Impact of Culture on Use of Western Health Services by Older South Asian Canadians

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ABSTRACT

Objective: South Asians are the largest visible minority group in Canada, but little research is available, particularly on the older adults and their use of Western health services. This study examined the effects of the predisposing, enabling, need, and cultural factors on the use of Western health services by older South Asian immigrants.

Method: Using a modified version of the Andersen-Newman service utilization model, the specific effects of cultural factors on use of Western health services were examined. A random sample of 220 South Asians 55 years and older were interviewed in Calgary using a structured telephone survey.

Results: Hierarchical regression analysis showed that the cultural factors were as important as the need factors in explaining the proportion of variance in the use of Western health services. Being a Hindu, immigrated to Canada for a longer period of time, fewer access barriers related to cultural incompatibility, a lower level of agreement with traditional South Asian health beliefs, and a stronger South Asian ethnic identity were significantly related to the use of more types of Western health services.

Conclusions: The findings signify the importance of developing strategies for providing culturally competent health promotion, prevention, and intervention, and health care services.

Key words: Culture; service utilization; western health services; South Asian; elderly; older adults

La traduction du résumé se trouve à la fin de l'article.

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South Asians are the largest visible minority group in Canada, with 10.7% of the population being 65 and older.¹ However, there is little research examining their health service utilization. Most studies are from the United States or the United Kingdom, and South Asians are grouped with other Asian groups as one 'culturally undifferentiated' group.²

South Asians have a long history in Canada³ and they are from different countries, regions, and sects, and have different cultures, health beliefs, values, and norms. In 2006, 57,700 South Asians were reported in Calgary,⁴ with 21.8% being 55 and older, while 9.7% were 65 and older.⁵

Previous research often overlooked the effect of culture on health service utilization.⁶ Using the Andersen and Newman service utilization model,⁷ we examined the effects of cultural factors on the use of Western health services by older South Asians. The model postulates that predisposing, enabling, and need factors contribute to health service use. Predisposing factors are conditions that are present before the occurrence of an illness. Enabling factors are conditions that facilitate or impede service use. Need factors refer to immediate reasons that lead to service use.8 Culture is more than membership in an ethno-cultural group, it is a shared way of life and worldview passed down from previous generations. Culture affects health perceptions and behaviours based on the values and beliefs of an individual.9 Culture is not static and it evolves with time and circumstance.¹⁰ Studies indicate that the treatment of illness is more effective when it is culturally acceptable and recognized.¹¹ Culture serves to assign meanings to the causes and symptoms of illness, and determines the type of treatment received.¹² Due to the unique implication of culture in the health context, the influence of cultural factors is considered separately in this study.

METHOD

Sampling

Data were obtained using a telephone survey conducted August 2004 to July 2005 in Calgary. South Asian surnames listed in the local telephone directory formed the sampling frame. Previous research supports the use of surnames to identify Asian participants.¹³ South Asians refer to people that originated from Bangladesh, India, Pakistan, Sri Lanka, and Nepal¹⁴ and those who trace their ethnic origin back to the Indian subcontinent.

In total, 10,640 telephone numbers listed under 3,241 South Asian surnames were identified and 4,719 telephone numbers were randomly selected. Telephone screening was conducted to find eligible participants who were South Asian and 55 or older. Of the 329 eligible participants located, 220 immigrant South Asians completed the study, representing a response rate of 66.9%.

Measures

A structured questionnaire in English, Hindu and Urdu was administered in telephone interviews. Verbal interpretation was also used in other South Asian languages (including Punjabi, Gujarati, Tamil, Telgu, and Nepali).¹⁵ No potential participant was excluded due to language barriers.

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The Western health services used were measured by asking the participants to respond either 'yes' or 'no' to using each of the 21 types of Western health services in the past year. A higher total score, ranging between 0 and 21, indicated more types of Western health services used.

Predisposing factors included age, gender, and marital status. Enabling factors included education, English competency, personal monthly income, social support, and services barriers. Education level ranged from "no formal education" to "post-secondary and above". English competency was measured by two questions asking the participants whether they were able to comprehend and speak English, from "very well" to "not at all". A higher total represented a higher level of English competency, ranging between 2 and 6. Personal monthly income was grouped into four ranges from "less than \$500," to "\$1,500 and above."

Social support was measured by two questions asking the participants to indicate either 'yes' or 'no' to whether they had someone they could trust and confide in, and to give them help if they were sick. The total scores ranged between 0 and 2, with higher scores indicating higher social support.

