THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF COMMUNICATION SCIENCES AND DISORDERS

GLOBAL HEALTH ISSUES IN COMMUNICATION SCIENCES AND DISORDERS

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SPRING 2014

A thesis
submitted in partial fulfillment
of the requirements
for a baccalaureate degree
in Communication Sciences and Disorders
with honors in Communication Sciences and Disorders

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ABSTRACT

The influence of a speech or hearing disorder on a person's life depends largely on where they are born or live. In many countries, communication disorders are considered amendable problems, but in others, a person may be completely denied access to education and health services— limiting them to an extremely low quality of life. Hearing loss and speech-language disorders easily go unnoticed in regions where there is a lack of awareness of symptoms, including both primary and secondary behaviors, of individuals. The World Health Organization (WHO) estimates over 278 million children and adults in the world are affected by bilateral moderate-to-profound hearing loss and that two-thirds of all hearing-impaired individuals live in developing countries.

While in the slums of Jaipur, India, the vast impact of hearing loss, the limited services available, and the dire need for education, prevention, and treatment of speech-hearing disorders was briefly observed. This, in turn, became an impetus to survey 31 Speech-Language Pathologists, Otorhinolaryngologists, and Audiologists dispersed throughout India. Participants were recruited through the All India Institute of Speech and Hearing and the Indian Speech-Hearing Association, with the intention of gaining a better understanding of their current methodologies, perceived barriers to providing care, and overall job satisfaction.

Based on previous literature, the most overt problem is the limited number of medical devices available, but through statistical data, I address the multifaceted concerns of South Asian speech-language-hearing professionals that are generally unreported. These surveys also tap into the level that Structural Violence—political, social, religious, or legal structures that limit individuals, groups, and societies from reaching their full potential—influences the delivery of speech and hearing health care in India.

Survey findings overwhelmingly indicate that the top public health concern is a lack of access to services, followed by service barriers that arise from linguistic, religious, and cultural diversity in rural regions. Another major finding is that the Caste system plays a much more trifling role in effectively providing health care services than originally predicted.

In the future, observing the needs that service providers and clients with communication disorders have in India could dictate the agenda for professionals who are interested in planning a volunteer or short-term service trip abroad, or for allocating funding to speech and hearing clinics in developing countries. Additionally, this data could be relevant to universities interested in global awareness and cultural competency within the field of Communication Sciences and Disorders.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

I would like to first thank Dr. Ingrid Blood, for the abundance of opportunities she has given me throughout my time at Penn State, and for constant guidance, support and encouragement. Thank you, Dr. Blood, for providing the means, plans, and sense of direction that made all of this work feasible.

Thank you to Dr. Carol Miller, my academic advisor and a member of my thesis committee, for your support, encouragement, and assistance in seeing my thesis come to fruition.

I would also like to thank the Indian Speech and Hearing Association Secretary, Krishna Yerraguntla, for facilitating my contact with speech-language-hearing professionals throughout India. Additionally, I would like to thank the All India Institute of Speech and Hearing alumni for their participation, support, and willingness to discuss key global health issues with me.

Review of Literature

Section 1: Global Health Defined

Although global health appears to be a popular topic, of late, the most pressing issues are far from nascent stages of development. According to Larkin (2010), global health derived from public health, which emerged in the mid-19th century in several countries as part of both social reform movements and the explosion of biomedical knowledge; specifically, knowledge pertaining to the causation and management of infectious disease (Larkin, 2010).

Nearly a century ago, Winslow et al. defined public health as the science and art of preventing disease, prolonging life, and promoting physical health and efficacy through organized community efforts for the sanitation of the environment, the control of communicable infections, the education of the individual in hygiene, the organization of medical services, and the development of social machinery which will ensure every individual in the community a standard of living adequate for the maintenance of health (Koplan, 2009). Currently, the most-used definition, according to the US Institute of Medicine, describes public health in terms of its mission, substance, and organizational framework, which address prevention, health as a public good, and a community approach (Koplan, 2009). Even so, it would not be adequate or comprehensive enough to simply take this definition of public health and expand it to a global scale.

Though frequently referenced in literature, global health is not easily defined (Marmot, 2008). According to Koplan et al., 2009, global health is a notion, an objective, a condition, and a mix of scholarship, research and practice. Two common themes arise from all global health literature: the need for collaboration among disciplines and the push for a common definition. Koplan et al., 2009, argues that a common definition for global health is imperative, because

without clearly defining it, we cannot agree on what we are trying to achieve, the tactics we must use, the skills that are required, or the ways in which we should distribute resources.

