**Historical Literacy and Cultural Competence in
College Students Enrolled in Family Science Courses**

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ABSTRACT. Recent educational reforms tend to focus on reading and math, possibly to the detriment of history education. As university students enroll in family perspective courses, their lack of historical knowledge may result in diminished understanding of local and global events that have affected the course of global families and human development. This study examines the connection between students' self-reported historical knowledge and cultural competence. Self-reported measures of historical literacy and cultural competency were collected from 123 students at a Mountain West urban university campus using a quantitative questionnaire. Results show that historical literacy may play a small but statistically significant role in cultural competence. Suggestions are made for future research and curriculum direction.

Keywords: family science, pedagogy, cultural competence, history education

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        Historically, higher education in the United States began as a means to educate men from wealthy European-American families (Lee, 2002). Diversity on American college campuses more or less began when less economically advantaged men entered universities to pursue careers in the clergy. Now, diversity in higher education refers to a broad swath of descriptors, including race, gender, class, and more (Lee, 2002). Many students in the university classroom today do not fit the "traditional" (i.e., European-American, economically privileged) profile of the American college student (Muraco, Totenhagen, Corkery, & Curran, 2014). According to the National Center for Education Statistics (2016), more women than men are enrolled in undergraduate education. The percentage of White students enrolled has also dropped since the year 1976 from 84% to 58%, while percentages of Hispanic, Black, Asian-Pacific Islander, and Native American/Alaskan Native students have risen. Second generation immigrant students are enrolling in American universities at higher rates than their third-or-more-generation White counterparts did (Drouhot & Nee, 2019). As the demographic picture of university students and the population of the United States itself changes, it is critical for universities to initiate a strong investment in culture, paving the way towards a more diverse population in higher education and setting the stage for diverse academia in order to produce an educated, self-sustaining population (Lee, 2002). As part of that investment in culture, the impact of globalization on higher education must not be ignored.

        In a world where communication with the other side of the globe is a mere mouse click, text message, or phone call away, universities must consider the need to educate students with a global focus – information and misinformation about diverse peoples are readily available to students and it is important to integrate diversity experiences into university curriculum in a meaningful way to help students' positive perceptions of diversity (Parker & Trolian, 2018). Students who enroll in courses with diverse perspectives demonstrate higher gains in moral judgment, an invaluable skill when approaching issues that arise in groups, communities, and the work world (Parker, Pascarella, Barnhardt, & McCowin, 2016). Family science programs, which inculcate unique interdisciplinary skill sets to create helping professionals who can work in various contexts with a diverse spectrum of people, can have a particularly distinct impact by developing globalized or internationalized curricula to be used university-wide. These courses can provide students the opportunity to understand ecological differences and similarities in people from different cultural backgrounds – those who live across the globe and those who live next door.

Literature Review

        Global family science curriculum is necessary in today's rapidly changing global climate. Bronfenbrenner's (1979) ecological framework proposes that an individual's interactions in various systems from local to global shape their development. The family science graduates of today will be able to connect with more diverse people all over the world than any other generation of students before, with their interactions shaping the ways they view and interact

with people around them. Despite this shift, few family science programs incorporate international viewpoints into family science courses (Goen, 2015). Trask and Viramontez-Anguiano (2012) note that while universities and businesses have made increased efforts and spent a great deal of money to promote the platform of diversity, these institutions must also contend with an opposing viewpoint that suggests that the United States is a place for diverse people to assimilate instead of acculturate.

As a profession, family science has weathered criticism for lack of males in the field, for late endorsement of the civil rights movement, and for resistance to change (Nickols et al., 2009). Hamon and Smith (2014) propose that family science is in a new stage as a discipline, that of evaluation and innovation – in which family science departments must make the case for relevance at a time when universities are cutting budgets. The current higher education climate necessitates that family science program administrators must

> be able to articulate the distinctiveness of the discipline, the worth of the unique skills and perspectives offered by family science programs, the challenges affecting the field, and the adaptations and resources necessary to propel family science to new levels of relevance and application in today's economic and sociocultural climate (p. 312).

As more and more international organizations call for inclusion of global concepts in higher education, family science must take a proactive stance to produce graduates who are ready to interact with diverse populations (Goen, 2015). By creating opportunities for students to interact with and understand more people in the world around them, family science can make the case for its value as an academic discipline and as a means for building global relationships with mutual respect.

How to Globalize Family Science Curricula

Research. One means of introducing global concepts into family science classrooms is through the reading of international research, training students how to conduct diverse and cross-cultural research, and finally, encouraging students to engage in this type of research. Inclusion of cross-national or cross-cultural research (i.e., non-Western) is an efficient, cost effective way to add diversity to family science programs. There are many new resources dedicated to methods of integrating these types of research (Takooshian, Gielen, Plous, Rich, & Velayo, 2016). Family scientists (and those who teach future family scientists) must stay informed about the fluid nature of modern families and must also guarantee that research reflects "family strengths, resiliency, and effective interventions in addition to problem identification" by ensuring there is a "knowledge base that can enhance cultural competence" (Nickols et al., 2009, p. 277).

