level and lend themselves to the goals of medical students and medical education within SD. The Sanford School of Medicine (SSOM) is the only LCME-accredited medical school in the state of SD. The mission statement of SSOM explicitly communicates that the institution intends to educate “South Dakota residents” and encourage them to “serve in the medically underserved areas of South Dakota.” Additionally, the Diversity statement of SSOM expresses that applicants are valued in part by “records of service to disadvantaged populations”, and the school emphasizes service to Native American and rural populations.¹⁴ A program that facilitates connection between undergraduate premedical students and Native health disparities could help to produce medical school applicants better suited towards the intentions of the school; furthermore, the program could orient medical students to underserved areas of SD prior to the onset of their medical education potentially influencing their future career choice.¹⁵

USD and SSOM share common goals related to addressing the health disparities impacting Tribal Nations within the state of SD; moreover, the institutions share a common link through the premedical undergraduate population of USD. As it currently stands, undergraduate premedical (“medical biology”) students at USD have no required coursework related to rural or Native communities nor are related courses offered as potential electives to satisfy credits related to their major. Furthermore, no premedical coursework directly incorporates cultural immersion or service-learning experiences.¹⁶

Great potential exists for developing a program or course for undergraduate premedical students to connect with rural and Native communities within SD.

Building long-lasting relationships between Native communities within SD and undergraduate premedical students from USD through service-learning has potential to reduce the impact of future health disparities in the state.¹⁷ To build these relationships, it is important to educate participating students on related issues and facilitate an immersive experience within the communities. Through proper preparation, immersion, and reflection, among other factors, it is hoped that connections can be established that will further develop throughout the students' future professional careers.

GOALS

The intention of this thesis is to elucidate the ideal components comprising a program infrastructure which allows undergraduate premedical students at USD to connect with Native communities. The overall goal of such a program is to build long-lasting, reciprocal relationships between South Dakotan health pre-professionals and Tribal Nations within the state. The ultimate value of the program is not for the built-in experience or learning objectives in and of themselves; rather, much of the program's value resides in its influence on participants as they become professionals in their career field. In this way, the program is designed to initiate positive, long-lasting change for South Dakotan communities.

A number of subgoals exist within the infrastructure which are intended specifically for the program participants. Through completion of the program, it is hoped that participants will (1) critically reflect on their own racial and cultural identity, (2)

learn about indigenous history and the historical trauma Native Americans have faced, (3) develop personal connections with the participating community, (4) establish cultural competency and cultural humility, (5) promote diversity, inclusivity, and multiculturalism within the context of South Dakota.

(1) Critically reflect on their own racial and cultural identity. According to Andrew Watts, a developer of undergraduate cultural immersion experiences at Belmont University who has worked with the Lakota people of Pine Ridge in South Dakota, “Without critical racial and cultural identity work, [non-Native] Americans seeking partnerships with Native communities fail to develop reciprocal, collaborative, and empowering partnerships. At worst, they will perpetuate the trauma of Euro-American colonization.”¹⁸ Self-awareness and reflection are key to objective learning and making genuine connections before, during, and after a culturally immersive experience. For effective transformative learning to take place, students must have a greater understanding of context and how they fit into the overall picture as individuals. Self-awareness necessarily precedes cultural sensitivity just as critical reflection precedes cultural humility, both of which lessen the chance of reinforcing stereotypes and other potential negative outcomes associated with cultural immersion. Through approaching the program from a place of critical self-reflection, participants are more likely to sustain long-lasting personal and developmental changes. This program is designed to be inclusive of all participants independent of race or ethnicity; however, with white students comprising roughly 83% of the enrollment at USD (as of fall 2019),¹⁹ it is especially important that white participants critically reflect on their racial identity. As stated by Johnson in a discussion of the elusive

normativity of white privilege, “to be white in America means not having to think about it.”²⁰ Incorporating one’s own self constructs into the course evolves the program’s educational components from purely academic to intimate and long-lasting. This goal helps to facilitate the perspective-taking necessary for a student to better appreciate experiences from the perspective of someone with a different cultural background. Critical self-reflection is essential to the process of transformative learning and developing cultural humility, two important elements of the program discussed later.

(2) Learn about Indigenous history and the historical trauma Native Americans have faced. In addition to self-examination, an objective examination of the history of the Indigenous peoples of the United States and SD is necessary when seeking out a long-lasting, reciprocal relationship with their communities. It is important for this informative learning to go beyond the Eurocentric model traditionally presented to students in their pre-college education; rather, the educational components should incorporate and emphasize Native authors and perspectives. Providing a pre-colonization history is essential. In this way, an asset-based perspective of the collaborating Tribal Nation can be rooted in both historical and contemporary views, and Indigenous peoples can be framed with respect for their strengths and values independent of outsider influence or narrative. Necessary learning outcomes of this objective include, but are not limited to, learning about Native traditions and belief systems, pre-colonial history, colonialism and imperialism, genocide, historical treaties, reservations, and contemporary issues specific to the collaborating Tribal Nation. Historical trauma should be examined

carefully with distinct focus for the individual-, family-, and community-level impacts; intergenerational trauma; the crossroads of historical trauma and contemporary disparities; and resilience.²¹ Additionally, it is crucial that the collaborating Tribal Nation be given significant attention in learning about their unique history, culture, and traditions. Respect for individual Tribal sovereignty and identity must be fundamentally embedded within the values and execution of the program. A comprehensive approach is best suited for the educational goals, meaning that emphasis should be placed on cultural, psychological, and social considerations in addition to a chronology of historical events. It is absolutely critical to incorporate Native teachers and leaders in participant education. Native input should always hold the highest priority in determining specific educational components. Therefore, curricula may vary depending on the preferences of the specific collaborator. Through these efforts, the shortcomings and implications of Eurocentric history traditionally utilized in educational institutions can be avoided.

(3) Develop Personal Connections with the Participating Community. The fullest potential of this program is actualized when participants degrade the barriers separating them from those they are serving, whether the barriers be physical or psychological.^{15,17,18,23} The program seeks to eliminate the distance between the walled-off classroom and the collaborating community, and, in doing so, create a contiguous link among the citizens of SD. This cannot be accomplished purely through theorizing, strategizing, or test-taking. It requires participants to take on the burden of making themselves fully available to the community they are serving. By dedicating time and attention to the pre-experience curriculum, presentness and

awareness during the immersion, and mental strain and effort to the post-experience reflection, it is hoped participants will develop an intimately personal connection with the participating community. This level of connection is necessary for the long-lasting relationships hoped to be initiated through the program.

(4) Establish Cultural Competency and Cultural Humility. Through completion of this program, it is intended that participants develop positive social and cognitive adaptations to their intercultural approach, namely cultural competence and cultural humility. Cultural competence is defined as “a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals and enable that system, agency, or those professionals to work effectively in cross-cultural situations.”²³ Developing cultural competency enables participants to work effectively with diverse populations. This attribute will have significant utility in a future health profession; however, participants should gain more than a practical advantage through program completion. Beyond competency, it is especially hoped that participants will develop and embody cultural humility. Alternatively, cultural humility “entails a lifelong process of commitment to self-reflection and analysis, to redressing power imbalances in the physician–patient relationship, and to developing mutually beneficial, non-paternalistic advocacy partnerships with individuals and communities.”²³ For the purposes of this program, cultural humility is especially important for its emphasis on self-awareness and critical reflection. Additionally, cultural humility is defined as a lifelong commitment, and it depends upon learning directly from individuals within the designated culture. While both constructs are

valuable and relevant to the program, a slight idealistic preference exists for Cultural Humility while an evaluative advantage exists for Cultural Competence.

(5) Promote Diversity, Inclusivity, and Multiculturalism within the context of South Dakota. Benefits of this program are intended to extend beyond the participants and the immediate communities they interact with; instead, it is hoped that the broad sociocultural atmosphere of South Dakota can improve over time through the ripple effect of this or a similar program(s). In catalyzing developmental changes among USD pre-professionals and building long-lasting relationships with diverse South Dakotan communities, a more connected and inclusive environment emerges. These connections are hoped to promote and celebrate multiculturalism within the state. Rather than segmenting the state of SD, the greater community can flourish while celebrating the differences of the individuals within.

THEMES

The program should incorporate specific, grounding themes that are relevant throughout the program's duration. To best assure the previously stated goals are achieved, the program should be consciously framed for participants throughout all its aspects using the concepts listed below. Proper framing allows for accurate conceptualization of the program, and it allows participants to enter the experience with an adequate understanding of what to anticipate. This understanding can help to prevent participant distress during the program which in turn helps to prevent negative outcomes. The themes of the program are inherently linked to its goals, and the themes should have a constant presence during program implementation. Through the utilization of these

themes, common pitfalls of service-learning can be avoided. The four themes selected for this program were partially influenced by the work of Andrew Watts and his development of an immersive service experience at Belmont University.¹⁸ The specific conceptual themes to be used throughout the program include (1) an asset-based approach, (2) reciprocity, (3) respect, and (4) relationship-building.

