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Health behaviour among bilingual Swedish speaking patients in the Finnish healthcare setting

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ABSTRACT

Objective: We assessed the prevalence and consequences of discordant language communication between bilingual Swedish speaking emergency patients and general practitioners (GPs) in Finnish healthcare. We compared the results with Finnish speaking emergency patients provided with language concordant healthcare. **Materials and Methods:** A researcher-designed questionnaire was used to collect data about both Swedish and Finnish speaking emergency patients' health and socioeconomic status, reason for emergency visits and use of healthcare. Furthermore, the Swedish speakers' nonnative language proficiency and preferred communication language were examined. The study was performed in 16 healthcare centers and outpatient departments in bilingual regions in Finland. **Results:** The Swedish speakers ($n = 139$) visited healthcare centers less than the Finnish speakers ($n = 736$) ($P = 0.001$) and communicated less frequently with the GP in their native language ($P < 0.001$). The Swedish speakers more often planned to revisit their assigned GP ($P < 0.001$) after the emergency visit. No differences in health conditions and socioeconomic status between the language groups were observed. **Conclusion:** Although Swedish and Finnish speaking emergency patients report a similar prevalence of chronic noncommunicable diseases, Swedish speakers make fewer annual visits to a physician. We suggest that discordant language communication might relate to decreased healthcare visits among bilingual Swedish speaking emergency patients.

Keywords: Bilingual, discordant language communication, emergency visit

Introduction

Language concordant healthcare service is beneficial for the whole population in maintaining equality in health. Discordant language communication—meaning that patient and healthcare provider speak different native languages—in healthcare is common among immigrants with lower socioeconomic status and weak language proficiency in the majority's native language. Poor language communication tends to decrease the patients' satisfaction with the service of the healthcare system.^[1] These disadvantages influence negatively health outcomes.^[2,3]

The mostly bilingual Swedish speakers (approximately 5% of the population) live along the south and southwest coast in Finland, intermingled with the Finnish speaking majority. Both Finnish and Swedish are constitutional languages. Swedish speaking students study Finnish for several years at elementary school, whereas the Finnish speaking students are studying Swedish fewer years. The Swedish speakers' bilingualism is based on these linguistic conditions.

Epidemiological studies have shown better health conditions among the Swedish speakers.^[4-6] No significant differences in genotype, daily exercise, or dietary habits between the Swedish and Finnish speakers could explain this discrepancy, but Swedish speakers have been shown to make fewer emergency visits than the general population in the same area.^[7]

Studies show however that even highly proficient bilingual speakers may lack specific healthcare vocabulary in the second

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language needed for communication and treatment.^[8] Swedish speakers' weak proficiency in their second language has been shown to hamper the communication with mainly monolingual Finnish speaking healthcare providers causing misunderstanding and increased need to make a revisit.^[9]

Bilinguals appear generally equally fluent in native and nonnative language because of proficiency on an everyday conversation level. Recent findings indicate, however, that bilingual Finnish–Swedish speakers in Finland do not achieve native-like proficiency in both languages compared to persons grown up in a monolingual environment.^[10] In stressful situations such as an acute illness, even bilingual individuals report the need to communicate in their primary language.^[11] Despite this fact bilingual patients' language preference often remains unquoted or healthcare providers are overoptimistic about their second language proficiency.^[12] Bilingual patients' proficiency in the majority language may also be more limited than the patients think themselves. When bilingual patients use the majority language in an everyday conversation their language preferences remain generally unrevealed. Language proficiency is often simplified as an “either – or skill” and clinicians tend to generally form a quick opinion of bilingual patients' proficiency in the majority language instead of exploring the patient-preferred language.^[13] Moreover, the capacity to command two languages decreases over time with increasing age.^[14]

Partially fluent physicians in the patient-preferred language might be appropriate in some settings and circumstances, but not always. Physicians' self-reported language fluency in patient-preferred language is strongly associated with optimal patient-centered communication.^[15] A patient-centered orientation is associated with better patient recall of information, treatment adherence, satisfaction with care, and health outcomes.^[16] But unsatisfactory proficiency in the patient-preferred language complicates delivering important medical information.^[17]