Campus and other resources. Another method of introducing global concepts into family science classrooms is through use of university provided services. Many universities have either an office of multicultural affairs or an office of international affairs, which often provide programs and experiences for students and can help faculty develop internationalized curricula (Goen, 2015; Takooshian et al., 2016). Goen (2015) provides an excellent list of resources at

local, state, and national levels for instructors who need information on internationalization of family science curricula.

Benefits of globalized Family Science curricula. Why should universities and family science programs work to internationalize curricula? One benefit has already been mentioned: providing helping professionals with requisite skills of working with a growing population of diverse families. Another benefit is providing students the opportunity to work in the community alongside experts in the field. Completing community service learning projects helps develop and strengthen the relationship between the school and surrounding community (Goen, 2015). Internationalizing curricula by including resources from other countries and other cultural paradigms helps students develop understanding and appreciation for other cultures and may encourage more students to participate in and initiate research focusing on diverse issues and peoples. In this same vein, as more family science courses integrate global concepts, textbooks and other resources should begin to reflect this trend (Viramontez-Anguiano & Trask, 2009). While there are many benefits of globalization, family science departments must consider carefully how to add global concepts to coursework. One method not traditionally included is the addition of global historical context to family science courses.

Context of the Research. In Fall 2015 I taught a global family perspectives course as a graduate instructor. This course provides a survey of family practices and daily life from a non-Western perspective. When teaching about specific family processes, I used the framework of Bronfenbrenner's (1979) bioecological theory, which examines impacts on individual development at different levels: from the family, to social context, to the passage of time. I included basic historical events that could have impacted families in order to show influence of the chronosystem, or interactions of different systems over time (Berns, 2012). For example, in post-World War II Japan the Allied powers reconfigured the Japanese *ie* (or traditional family system) because some attributed the fervent nationalism of the Japanese to that specific family structure and value system (Murray & Kimura, 2006). To help students to understand why family structure in Japan changed so dramatically, it was necessary to provide this historical context. Many students noted that they had rarely if ever covered the impact of World War II on Japan aside from the bombings of Hiroshima and Nagasaki. This lack of historical knowledge sparked my own interest in discovering how students' knowledge of world history might affect their understanding and empathy for other cultural groups and how including major historical events in my teaching might help students' understanding of global families.

A Brief History of History. In 1981, *A Nation at Risk* was published. This groundbreaking, eye-opening report about the academic performance (or lack thereof) from American students spurred academic reforms across the nation. Since the report, no research has been published in the disciplines of history or social studies detailing any sort of dramatic reversal of the information contained in *A Nation at Risk*, suggesting there

> has been a prolonged, precipitous decline in knowledge of history among American students and, by extension, the general public.…[It is] not simply a matter of ignorance of schoolbookish facts…but a lack of awareness of history's intellectual and moral contours, as reflected in misunderstandings of epochal events like the civil rights

marches, in the rise of Holocaust deniers, and in the proposed (and thankfully cancelled) Disneyland Civil War "theme park" in Northern Virginia (Rice, 1995, p. 603).

According to the most recent National Association for Educational Progress (NAEP) Transcript Study, which analyzes a representative sample of high school graduation transcripts, more students are taking world history courses (including Advanced Placement world history). However, some states do not require that students pass a world history course in order to graduate (Institute of Education Sciences, 2009).

Bain (2004) notes that, based on review of state standards, curriculum guides, and Advanced Placement materials, there seem to be at least four different patterns of world history education: "Western Civilization Plus, Social Studies World History, Geographic/Regional World History, and Global World History" (p. 6). The order in which history courses are administered differs from one state to the next. One school may offer a world history course to freshmen, another school may not require world history, and still another might not introduce world history until the final year of high school. Furthermore, broad variations in world history instruction mean that "there is virtually no national information about what students understand about the history of the world, a data void that hampers attempts to improve education" (Bain, 2004, p. 12).

Methods

Overview

The purpose of this descriptive, comparative study was to examine possible relationships between family science students' self-reported scores of historical literacy and cultural competence. For the purpose of this project, historical literacy is defined as awareness and knowledge of history with the ability to apply historical knowledge to general understanding of the world. Two research questions served as the foundation for this project. First, what levels of confidence in historical literacy are reported by college students enrolled in human development courses at Rocky Mountain region urban university campus? and second, is there a relationship between students' self-reported historical literacy and cultural competency scores? Bronfenbrenner's (1979) bioecological theory was used as a framework for this research due to its ability to help theorize impacts on individual development by examining proximal and distal systems and their interactions. This theory seemed uniquely suited to research investigating the importance of historical concepts because Bronfenbrenner (1979) includes passage of time as one factor impacting development.