It is widely understood that the definition of global health must encompass its collaborative nature (Larkin, 2010). Marmot argues that the fight against the social determinants of disease is most operative when involving the whole of government, civil society, local communities, businesses, and international agencies (Marmot, 2008). Allied health professionals, physicians, public health professionals, therapists, and clinicians must come to a communal understanding about global health (Farmer, 2006). A multilateral approach is vital for even assessing the overall health status of the world (Rowson, 2012). Global health has seen contributions from the behavioral scientists, economists, engineers, and politicians. Approaching global health from a multidisciplinary vantage point emphasizes health not only in terms of primary prevention, but also by way of therapy, restoration, treatment, and care. Global health goes beyond health science and is "the synthesis of population-based prevention and individual-level care" (Koplan, 2009).

Relevance of Global Health

Global health is relevant and urgent. The Critical Public Health journal cites that 22.9% of the world's population is estimated to be living in the industrial countries, but has over 80% of the global GNP (Larkin, 2010). There is an extremely uneven distribution of health investment, which tends to be highly concentrated within developed regions of the world (Larkin, 2010). According to Marmot et al., social injustice is killing people on an enormous scale, and the reduction of health disparities, both between and within countries, is ethically imperative (Marmot, 2008). Additionally, Marmot references an unfair social gradient that all levels of income, health, and illness follow. "The lower a person's socioeconomic position is, the worse their health is, also" Marmot (2008) writes. There is a deep inequality in a world where you can

predict life expectancy by knowing only a person's income, country of residence, and social status (Farmer, 2006).

According to Elwell-Sutton, a large issue in providing health is differentiating between equality and equity. Equality can be defined as sameness or likeness, but equity implicates a true sense of fairness and justice, taking into accounts the history and specific needs of an entity (Gerber, 1998). Equity in health care requires active engagement and planning of health procedures to make arrangements that address the needs of all members of society (Gwatkin, 2000). Global health strives for providing equitable health care to all nations and people, because all people, nations, and health care systems are not alike and do not have the same needs.

Disparities in Global Health

People in poor countries tend to have less access to health services than those in better-off countries, and within countries, the poor have even less access to health services (Jeffreys, 2010). Balarajan (2012) writes that low-income countries account for a substantial proportion of the global burden of disease, in accordance with premature deaths and disability adjusted life years (DALYs). Socioeconomic status tends to be the number one determinant of health, second to factors such as gender, wealth, education, and geographical location (Battle, 2011). Substantial socioeconomic inequities exist throughout the world and within countries, causing extreme disparities to health care access. Moreover, health is often equivalent to wealth, and individuals with the greatest need for health care have the greatest difficulty accessing it (Bantwal, 2012).

Structural Violence Defined

Before exploring the health care system of India, it is essential to address a concept in global health called Structural Violence. The term Structural Violence was coined by Johan Galtung, and he described it as the large-scale social, political, religious, or legal arrangements

(structures) that exist within a country, that limit inhabitants from reaching their full potential. In the context of health care, Structural Violence comes from the policies, religious structures, or social arrangements in a developing country that limit residents from receiving adequate health care or achieving mental, physical, and emotional well-being. Farmer (2006) writes that "because these structures seem so ordinary in our ways of understanding the world, they appear almost invisible." The majority of global health inequities occur in low-income countries where Structural Violence is extremely prevalent. Physicians and allied health professionals are not being trained to understand the impact of these social forces, nor are they trained to modify them (Farmer, 2006). Structures exist within India, such as the Caste system, which impact the health status of all Indian people. Moreover, inadequate physical access to healthcare services, the treatment of women, religious oppression, and language barriers are all structures that can become "violent" if they are preventing individuals, groups, and societies, from receiving adequate health care.

Section 2: An Overview of Health Care Systems in India

The challenges affecting the healthcare system of the world's second most populous country have seen slow, but steady, improvements over the past few decades. The sixty years since India gained national independence have been successful in nearly doubling the life expectancy of its residents, from 33 to 63 years, and progress has occurred in the past five years with new commitments by state governments to reform health care and bridge gaps of inequity.

In 2009, the Government of India drafted a National Health Bill for the legal system to recognize the right to health and right to health care with a stated recognition to address the social determinants of health (Balarajan, 2011). However, implementation of policy commitments to equity in health care remains a challenge because of India's religious, linguistic, and political disarray.