The language barometer performed every four years in bilingual municipalities in Finland has consistently shown that the Swedish speaking patients are significantly more dissatisfied with healthcare provided in their native language by family physicians compared with Finnish speakers.^[18] The reason for the Swedish speakers' dissatisfaction with the language communication is based on mostly monolingual Finnish speaking physicians' choice of language and not on the patient-preferred language, Swedish. The consequences of this praxis are not well understood and need to be examined more comprehensively. Thus, the bilingual Swedish speakers visiting healthcare provide an exceptional setting ideal for testing the influence of linguistic factors on communication in healthcare.^[19] To the best of our knowledge, this is the first study focusing on language communication among Swedish speaking patients in an emergency setting in Finland. We hypothesize that discordant language communication increases Swedish speakers' avoidance of healthcare visits.

Materials and Methods

Study design

This study was approved by the Ethics Committee of the Helsinki and Uusimaa Hospital District (reference number 5/13/03/00/2008). Data were collected in 2008 and 2009 in Southern Finland and in South Ostrobothnia where the Swedish speaking population density is highest, approximately 80% of all Swedish speakers.^[20] We excluded Swedish monolingual regions producing all healthcare services primarily in Swedish. Thus, a total of 16 healthcare centers (working hours from 8 am to 4 pm on weekdays) and outpatient emergency departments (from 4 pm to 8 am on weekdays, on weekends 24 h) were eligible for the study of which nine were in the metropolitan area.

Recruitment and sample characteristics

The data were collected by a questionnaire from patients with acute health problems making an unannounced emergency visit to a general practitioner (GP). The data collection continued in each unit for a maximum of 10 months. Only Swedish and Finnish speaking patients at working age (18 – 65 years old) with acute health problems were eligible for this study.

Young (<18 years) emergency patients were excluded as they mainly visit healthcare with their parents. Retired patients (>65 years) with increasing risk of memory disorders affecting language proficiency were excluded as well as patients with major mental disturbances and life threatening symptoms. All patients visiting healthcare in Finland are registered electronically, with information on the patient's native language.

Each patient was informed by a receptionist or a nurse as they entered the health center about the possibility of voluntarily participating in the study. The patient's native language was checked from the electronic case record. The consenting patients were provided with information about the study including the questionnaire in their native language. Each participant completed and signed an informed consent form. All corresponding data collection material in both Finnish and Swedish was also accessible on a table in the waiting room in order to facilitate participation. The patients completed the questionnaire before the appointment with the physician and dropped the sealed questionnaire into a locked box in the waiting room.

Instrument

We used material from previously validated questionnaires. The instrument contained 43 closed questions and was pretested beforehand (Supplemental Material). We included sixteen validated questions about the patient's educational attainment, socioeconomic and health conditions based on the WHO MONICA protocol used in the periodical National FINRISK Study in Finland.^[21] We used ten questions from a standardized questionnaire systematically applied Finnish primary care and

hospital settings concerning the Swedish speaking patients' experiences of native and nonnative language communication with the healthcare providers.^[9] We composed 16 questions about health-related factors enhanced by native language communication and impaired by nonnative communication. We also asked about the use of the second language in patients' daily life. The Swedish speakers were separately instructed to estimate their proficiency in their second language, Finnish, on a standardized 5-grade scale: 0 (nearly not at all), 1 (some ability to speak Finnish), 2 (moderate, e.g. fair ability to speak Finnish), 3 (good, e.g. Finnish almost as good as mother language Swedish) and 4 (Finnish as good as mother language Swedish).^[15] Hereby we also confirmed the level of bilingualism among the Swedish respondents.

Statistical analyses

The data was statistically analyzed with SPSS 24 and examined by using a logistic regression model to assess the association between language discordant communication (predictor variable) and healthcare visits, health conditions and self-reported health (dependent variables). Patient characteristics were analyzed using descriptive statistics. Bivariate associations between predicting variable and all dependent variables were calculated with Chi-square. Logistic and linear regressions were used to calculate differences between groups. Statistical significance was set at $P < 0.05$. The models were adjusted for patients' age, income, educational attainment and gender.