(1) Asset-Based Approach. “The asset-based approach considers the community to have strengths and empowers residents to make their own decisions. It seeks to develop long-term interactive relationships between faculty, students, and communities” as opposed to a deficit-based approach often seen in other service models in which “the community is characterized by its problems, weaknesses, and needs.”¹⁸ An “Asset-Based Approach” must be intentionally pursued and explicitly acknowledged. Otherwise, there is risk that participants may misperceive their experience. In many traditional service-trip models, the focus of the experience is characterized by doing ‘good deeds’ for those in need. This is problematic because it casts the beneficiaries of the service as being deficient or incapable, and it passively reinforces the idea that the participant has some sort of superiority over the community they are performing service in. Delano-Oriaran assert, “With regard to the deficit-based approach to service-learning, many scholars have asserted that service learning tend to promote a ‘feel good’ response and ‘missionary ideology,’ perpetuate stereotypes, reinforce assumptions surrounding inequalities, and foster paternalistic attitudes.”²³ Further, a deficit-based perspective “maintains the status quo, with an emphasis on the need for trained outsider experts who go on to create interventions that perpetuate inequity.”²³ An “Asset-Based Approach” can be cultivated through

properly framing diversity and educational materials with a focus on positive strengths as well as through incorporation of Indigenous perspectives, among other strength-focused strategies. Through incorporating an “Asset-Based Approach”, the traditional service paradigm is shifted to view the participating community in light of their strengths, and it places the participant and community member on an equal plane.

(2) **Reciprocity.** Like the “Asset-Based Approach”, the theme of Reciprocity reinforces the idea that participants have much to gain from the community they are serving. While reciprocity has differing definitions in the service-learning literature, it is traditionally defined as both an outcome and process: (1). An outcome of mutual benefit for the participants and community (2). A process of working with the community.²⁴ As both an outcome and a process, reciprocity establishes a collaborative environment. From this viewpoint, the community is actively involved in the program rather than taking the role of passive beneficiaries. This environment can also encourage the participant to approach the community with openness to gaining insight from them. In addition to the previously stated traditional parameters of reciprocity, this program theme embraces “Generativity-Oriented Reciprocity”, a concept which “refers to interrelatedness of beings and the broader world around them as well as the potential synergies that emerge from their relationships.” This specific approach to reciprocity aims to minimize an overly scientific view of collaboration in favor of a relational “web-like” perspective. This view is “best understood not as a relationship between atomistically-construed individuals engaged in a utilitarian calculus of costs and benefits but rather in terms of the transformative

power of relationality and the co-construction of emergent systems of collaboration.”²⁴ Through this approach to reciprocity, it is hoped that new, previously undefined relationships can form while the parameters set upon these relationships through traditional narratives can be dismantled. Participants and community members should be considered together through this relational lens rather than divided based on preconceived notions. To foster this, mutual influences and connections between the two groups should be examined, and the potential for new, emergent outcomes should be explored. This perspective encourages newly established relationships to be free of constraint with the potential for unprecedented results. Reciprocity is a theme that represents unity and elevating the lived experiences of one another.

(3) Respect. Respect is a fundamental theme that must be constantly reinforced throughout all stages of the program. Respect is especially important in the context of service in diverse or underserved communities due to cultural variance. Respect is demonstrated through taking a genuine interest in the communities served and through an effortful pursuit of the program goals. Respect is also necessary for the development of cultural competence and humility. This theme is not only relevant to the service and intercultural components of the experience; rather, respect should be present in every interaction between program participants and faculty. An attitude of respect should be incorporated into the pre-experience educational components when learning about past historical trauma, and it should continue into post-experience reflections. Every participant will begin the program with a unique perspective, and respect for this reality allows for authentic discourse and

transformative outcomes. Respect must be utilized in discussion, reflection, consideration, and conversation.

(4) **Relationship-Building.** Relationship-building can be deemed as a theme, goal, and/or purpose of the program; however, a thematic presence is necessary. Ultimately, this program is intended to achieve long-lasting change for the future of Native health disparities within South Dakota through establishing relationships early in the pre-professional stage of undergraduate student development. To best establish long-lasting, impactful relationships with the participating communities, the themes of an Asset-Based Approach, Reciprocity, and Respect must be fully incorporated. Moreover, the theme of Relationship-Building should be continually reinforced to the participants and embedded within the program ethos. With the appropriate pre-experience procedures and education, proper relationships can be established during the immersion experience and solidified during the post-experience reflections. This theme also emphasizes the long-term aspect of this program and the legacy intended to be established.

Table 1. Summary of program themes.

Theme	Relevant Features
Asset-Based Approach	<ul style="list-style-type: none">• Emphasizes strengths of participating community.• Empowers community & residents.• Avoids pitfalls of traditional service work.
Reciprocity	<ul style="list-style-type: none">• Mutual benefit for community and participants.• Working <i>with</i> the community and portraying the community as <i>active</i> contributors to program.• Co-construction of unprecedented relationships.
Respect	<ul style="list-style-type: none">• Present in all aspects of the program.• Properly frames the learning environment.• Positively influences interactions.
Relationship-Building	<ul style="list-style-type: none">• Macro-level intention of program.• Sets expectations and emphasizes long-term vision.

THEORETICAL FRAMEWORKS

(1) **Transformative Learning Theory (TLT).**²⁵⁻²⁷ “Transformative learning is the process of effecting change in a frame of reference” with *frames of reference* referring to “the structures of assumptions through which we understand our experiences.”²⁵ According to the assumptions of TLT, undergraduate students are at a developmental stage in which they have accumulated enough life experience that consistent schemas, patterns of thinking, and heuristics have developed which shape their perceptions. In this way, these students have developed a sort of lens through which they construct meaning from their experiences. Interpretations which show consistency with this lens are generally accepted, while others are left unconsidered. Often, these lenses, or frames of reference, escape conscious perception and their presence is maintained unconsciously. The goal of transformative learning is to

examine and adjust the lenses through which adults experience the world by incorporating new information, other perspectives, and novel experiences. In the case of this program, the goal of incorporating TLT is to ‘transform’ the participants’ frames of reference towards the desired program outcomes (e.g. increased cultural competency, cultural humility, and inclusivity). In accordance with TLT, these outcomes can be achieved, in part, through critical self-reflection and reflective discourse. By reflecting on one’s own frames of reference, participants can deconstruct their unacknowledged influences, biases, and preconceptions; in conjunction with the incorporation of new information and a revived self-awareness, they may adjust their frames of reference. Rather than simply learning about diverse perspectives, transformative learning requires that one examines their own perspectives in relation to those they are discovering. Further exploration is enabled through participation in critical discourse which encourages participants to practice perspective-taking and allows for interactive feedback from other participants. Discourse emphasizes the social aspect of learning, and it provides a landscape for ideas to be investigated, opposed, supported, reappraised, critiqued, modified, etc. “Discourse is necessary to validate what and how one understands, or to arrive at a best judgment regarding a belief. In this sense, learning is a social process, and discourse becomes central to making meaning.” TLT is an important application to this program because it allows participants to better understand themselves as they are introduced to new ideas. This way, participants can better approach culturally diverse perspectives in pursuit of achieving cultural humility and cultural competence.

(2) **Meaning Making (MM)**²⁸ Robert Kegan's Theory of Meaning-Making relies on 3 developmental principles of human learning: (1) Humans actively construct their own reality (2) Meaning-making develops over time and experience (3) The process of learning and teaching is strongly influenced by the ways participants make meaning.²⁸ This theory shares many foundational assumptions with TLT, particularly the view that one's perspective is constructed and that perspective can be purposefully altered through intentional teaching methodologies. Kegan theorizes that the meaning an individual derives from an event originates from that individual's own private interpretation of the event rather than a particular objective reality. MM emphasizes the importance of understanding a participant's perspective prior to the onset of teaching, "Education isn't simply presenting more adequate information in an effective manner; it is a process that must incorporate the developmental readiness of the student."²⁸ Kegan categorizes a person's level of meaning-making on a six-stage continuum, and he proposes that the majority of the adult population are between stages 3 and 4, the stages of co-construction and self-authorship. MM is of potential importance to this program because of its implications for how participants should be taught. It is important to meet a participant at their level of meaning making to maximize the effectiveness of the educational components. In this way, obstacles to the program goals can be avoided, and the individual's program experience can be optimized. Participating in cultural immersion, learning about complex sociocultural phenomena, and practicing self-reflection can be disorienting and stress-inducing for participants. To effectively communicate with and teach participants under these circumstances, it is important to

connect with them at their level of understanding. Rather than immediately focusing on high-level concepts, a progressive build-up is beneficial. “We cannot simply stand on our favored side of the bridge and worry or fume about the many who have not yet passed over. A bridge must be well anchored on both sides, with as much respect for where it begins as for where it ends.” There is utility in evaluating participant responses throughout the program’s duration, but especially in the pre-curriculum phase. Through continual evaluation, approaches to the curriculum can be actively adjusted to address necessary concerns and encourage the best learning outcomes for the participants.