A strong push towards universal health care in India has been occurring for the past five years. According to Reddy (2011), the current political, social, and cultural position of the country is conducive to a large-scale reform with the end result of universal health care. India's economic growth trajectory has been more rapid than any other country, aside from China, and has withstood recession reasonably well. Poor health systems and inadequate surveillance might result in India exporting and importing diseases, which could adversely affect trade and tourism. India's health progress is central to the achievement of its overall international development goals (Reddy, 2011). "Furthermore, an opportunity exists to harness the capability of the domestic pharmaceutical industry by encouraging it to take greater responsibility for delivering equity in health care" (Balarajan, 2011).

Despite recent notions towards improving the health sector, the preventable burden of disease in India remains destructively high. Health care in India is far from equitable, accountable, or affordable for its people (Reddy, 2011). The government health expenditure is at a low 3.9% (WHO, 2012) and has only risen trivially in the past ten years. The majority of spending on health care is paid out of pocket and is currently rising in cost. Only about 10% of the Indian population is covered by any form of social or voluntary health insurance (Balarajan, 2011). According to Reddy (2011), to defend the fundamental right of all persons to adequate health care, the health care in India has to be given the highest priority in public policy.

When comparing the health status of India with other developing countries, India consistently lags behind, which in part is due to the political priorities and policies implemented immediately following its independence. Low investment, poorly formulated policies, and inadequate implementation of government programs led to a significantly inadequate delivery of health care by the public sector (Reddy, 2011). The life expectancy of 63 years, infant mortality rate of 80/1000 live births, and maternal mortality rate of 438/100,000 live births is reason for grave concern and international attention (Patil, 2002).

Although several growth-oriented policies have been adopted by the government, the biggest challenge that Indian health care faces is that 75% of its health infrastructures and resources are concentrated in urban areas, where only 27% of the population lives (Patil, 2002). Contagious, infectious and waterborne diseases, such as diarrhea, typhoid, worm infestations, malaria, respiratory infections, and reproductive tract infections dominate the morbidity pattern in the rural areas, which are primarily being underserved (Patil, 2002). The majority of rural deaths, which are preventable, are due to infections and communicable, parasitic, and respiratory diseases. While the incidence of all diseases are twice as high in rural areas than urban, the rural people are denied access to proper health care, as the systems and structures were built up mainly to serve the better off (Patil, 2002).

The policies implemented so far, which concentrate on growth of economy and not on equity and equality have widened the gap between urban and rural people; those who have and those who do not have access to health care (Patil, 2002). To improve the prevailing situation, the lack of rural health must be addressed "with genuine efforts to bring the poorest of the population to the center of fiscal policies" (Patil, 2002).

There are many factors affecting equity in access to health services in India, but major recurring themes across literature include insufficient investments in public sector, variable quality of care in public and private sectors, rising costs, and a lack of accountability in both the private and public sectors.

Structural Violence in India

In addition to the people living in rural India having inadequate physical access to healthcare services, other structures exist within the country that could impact the distribution of health care services. Health outcomes continue to be strongly determined by factors such as gender, caste, wealth, education, and geography (Balarajan, 2011). Use of preventative services,

such as prenatal care and vaccinations, vary significantly by gender, socioeconomic status, and location within India. Caste represents social stratification and significant health disparities exist between castes, specifically Scheduled Caste is determined to be the most socially disadvantaged group in India. According to Balarajan (2011), immunization coverage is only 31.3% among Scheduled Caste, which is markedly lower than 53.8% among other castes. Inequalities in healthcare by wealth, education, and urban or rural residence continue to persist despite country development.

Aside from Caste systems, the distance that the majority of the country faces in travelling to hospitals and clinics serves as another major barrier to receiving adequate health coverage. More than 70% of India's population lives in rural areas, but 75% of health infrastructures and medical resources are concentrated in urban areas (CHBI, 2008). The unequal geographical distribution of services can be viewed at as a form of Structural Violence (Farmer, 2006) that prohibits Indians from reaching their full potential in health. Additionally, the disparate religious, language, and cultural beliefs could cause divides between certain groups of people, which could potentially limit access to health care.

Individuals who are poor are most sensitive to the cost of health care, they are less likely than those who are rich to seek care when they are ill, and this difference is more evident in rural than urban areas (Balarajan, 2011). The financial burden of inpatient and outpatient care is consistently greater for rural households than for urban households, and out-of-pocket expenditures on health exacerbate poverty (Doorslaer, 2006).