Results

In total 875 patients completed the questionnaire: 85% ($n = 736$) were Finnish speakers and 15% ($n = 139$) Swedish speakers, respectively. Of the respondents, 66% were settled in the

metropolitan area, 24% in South Ostrobothnia and 10% on the southern and western coast. Of the Finnish speaking subjects, 76.5% were females and the corresponding number among the Swedish speakers was 66.2%. The Swedish speakers were on average eight years older and their economic situation was less favorable compared with the Finnish speakers. The characteristics of the respondents are presented in Supplemental Material.

The Swedish speaking subjects more commonly reported high blood pressure, diabetes and dyslipidemia. However, after adjustment for covariates (age, income, educational attainment and gender), no significant differences in prevalence of self-reported chronic diseases were observed between the language groups. The Swedish speakers reported a significantly higher daily alcohol intake than the Finnish speakers (adjusted $P = 0.05$). No differences in smoking history or leisure time physical activity were reported. The Finnish speaking subjects reported better perceived health ($p < 0.001$) but this association was not significant after adjustment [Table 1].

Most of the Swedish speakers reported satisfying to fluent proficiency in Finnish [Table 2]. Significantly more Finnish speakers (24.1%, $n = 175$) reported more than 5 visits annually to a GP compared with the Swedish speakers (10.7%, $n = 14$) ($P < 0.001$). The Finnish speakers reported significantly better access to a language concordant assigned GP compared with the Swedish speakers ($P < 0.001$) [Table 2]. Furthermore, Finnish speakers preferred significantly more often communication language with GP in their native language (99.2%) compared with the Swedish speakers (75.6%) ($P < 0.001$). The Swedish speaking subjects reported more frequently having visited the GP previously for the same problem ($P = 0.05$) and

Table 1: Self-reported health conditions

		Finnish speakers	Swedish speakers	Odds ratio unadjusted	Odds ratio* adjusted	P*	
High blood pressure % (n)		14.8 (109)	21.6 (30)	1.58 (1.007-2.49)	0.88 (0,49-1,6)	0.7	
Diabetes % (n)		4.8 (35)	10.1 (14)	2.24 (1.17-4.29)	0,90 (0,38-2,1)	0.8	
High cholesterol % (n)		11.0 (81)	11.5 (16)	1.05 (.059-1.86)	0,52 (0,25-1,08)	0.08	
Depression % (n)		16.0 (118)	15.8 (22)	0.98 (0.6-1.62)	1,31 (0,76-2,26)	0.3	
Asthma % (n)		11.5 (82)	6.5 (9)	0.53 (0.26-1.08)	0,52 (0,22-1,24)	0.1	
Smoking history % (n)		65.2 (480)	68.3 (95)	0.5 (0.59-1.29)	0,73 (0,45-1,17)	0.2	
				Beta P* unadjusted	Beta* adjusted	P *adjusted	
Exercise % (n)	0-1/week	28.3 (208)	35.3 (49)				
	2-3/week	46.1 (339)	39.6 (55)	-0.1	0.7	-0.03	0,4
	4 or >/week	25.7 (189)	25.2 (35)				
Alcohol use % (n)	Once / month or less often	86.1 (630)	75.0 (102)				
	1-3 times weekly	12.8 (94)	22.8 (31)	0.1	<0.001	0.07	0.05
	Daily	1.1 (8)	2.2 (3)				
Perceived health % (n)	Below moderate	8.1 (59)	11.2 (15)				
	Moderate	22.0 (159)	37.3 (50)				
	Over moderate	69.9 (506)	51.5 (69)	-0.1	<0.001	-0.06	0.1