(3) Developmental Model of Intercultural Sensitivity (DMIS).²⁹ The DMIS is a six-stage theory and model that categorizes people based on their personal interpretations of cultural variance. Like TLT and MM, the DMIS relies upon the idea that people construct their own unique perception of cultural differences based on their individual schema. The model proposes that individuals can become more culturally competent through bolstering the construction of their cultural interpretations, “The underlying assumption of the model is that as one’s experience of cultural difference becomes more complex and sophisticated, one’s potential competence in intercultural relations increases.”²⁹ The DMIS seeks to explain differences in perceptions of cultural variation through categorizing people within stages of cultural competence based on their perceptual and interpretive patterns. The result is a 6-stage cultural competence continuum broken into the 3-stage categories of ethnocentric and ethnorelative orientations (Ethnocentric orientations=Denial, Defense, Minimization; Ethnorelative orientations=Acceptance, Adaptation, and

Integration). Each orientation consists of characteristic patterns of thinking. This model has special utility to the program as it informs a relevant evaluation tool. The DMIS is the underlying framework of the Intercultural Development Inventory (IDI) which is discussed later and proposed as one of the primary evaluation tools for this program. It offers an applicable method for assessing cultural competence in individual participants thus providing a tool to help meet participants “where they are”, an idea emphasized in MM. Additionally, participants can be qualitatively categorized into the stages based on “observable behavior and self-reported attitudes” which provides opportunity for additional evaluation during the program.

(4) Authentic and Culturally Engaging Service Learning (ACE).²³ ACE is a model designed for service-learning preparation that incorporates the following 7 elements: investment in community needs, preparation and planning, community engagement and empowerment, curricula infusion of multicultural education, bridging theory and practice, recognition and celebration, and reflection and evaluation. This model is particularly helpful in preparing the overall facilitation of a culturally competent immersion experience. The model helps to achieve best outcomes of a service-learning program by properly framing the collaborating community (e.g. asset-based approach) and properly orienting participants to the community. This model prioritizes the collaborating community’s values, the perceptions of the community’s members, and the long-term wellbeing of the community; as a result, the negative outcomes associated with concentrating on the values and goals of the program participants or dominant culture can be avoided. In this way, ACE provides a community-empowering service framework. Some

important elements of ACE that are highly applicable to this program are as follows. ACE asserts that “service-learning must address a need from the perspectives of the community.”²³ This assures that any service performed during the immersion phase of the program fulfills the needs of the community as prescribed by their own voices rather than external agencies. Incorporation of ACE into a service-learning program increases the likelihood of providing a positive impact during community immersion. Additionally, taking an approach oriented towards the perspective of the community encourages the establishment of viable relationships. Community feedback should be actively implemented throughout the program planning, and the feedback should provide holistic influence for program execution (e.g. pre-experience, cultural immersion, and post-experience). In this way, genuine collaboration can take place from program onset, and participants can unite with the community towards a true common goal. ACE also incorporates various forms of reflection to help extend lessons learned beyond the program itself.

(5) Critical (Self) Reflection. Critical reflection on one’s own biases, prejudices, and patterns of thinking are essential to establishing cultural humility. Among other factors, cultural humility consists of a lifelong commitment to self-reflection in relation to privilege and dominant culture norms, “Self-reflection enables cross-cultural workers to assess the impact of the environments, circumstances, and events they encounter to integrate them in some way, and to develop effective interventions.”²² Self-reflection is also a necessary component of TLT.²⁵ Self-reflection enables participants to make their service-learning experience deeply personal, and it facilitates the integration of new information into their own narrative

and cognitive schemas. A study of nursing students that combined self-reflective journaling with a culturally immersive experience found that “reflective journaling helps students progressively develop their critical thinking, self-reflection skills, and cultural humility. Cultural humility cannot be learned solely in the classroom with traditional teaching methods. Rather, it requires reflection on experiences over time. Attentiveness to cultural issues and applying self-awareness and reflection in the care of patients helps students understand and address health care disparities.”³⁰ A study analyzing social work graduate students found that a critical self-reflection assignment, “served as a mechanism to re-evaluate their own privilege and oppression, how their identity had been shaped by the social context of their background, and how this could impact their future practice with oppressed client groups.”³¹ Important elements of this assignment included demonstrating an understanding of the importance of diversity, incorporating personal experience and reflection, and engaging in group dialogue. Critical reflection is also important because “the subject under scrutiny becomes ‘ourselves.’ In other words, the subject is not the “Indian problem” but [again] the ‘settler’ problem.”³² Through critical self-reflection, the knowledge participants gain through their program experience can become a part of their identities.

(6) (Professional) Identity Development. Identity development in undergraduates has a significant role in the shaping of their subsequent professional journeys. While varying definitions of professional identity development exist, one practical definition for this program that applies to the medical field is, “representation of self, achieved in stages over time during which the characteristics,

values and norms of the medical profession are internalized, resulting in individual thinking, acting and feeling like a [medical professional].”³³ Experiential learning and service-learning can have a strong impact on a student’s professional identity.^{34,35} Both TLT and MM have been associated with professional identity development in the medical field.³⁶ With a goal of this program being to influence premedical students towards addressing health disparities in their professional careers, a focus on professional identity development is useful. Service-learning has been found to result in an enduring impact on identity development and self-authorship, or “personal authority over one’s identity.”³⁵ Following a 1-week immersive service-learning program, first year medical students developed stronger professional identities, and the experience was said to have, “potential as a strategy for preparing students for their roles as physicians, and as an opportunity that fosters the professional identity formation among medical students.”³⁷ With the intention of inspiring participants to address health disparities, it is important to address their future careers through the incorporation of professional identity development.

(7) **Brave Spaces.**³⁸ When participants are encouraged to engage in critical self-reflection in conjunction with culturally immersive experiences, there is significant potential for discomfort and subsequent resistance to program objectives. It is important to be transparent with participants and address this potential for discomfort upfront; in doing so, the potential is decreased, and preferred outcomes are more likely to occur. Often, this issue is addressed through the implementation of “Safe Spaces”. Safe Spaces are commonly defined as arenas in which students are able to express themselves without fear of repercussion; however, these spaces often

establish expectations for avoiding controversy and conflicting views which discourages authenticity. Although Safe Spaces encourage generally reflective discourse, it does not encourage total honesty and transparency. Additionally, the name seemingly implies that a certain level of comfort is guaranteed due to a “conflation of safety with comfort.”³⁸ When these comfort levels are not met, the risk of participant discomfort, resistance, and adverse learning outcomes can be amplified, “the unanticipated discomfort and difficulty many agent group members experience as a result of participation in a social justice learning activity can also lead to resistance and denial. Here, the truth of how power and privilege have moved in one’s life is rejected, and energy is redirected toward critiquing the activity (rather than the content) as the source of her or his discomfort or explaining away others’ experiences as springing not from oppression but from some other more benign source, disconnected from oneself.”³⁸ With a lack of incentive for complete honesty and a potential misinterpretation of the setting, safe spaces fall short in achieving optimal reflective discourse. Arao and Clemen instead suggest the alternative idea of “Brave Spaces.”³⁸ By embracing the inherent challenge of engaging in culturally- and self-reflective discourse, greater transparency and clarity exist as participants seek to accomplish their goals. Framing opportunities for transformative discourse as “Brave Spaces” rather than “Safe Spaces” encourages participants to “break through polite, surface-level discussions.”³⁹ Arao and Clemens have found that asking students to examine the term “Brave Space” at the beginning of a program has positive implications for reaching learning objectives.³⁸ This alternative maintains the

reflective component of Safe Spaces while allowing for genuine expressivity in the pursuit of transformative learning.

(8) **“Making Space”**.³² Historically, some traditional forms of service have been associated with many problematic conceptions. Traditional service models with rigid, pre-formed frameworks often fail to acknowledge input from community members opting instead for collaboration with community-based organizations distant from the actual members of the community. Not only can this detract from the ability of participants and community members to connect, but it also risks ignorance for tribal customs, practices, and preferences. This traditional model often inadvertently casts participants as individuals that perform charity for a deficient population (refer to Asset-based vs Deficit-based approach). Additionally, measurable outcomes are sometimes overly sought after at the cost of prioritizing genuine connection with the collaborating community. As Steinman states, “The combination of logistical and power/accountability dynamics, the broad cultural orientation toward action, and the evaluative emphasis on measurable outcomes is not conducive to developing [an approach] that would allow community members’ perspectives, perceptions of problems, and appropriate action to emerge in the context of structural inequality between participants.”³² The concept of “Making Space” seeks to resolve many of the issues associated with traditional service-learning through reverent acknowledgement of individual tribal sovereignty and tradition, suspension of Eurocentric educational models and espousal of indigenous teachings, and prioritization of communication with the involved tribal community through their own preferred methods. As elaborated by Steinman, “to collaborate with tribal nations, then, is not only to learn

about indigenous culture, but involves participating in indigenous culture through self-conscious adjustments of unconscious cultural behaviors.”³² To accomplish “Making Space”, program facilitators and participants must analyze the dominant culture structures, norms, and roles through which they typically interact as well as acknowledge the “nations-within-a nation” status of the collaborating Tribe.