Another structure that exists within India, which can be considered violent, is the policies that foster a lack of accountability in the private and public sectors. Without proper regulation, the cost of healthcare is essentially monopolized by the private sector. The tremendous variation in costs for the same procedures across hospitals is an example of structural violence impacting and limiting certain geographic regions in India from having equal access to health (Rao, 2005).

Section 3: Speech, Language and Hearing Healthcare Services in India

India has a rich history of support for research in the speech and hearing fields and in Speech-Language Pathology in particular (ASHA, 2012). Yet there is an unequal lack of access to services, skilled clinicians, and resources, according to Rowson (2012), can be tied back to the effect of economic inequity on health. The effects of social and economic inequality on the health of a society are profound. Speech and hearing healthcare in these developing areas is a cycle of poverty, lack of education, and lack of government stability which translates into poor health. According to Bantwal (2012), Central Auditory Processing Disorder—a disorder in which an individual appears at normal thresholds on a pure tone audiogram, but has difficulty hearing in high decibel environments (80-85 dB)—presents more challenges in India than any other area of the world. Audiological assessment, treatment, and intervention for auditory processing problems are conducted in relatively few centers. The major issues of communication disorders, in general, in India also include a lack of instruments, given that small private clinics are likely to only possess one or two audiometric instruments. The most significant challenge, according to research by Bantwal (2012), is using any audiological test containing speech content, given the country's linguistic diversity. There are 22 official languages in India, however, the number of languages actually spoken in India is estimated at 452 (Census of India, 2001). Clinics will unlikely have suitable materials for the majority of rural Indians, with tests of both language and cognitive skills. 70% of the country of India lives in rural areas, which translates to many hearing and language disorders going unnoticed, or untreated (Patil, 2002). There are Hindi language assessments, but only an estimated 40% of Indians speak Hindi, and the assessments would need to be administered by a native Hindi speaker in order to be valid (ASHA, 2012) and articulation disorders are not given a high priority in the world of Indian health care. Research is unclear as to whether or not the issues and challenges that specifically pertain to the highly researched (C)APD can be expanded and applied to general speech and hearing health care in India.

Methods

Purpose of the Study

Although literature exists on the healthcare barriers surrounding communication disorders (specifically, Central Auditory Processing Disorder), there is a significant lack of evidence on how political and socioeconomic structures in India impact the delivery of speech and hearing health care as a whole. Research is still unclear as to whether or not the issues and challenges of Structural Violence can be expanded and applied to disorders of speech and hearing health care in India. The purpose of this study was to explore whether or not Structural Violence affected the delivery of speech and hearing health care in India, specifically, in order to shed light on the barriers that Indian speech and hearing professionals face in regards to speech and hearing health care. This study explores Indian speech-language pathologists and audiologists' perceived barriers to health care, current caseload, view of Indian speech/hearing services, and overall job satisfaction through ten survey questions. The survey items were also designed and used to tap into the level that Structure Violence (specifically, language barriers, religion, and the caste system) directly affects job satisfaction and quality of service. An overarching purpose of this study is to use results to increase professional awareness of healthcare barriers that clients in developing countries face.

Procedures

Each survey consisted of the same twelve items, and was distributed via email with the title "Penn State Research Speech Pathology Survey". Each survey item was developed and distributed through the mass instrument Qualtrics, which is a software package used to create surveys and statistically analyze results. Participants were informed, by regulation of Penn State

Protocol, Review, Approval and Management System, that the research was being conducted through The Pennsylvania State University, that they were able to choose whether or not to participate, and that they could choose to participate and later choose to cease involvement at any time. Participants were informed that if they chose to respond, their answers would remain anonymous. Any questions or concerns were to be directed to my thesis advisor, Dr. Ingrid Blood, Ph.D. Professor and Schreyer Honors College Advisor for the Department of Communication Sciences and Disorders.

In order to contact as many Indian speech-language-hearing professionals as possible, I chose to distribute the survey link to the alumni email database of the All India Institute of Speech and Hearing, based in Mysore, India. In order to achieve a broader spectrum of participants, multiple installments and Qualtrics panels were distributed through the Indian Speech and Hearing Association, by way of the executive board directors. A total of 308 surveys were distributed and 31 responded, yielding a response rate of 10.1%.