To measure service barriers, a list of 21 barriers was developed and published in an earlier study.¹⁶ The participants were asked to indicate either 'yes' or 'no' to each of the four types of barriers presented in Table 1, including administrative problems, circumstantial challenges, cultural incompatibility, and personal attitude. Administrative problems and circumstantial challenges were treated as enabling factors, while cultural incompatibility (i.e., cultural differences between users and providers) and personal attitudes were treated as the cultural factors.¹⁷

Need factors were measured by the Medical Outcomes Study 36item Short Form (SF-36). The two SF-36 summaries: Physical Component Summary (PCS) and Mental Component Summary (MCS) scales were derived to measure physical and mental health.¹⁸ The scores ranged between 0 and 100, with higher scores indicating better physical and mental health respectively.

Cultural factors were also represented by religious affiliation (grouped into Hindu, Muslim, Sikh, and others), length of residency which reflects acculturation level,¹⁹ traditional South Asian health beliefs, ethnic identity, and use of traditional South Asian medicines which reflects culture-related health behaviours.

The items measuring traditional South Asian health beliefs and ethnicity identity are presented in Table 2. They were developed based upon literature and input from South Asian community key informants. Health beliefs (18 items) are related to beliefs in eating, health norms, and functions of traditional medicine, measured along a five-point scale. A higher total score indicated a stronger traditional health belief. Ethnic identity was measured by 14 questions pertaining to the participants' involvement in the South Asian community, cultural activities, and self-identified identity. Due to the variation in the response format, the answer to each item was transformed to a standardized z-score. The sum of the standardized scores of all items represented the overall level of ethnic identity, with higher scores indicating stronger South Asian ethnic identity.

Use of traditional medicines was measured by asking the participants to indicate either 'yes' or 'no' to use of a list of four traditional medicines or health practices including consulting doctors practicing traditional medicines, consulting acupuncturist, tradi-

Administrative Problems	Office hours are inconvenient Bad experiences heard from others Not satisfied with the services Services are too expensive Procedures of using services are complicated Professionals are too busy Waiting list is too long
Circumstantial Challenges	No one available to take you there Do not have transportation Weather is too cold to get out Do not know about existing health services
Cultural Compatibility	No other users of your national/religious background Professionals there are not your national/religious background Programs are not specialized for your national/religious background Professionals there do not understand your culture Professionals do not speak your language
Personal Attitude	Professionals are too young Feeling ashamed Worry that you are being seen as having problems Uncomfortable with asking for help Do not believe that the professionals can help

tional herbs, and herbal formulas. The final scores ranged between 0 and 4, indicating the total number of traditional medicines used.

Data analysis

Hierarchical multiple regression analysis was used with service utilization as the dependent variable. Four sets of independent correlates were entered into the regression in a hierarchical fashion with predisposing factors first, followed by enabling factors, need factors, and finally cultural factors. No violation of regression assumptions (i.e., normality, homoscedasticity, and multicollinearity) was reported.

RESULTS

Table 3 indicates a range of socio-cultural demographic differences among older South Asians. The participants also included South Asians who had immigrated from non-South Asian countries or regions. Most (97.7%) reported using at least one type of Western health service and the mean was 4.6 types (SD = 3.3). Frequency distribution of the types of Western health services used is presented in Table 4.

Table 5 shows the hierarchical multiple regression analysis results. When predisposing factors were entered, age was the significant correlate, explaining 7.2% of the variance in use of Western health services. When the enabling factors were added, the model explained 22.3% of the variance. The effect of age remained while a lower level of financial adequacy and more circumstantial challenges were also significant.

Next, the need factors were added, and poorer physical and mental health were significant. The model explained 30.5% of the variance. The effects of age and circumstantial challenges remained.

Cultural variables were added last. Being a Hindu, having resided in Canada longer, having fewer barriers in cultural incompatibility, and having a lower level of agreement with South Asian health belief, but a stronger South Asian ethnic identity were related to using more types of Western health services. Adding these factors increased the total proportion of variance to 36.8%. The effect of age disappeared while financial adequacy and circumstantial challenges became significant. The negative effects of physical and mental health remained.

Table 2. Items Measuring South Asian Health Beliefs and Ethnic Identity

South Asian Health Beliefs

- Illness can be caused by jadu-tona or black magic Mental illness is caused by "the possession of the evil eye" (bad wishes 2. from others)
- 3. Western medications are very strong, therefore lesser quantity should be taken than what is prescribed by doctors
- Pregnant women should avoid using knife during solar eclipse as it might 4 cause disability in the child
- Bathing at night should be avoided as it can cause cold, cough, and 5 joint pains
- Disease is a direct punishment from God for any sin committed
- Fasting during fever can cure the fever by removing excess toxins from 7. the body
- 8 One will get headache at an older age if going to bed without properly drying his/her hair after washing
- 9 Traditional medicine could cure the root of the disease whereas Western medicines only cure the symptoms
- 10. Using copper, brass, or iron container for food and water can promote good health
- Traditional herbal medicine can help balance hot and cold in the body
- Wind (gas) causes swellings, pain, and aches
- 13. Traditional herbal medicine has fewer side effects than Western medications
- 14. Nosebleed can be caused by consumption of food which is hot in nature
- 15. Excessive hot and cold can affect your health
- 16. Warm oil is good for curing earache
- 17. Prayer can heal an illness