Overgeneralizations applied to the Native American population misperceived as a homogenous minority group must be abandoned in favor of specific considerations to the collaborating Tribal Nation. This careful attention goes beyond traditional analyses and, “generates an alternative decolonizing model that calls into question the very premise of United States territorial supremacy, non-indigenous students’ (and faculty members’) identities, and national narratives. The structure of continuing colonial dispossession and injustice requires an analysis not only of formal policies, but of hegemonic power/knowledge regimes through which power is expressed via taken-for granted classifications and categorizations in which students are deeply implicated.”³² Care must be given to understand and deconstruct these barriers to genuine discourse with Tribal Nations. In doing so, a decolonizing approach is utilized. “Incorporating sustained and holistic efforts to meet indigenous people on their cultural terms, making space is both decolonizing and difficult. It requires settlers to think outside of frameworks that structure their own thoughts and experiences and yet regarding which, prior to the encounter, they are not even aware. Crucially, while making space includes creating opportunities for indigenous people to speak, it is different than just allowing indigenous people to speak.”³² There are different methods to make space for tribal nations. Methods especially relevant to this

program are respect for tribal sovereignty, empowerment, self-determination, and cultural practices. Through “Making Space” for tribal nations, truly reciprocal, genuine, and long-lasting relationships are more likely to be established.

Table 2. Summary of framework goals and application.

Framework	Goal of Incorporation	Applicable Methods
Transformative Learning Theory	Adjust participants' frames of reference	<ul style="list-style-type: none"> • Self-reflection • Reflective discourse (social learning) • Perspective-taking
Meaning Making	Incorporate participants' developmental readiness in curriculum	<ul style="list-style-type: none"> • Continual evaluation of participant perspectives • Individualized attention to participant development • Active adjustment of curriculum approaches
Developmental Model of Intercultural Sensitivity	Assess and improve cultural competence among participants	<ul style="list-style-type: none"> • Evaluation of cultural competence in participants • Individualized attention to participant measures • Active adjustment of curriculum content
Authentic and Culturally Engaging Service-Learning	Prioritization of community collaboration over program objectives	<ul style="list-style-type: none"> • Deliberate framing and orientation • Incorporation of community perspectives • Guidance through community feedback
Critical (Self) Reflection	Cultivating cultural humility	<ul style="list-style-type: none"> • Rigorous self-examination • Reflective writing • Investigation of self in tribal relations
(Professional) Identity Development	Encourage professional pursuit of addressing health disparities	<ul style="list-style-type: none"> • Reflection on professional future • Investigating role of future profession in health disparities • Integration of program goals and career goals
Brave Spaces	Facilitate transformative discourse	<ul style="list-style-type: none"> • Deliberate framing of discussions • Free and honest expression • Embrace challenging and uncomfortable topics
Making Space	Holistic program guidance through tribal nation	<ul style="list-style-type: none"> • Respect for tribal sovereignty • Tribally led and controlled communication • Decolonization approach to program

CHAPTER TWO
LITERATURE REVIEW

GENERAL EVIDENCE

Evidence for Service-Learning and Cultural Immersion

Several meta-analyses analyzing the existing service-learning and cultural immersion literature have been conducted that provide substantial evidence for the benefits of such programs. Service learning has been found to improve learning outcomes for participants as compared to traditional academic learning.⁴⁰ Positive outcomes of service-learning have been found in academic, personal, and social domains.⁴¹ Service-learning has been associated with increases in understanding of social issues, personal insight, and cognitive development.⁴² A meta-analysis including 62 studies with more than 11,000 students found that “students participating in [service-learning] programs demonstrated significant gains in five outcome areas: attitudes toward self, attitudes toward school and learning, civic engagement, social skills, and academic performance.”⁴³

A review of 20 healthcare-related cultural immersion studies consistently found increases in cultural competency for cultural immersion participants as measured by multiple evaluative measurements.⁴⁴ A review of 9 studies investigating the outcomes for health professions graduate students participating in cultural immersion experiences reported positive findings in cognitive growth (e.g. increased knowledge, self-awareness), affective growth (e.g. increased gratitude, renewed professional interest), perceptual growth (e.g. awareness of health disparities), and other domains.⁴⁵

Since 2009, The Mel and Enid Zuckerman College of Public Health at the University of Arizona, Tucson has facilitated 5 distinct courses with week-long service-learning components, one of which addresses rural health disparities and another which addresses Native health disparities. Findings related to participants who have completed the program include increased cultural humility, leadership, commitment to community-engaged scholarship in personal and professional life, and an increased sense of urgency and action to address health disparities. About one out of every five students who participated in the program developed their internships based on their experiences. Additionally, the service-learning inspired the formation of two clubs, and some of the participants “shifted their academic and career plans to intern and work with community partners based on the social justice issues encountered.”¹⁷

Medical students that participated in rural service-learning experiences during their clerkships reported feeling more connected to the rural community and more interested in practicing rural medicine. Additionally, they reportedly obtained an enhanced perspective of the relationship between a rural physician and the community they serve.⁴⁶ An examination of rural education and outreach programs during medical education was undertaken to determine its level of impact on the subsequent career paths of participating students. Among many other findings, common themes indicated that “students’ rural intentions prior to the start of medical training is a better predictor of rural intentions than a rural intervention.”⁴⁷ Therefore, introducing undergraduate students to rural communities through service-learning prior to medical school could increase the likelihood they pursue a rural career path. It has been suggested that effective teaching methodology is inadequate in attracting medical students to rural practice;

instead, emotional attachments gained through immersive community experiences are more likely to produce a positive outcome.⁴⁸

Evidence for Pre- and Post-Immersion Preparation

Simply providing opportunities for cultural immersion and cross-cultural contact does not always lead to favorable outcomes; rather, prejudice may be reinforced and negative outcomes may be promoted if proper pre-immersion preparation is not integrated. A meta-analysis examining the effect of intercultural contact on the reduction of prejudice found that reductions in prejudice and increases in intercultural understanding do not consistently result from culturally immersive experiences. However, incorporation of affective mediators into the programs (e.g. anxiety reduction, empathy, perspective-taking) were correlated with positive outcomes.⁴⁹ Affective mediators may be emphasized through critically reflective and dialogic practices.

While differences exist between international study abroad programs and domestic cultural immersion programs, there is significant overlap between the two in terms of participant demographics, goals, relevant theoretical frameworks, structural elements, cross-cultural obstacles, and other factors. Numerous study abroad experts examined current practices, critiques, and research related to study abroad programs, and they provided evidence-based guidance on the construction of a study abroad program. Suggestions include implementing goals and learning outcomes into the program design prior to the program onset, intervention prior to and after the immersive experience, and individualized attention throughout the program duration. Furthermore, a finding states, “recent research clearly shows that for most students immersion is a necessary, but not a sufficient, condition for learning abroad; only when immersion is combined with

intervention in the form of cultural mentoring across the study abroad experience do most students learn and develop in a meaningful way.”⁵⁰ These findings demonstrate the importance of a purposefully and mindfully constructed pre- and post-immersion experience during which participants should be prioritized on an individual level.

Significant variance has been found in the rates of change that study abroad participants experience in intercultural competence following their experience,⁵¹ providing further evidence individualized support prior to and throughout a cultural immersion experience. Additionally, Medino-Lopez-Portillo found that study abroad participants’ self-perceived intercultural competence was inflated both prior to and after their intercultural experience.⁵² This finding highlights the importance of properly framing the program and its expected outcomes during the pre-experience stage. In this way, the complexity of the experience and intended outcomes can be targeted to avoid overconfidence and cultural oversimplifications.

Greater levels of facilitation throughout an undergraduate cultural immersion program were correlated with greater gains in intercultural competency. Participants with the most individualized attention saw the highest gains while non-facilitated, self-guided experiences resulted in the lowest gains.⁵³ Individualized attention can be quantified by examining the level of one-on-one feedback and intervention a participant experiences with a program facilitator. This reinforces the importance of providing structured guidance prior to, during, and after an intercultural experience for achieving best outcomes. A review of healthcare-related cultural immersion indicated the importance of the pre-immersion learning stage reporting that, “learning before immersion is part of

what makes the immersion experience more meaningful and successful which is why most of the studies in this review also report on its importance.”⁵⁴

Cultural Humility evidence

In an interpretation of information presented in the book “Cultural competence in health: A review of the evidence”, it was determined that competence-based training can lead to improper equations of cultural knowledge and culturally appropriate patient care by participants. Further the book reported on a “review of 16 studies on cultural competency training programs for healthcare personnel, [in which] the authors discovered that there were neither positive outcomes beyond reported improved practitioner knowledge, skills and attitudes nor was there any difference in patient outcomes.”⁵⁵ Acquisition of knowledge alone does not consistently lead to meaningful changes in behavior, highlighting potential shortcomings of cultural competence training in improving the outcomes of cross-cultural interactions. Alternatively, cultural humility embraces a perspective of not-knowing and emphasizes open-mindedness through a reliance on learning directly from the culturally diverse source. This characteristic of cultural humility is seen through its intrapersonal and interpersonal components, “The intrapersonal component involves an awareness of the limited ability to understand the worldview and culture of the patient. The interpersonal component incorporates a stance towards the patient that is marked by respect and an openness to the patient’s world view.”⁵⁵ A finding from a study reported by Isaacson which involved nursing students spending 2 weeks on a Native Reservation during a cultural immersion experience found, “students perceived themselves as culturally competent, yet their journals demonstrated

many negative stereotypes, pointing to further efforts in nursing education to teach students the importance of adopting an ethic of cultural humility.”⁵⁵

A course was created for medical students that incorporated reflection on their own cultural identities with emphasis on unconscious biases and privileges, principles that align closely with that of cultural humility. Following the course, the medical students reported that “the course ‘opened their eyes’ to their personal biases and blind spots” and that “providing equitable care and treatment would require lifelong reflection and attention to these biases.”⁵⁶ A goal of the program is to influence pre-professional students in their professional careers towards addressing health disparities; therefore, the results of this cultural humility-related course are promising in that students gained understanding of the importance of a lifelong approach to cultural humility. Cultural humility training appears to provide lessons that extend beyond the present and apply to future medical careers.