Survey Items

The survey instrument was developed through Qualtrics Survey Software and supported by the Penn State Protocol, Review, Approval and Management System. The survey consisted of 12 items, which included a range of “True/false,” “Select all that apply,” “open ended” and “Yes/no” options. The SLP’s were contacted via email through the alumni network of the All-India Institute of Speech and Hearing. The survey link was also forwarded to speech and hearing professionals in India working directly through the Secretary of the Indian Speech and Hearing Association (ISHA).

Survey items were created to determine whether or not the communication disorders professionals are affected by Structural Violence, to gauge level of job satisfaction, and to determine top perceived barriers to providing care.

Results and Conclusions

Results

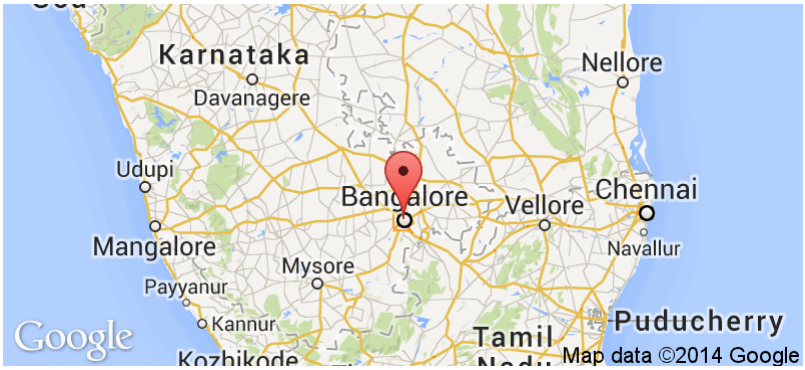
1. What is your gender?

#	Answer		Response	%
	Male		16	53%
	Female		15	47%
	Total		31	100%

2. Country of current employment: 30 responses (India – 27, USA – 4)

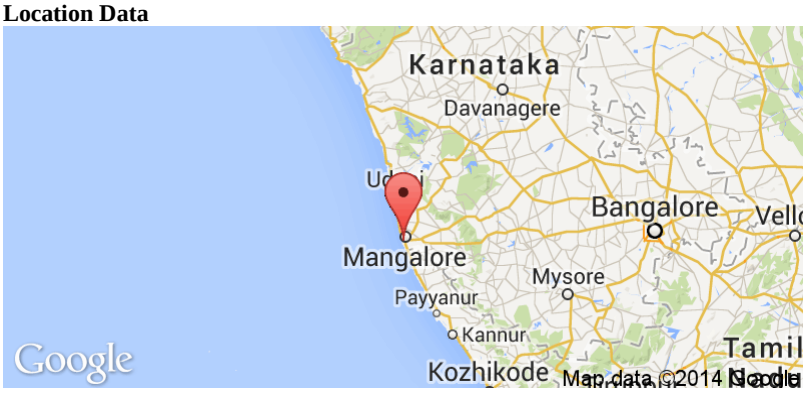
Sample Location Data

Location Data
Location: (12.983306884766, 77.583312988281)
Source: GeoIP Estimation



Location Data
Location: (12.863906860352, 74.835296630859)
Source: GeoIP Estimation

Location Data



Location Data
Location: (13.083297729492, 80.283294677734)
Source: GeoIP Estimation

3. Primary place of employment:

#	Answer		Response	%
1	Hospital		12	39%
2	School		6	19%
3	Private practice/other		13	42%
	Total		31	100%

4. How many clients do you typically have on your caseload?

#	Answer		Response	%
1	0-10 clients		9	29%
2	10-20 clients		9	29%
3	20-30 clients		4	13%
4	30+ clients		9	29%
	Total		31	100%

Statistic	Value
Min Value	1
Max Value	4
Mean	2.42
Variance	1.45
Standard Deviation	1.20
Total Responses	31

5. How satisfied are you with your current job?

#	Answer		Response	%
1	Very Satisfied		21	68%
2	Sometimes Satisfied		9	29%
3	Not Satisfied		1	3%
	Total		31	100%

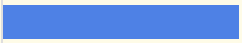
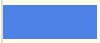
Statistic	Value
Min Value	1
Max Value	3
Mean	1.35
Variance	0.30
Standard Deviation	0.55
Total Responses	31

6. The Indian population, in general, receives very good speech and hearing healthcare.

#	Answer		Response	%
1	True		0	0%
2	False		19	61%
3	Neutral/Other		12	39%
	Total		31	100%

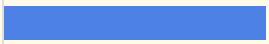
Statistic	Value
Min Value	2
Max Value	3
Mean	2.39
Variance	0.25
Standard Deviation	0.50
Total Responses	31