Participants

123 students who were enrolled in either of two family science courses—one based on couples and family relationships, the other on global family processes—at an urban university campus were asked to participate in the research study. These courses were selected because they are considered core curriculum (general education) classes. Any student may enroll in these classes in order to fulfill a social science or international perspective course requirement. By

selecting these two classes to take the survey, it was conjectured that a more accurate picture of the typical college student might be found as opposed to restricting the questionnaire to majors and minors in the family science program.

Of the 123 students surveyed, 27.6% declared themselves to be family science majors or minors. 83.7% of students reported being in the age bracket of 18-22 years, while 16.2% reported being 23 years or older. Around half of the students (53%) reported taking 2 or more history courses in high school. 28% of students reported that they had not taken any college courses in either history, sociology, geography, or global perspectives, while 35.8% of students had taken two or more of these courses.

Instrumentation

The survey began with basic demographic data to establish the types of students taking the survey. The survey questionnaire then asked students to provide some background about their academic experience: mainly, what types of history or international perspectives courses they had taken in high school or college. These questions were designed to explore the variety of information encountered in the microsystem of school (Bronfenbrenner, 1979). After providing their academic history, students were asked to read a series of statements about world history knowledge, their attitudes toward history, and their value of history and rank their agreement or disagreement using a Likert scale. These questions looked at the individual development of historical literacy from those interactions in the microsystem as well as students' involvement in the social context of the macrosystem (Bronfenbrenner, 1979).

Next, students were provided with definitions of four terms—cultural awareness, cultural knowledge, cultural skills, and inductive learning—that is, the four levels of cultural competence (Chong, 2002). Students then ranked their knowledge level on a scale from 1 to 5, with 1 signifying "not knowledgeable at all" and 5 designated as "very knowledgeable." The cultural competence scale used various ecological systems (Bronfenbrenner, 1979), including that of individual development (cultural knowledge), microsystem and mesosystem (ability to interact with diverse people), exosystem (understanding of various cultural groups), and macrosystem (ability to understand global context).

Finally, three open-ended questions were used for asking students if they had traveled, if they had had any experiences that might have contributed to their understanding of the world, and to provide any additional information that might be beneficial to the study. These qualitative questions were provided to address any other possible causes for cultural competence, as well as to reflect the theoretical background of Bronfenbrenner's (1979) model – understanding impacts of interactions in different contexts and the individual's subsequent growth and development.

Evaluation and psychometric evaluation of scales

A scale was developed for measuring historical literacy, or students' levels of comfort with interacting with and applying historical knowledge in a global sense. The scale initially consisted of 14 items, questions 7A-7N. To refine the scale for historical literacy and determine

the internal consistency reliability, a reliability analysis was conducted with questions 7A-7N with questions 7D, 7F, 7G, 7H, and 7M reverse-scored. After this reliability analysis was conducted, three questions (7D*, 7H*, 7L*) were excluded from the scale to improve reliability. Questions 7A, 7B, 7C, 7E, 7F*, 7G*, 7I, 7J, 7K, 7M*[1] and 7N were the remaining questions. These 11 questions comprised the historical literacy scale, which measured the extent to which students were familiar with interacting with historical data and concepts. Internal consistency reliability measured by Cronbach's coefficient alpha for the scale was .790.

The other scale, cultural competence, consisted of four questions measuring the extent to which students believed they were culturally competent. For the four questions in this scale, students received a definition of each domain of cultural competence; for example, "Cultural awareness: Understanding of both your own culture and that of other cultural groups." Students then ranked their knowledge of these domains using a Likert scale, with 1 signifying "not knowledgeable at all" and 5 denoting "very knowledgeable." Internal consistency reliability measured by Cronbach's coefficient alpha for this scale was .644. Further correlational analysis was conducted to make sure that excluding one of the questions would not improve Cronbach's alpha. After further analysis, all four items were retained with the disclaimer that the Cronbach's alpha would be noted to show level of reliability.

Questions 8, 9, and 10 were open-ended response questions. These questions were entered into SPSS. Once all responses were recorded, coding techniques were used to search for similar responses. Saturation of the data showed three similar themes in these responses: travel, interaction with diverse friends or diverse students, and personal diversity. To analyze this, three additional variables were created: travel, interaction, and diversity.

For the travel variable, students who reported any type of foreign travel were coded as a 1, while students who reported no travel or only domestic travel within the United States were coded as a 0. For the interaction variable, students who reported interaction either with their own diverse friend group or diverse students in college classes were coded as 1. Students who did not report interaction were coded as 0. For the personal diversity variable, students who reported that their own diverse background contributed to their cultural competence were coded as a 1. This included students who reported they were bi- or multi-lingual, students who reported they came from multicultural families, and students who reported they had diverse ethnicity. Students who did not report this or who mentioned that they did not have a diverse background were coded as 0.

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[1] Starred items were reverse-coded during analysis.

Findings

Several techniques were used in this project: data reduction, data display, data transformation, data correlation, data comparison, and data integration (Johnson & Christensen, 2014). Qualitative data from the student questionnaire were processed using thematic analysis to condense dimensions of the data. Quantitative and qualitative data were converted into visual displays (See Table 1, 2). Qualitative variables from the student questionnaire were quantified for coding purposes and compared with other quantitative variables.