THEORETICAL FRAMEWORK EVIDENCE

Transformative Learning Theory (TLT) evidence

Positive outcomes associated with the application of Transformative Learning Theory to service-learning is well explored and established; furthermore, many unique approaches and pedagogies have emerged that integrate TLT into service-learning.⁵⁷⁻⁶³ The application of TLT to a service-learning curriculum has been shown to be effective in contributing to numerous goals of the program. In an example particularly relevant to this program, a study examined the impact of providing a service-learning pedagogy incorporating TLT to graduate social work students through a cultural immersion

experience on a Native reservation. Critical reflection and written journal assignments were also utilized. Findings included increases in self-awareness, cross-cultural empathy, critical thinking, and cultural competency. Participants in the program saw an increase in recognition of ethnocentric perspectives, “Though 70% of the students participating in the course had never heard of Native American boarding schools, upon completion of the course they were able to articulate the ethnocentrism of their own K–12 education, having never imagined the story of the United States from any other perspective beyond the Eurocentric one from which they were taught.” Additionally, continued community involvement was seen among participants over the following 3 years.⁶⁴

Meaning Making evidence

The process of making meaning can be important for participant outcomes during service-learning^{65,66}; however, limited evidence exists for specifically applying Robert Kegan’s Theory of Meaning Making in a service-learning context,⁶⁷ although some related discussion exists.⁶⁸ In an integration of meaning-making with teaching methodology, Igelzi elucidates a valuable pedagogical approach for this program.²⁸ Through this approach, learning outcomes can be optimized to the individual participant.

DMIS evidence

Interesting observations have been made in using the IDI among healthcare-related professionals and pre-professionals. One study administered the IDI to 314 nursing students, faculty, and staff prior to any cultural development interventions and found that 98% overestimated their cultural competency score. The same study also found nursing students who spent longer durations of time abroad did not consistently score higher in cultural competence.⁶⁹ Both of these findings indicate the benefit of

establishing an initial cultural competence baseline for participants. Without an initial baseline, participants may be overconfident and miss out on opportunities for growth. Intercultural exposure alone does not seem to consistently increase cultural competence. A study examined IDI scores of 24 pediatric resident trainees and demonstrated consistent self-perceived overestimations of cultural competency among participants. Additionally, the study emphasized the importance of continual cultural competency practice as initial gains may quickly fade after participants return to daily life for an extended period of time.⁷⁰ This finding reinforces the importance of the program's post-experience reflection phase and the emphasis that cultural humility places on long-term practice and awareness. Munoz et al. suggests that at least 40 hours of training is required to see any meaningful changes in IDI scores.⁷¹ Findings on the relationship between the duration of an immersive experience and IDI scores have been mixed, but a weak trend exists in favor of a longer duration.⁵² Finally, it is worth noting that there can be significant variance in IDI trends among individuals undergoing the same experience.⁵¹ This demonstrates the importance of being attentive to individual variability and tailoring program curriculum to the individual.

ACE Evidence

ACE is a unique framework created by Delano-Oriaran to create successful multicultural service-learning outcomes, especially in the context of pre-experience facilitation.²³ While no empirical research analyzing the impact of this framework was found, it remains conceptually relevant, highly applicable, and promising for this program.

Critical (Self) Reflection evidence

According to Danso, a lifelong commitment to critical self-reflection is a fundamental aspect of achieving cultural humility.²² Additionally, Mezirow (author of TLT) considers critical reflection to be crucial for achieving transformative learning.²⁵ Meta analyses assessing the impact of service-learning have associated reflection with better outcomes^{41,43}; moreover, it has been suggested that service-learning outcomes are further improved by the inclusion of verbal discussion in addition to reflective writing.⁴² Written reflections can provide qualitative, chronological data of participant perspectives that can help to interpret changes observed in quantitative measurements. Reflective writings in conjunction with quantitative measures (e.g. IDI) allow for an individualized evaluative approach for each participant. These measurements can contribute to an overall narrative of participant change.⁷²

In creating guidelines and best practices for study abroad experiences, it is suggested to incorporate guided self-reflection.⁵⁰ In a study of osteopathic medical students participating in service-learning, critically reflective activities, including reflective writing, were associated with increases in levels of empathy among participants.⁷³ Hughes et al. suggest incorporating critical self-reflection and reflective writing as a best practice to cultivate cultural humility among nursing students.⁵⁵ In a study of nursing students, it was found that, “reflective journaling helps students progressively develop their critical thinking, self-reflection skills, and cultural humility.”³⁰

Self-reflective writing in conjunction with a culturally immersive experience showed evidence for the development of cultural humility in undergraduate students.⁷⁴

Undergraduates participating in a course incorporating reflective writing with experiential learning found increases in cultural humility development.⁷⁴ One study examining cultural humility in an undergraduate course utilized reflective writing and found increases in self-awareness, seeking understanding of self and others, and recognizing privilege.⁷⁴ A 4-year longitudinal course incorporating critical reflection was found to result in increases in professional identity development among premedical students.

Professional identity development evidence

Experiential learning and service-learning have been shown to impact professional development.^{35,75} Undergraduate students in a political science course that were randomly placed into a service-learning group showed a greater intention to pursue a socially useful career as compared to the control group.⁷⁶ A longitudinal study of over 22,000 students found that participation in service-learning and community service had a significant impact on the pursuit of a service-related career (eg. medicine).⁷⁷

A study of a 1-week service-learning program involving medical students transitioning into their second year found evidence that service-learning bolstered the professional identity formation of the participants. It is further asserted that similar service experiences, “can serve as an ideal opportunity to bridge the gap between knowledge acquisition and the development of one’s professional identity” in medical school.³⁷ The Tulsa School of Community Medicine administered a week-long immersion experience for incoming medical and physician assistant students during which participants directly participated in the practice of community medicine. Findings show that participants “solidify their beliefs about the importance of serving underserved

patients” and adjust “their previous beliefs about the underserved, determinants of health, and causes of poverty.”⁷⁸ Chrisman-Khawam and Manzi cited 3 studies in claiming that “[medical] students who do not develop a positive professional identity early enough in their careers are more likely to feel inadequately prepared to meet patient needs, display symptoms of burnout, have professionalism gaps, or face medical malpractice claims.”⁷³ Additionally, it was found that osteopathic medical students who participated in a service-learning program incorporating critical reflection experienced empathetic professional identity development.⁷³

Brave Spaces Evidence

The concept of “Brave Spaces”³⁸ has been implicated in Transformative Learning,^{39,79} medical education,^{80,81} multicultural education,⁸² social work education,⁸³ and other realms of higher education. While some discussion pertaining to Brave Spaces and service learning was reviewed, limited resources were found for that directly integrated Brave Spaces into a service-learning or cultural immersion program. Nonetheless, the applicability of Brave Spaces to Transformative Learning Theory, Critical Self Reflection, and challenging group discourse makes it inherently suitable to this program.

Making Space Evidence

The concept of “Making Space” proposed by Steinman has generated discussion in service-learning literature, but little empirical evidence exists surrounding it. Two service-learning projects taking inspiration from Steinman’s framework found positive outcomes, especially in the realm of relationship-building, although the specific role or impact of the “Making Space” framework was not directly discussed or evaluated.^{85,85}

The “Making Space” framework was implemented in a service-learning project with Aboriginal peoples of Australia to maximize collaboration and community agency; in doing so, the authors used the resulting data to produce nine emergent frameworks for intercultural service-learning with Indigenous peoples which the authors categorized under the umbrellas of “being, doing, and knowing”. Emergent frameworks from the authors that are particularly relevant to this program include “Building and deepening relationships”, “Learning and sharing in reciprocal ways”, “Respecting culture and First Peoples’ worldviews”, and “Transforming understandings and worldviews through critical reflection”. The “Making Space” framework was associated with improved service-learning outcomes from the perspectives of both participants, faculty, and the collaborating community.⁸⁶

CHAPTER THREE

METHODS

Table 3. Example of a program timeline with applicable considerations.

Timeline	Event	Importance	Relevant Notes
Month(s) before start date	Application & Screening	<ul style="list-style-type: none"> • Allows participants to better understand the program. • Ensures selected participants are a good fit for program goals. 	To simultaneously allow an individualized approach as well as effective group discourse, a program size of 3-6 participants is recommended. However, this number may vary based on available staff and resources.