*Analyses are adjusted for age, gender, income, and educational attainment

Table 2: The respondents' healthcare visits and communication language

		Finnish speakers % (n)	Swedish speakers % (n)	t	P value for difference between language groups*
Annual GP visits	0	1.9 (14)	4.6 (6)		
	1-2	35.4 (257)	47.3 (62)		
	3-5	38.5 (279)	37.4 (49)		
	>5	24.1 (175)	10.7 (14)	-3.45	0.001
Concordant language communication with an assigned GP	Never	0.3 (2)	11.7 (13)		
	Sometimes	1.3 (9)	20.7 (23)		
	Always	98.4 (662)	67.6 (75)	-13.8	< 0.001
Preferred language with GP	Finnish	99.2 % (724)	3.7% (5)		
	Swedish	0	75.6% (102)		
	Does not matter	0.8% (6)	20.7% (28)	46.3	<0.001
Proficiency in the nonnative language (second language)	None	6.4% (43)	2.3 (3)		
	Some	13.3% (89)	4.5% (6)		
	Satisfactory	34.6% (232)	20.3% (27)		
	Well	35.2% (236)	29.3% (39)		
	Fluent	10.6% (71)	43.6% (58)	9.3	<0.001
Importance of Language concordant communication	Very important	80.0% (581)	51.9% (69)		
	Quite important	15.7% (114)	27.1% (36)		
	No difference	3.6% (26)	19.5% (26)		
	Somewhat unimportant	0.3% (2)	0.8% (1)		
Confidence in the GP when concordant language	Not important at all	0.4% (3)	0.8% (1)	7.33	<0.001
	Very much	39.9% (285)	30.8% (41)		
	Quite much	36.1% (258)	23.3% (31)		
	Language irrelevant	20.8% (149)	44.4% (59)		
	Not much	2.9% (21)	0.8% (1)		
Earlier visit to the assigned GP for same health problem	None	0.3% (2)	0.8% (1)	4.1	<0.001
	No	59.6 (434)	51.5 (68)		
Planning revisit to the assigned GP	Yes	40.4 (294)	48.5 (64)	1.98	0.05
	No	83.9 (600)	52.7 (68)		
	Yes	16.1 (115)	47.3 (61)	6.13	<0.001

* Analyses are adjusted for age, gender, income, and educational attainment using linear regression

they reported a significantly greater need to make a revisit to their assigned GP for the same health problem ($P < 0.001$). Concordant language communication improved the confidence in the GP's medical skills ($P < 0.001$). 44.4% of the Swedish speakers reported that the communication language was irrelevant for their level of confidence compared with 20.8% of the Finnish speakers [Table 2].

The patient-reported reasons for the emergency visit were similar in both language groups (Supplemental Material).

Discussion

The bilingual Swedish speaking emergency patients reported discordant language communication with the GP more often than the Finnish speakers. The Swedish speakers also made less annual GP visits although they reported equal prevalence of noncommunicable diseases compared with Finnish speakers. Similar visit-related findings have been previously confirmed among patients with psychiatric disorders and in the general population experiencing language barriers.^[22,23]

The health profile of our emergency patients differed from data in an extensive national health survey and we were unable to verify previously showed socioeconomic and health-related differences between the language groups.^[4,5,6,24] No significant socioeconomic differences leading to selective bias were observed. However, there was an underrepresentation of younger, well-educated Swedish speaking participants in our study sample, most likely due to the Swedish speaking population being on average older on a population level.

Socioeconomic inequalities and different cultural background increase communication difficulties with healthcare providers. The Finnish population is in general homogenous why we suggest that discordant language communication possibly explains the bilingual Swedish speakers' GP-related visits. This is in line with studies showing that belonging to another language group than the majority population significantly predict unfavorable ratings of physician communication.^[1]

High quality communication is a prerequisite for understanding the patient's health problem, pain experience and for discussing health risks, giving information and advice.^[25,26] Although

language-concordant care generally improves outcomes standardized assessment of provider language skills in multilingual healthcare settings are still lacking^[2]

Physicians who cannot speak the patients' native language treat these patients differently.^[27] Discordant language communication is furthermore associated with misunderstandings, healthcare anxiety, fear and distrust and it has been shown that the doctors language proficiency affects the amount of pain experienced by the patient.^[9,23,28,29]

The Finnish speakers' more frequent annual GP visits might indicate that services provided in their native language have generally facilitated diagnosis and a successful solution to the health problem. Despite the Swedish speaking emergency patients' notable bilingualism, they experience language communication problems in Finnish and less confidence in the GP.