Data from the student questionnaires are grounded in Bronfenbrenner's (1979) theory of ecological systems, which shows the impact of different systems on an individual's development. As the surveys were logged into SPSS, a more complete picture of possible correlations between life experiences, historical literacy, and cultural competence emerged. Based on these findings, most of the focus was on the microsystem, mesosystem, macrosystem, and chronosystem.

Quantitative Findings

The cultural scale had a lowest possible score of 4 and a highest possible score of 20. Student scores ranged from 11 to 20, with an average of 15 (SD = 2.45). The historical literacy scale had a lowest possible score of 11 and highest possible score of 55. Student scores ranged from 23 to 50, with an average score of 37 (SD=6.6). Scores on the historical literacy scale were normally distributed.

The historical literacy and culture competence scales were evaluated for correlation using a Pearson two-tailed test. SPSS showed there was a .274 degree of correlation between the two scales ($p < 0.01$). Students who scored high on the historical literacy scale on average scored higher on the cultural competence scale (see Table 1).

Other variables were tested for correlation. The qualitative responses on questions 9-10 were quantified into three variables: travel, measuring the number of students who reported having engaged in international travel, diverse friends, measuring the number of students who reported having diverse friends or diverse classmates, and personal diversity, measuring the number of students who reported that their own cultural heritage affected their cultural awareness.

Table 1

Quantitative Findings

Variable 1	Variable 2	Correlation
Historical Literacy Scale	Cultural Competence Scale	.274*
Travel	Cultural Competence Scale	.260*
Diverse Friends/Classmates	Cultural Competence Scale	Not significant
Diverse Background	Cultural Competence Scale	Not Significant
Historical Literacy Scale	Number of history courses taken in high school	.280*
Historical Literacy Scale	Number of college history courses taken	Not significant

* signifies $p < 0.01$

There was significant correlation between travel and cultural competence. (r=.260, p < 0.01). Students who reported having travelled internationally on average scored higher on the cultural competence scale than did students who reported either no travel or only domestic travel. No significant correlations were found between cultural competence and having diverse friends in class or having a diverse background. There was significant correlation (r=.280, p < 0.01) between historical literacy and the number of history courses taken at the high school level. On average, students who had taken more high school history courses scored higher on historical literacy. No significant correlation was found between historical literacy and the number of college history/international perspectives courses taken.

In the survey questionnaire, age demographic data were collected to investigate possible correlations between age and historical literacy or cultural competence. It was conjectured that students who were older might have had more life experiences leading to historical literacy or cultural competence. However, no significant correlations were found between age and historical literacy or age and cultural competence. These results could be due to the skew in the ages of respondents, since more than 80% of respondents were in the traditional college student age bracket of 18-22 years.

Qualitative Thematic Findings

        The aim of this study was to examine the relationship between historical literacy and cultural competence within the paradigm of global family science courses. Open-ended questions from student questionnaires were analyzed as both quantitative (as discussed in the previous section) and qualitative data. Saturation of qualitative data showed three distinct themes that students reported as having impacted their cultural competence (see Table 2). These themes included *international travel and experiences*, *having diverse friends or classmates,* and *personal multicultural background*. The themes fell outside the realm of historical literacy (Zander, 2007); however, since there is little research in this area, it was important to explore the possibility of additional factors leading to cultural competency in college students who are enrolled in global family science courses.

Table 2

Student Qualitative Data

Respondents	Other Influences	Qualitative Quotations
Students	Travel	"Visiting other countries has helped me to understand how people live and interact with others that differs from the U.S.." "Going to India and seeing the poverty that is present there has opened my eyes to the many luxuries that are present…in my own life."
	Diverse friends or classes	"Having an ethnically diverse group of friends has helped me understand the differences and similarities of my families [sic] culture versus another." "I think my daily interactions with people on a diverse campus contribute to my understanding of the world through learning their stories."
	Multicultural background	"Coming from a country with history of war and chaos helps me understand other people and their struggles." "I'm Puerto-Rican and Mexican, growing up in a Latin household."

        Travel. According to Bronfenbrenner (1979), an individual is shaped by various systems in which they interact. When students travel outside their traditional systems, they interact with a completely different macrosystem, experiencing for the first time different cultural expectations. Berns (2012) notes that people interacting with a new macrosystem may encounter different perceptions, beliefs, behaviors, and value judgments, along with new cultural beliefs about concepts of time and interactions with other people. Most students reported that travel was

critical to formation of their cultural competency. What follows are responses of student participants and connections they made between travel and cultural competency:

> Visiting other countries has helped me to understand how people live and interact with others that differs from the U.S..
>
> - Student 010

> Going to India and seeing the poverty that is present there has opened my eyes to the many luxuries that are present…in my own life.
>
> - Student 035

Through their participation in a new macrosystem, these students were able to connect their experiences back to their lives: viewing their own lives through a new, culturally competent lens. Since many of these students come from European-American backgrounds, they are often more accustomed to a low-context or individualistic macrosystem. Collectivistic or high-context macrosystems have different styles of communication, social patterns, behaviors, and relationships with nature (Berns, 2012). Furthermore, the travel can also be grouped under the heading of the chronosystem. The chronosystem includes significant events in an individual's life that affect the microsystems, mesosystems, and exosystems (Berns, 2012).