Week before start date	Pre-Experience Orientation Meeting (Pre-IDI)	<ul style="list-style-type: none"> Goals, themes, and expectations are provided for selected participants. Pre-IDI is taken. 	Pre-orientation allows for initial program framing to take place. Additionally, the pre-IDI is taken for evaluative purposes.
Weeks 1-7	Pre-Experience Meetings	<ul style="list-style-type: none"> Weekly meetings consisting of didactic learning, critical reflection, and group dialogue among other activities. Readings & reflective writings are assigned and reviewed at following meeting. Heavier emphasis on didactic learning as compared to post-experience meetings. 	At least 6-8 pre-experience meetings lasting 2-3 hours are suggested prior to the immersion experience, although more are encouraged. The number of meetings can be adjusted based on the scheduling availability of the collaborating community for the cultural immersion experience.
Week 8	Cultural Immersion	<ul style="list-style-type: none"> Activities will vary but should incorporate previously discussed principles and themes. The presence of service will depend on Tribal guidance. Participant journaling and nightly group reflections will take place throughout. Facilitators will meet individually with participants daily. 	Each immersive experience will be informed and guided by the collaborating Tribal nation. A minimum duration of a week is suggested, although restrictions and availability may vary.
1-3 days following Cultural Immersion (Week 9)	Post-experience Orientation Meeting (Post-IDI)	<ul style="list-style-type: none"> Space for initial post-experience reflection is provided. Goals, themes, and expectations are reiterated. Post-IDI is taken. 	To best examine the impact of the program on cultural competency development, 3 IDI's should be administered to participants (before, during, after); however, if one must be cut, this may be considered.
Weeks 10-15	Post-experience Meetings	<ul style="list-style-type: none"> Integration of previous didactic learning, 	At least 3-6 post-experience meetings are suggested; however, more

		<p>expectations, and reflection with experience.</p> <ul style="list-style-type: none"> • Synthesis of goals, themes, and cultural immersion experience. • Continued reflection with attention to goals and professional identity development. • Heavier emphasis on reflection relative to pre-experience meetings. 	<p>may be added. Post-experience meetings give an opportunity to accomplish transformative learning by continuing critical reflection related to the experience. Additionally, program goals can be emphasized and linked to the experience.</p>
Week 16	Final Session	<ul style="list-style-type: none"> • Participants present their final projects. • Final IDI is given. 	<p>Final projects may take a variety of different formats as preferred by facilitator(s).</p>
6 months post Final Session	Follow-up Survey	<ul style="list-style-type: none"> • Allows for an evaluative measure of long-term participant outcomes 	<p>It is suggested that the follow-up survey take place between 3-12 months after the Final Session. Additional surveys and evaluative measures may be administered during and/or after this time.</p>

In the following section, specific methods inspired by the program’s themes and theoretical frameworks are applied with accompanying rationale. These methods are intended to be incorporated into the program for the achievement of its goals. The following section is not an exhaustive list of potential methods to include in this program; rather, these are specific examples intended to serve as suggestions and guidelines for a program with similar intentions and frameworks.

PROGRAM ACTIVITIES

The following are activities to be implemented during the program. Additional activities should be incorporated as seen fit.

Reflective Group Discussion

Reflective group discussion addresses the social aspect of learning which is vital to this program. It provides an opportunity for participants to verbalize and express their ideas, listen to and consider the ideas of their peers, and actively engage with difficult concepts and material. Discussion in a group setting allows participants to compare their frames of reference while providing an opportunity for growth in co-constructing new perspectives. In this way, participants can make sense of their own perspectives while potentially integrating those of their peers. Effective discourse involves investigating, assessing, and potentially modifying challenging ideas. Reflective group discussion incorporates critical self-reflection, assists in meaning-making, and is necessary for transformative learning (all theoretical frameworks of this program). Additionally, reflective group discussion provides an opportunity for incorporating “Brave Spaces” into the program.

Reflective group discussion can be utilized throughout the entirety of the program. It is particularly important during the pre-experience meetings and post-experience meetings, but it should also be used during the cultural immersion phase.

Reflective Writing

Reflective writing gives participants opportunities to deeply and privately examine their own backgrounds, frames of reference, ideas, challenges, growth, and any other personally relevant experiences. This exercise provides an opportunity to make the

experience and program goals intensely personal. In doing so, participants come to a better understanding of themselves and their relationship to health disparities and Tribal Nations. Reflective writing can take on an open-ended format through regular journaling in which participants can freely explore their feelings, interpretations, and reactions to the program. Additionally, reflective writing may be preceded by targeted prompts and thought experiments designed to address specific topics.

Open-ended reflective journaling should take place throughout the entirety of the program on a basis determined by the facilitators (e.g. weekly). Specific prompts should be used during and/or between pre-experience and post-experience meetings. Additionally, select writings should be used for assessment purposes and program guidance.

Perspective-Taking

Perspective-taking provides participants with an opportunity to understand topics from a perspective other than their own, and it provides practice for understanding others' frames of reference. This exercise can help to inform the thought processes of participants as they interpret intercultural differences, and it should supplement understanding of Native history and oppression. Perspective-taking allows participants to understand one another better, and it can be incorporated into both reflective group discussion and reflective writing. Additionally, specific activities and practices can be designed to incorporate perspective-taking (e.g. learning about the traditions of a Tribal Nation).

Perspective-taking should be practiced indirectly during reflective activities throughout the program. Additional activities designed explicitly around the idea of

perspective-taking may be added throughout the pre-experience and post-experience meetings.

PROGRAM CURRICULUM

The following lists components necessary for achieving the learning outcomes of the program curriculum.

Didactic Learning

Didactic learning consists of structured learning in which new information is added to the participants' knowledge base. While much of the program consists of experiential learning and reflection with aims of personal growth, certain educational components should be taught in a more traditional format to provide context and knowledge necessary for achieving program goals (e.g. participant goal #4). The teaching of Indigenous history and culture should be approached in this way, at least in part, and learning objectives should be measured through periodic assessments. Input from Native voices should be utilized when composing the didactic learning objectives, and some objectives must be specific to the collaborating Tribal Nation. It is important to engage students with active learning strategies during didactic sessions, to the extent that it is possible. Some examples of didactic learning may include lectures, guest speakers, assigned readings, and informative videos in conjunction with related assignments.

Didactic learning activities should be heavily emphasized during the pre-experience meetings, as a fundamental knowledge base will be important to achieving the best outcomes during cultural immersion. While some didactic learning may take place in

the post-experience meetings, more focus should be placed on synthesizing past didactic learning outcomes with the immersive experience and further reflection.

Theoretical Application

While numerous theoretical frameworks shape and influence the program, there is no need for them all to be invisible to the program participants; rather, some frameworks should be made transparent, investigated, and actively incorporated into the program. Learning about the frameworks can provide participants with tools for reflection and metacognition. For example, students may learn about the six-stage DMIS continuum. Understanding the DMIS theory can help students to better understand their own place on the continuum, and it provides a broader perspective to consider intercultural perspectives and relationships. Additionally, learning about “framing” theories (e.g. Brave Spaces, “Making Space”) allows for participants to gain a more accurate understanding of program goals and approaches.

Acknowledgement and application of theoretical frameworks should begin as early as the pre-experience orientation meeting. More informative explorations of particular theories should occur during the pre-experience meetings, and the effectiveness of their application should be examined by participants during the post-experience meetings.

Professional Application

As a program targeted for pre-professionals, the program should synthesize relevant professional explorations into the curriculum. The curriculum should include investigations of Native health disparities and contributing factors. Additionally, explorations of healthcare interventions and future solutions should be applied. Students

should be encouraged to synthesize these professional applications with reflections on their own professional paths. An example of a potential resource for professional application is “American Indian Health in South Dakota-A Health Systems Case” which includes a 3-hour learning modules designed around examining rural and Native health systems in South Dakota.⁸⁷

The program should be framed early on, in part, from a professional development perspective. During pre-experience meetings, participants should spend time focused on learning objectives related to the healthcare profession and Native health disparities; during post-experience meetings and reflections, participants should attempt to synthesize previously learned professional information with their cultural immersion experience and apply newly gained insights to their own career path.

Final Project

A final project is suggested as a culminating effort of the program; however, no specific project design is pertinent. Projects could take the form of a written paper, poster, presentation, or others as seen fit. It is suggested that the cumulative project addresses the goals of the program to the greatest extent possible. For example, participants could synthesize their reflective journal entries and experiential insights to provide a narrative of growth in relation to the Tribal Nation they collaborated with; then, they could relate this narrative towards their future career path and the broader view of Native health disparities.

The Final projects should be presented at the final session, or near the end, of the program.

PROGRAM GUIDANCE

The following are adaptive strategies to be employed during the program by facilitator(s)/faculty for achieving program goals.

Individualized Attention

While maintaining attention to overall program goals is important, providing feedback and attention to participants as individuals is essential. In dealing with potentially disorienting and difficult ideas, it is important to closely monitor participant reactions. The facilitator(s) should take time to individually speak with participants and provide them with any support they need. An opportunity for one-on-one discourse can be very beneficial, and it allows the facilitator(s) to better understand the growth of the individual participants. Care should be taken to encourage authentic and genuine discourse through neutrality rather than seeking for particular characteristics in participants.

Individualized attention should be given to participants throughout the program. Planned one-on-one meetings should occasionally take place, and the opportunity for the participant to request one-on-one meetings should always be available.

Active Review of Reflective Writings

In accordance with Meaning Making, the most effective learning takes place when the teaching methods incorporate the developmental readiness of the participant. Reflective writings allow the program facilitator(s) to progressively review participant writings throughout the pre-experience and post-experience meetings. Evaluation of these writings can provide an understanding of participant development on different scales (eg.