7. The biggest challenge that I face as a healthcare provider is:

#	Answer		Response	%
1	Distance (my clients live too far away)		15	50%
2	Too large of a client base to serve		14	47%
3	Language barriers		6	20%
4	Lack of family involvement		11	37%
5	OTHER		10	33%

Statistic	Value
Min Value	1
Max Value	5
Total Responses	30

8. Linguistic/ cultural/ religious differences make it difficult for Indians to receive speech and hearing health care.

#	Answer		Response	%
1	True		18	58%
2	False		13	42%
	Total		31	100%

Statistic	Value
Min Value	1
Max Value	2
Mean	1.42
Variance	0.25
Standard Deviation	0.50
Total Responses	31

9. The caste system makes it challenging for some Indians to receive speech and hearing health care

#	Answer		Response	%
	True		5	17%
	False		25	83%
	Total		30	100%

Statistic	Value
Min Value	1
Max Value	2
Mean	1.83
Variance	0.14
Standard Deviation	0.38
Total Responses	30

10. Indians living in both rural and urban locations have good access to speech and hearing services

#	Answer		Response	%
	True		1	3%
	False		28	90%
	Other		2	6%
	Total		31	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	2.03
Variance	0.10
Standard Deviation	0.31
Total Responses	31

11. I am satisfied with my current work conditions.

#	Answer		Response	%
	Very true		18	58%
	Sometimes true		12	39%
	Not true		1	3%
	Total		31	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.45
Variance	0.32
Standard Deviation	0.57
Total Responses	31

12. Which department do you most affiliate with?

#	Answer		Response	%
	Audiology		17	55%
	Speech Pathology		21	68%
	Clinical Psychology		3	10%
	Otorhinolaryngology		5	16%
	Special Education		4	13%

Statistic	Value
Min Value	1
Max Value	5
Total Responses	31

31 speech and hearing professionals were surveyed. Of these 31, 27 were practicing in India, and 4 were trained in India, but are currently practicing in the United States.

39% of professionals surveyed primarily were employed in a hospital setting. 42% of professionals surveyed practiced through a privately-owned company.

The number of clients on a typical caseload was evenly distributed between 0-10, 10-20, and 30+ clients. Those who responded "30+ clients," were evenly distributed between working in a hospital, school, and private setting. Those professionals who worked in a hospital were more likely to have a small (0-10) caseload than those who worked in a private practice or school (see cross-tabulation below).

		How many clients do you typically have on your caseload?				
		0-10 clients	10-20 clients	20-30 clients	30+ clients	Total
Primary place of employment:	Hospital	4	4	1	3	12
	School	2	1	0	3	6
	Private practice/other	3	4	3	3	13
	Total	9	9	4	9	31

68% of participants said that they were “very satisfied” with their current job, and only 3% of participants claimed to be “not satisfied”.

Of professionals surveyed, 61% answered “false” to the statement that the Indian population receives very good speech and hearing healthcare. 39% answered “neutral/other” and 0% (no participants) answered “true”.

When asked about the biggest challenge they face as a healthcare provider, participants were able to choose as many options as they believed were applicable. 50% of participants answered that distance (clients living too far away) was the biggest challenge that they faced, followed by 47% who believed their biggest challenge was too large of a client base to serve. 37% of participants believed that a lack of family involvement was their biggest challenge, 20% chose language barriers, and 33% selected “other”.

58% of professionals surveyed believed that language/cultural/religious differences throughout the country make it difficult for some Indians to receive speech and hearing health care.

83% of participants answered “false” to the statement that the Caste system makes it challenging for some Indians to receive speech and hearing health care.

90% of participants answered “false” to the statement that Indians living in both rural and urban locations have good access to speech and hearing services.

Of professionals surveyed, 58% answered “very true” to the statement “I am satisfied with my current work conditions”. 39% responded “sometimes true” and 3% responded “not true”.

When asked which department(s) participants most affiliated with, 68% selected Speech Pathology, 55% selected Audiology, 16% selected Otorhinolaryngology, 13% selected Special Education, and 10% selected Clinical Psychology.

Conclusions

Through cross-tabulation, it can be observed that the majority of participants who had 30+ clients on their caseload still answered "very true" to the statement "I am satisfied with my current work conditions". According to data, caseload and job satisfaction appear to be independent of each other.