Diverse friends or classes. The Rocky Mountain region has a rich history of diverse people: from various Native American tribes, to indigenous Mexican people, to Spanish and French conquerors, and to the modern day, where it has become a site of resettlement for refugees and immigrants (Colorado Department of Human Services, 2019; Gomez, 1985). This historical background has brought greater diversity to this particular university campus. Students attending classes on campus have opportunities to introduce new people, cultures, and ideas into their microsystems and mesosystems. As part of the microsystem, schools can have a great impact on development because they are considered places of formal education about society (Berns, 2012). Rodenborg and Boisen (2013) noted that, according to Allport's theory of intergroup contact, when certain conditions are met, interaction with people can reduce aversive racism. As students interact with diverse classmates, they add new elements of culture to their microsystems. People, ideas, and concepts that were once alien and strange to them become normal and accepted. After introducing new ideas and people into their microsystems, students can then form linkages between beliefs at school and attitudes at home. These links comprise the mesosystem (Berns, 2012). They also translate to more comprehensive understanding of the world. In the following testimonials, student participants stated that their interactions with diverse friends or students shaped their understanding of both their family cultures and of the world in general.

> Having an ethnically diverse group of friends has helped me understand the differences and similarities of my families [sic] culture versus another.
>
> – Student 093

> I think my daily interactions with people on a diverse campus contribute to my understanding of the world through learning their stories.
>
> – Student 087

Students who may not have had the experience of traveling to places outside the United States can still interact with various diverse cultures. At this particular university, students may choose to participate in a certificate program to increase their knowledge of other cultures. Throughout the year, various programs are offered on campus to facilitate student interaction with a broad range of groups. Examples of events include speakers, film screenings, and interactive activities. To earn the certificate, students must attend at least five approved campus events and then submit a reflection paper about their experiences. According to Allport's intergroup contact theory, low-pressure events such as these are ideal for helping students interact positively with one another in neutral environments, leading to reduction in students' aversive racism (Rodenborg and Boisen, 2013).

Multicultural background. Students who have grown up with diverse or multicultural backgrounds may have already experienced difficulties of navigating systems based on European-American cultural values. Delgado-Gaitan (1992) explains that there is documented research showing that students in the United States who are from different cultural backgrounds must often make choices between their home culture and their European-American school culture. These students often struggle because the interaction between school and home, classified as part of the individual's mesosystem, can encourage or discourage academic performance (Berns, 2012). Students who experience this clash of cultures are made aware daily of differences between a European-American low-context macrosystem and cultural values of their microsystems.

Since these students have had the experience of having cultural values that differ from those of the macrosystem in which they reside, they have a multicultural view of the world and an understanding that European-American culture is not the only culture that exists. Students reported different backgrounds – some were born and raised in other countries, while others were raised in the United States by families that preserved their cultural values. Student responses ranged from merely identifying their backgrounds to connecting their experiences with those of others.

Coming from a country with history of war and chaos helps me understand other people and their struggles.

– Student 005

I'm Puerto-Rican and Mexican, growing up in a Latin household.

– Student 054

Through their own family experiences and multicultural background, these students have already developed at least the first stage of cultural competence (Zander, 2007). They are aware of their own cultural identites. Since their diverse microsystem may hold values different from those of the prevailing European-American macrosystem, these individuals appreciate differences and cultural nuances.

Discussion and Implications for Research

Discussion

Little research investigates the relationship between historical literacy and cultural competence. This study used a quantitative questionnaire to assess students' reported levels of historical literacy and cultural competence and whether these values were correlated. Qualitative responses from students were used for corroborating the self-reporting student data and exploring other potential explanations for cultural competence. The study's objective was to explore potential relationships between historical literacy and cultural competence to better understand how to support students in learning about global families.

Quantitative data showed significant correlation between historical literacy and cultural competency, suggesting that students who are more comfortable interacting with historical concepts may also be more likely to be more aware and respectful of other cultures. Students who had taken more history courses in high school were more likely to score higher on the historical literacy scale, while numbers of college history courses taken was not significantly correlated to historical literacy. This may be due to core requirements at this particular university: students are not required to take a history course as part of their core college curriculum (although they may encounter historical information through required global perspectives or cultural diversity courses). Even in high schools, social studies as a discipline has been marginalized to make way for more reading and mathematics instruction, due to stringent standardized testing requirements (Bain, 2004; Kenna & Russell, 2014). More research is needed to understand connections between historical literacy and cultural competency in order to investigate potential benefits of including historical information in coursework that incorporates global families.