Table 2

18. Mustard and almond oils massage can cure muscular pain

Table 3. Descriptive Findings of the indication of the indicat	ne Predicting Va	ariables
Variables	M (SD)	%
Age (years)	65.8 (7.6)	
Gender		
Female		44.5
Male		55.5
Marital status		
Single		20.9
Married		79.1
Self-rated English competence (range: 2-6)	4.4 (1.6)	
Education		
No formal education		17.7
Elementary		8.2
Secondary		36.8
Postsecondary and above		37.3
Personal monthly income*		10.5
<\$500		10.5
\$200-\$999 \$1,000 \$1,400		30.4 10.5
\$1,000-\$1,499 \\$1,500		19.5
∠\$1,500 Solf rated financial adequacy (range: 1.4)	30(6)	15.0
Administrative problems (range: 0.7)	3.0(.0)	
Circumstantial challenges (range: 0-7)	2.5 (2.0)	
Social support (range: 0.2)	1.0(1.3) 1.0(1)	
MCS^{+} (range: 14-61)	44 9 (10 7)	
PCSt (range: 24-67)	52 7 (8 2)	
Religion	52.7 (0.2)	
Hindu		20.0
Muslim		20.5
Sikh		55.5
Others (Catholic, Zoroastrian, no religion)		4.1
Country of origin*		
India		75.9
Pakistan		9.1
Africa (Tanzania, Kenya, East Africa, etc.)		9.1
Other (USA, UK, Fiji, etc.)		5.9
Length of residency (years)	15.6 (11.2)	
Cultural incompatibility (range: 0-5)	1.4 (1.7)	
Personal attitudes (range: 0-4)	.5 (1.1)	
Health beliefs (range: 1-3)	2.3 (.4)	
Ethnic identity (range: -23.73-12.82)	.00 (6.8)	
Use of traditional medicines (range: 0-4)	1 (1.1)	

Not included in multiple regression analysis

MCS = Mental Component Summary

PCS = Physical Component Summary

DISCUSSION

The findings indicate the importance of considering culture while providing health services. Consistent with previous research, predisposing factors were not as significant as other factors.²⁰ The pro-

- Celebrate national holidays from country of origin
- 2. Go to visit place of origin
- Read newspapers, magazines, or other periodicals from community 3.
- 4 Teach offspring to read and write native languages
- Attend cultural and social functions organized by South Asian community 5.
- Eat any food that is associated with religious holidays or special events 6. Dress in traditional dress like Shalwar-Kurta or Saree 7.
- 8. Listen to radio broadcasts or watch television in native language
- 9. Keep in touch with relatives and friends in home country
- 10. Speak native language at home

portion of variance explained by the final model is comparable to previous studies using the Andersen model,²¹ indicating its relevancy to this population.

Those less financially adequate reported using more Western health services. This could be because they are exposed to some neighbourhood-based preventive health programs geared toward financially vulnerable individuals.

The effects of circumstantial challenges were contradictory to previous research.²² It may mean that these people could also have a larger social network or more supporting resources, enabling them to better navigate the system.

Consistent with previous research,⁸ participants who were less physically and mentally healthy used more Western health services. For the unhealthy ones, the existing universal health care system would likely stream the users towards using Western services.

Cultural factors explained a similarly higher proportion of the variance in use of Western health services as did the need factors. The within-group differences and diversity should be understood and acknowledged.

Hindus reported using more Western health services than Sikhs. Hindus are usually more exposed to using Western health services

		Standardized Coefficients			
Dradianacing factors	4.55	Step 1	Step 2	Step 3	Step 4
Predisposing factors	Age	.29***	.24****	.16"	.11
	Gender – Malet	13	10	04	.05
	Marital status – married‡	.11	.09	.07	.08
Enabling factors	English competency	-	.13	.12	08
	Education level	-	00	.01	.06
	Financial adequacy	-	14*	07	14*
	Administrative problems	_	.11	.06	.06
	Circumstantial challenges	_	.29***	.22**	.29***
	Social support	_	.04	.10	.07
Need factors	PCSII	_	_	24***	29***
	MCS¶	_	_	19**	22**
Cultural factors	Religion				
	Hindu	_	_	_	.15*
	Muslim	_	_	_	.02
	Others	_	_	_	04
	Length of residency	_	_	_	.16*
	Cultural incompatibility	_	_	_	19*
	Personal attitudes	_	_	_	.01
	Health beliefs	_	_	_	- 16*
	Ethnic identity	_	_	_	17*
	Lise of traditional medicine	_	_	_	- 02
	P ² change	082***	170***	085***	02
	Total D2	.085	255	340	.000
	Adjusted D ²	.005	.233	.540	.420
	Adjusted R ²	.072	.223	.305	.368