		I am satisfied with my current work conditions.			
		Very true	Sometimes true	Not true	Total
How many clients do you typically have on your caseload?	0-10 clients	6	3	0	9
	10-20 clients	5	4	0	9
	20-30 clients	2	2	0	4
	30+ clients	5	3	1	9
	Total	18	12	1	31

It should be noted that 0% of participants agreed with the statement "The Indian population receives very good speech and hearing healthcare".

The extent to which Structural Violence—political, social, religious, or legal structures that limit individuals, groups, and societies from reaching their full potential— impacts speech and hearing healthcare in India fluctuates with participants' primary place of employment. For instance, in the cross-tabulation below, it is observed that practitioners who are employed in a private practice and a school are more likely to believe that "language/cultural/religious differences make it difficult for some Indians to receive speech and hearing healthcare." However, an even

percentage of professionals who are employed in a hospital setting selected “true” and “false” to the same statement.

		Primary place of employment:			
		Hospital	School	Private practice/other	Total
Language/ cultural/ religious differences make it difficult for some Indians to receive speech and h...	True	6	4	8	18
	False	6	2	5	13
	Total	12	6	13	31

One explanation for this is that professionals practicing in a school and private practice are more likely to be in rural areas, where factors such as distance to travel and large client base can confound (Patil, 2002). Contrarily, hospitals in India are almost always located in urban meccas, which could explain why hospital speech/hearing professionals are evenly split between viewing linguistic, cultural, and religious differences a barrier to delivering services (CHBI, 2008).

Structural Violence also appears significantly less salient in the Caste system than in general linguistic, cultural, or religious differences. 83% of participants answered “false” to the statement that the Caste system makes it challenging for some Indians to receive speech and hearing health care, where as 58% of professionals surveyed believed that linguistic, cultural, and religious differences throughout the country make it difficult for some Indians to receive speech and hearing health care.

		Primary place of employment:			
		Hospital	School	Private practice/other	Total
The caste system makes it challenging for some Indians to receive speech and hearing health care	True	1	2	2	5
	False	11	3	11	25
	Total	12	5	13	30

Although an overwhelming (83%) of participants believed that the Caste system did not affect speech and hearing healthcare, those who believed that it did have an effect were more likely to work in a school or private practice than in a hospital. This also supports the above conclusion that Structural Violence occurs more often in rural and developing regions than urban regions.

The results from these surveys shed light on the barriers that speech and hearing health professionals face in India, which can be applied to most of the developing world. Observing the needs that service providers and clients with communication disorders have in India could become the agenda for professionals who are interested in planning a volunteer or short-term service trip abroad, for allocating money to assist speech and hearing clinics in developing countries, or for universities who are interested in developing quality practitioners who have global awareness and are culturally competent.

Discussion

Increased globalization and immigration make awareness of speech and hearing healthcare around the world crucial to being a competent Speech-Language Pathologist or Audiologist in the United States. Understanding the status, needs, and barriers of speech and hearing professionals around the world will result in delivering the best possible care to culturally and linguistically diverse populations.

Since the majority of professionals surveyed believed that linguistic, cultural, and religious differences throughout the country make it difficult for some Indians to receive speech and hearing health care, certain solutions could be considered. “Audiologists can use language-free speech stimuli, such as nonsense syllables. The dichotic CV test (Yathiraj, 1994) developed at the All India Institute of Speech and Hearing, Mysore, is an example. In using this test, care should be taken to ensure that the phonemes included are present in the native language of the listener, and therefore, in the phonemic repertoire. Sometimes, sounds that are phonemes in one Indian language may behave as allophones in another. In such cases, the test should not be used. In view of the linguistic diversity of India, this is an important conclusion” (Johnson, 2012). However, practical solutions, such as the dichotic CV test, are less concrete for Speech-Language Pathologists and Otorhinolaryngologists, and fail to address cultural and religious barriers.

Global health is a lens through which we can view humanity—striving to achieve a level of health that is unique to each community around the world; therefore, making the decision to become a global professional within the field of Communication Sciences and Disorders could come to fruition in a multitude of ways. An article published in Perspectives on Global Issues in Communication Sciences and Related Disorders from the American Speech, Language, and

Hearing Association Special Interest Group #16 summarizes the experiences of the Citizen Ambassadors Program (People to People) for professionals from diverse health-related fields, including speech-language pathology and audiology. These trips—which have included South Africa, Russia, Vietnam, Cambodia, and Israel—aim to expose professionals to a new cultural, political, and historical environment while exploring the development of speech-language pathology and audiology of that given country (Johnson, 2012). Aside from participating in this type of excursion, Audiologists and Speech-Language Pathologists who desire to become global professionals could consider joining the American Speech-Hearing Association Special Interest Group 17 (Global Issues in Communication Sciences and Related Disorders), pursuing a Masters in Public Health, or actively seeking and participating in research to enhance cultural competence within our field.