Bronfenbrenner's (1979) bioecological model and cultural competency frameworks provided lenses through which to view results of the qualitative data. Student responses gave insight into how different levels of ecological systems shape students' perceptions of the world around them. By understanding involvement of different systems and the four domains of cultural competency, students and professors can work together to develop global course content that reflects history and culture and "encourages dialogue across difference" (Daniel Tatum, 2003, p. 216). For students to feel successful in courses with diverse viewpoints, they must understand how the course is relevant to their program of study and that they will have the ability to transfer its knowledge to real life situations (Martin, 2010; Vianden, 2018).

Qualitative responses from the student questionnaire show some additional factors besides historical literacy that affect students' cultural competence. Findings were organized under four different themes corresponding to the four dimensions of cultural competence. Together, Bronfenbrenner's (1979) ecological systems theory and cultural competency theory provide a unique framework to view historical literacy and cultural competency through the context of student development.

Theme 1: Cultural awareness. Cultural awareness, or the process by which people first become aware of their own cultures and the presences of other cultures (Chong, 2002), is where many students begin their journeys of cultural competency. For some students with multicultural backgrounds, the existence of other cultures was established early on in their microsystems. For others, their main experiences may be with the dominant low-context European-American macrosystem (Berns, 2012).

Students who attend the university where the research was conducted have the opportunity to interact with diverse populations all over campus, in classes and through various campus organizations and activities. Students noted that their ability to interact with diverse people in classrooms that encourage global thinking contributed to their own cultural awareness. As students make connections among school, home, and other components of their microsystem, they form unique mesosystems that support or hinder their activities in the microsystem (Bronfenbrenner, 1979). Students' cognitive and developmental maturation as they encounter new ideas and information can be viewed through the lens of the chronosystem (Berns, 2012).

Theme 2: Cultural knowledge. Once the foundation has been laid, which establishes in students' microsystems and mesosystems the existence of other cultures, students can start building on their knowledge. Typically, the idea of cultural knowledge deals with current iterations of individuals and families (Campinha-Bacote, 2001); more research is needed to understand the impact of historical knowledge. As students amass more information about a culture or people, they develop specific points of reference they can compare with their own experiences. In this stage, students compare and either accept or reject information that may strengthen or weaken connections among components of the microsystem (Bronfenbrenner, 1979). For example, a student learns a new concept about a culture that conflicts with what she learned about that culture at home. The student must then make a choice between the new information and the old, causing her to evaluate and make judgments about the new information and the systemic context in which the information was communicated. Once students begin to make these judgments they are using awareness and knowledge in combination, bringing them to the third stage of cultural competency: cultural skills (Campinha-Bacote, 2001).

Theme 3: Cultural skills. Students who plan to serve as helping professionals must have cultural awareness, cultural knowledge, and the practical ability to apply both to a professional environment (Trask & Viramontez-Anguiano, 2012). In the medical version of the cultural competency framework, the cultural skill level consists of the ability to use cultural awareness and cultural knowledge while completing medical assessments (Campinha-Bacote, 2001). For family science students, cultural skills could include ability to interact directly or indirectly with diverse people, viewing them through the lens of obtained cultural awareness and cultural knowledge (Goen, 2015; Trask & Viramontez-Anguiano, 2012).

At this point in the cultural competency spectrum, students are better able to put aside their own personal biases and aversive racism in order to learn more about a new diverse group (Rodenborg & Boisen, 2013). They may have rejected or accepted different ideas proposed by various facets of the microsystem, they may have weaker or stronger linkages in the mesosystem, and they may find themselves feeling frustrated with beliefs, cultural expectations, and unwritten

laws of the dominant Western macrosystem (Berns, 2012). Some students stated they felt they had received an inadequate education about world history and that their interactions with others (through travel or through classes) helped them form their own opinions and impressions about world events. These students felt that by learning about and interacting with other cultures, they also learned more about their own socio-cultural development – a type of introspection and assessment of personal development based on better understanding of interactions between ecological systems (Berns, 2012; Bronfenbrenner, 1979). In fact, when students begin to desire and seek out interactions with diverse people, they have progressed to the fourth stage of cultural competency, inductive learning (Campinha-Bacote, 2001).

Theme 4: Inductive learning. As students gain cultural awareness and cultural knowledge and begin practicing cultural skills, they may find they enjoy working and interacting with diverse people (Campinha-Bacote, 2001). Their development and maturation can be attributed to events in the chronosystem: the passing of time, an individual's physical and social maturation, and events which contribute to changes in the individual (Berns, 2012; Bronfenbrenner, 1979). Students at the inductive learning stage may wish to travel more and may make career choices that allow them to continue working with diverse people. Once students reach this level they may choose to move up and down the cultural competency continuum (Campinha-Bacote, 2001), whether by learning more about themselves, amassing more knowledge about other cultures not previously studied, and continuing to practice skills necessary to apply both self-knowledge and world knowledge.

Limitations of this Study

Quantitative data for this study were obtained from college students. The nature of the survey questionnaire, a self-reporting quantitative instrument, lends itself to some scrutiny during the analytical process. Using student data can also be difficult and misleading depending on attitudes of the students taking the survey (Johnson & Christensen, 2014).