Robert Kegan's Theory of Meaning Making, DMIS) and therefore give insight to the most efficient pedagogical approaches. Additionally, writings can be evaluated for common themes and struggles that participants may be confronting. In this way, problematic topics can be readily addressed, and best outcomes can be actively pursued. Writing prompts can be strategically introduced to evaluate participant approaches to topics of concerns. Care should be taken not to be critical of any participant perspectives. Otherwise, participants may attempt to write from a perspective that they believe fulfills the expectations of the faculty rather than authentically engaging with the reflective writings. Consider allowing participants to have a reflective journal that is not shared with faculty or other participants unless voluntarily decided.

This review process should occur throughout the experience, with special emphasis on the pre-experience phase.

Active Framing

The purpose of the program themes is to frame the program for the participants; however, framing should be actively incorporated rather than simply being introduced at the onset of the program. Consistent incorporation of the program themes helps to ensure their presence in activities and discussion. Active framing can take place in a variety of ways. For example, after a particular lecture component, participants may be asked to relate the lessons to the themes of the program. In another example, participants could reflect on times during the program or individual session when the themes were not being upheld. A potential resource for ethically framing service-learning from an indigenous perspective exists in modules created by Padmanabha,⁸⁸ which aligns well with TLT,

MM, and “Making Space”. Through active framing strategies like this, the program maintains its grounding in the four program themes and other ethical considerations.

Active framing of program themes should take place consistently throughout the program in a variety of ways.

CHAPTER FOUR

RESULTS

In this section, potential methods will be presented for measuring the success of the program at accomplishing its goals. To objectively establish the efficacy of this or a similar program, evaluation tools may be necessary. Given the diversity of the goals of the program, separate assessments will be proposed for each goal.

Reflective Writing – Goal #1

Participants’ reflective writings can be used as an evaluative tool to measure participant Goal #1 (*Critically reflect on their own racial and cultural identity*). Critical self-reflection is a personal process that takes place through the examination of one’s own thought processes and frames of reference. Accordingly, it is difficult to create an objective measurement of the personal and subjective process that is critical self-reflection. However, the reflective writings of participants can be analyzed to evaluate the level of engagement a student demonstrates in critically reflecting on their racial and cultural identity. As a consistent component throughout the program, reflective writings provide utility for evaluating a participant’s growth. Different frameworks can be applied in the evaluation of reflective writings depending on the content that is being sought after (e.g. stages of Meaning Making, orientations of Developmental Model of Intercultural

Sensitivity). For example, when seeking to evaluate growth in the stages of Meaning Making, an evaluator can look for defining characteristics of a particular stage of Meaning Making in the participant's writing. Reflective writings have also been used as a tool to provide a personal narrative that corresponds with other quantitative measurements, such as changes in cultural competency.⁷² In this way, reflective writings can help to inform the interpretation of other evaluative measurements, which can provide a more comprehensive view of participant growth and allow for greater individualized feedback.

Assessments – Goal #2

As a knowledge-based goal rooted in the process of didactic learning, the accomplishment of participant goal #2 (*Learn about Indigenous history and the trauma Native Americans have faced*) is best evaluated through traditional academic assessments. This form of evaluation provides an objective measurement related to mastery of the learning objectives presented in the program curriculum. The specific application of this evaluative method may vary depending on the preferences and/or teaching approaches of the facilitator. Implementations could take place in the form of weekly quizzes, quarterly tests, and/or a comprehensive examination. Additionally, the format of each assessment could vary; for example, assessments could consist of multiple-choice questions, free response questions, or oral examinations. If a knowledge-based assessment with a less comprehensive emphasis is favored, a presentation or targeted project could allow for more participant freedom in their expression of knowledge.

Post-Experience Survey – Goal #3

Goal #3 (*Develop personal connections with the participating community*) is unique in that it is purely dependent on the individual participant's perception following program completion. Therefore, evaluation must incorporate the participants' unique interpretations of their experience following a period of time after program completion. To evaluate the personal connections participants have established with the participating community, it is suggested that a pre- and post-experience survey is distributed in which questions will be written to evaluate the participant's level of perceived connection. This method will allow for a baseline and comparison following program completion. If desired, multiple post-experience surveys could be distributed following a desired time window to evaluate the strength and persistence of these perceived connections.

Intercultural Development Inventory – Goal #4

To measuring the success of achieving goal #4 (*Establish cultural competency and cultural humility*), the Intercultural Development Inventory (IDI) is suggested. The IDI is a measure of intercultural competence based on the Developmental Model of Intercultural Sensitivity (DMIS) which is discussed in the theoretical framework section. Informed by the DMIS theory and continuum, the IDI uses a 50-item test which evaluates self-reported behaviors and attitudes to categorize participants into one of the first 5 DMIS categories.²⁹ The IDI has been independently researched and significant evidence has been found which supports the reliability and validity of the assessment.⁸⁹

The IDI is valuable beyond simply measuring changes in the cultural competency of participants. It also allows for customization of the program due to the individual feedback it provides. Through a pre-program assessment, a cultural competency baseline

can be established. Initial measurements of cultural competency allow for the curriculum and experience of the program to be customized to the starting point of the participants. Due to this potential, the IDI should not only be a measurement tool; rather, it should actively inform the experience. Following program completion, the IDI can provide meaningful feedback for both participants and the overall program. The length of time between IDI administrations may vary depending on assessment goals. If a goal is to elucidate the most impactful variables on cultural competence (e.g. cultural immersion vs. post experience-reflection), an assessment should take place after the relevant variable is implemented. For example, the impact of the post-experience reflection phase on cultural competency gains could be examined by administering an assessment just after the immersive experience and again after program completion. Additionally, the resilience of the changes in cultural competency could be evaluated by implementing an additional IDI assessment at a later date following program completion.

Institutional Impact – Goal #5

Assessing the success of goal #5 (*Promote Diversity, Inclusivity, and Multiculturalism within the context of South Dakota*) is elusive to most standard measurements. A possible strategy to measure the accomplishment of this goal could be to measure the impact of the organization over time on the institution of University of South Dakota (USD). Some examples of this form of assessment could include observing participant engagement with similar programs following program completion, noting the emergence of new clubs related to the program goals, or participation in other intercultural coursework or initiatives. According to USD’s Strategic Plan for 2020-2026, the strategic themes of “Diversity” and “Serving South Dakota” include the goals:

“Develop and refine new core competencies for diversity”, “Address key statewide issues by Leveraging USD Expertise”, and “Collaborate with underserved populations to improve the quality of life in South Dakota”.¹³ Accomplishment of these goals outlined by USD could be assessed based on the impact of this program. Goal #5 should be measured by assessing the impact of the program on these explicit goals of USD and the overall impact on-campus.

CHAPTER FIVE

DISCUSSION

Native Americans within the state of South Dakota are disproportionately impacted by lesser access to healthcare resources and poorer health outcomes. Further initiatives are needed to address and resolve Native health disparities. Increasing awareness of existing disparities and facilitating connections between health pre-professionals and Tribal Nations represents a strategy for improving the future of Native health within South Dakota. A culturally immersive service-learning program has potential for contributing to these goals. Through a review of cultural immersion, service learning, study abroad, community service, and higher education literature among populations including undergraduate students, premedical students, social work students, nursing students, medical students, and medical residents, among others; a program infrastructure has been proposed which aims to accomplish relationship-building between premedical students and Tribal Nations within South Dakota. Past literature reveals the importance of attending to micro-level details within the program, beyond the overarching program goals. Explicit goals should be proposed for the program

participants, anchoring program themes should be established, and relevant frameworks should be applied. Effective methods must be relied upon throughout the program duration, and applicable assessments should actively inform the program infrastructure.

The proposed model improves on previous research by synthesizing key findings from numerous related programs and research topics. This program is strengthened by its reliance on multiple domains beyond, but relevant to, service-learning. Additionally, the model incorporates new and innovative approaches into its infrastructure. An evidence-based approach is integrated with progressive ideas resulting in an overall unique program construction.

The University of South Dakota (USD) currently has an established extracurricular service-learning program entitled AWOL (A Week of Off-Campus Learning) which utilizes an alternative break format. However, AWOL differs substantially from the program proposed in this thesis. AWOL is intended for students of all majors; the proposed program is designed specifically for health pre-professionals. The AWOL program addresses a variety of social issues that are selected by student leaders (e.g. conservation, children's health, domestic abuse awareness) and then a week-long service-learning experience is organized. Alternatively, the proposed program is centered around the specific long-term goals of relationship-building with Tribal Nations and addressing Native health disparities. Therefore, the proposed program is able to incorporate greater specificity in pursuit of its intended outcomes. While service-learning through AWOL contains 5 hour-long meetings prior to service, there are no comparable post-experience meetings aside from a single "re-orientation" meeting. Not only does the program infrastructure proposed in this thesis suggest significantly more time and

attention during the pre-experience process, but the program also emphasizes the importance of post-experience meetings to ensure best outcomes are met. Additionally, service experiences through AWOL incorporate an “active citizen continuum” and critical theory to inform their service learning experiences while the proposed program makes use of multiple theoretical frameworks, reflective writings, professional development initiatives, and other unique components. In AWOL, student volunteers independently coordinate service with community-based organizations of their choosing as opposed to collaboration between trained faculty and a Tribal Nation as guided by the collaborating Tribal Nation. The infrastructure contained in this thesis adds a measurable curriculum with applicable learning theories, unique theoretical frameworks, and guidelines for conducting and coordinating a program that are not currently incorporated in AWOL. The AWOL program is a fantastic asset to USD and a great opportunity for student leaders to facilitate service for a group of their peers; however, the proposed program addresses unique needs that are currently unfulfilled on the USD campus.