We cannot make people healthier until we are willing to ask questions, listen, and have more cross-cultural conversations to truly understand structures and why they exist. Paul Farmer writes that "because these violent structures seem so ordinary in our ways of understanding the world, they appear almost invisible" (Farmer, 2006). The concept of structural violence is fascinating and relevant because it can be applied to almost every global issue in the field of Communication Sciences and Disorders. It causes us to think critically about the determinants of health, but it also speaks to the incredibly complex nature of global issues. Speech, hearing, cognitive, or swallowing disorders do not discriminate based on nationality or cultural values; they impact everyone, which leads me to believe that we cannot succeed as professionals without addressing the social forces—racism, pollution, poverty, and lack of education—that could impact a population.

Appendix A

Recruitment Email

My name is Colleen Powers and I'm a student at Penn State University, studying Communication Sciences and Disorders. We consistently rank as the number one university in the United States for Augmentative and Alternative Communication research, as well as a top program for Speech Pathology nation-wide.

Last summer, I spent four weeks in India at the Shri Ram College of Commerce and then at the Vatsalya-Udayan childrens' village in Jaipur. I left the country realizing that I was quite unaware and uninformed of the current status of speech pathology, audiology, and otorhinolaryngology throughout India. My goal is for speech and hearing clinicians in the United States to learn more about Speech Pathology and Audiology in India. If you have a few minutes, I would greatly appreciate you taking the time to complete this survey.

If you choose to participate in my survey through Penn State University, your answers will remain completely anonymous. If you have any questions or concerns, please contact the Primary Investigator, Dr. Ingrid Blood, by email i2b@psu.edu.

Appendix B

Survey Items

1. What is your gender?

- Male
- Female

2. Country of current employment:

3. Primary place of employment:

- Hospital
- School
- Private practice/other

4. How many clients do you typically have on your caseload?

- 0-10 clients
- 10-20 clients
- 20-30 clients
- 30+ clients

5. How satisfied are you with your current job?

- Very Satisfied
- Sometimes Satisfied
- Not Satisfied

6. **The Indian population, in general, receives very good speech and hearing healthcare.**

- ● True
- ● False
- ● Neutral/Other

7. **The biggest challenge that I face as a healthcare provider is:**

- ☐ Distance (my clients live too far away)
- ☐ Too large of a client base to serve
- ☐ Language barriers
- ☐ Lack of family involvement
- ☐ OTHER

8. **Language/ cultural/ religious differences make it difficult for some Indians to receive speech and hearing health care**

- ● True
- ● False

9. **The caste system makes it challenging for some Indians to receive speech and hearing health care**

- ● True
- ● False

10. **Indians living in both rural and urban locations have good access to speech and hearing services**

- ● True
- ● False
- ● Other

11. I am satisfied with my current work conditions.

- Very true
- Sometimes true
- Not true

12. Which department do you most affiliate with?

- Audiology
- Speech Pathology
- Clinical Psychology
- Otorhinolaryngology
- Special Education

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ACADEMIC VITA

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Education

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B.S. Communication Sciences and Disorders

Honors in Communication Sciences and Disorders

Minor: *Global Health*, *Human Development-Family Studies*

Honors

- Dean's List (Fall 2010 – May 2014)
- College of Health and Human Development Honor Society
- National Society of Collegiate Scholars – Penn State Chapter

Association Memberships/Activities

- National Student Speech-Hearing Association— Executive Board, 2012-2013
- Pennsylvania Speech-Hearing Association—Penn State Representative, 2012-2013
- CSD 301: Acoustic Principals in Communication Disorders—Teaching Assistant, Spring 2014
- Penn State Relay for Life—2014 Merchandise Captain
- Penn State IFC/PanHellenic Dance Marathon—Hospitality Committee Member
- Alliance Christian Fellowship

Additional Research Experience

- Penn State Hershey Medical Center's Department of Pediatrics
- Project SIESTA (II) Undergraduate Research Assistant

Presentations/ Publications

"Human Development, Health, and Education from a Global Perspective" (Psych 497-H)

- Guest Lecturer— February 2013

Penn State Multicultural Interest Group

- Panel Speaker – November 2013