Another difficulty with this study was its use of cultural competence as a framework. While cultural competence is a generally accepted idea, there are many opinions about whether it is a framework or theory. Because of the vast spectrum of literature about cultural competence, it was difficult to narrow down one framework or construct for analysis. While most research generally agrees there are 4-5 domains (Chong, 2002), there are different names and slightly different characteristics of each depending on the author or discipline. There is also some disagreement as to whether the framework of cultural competence would hold up in international schools, where differing micro- and macrosystems involve daily interaction with multiple cultures (Mills, 2014). During survey administration, some students expressed that they would have liked more clarification on these questions, despite the fact that definitions for domains of cultural competence were provided.

Strengths of this Study

This study was conducted at Rocky Mountain region urban university, which is a culturally, religiously, and economically diverse school. The family science program at this

university has a rich tradition of promoting diversity and social justice. Classes in this program use cross-cultural research and textbooks to provide students with a broad worldview of the discipline. Students coming out of this program have taken classes that incorporate service learning and even bilingual coursework.

For Future Theoretical and Practical Research

During research and subsequent data analysis, other factors were uncovered that might impact students' self-reported cultural competence levels. 71% of students surveyed reported that travel had impacted their view of the world; significant correlation was found between international travel and higher scores on the cultural competence scale. Future research should include more study of the impact of travel on student attitudes towards other cultures. Many universities encourage students to travel abroad, yet funds for these programs are being cut (Goen, 2015). There should be more studies on the impact of travel on global family science. Should family science programs make more of an effort to include international study abroad trips in the curriculum? How could service learning and experiential education be integrated effectively into these trips in order to produce culturally competent helping professionals?

This particular university has a diverse student body and 33% of students surveyed remarked in the open-ended survey questions that attending and participating in classes with people from other cultures had impacted their awareness of culture and diversity. More research on the effect of campus diversity on cultural competence needs to be conducted.

Conclusion

The quantitative data showed positive correlation between scores on the historical literacy scale and scores on the cultural competency scale, meaning that students who are more well versed in history and its interpretation are more likely to self report as culturally competent. Research shows that teaching methods for history and social studies instruction in public high schools have stayed similar in the last few decades, with little innovation (Kenna & Russell, 2014). As the world grows more and more connected through social media and Internet communication, there will be increased demand for college graduates who are familiar with global concepts and able to serve a multitude of diverse clients. More study should be conducted on the relationship between historical literacy and cultural competence to establish the importance of an education that includes a strong historical foundation. High school teachers must be aware of the need to teach beyond the test, instilling in students curiosity and desire to learn more about the world around them, since most of these students will interact with more cultures than previous generations of students did (Trask, 2010). College instructors must understand that, first, it is important to introduce global concepts in curricula, and second, it is important to make sure students have a contextualizing foundation of information to appreciate those global concepts.

Little research links historical literacy with cultural competence. This study provides an initial look at how the lack of innovative history education in middle and high schools may impact students' ability to understand global family science. By using the framework of

Bronfenbrenner's (1979) ecological systems theory and cultural competency, this study has demonstrated that historical literacy affects how students view the world around them. This study contributes to the body of family science literature by establishing a potential link between high school coursework and collegiate family science education. Learning more about the relationship between these two variables should assist family science in evolving as a global discipline by helping instructors understand how to support historically illiterate students in the classroom.

George Santayana, a Spanish philosopher, once noted that "those who cannot remember the past are condemned to repeat it" (1905). To avoid repeating mistakes in human history, teachers and professors must engender in students an understanding of history that consists of more than just dates of wars or names of battles. Instead, the focus must shift to telling the story of humankind, explaining how major events shape the growth and development of people all over the world, and finally, providing students with the tools to apply past historical concepts to present and future global events.

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References

Bain, R. B. (2004). *NAEP 12th grade world history assessment: Issues and options*. Retrieved from https://www.nagb.org/content/nagb/assets/documents/publications/reports-papers/assessment-design/world-history-assessment-issues.pdf

Berns, R. M. (2012). *Child, family, school, community: Socialization and support* (9th Ed.). Belmont, CA: Wadsworth.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.

Campinha-Bacote, J. (2001). A model of practice to address cultural competence in rehabilitation nursing. *Rehabilitation Nursing, 26*(1), 8-11. doi: 10.1002/j.2048-7940.2001.tb02201.x

Colorado Department of Human Services (2019). Colorado Refugee Services Program: About us. Retrieved from https://www.colorado.gov/pacific/cdhs/about-us-60

Chong, N. (2002). *The Latino patient: A cultural guide for health care providers*. Yarmouth, ME: Nicholas Brealey Publishing.

Daniel Tatum, B. (2003). *"Why Are All the Black Kids Sitting Together in the Cafeteria?" And Other Conversations About Race*. New York, NY: Basic Books.