 Table 5.
 Hierarchical Regression Analysis of Western Health Service Use (N=220)

*** p<0.001; ** p<0.01; *p<0.05 level; reference groups: † female, ‡ single, § Sikh || PCS = Physical Component Summary

¶ MCS = Mental Component Summary

than Sikhs in their home countries due to their better financial resources and higher social status than their Sikh counterparts, who are more likely to have a rural background.¹⁹

Length of residency is a significant correlate, probably because those who have been in Canada longer have more knowledge and receptiveness about the Western health care system, particularly in using preventive health services in primary care. Another reason is the "healthy immigrant effect", meaning that upon arrival in Canada, immigrants are relatively healthy but their health status deteriorates over time, due to the adoption of a less healthy lifestyle in diet, a lack of exercise, or structural challenges such as discrimination.²³

Consistent with previous findings,^{6,23} fewer barriers related to cultural incompatibility and a lower level of agreement with the South Asian health beliefs both are related to using more Western health services. A probable reason is that when the users' health or cultural beliefs are similar to the Western health beliefs, they are likely to be more receptive to using more Western health services. The use of traditional medicines was not related to the use of Western health services, indicating that the choice between Western and traditional health service is not necessarily a choice of one over the other.²⁴

A higher level of South Asian ethnic identity was related to a higher level of health service utilization, similar to previous research.²⁵ A reason is that a stronger ethnic identity means a stronger cultural network and more interactions in their own community, thus facilitating more knowledge about using services in the health system.^{6,26}

The findings imply the need to develop strategies for reducing circumstantial challenges faced by older South Asians. Newer immigrants should be encouraged to learn about the health care system and access strategies. Service providers should integrate traditional South Asian health beliefs and values into health promotion, prevention, and intervention²⁷ to reduce the existing cultural barriers. Besides cross-cultural training in communication skills and health beliefs for service providers, first language, gender, and ethnic matching health services can be arranged.²⁸⁻³⁰

The use of South Asian surnames in local telephone directories excluded participants who did not have a telephone, had an unlisted phone number or had a non-South Asian surname. The findings cannot be generalized to those in long-term care facilities and those who were too frail to participate. The small sample size means that findings cannot be generalized to a larger older South Asian population in Canada. The level of use of Western health services was measured by counting the types of services used and did not capture the amount, frequency, and intensity of use in each service. There may be overlaps in the health services listed for measuring service use. As a cross-sectional study, establishing causal inferences from the findings is not feasible.

Future research should further refine the service use assessment tool, and test the model by examining the pattern of use in each health service. With a larger sample, gender analysis can be conducted. A longitudinal study is recommended to better establish the causal relationships.

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RÉSUMÉ

Objectif : Les Asiatiques du Sud forment le plus grand groupe de minorités visibles au Canada, mais il y a peu d'études à leur sujet, surtout sur les personnes âgées et leur utilisation des services de santé occidentaux. Nous avons examiné les effets des facteurs prédisposants et facilitants, des facteurs de besoin et des facteurs culturels sur l'utilisation des services de santé occidentaux par les immigrants âgés originaires d'Asie du Sud.

Méthode : À l'aide d'une version modifiée du modèle Andersen-Newman d'utilisation des services, nous avons examiné les effets spécifiques des facteurs culturels sur l'utilisation des services de santé occidentaux. Nous avons mené une enquête téléphonique structurée auprès d'un échantillon aléatoire de 220 Asiatiques du Sud âgés de 55 ans à Calgary.

Résultats : Une analyse de régression hiérarchique a montré que les facteurs culturels étaient aussi importants que les facteurs de besoin pour expliquer la variance dans l'utilisation des services de santé occidentaux. L'utilisation d'un plus vaste éventail de services de santé occidentaux était significativement liée : à l'origine hindoue; au fait d'avoir immigré au Canada depuis plus longtemps; à un plus petit nombre d'obstacles à l'accès liés aux incompatibilités culturelles; à une plus faible acceptation des croyances traditionnelles sud-asiatiques sur la santé; et une plus forte identité ethnique sud-asiatique.

Conclusion : Ces constatations soulignent l'importance d'élaborer des stratégies pour offrir des services culturellement compétents en matière de santé, de promotion de la santé, de prévention et d'intervention.

Mots clés : culture; utilisation des services; services de santé occidentaux; Asiatique du Sud; personnes âgées