Specific considerations make this program unique at USD which are geared towards (1) increasing the likelihood of genuine and impactful collaboration between Tribal Nations and undergraduate students and (2) ensuring best outcomes among individual participants in relation to future work with health disparities. The guiding principles of ACE (Authentic and Culturally Engaging Service) help to ensure that best outcomes for the collaborating community are both the overt and covert focus of the program and its curriculum. A deep understanding of the community along with its history, customs, and values is intentionally sought after, and community feedback is actively incorporated into the experience and program infrastructure. “Making Space”

provides a model for communication with Tribal Nations that involves a deep respect for the collaborating community. It ensures appropriate boundaries are maintained, and it introduces an empowering, decolonizing approach for benefitting Tribal Nations on their own terms. Together, ACE and “Making Space” form a unique approach to service in which the autonomy and capacity of the collaborating community is honored, and a reverent cultural knowledge base is established among participants.

Individual participant outcomes are ensured through proper framing and the application of specific developmental and learning theories. Transformative Learning Theory, Robert Kegan’s theory of Meaning Making, the Developmental Model of Intercultural Sensitivity, and Critical Reflection encourage fundamental changes to be initiated among participants by paying special attention to the individual and their unique identity. As opposed to the traditional collegiate lecture hall, application of these theories requires deep introspection, intimacy, and vulnerability. Rather than passively learning testable information to quickly be forgotten, learning through these frameworks can initiate personal change in one's frame of reference on a fundamental level. Service may positively impact a community in the absence of these frameworks, but participant impact can be maximized through their application.

In addition to augmenting the current service landscape of the university, the proposed program could enhance the premedical student education and better prepare premedical students for a career in medicine. According to the AAMC-HHMI Scientific Foundations for Future Physicians, upon which USD’s medical biology major is based, overarching principles that inform premedical education should include the social context and environmental factors influencing a patient.^{16,90} A cultural immersion program

provides an immediate view of social and environmental influences on health outcomes and understanding of these influences could be reinforced through educational components and reflection. Not only would program participants fulfill desired applicant characteristics as described in the SSOM diversity statement, but they would also have an opportunity to apply their premedical education to a real-world context within the territory of their state institution. Unlike most college lectures, this approach bridges the gap between student and professional application firsthand, and it allows participants to better understand a professional realm of medicine.

As discussed in the introduction, the proposed program directly aligns with the goals stated in USD's published Strategic Plan, and it could directly influence the career paths, community engagement, and future physician retention of incoming medical students at the Sanford School of Medicine (see Figure 1 in Appendix). As previously discussed, rural intentions prior to medical school serve as a stronger predictor of future rural practice as compared to rural intervention during medical school⁴⁷; accordingly, the proposed program may improve rural physician recruitment when applied at the undergraduate level. Following initial implementation, the program could be expanded and modified to better connect and facilitate the goals of both USD and SSOM. Potential exists within the infrastructure of this program for collaboration between premedical and medical students as simultaneous participants. A mentorship component could be added to the program through which past program participants and/or medical students could mentor new participants. Graduate students of different disciplines (e.g. social work, education, psychology) could assist in future shaping of the program infrastructure. The program could also be potentially informative for the establishment of a future residency

program with a Tribal Nation within South Dakota. At its fullest potential, the program could significantly influence future health disparities within the state of South Dakota.

The proposed infrastructure has several limitations. Firstly, many of the proposed elements of the program, while successful on their own, have never been implemented simultaneously. Additionally, significant time and resources would be required for establishing this program. Program facilitators would require specific training, and evaluations such as the IDI could be logistically and/or budgetarily prohibitive. Furthermore, successful implementation of this program would require significant collaboration with a Tribal Nation and its community members which may introduce several barriers that are unaddressed in this paper.

Next steps for establishing this program would include recruitment of faculty and allocation of funding. Tribal contacts should be sought out early with their input heavily influencing decisions regarding the program structure, components, and other concerns. Logistical considerations such as program size, number of meetings, and scheduling should be made. Necessary training for program facilitator(s) should be addressed, and a decision should be made as to whether this infrastructure would be implemented as a university course or as an extracurricular program (e.g. AWOL).

Multiple directions could be taken if the proposed infrastructure were to be adopted as a university course. At USD, the course could have potential in the curriculum of the Honors Program which proclaims, “The Honors Program at USD isn’t about courses that move faster and cover more material; it’s about developing [Honors students] into a person who’s passionate about contributing to society and preparing for a rapidly changing world.” The program could take place as a seminar course for

premedical Honors students which would allow the Honors Program to incorporate more contemporary social justice issues into their curriculum. Alternatively, the program could take place as a faculty-led program. According to the USD website, “Faculty-led programs give [students] the opportunity to take a course while traveling domestically or abroad with other USD students and faculty members. [Students] can expect to earn three to six credits, depending on the program duration and course content. Most trips are one to two weeks.” The logistical aspects of the program align well with this course format. This option would also allow a greater opportunity for selection of multidisciplinary faculty. Other options include adopting a course under the Medical Biology banner or through the Department of Native Studies. The program could also potentially be offered as a practicum experience.

CHAPTER SIX

CONCLUSION

As it currently stands, health outcomes and healthcare access within the state of South Dakota are grossly dissimilar for Native American populations. As publicly funded institutions of the state, the University of South Dakota and the Sanford School of Medicine have an obligation to contribute to a better future for South Dakotans. This cannot be accomplished without sustained attention to the health outcomes of the largest minority population in the state. Without equity in such basic necessities as life expectancy, health outcomes, and disease prevalence, true equality for South Dakotan citizens cannot exist. The implementation of a properly designed service-learning infrastructure provides utility for addressing and influencing the future status of Native

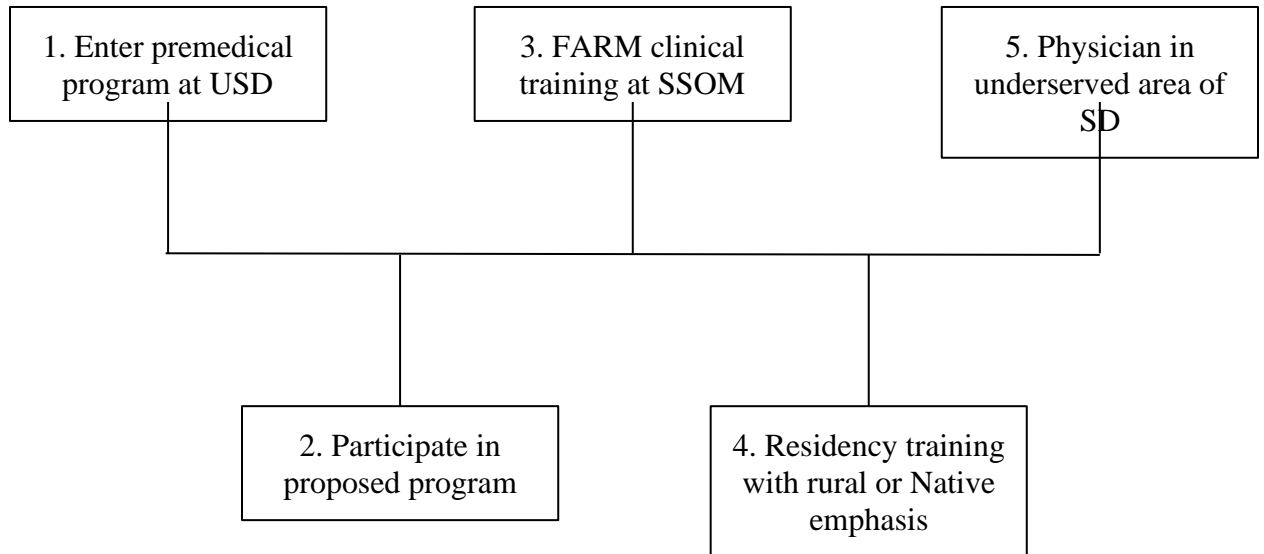
health disparities at the undergraduate level. This represents one of many steps towards a future distant from the destructive impact of colonization and closer to a compassionate climate that celebrates multiculturalism and justice for all.

During the winter break of my sophomore year of college, I had the opportunity to spend time at the Rosebud Sioux Tribe reservation. I shadowed physicians at the local IHS hospital, participated in local community events, and interacted with many wonderful individuals. This experience, in conjunction with service-learning through AWOL in Albuquerque, New Mexico; Denver, Colorado; and Vermillion, South Dakota, informs my perspective on the potential impact of cultural immersion and service-learning for both the community and participants as well as the beauty of diversity, the complex nature of health disparities, and the need for action. Based on my own experiences, I believe a program similar to the one proposed in this thesis could inspire other undergraduate premedical students to explore health disparities, and I believe these explorations could result in future physicians with a passion for working towards health equity for the citizens of South Dakota.

CHAPTER SEVEN

APPENDIX

Figure 1. Potential path for a USD student to practice medicine in an underserved area of SD.



(3) FARM="Frontier and Rural Medicine", a rural clerkship track which SSOM students can apply to participate in during pillar 2 of their medical education.

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