Drouhot, L. G., & Nee, V. (2019). Assimilation and the second generation in Europe and America: Blending and segregating social dynamics between immigrants and natives. *Annual Review of Sociology*, *45*, 177-199. doi: https://doi.org/10.1146/annurev-soc-073117-041335

Goen, T. L. (2015). Advancing family science and family science programs through the internationalization of family science curricula. *Family Science Review, 20*(1), 80-87. doi: 10.26536/fsr.2016.20.01.06

Gomez, P. (1985). The history and adjudication of the common lands of Spanish and Mexican land grants. *Natural Resources Journal, 25*(4), 1039-1080.

Institute of Education Sciences, National Center for Education Statistics (2009). *America's high school graduates: Results of the NAEP high school transcript study*. Retrieved from http://nces.ed.gov/nationsreportcard/hsts/

Hamon, R. R., & Smith, S. R. (2014). The discipline of family science and the continuing need for innovation. *Family Relations, 63*(3), 309-322. doi:10.1111/fare.12068

Johnson, R. B., & Christensen, L. (2014). *Educational research: Quantitative, qualitative, and mixed approaches* (4th ed.). Thousand Oaks, CA: Sage.

Kenna, J. L., and Russell, W. B. (2014). Implications of Common Core State Standards on the social studies. *Clearing House: A Journal of Educational Strategies, Issues, and Ideas, 87*(2), 75-82. doi:10.1080/00098655.2013.859559

Lee, W. Y. (2002). Culture and institutional climate: influences on diversity in higher education. *The Review of Higher Education, 25*(3), 359-368. http://dx.doi.org/10.1353/rhe.2002.0014

Mills, A. (2014). Whose cultural competence? Do the definitions apply beyond Western borders? *The Journal of General Education: A Curricular Commons of the Humanities and Sciences, 63*(2-3), 231-236. http://dx.doi.org/10.1353/jge.2014.0009

Muraco, J. A., Totenhagen, C. J., Corkery, S. A., & Curran, M. A. (2014). Reflections on family science education: The importance of technology, experience, and diversity in the classroom. *Family Science Review, 19*(2), 40-49. doi: 10.26536/fsr.2014.19.02.05

Murray, C. I. & Kimura, N. (2004). Families in Japan. In B. B. Ingoldsby & S. D. Smith (Eds.), *Families in global and multicultural perspective* (291-310). Thousand Oaks, CA: Sage.

National Center for Education Statistics (July 2016). *Percentage of 18- to 24- year olds enrolled in degree-granting postsecondary institutions, by level of institution and sex and race/ethnicity of student: 1970 through 2015* [Data file]. Retrieved from https://nces.ed.gov/programs/digest/d16/tables/dt16_302.60.asp

Nickols, S. Y., Ralston, P. A., Anderson, C., Browne, L., Schroeder, G., Thomas, S., & Wild, P. (2009). The family and consumer sciences body of knowledge and the cultural kaleidoscope: research opportunities and challenges. *Family and Consumer Sciences Research Journal, 37*(3), 266-283. doi: 10.1177/1077727X08329561

Parker III, E. T., Barnhardt, C. L., Pascarella, E. T., & McCowin, J. A. (2016). The impact of diversity courses on college students' moral development. *Journal of College Student Development*, *57*(4), 395-410. doi: https://doi.org/10.1353/csd.2016.0050

Rice, W. C. (1995). Who killed history? An academic autopsy. *The Virginia Quarterly Review, 71*(4), 600-615.

Rodenborg, N. A., & Boisen, L. A. (2013). Aversive racism and intergroup contact theories: cultural competence in a segregated world. *Journal of Social Work Education, 49*(4), 564-579. doi: 10.1080/10437797.2013.812463

Santayana, G. (1905). *The life of reason, or the phases of human progress.* New York, NY: Scribner's Sons.

Takooshian, H., Gielen, U. P., Plous, S., Rich, G. J., & Velayo, R. S. (2016). Internationalizing undergraduate psychology education: trends, techniques, and technologies. *American Psychologist, 71*(2), 136-147. doi: 10.1037/a0039977

Trask, B. S. (2010). *Globalization and families: Accelerated systemic social change*. New York, NY: Springer.

Trask, B. S., & Viramontez Anguiano, R. P. (2012). The critical importance of understanding cultural diversity from a global perspective for family and consumer sciences research and practice. *Family and Consumer Sciences Research Journal, 41*(2), 115-117. doi: 10.1111/fcsr.12001

Vianden, J. (2018). "In All Honesty, You Don't Learn Much": White college men's perceptions of diversity courses and instructors. *International Journal of Teaching and Learning in Higher Education*, *30*(3), 465-476.

Viramontez-Anguiano, R. P., & Trask, B. S. (2009). Intersections: Family and consumer sciences and cultural diversity. *Family and Consumer Sciences Research Journal, 37*(3), 247-252. doi: 10.1177/1077727X08330688

Zander, P. E. (2007). Cultural competence: analyzing the construct. *The Journal of Theory Construction and Testing, 11*(2), 50-54.