By expanding the patients' access to a language concordant physician, the risk of a misperception of the patients' symptom will be reduced.^[25,26,27,30,31] Our findings suggest that Swedish speaking emergency patients' less frequent healthcare visits could relate to discordant communication difficulties. The bilingual Swedish speakers might not have words in Finnish for expressing health problems and consequently avoid complicated discussions. Probably the Swedish speakers do not get as much help and advice from mainly Finnish speaking GPs as the Finnish speaking patients or they are unable to convey their needs comprehensible for the GP. Failure to achieve understanding may lead to a feeling of disempowerment and hence to fewer visits. A patient-centered approach might not be easy to accomplish in absence of a fluent communication. Our study did not clarify if less Finnish proficient Swedish speaking patients were delivered different treatment compared with Finnish speaking patients.

The Swedish speakers planned three times often than Finnish speakers to revisit a GP which suggests unsatisfying visits. Two thirds of the bilingual Swedish speakers reported Swedish as their preferred communication language with GP during previous visits which might explain this need.

Despite language barriers, a long-lasting patient-doctor relationship should enable a Swedish speaking patient and a Finnish speaking GP to develop a satisfying communication strategy.^[32-34] Further investigations are needed to explore language communication related to continuity of care and emergency visits.

The emergency situation and the health problem undoubtedly cause concern to the patients. Poor proficiency in the second language might expose Swedish speakers to communication vulnerability. Our results indicate that conceiving socially and culturally well integrated bilingual Swedish speaking patients as one homogeneous group seems inconsistent with the real clinical situation. The bilingual patients' second language proficiency

based on an everyday conversation level does not necessarily represent their preferred communication language with a GP. For this reason, bilingual healthcare settings are recommended to ensure satisfactory language awareness.^[13] Research focusing on bilingual patients could bring important aspects on Patient Reported Experience Measures (PREMs) aimed at improving the quality of healthcare.

Study limitations and strengths

The strength of this study was the implementation in the entire region where the Swedish speaking population in Finland is mainly residing.

Both Finnish and Swedish speakers making emergency visits to health care centers and outpatient departments were well represented in the study cohort. Expanding the study to other parts of Finland in order to enlarge the sample could only multiply the number of Finnish speaking respondents. A further strength of this study was that differences in health conditions and healthcare use among Finnish and Swedish speakers were explored.

However, there are some limitations to the study. We did not have access to the total number of patients visiting the emergency settings or the number of patients invited to participate in our study because of the urgency in the emergency setting.

By improving data collection about healthcare use and reasons for visits separated into Finnish and Swedish speakers, more comprehensive analysis between the two language groups could be performed. More research is also needed to verify the impact of discordant language communication on health outcomes.

Conclusion

Language discordance among bilingual individuals affects GP visiting behaviour and is associated with fewer visits and loss of trust in GP. Impaired patient understanding and decreased GP's comprehension of patients' concerns might contribute to therapeutic failure. Provision of healthcare with a language concordant GP improves care and could facilitate addressing healthcare needs adequately.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity.

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Conflicts of interest

There are no conflicts of interest.

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Supplemental Material

Characteristics of the respondents Patient-reported cause for the emergency visit and previous healthcare visits					
Cause for visit	Finnish speakers % (n) Reference group	Swedish speakers % (n)	Odds ratio% (95% CI)*	P value for difference between groups	
Hematology	0.8% (6)	0.0% (0)	0 (0-0)	1.0	
Abdominal	7.7% (57)	3.6% (5)	0.52 (0.2-1.35)	0.18	
Eyes	3.9% (29)	5.8% (8)	1.42 (0.56-3.58)	0.46	
Ears	5.2% (38)	5.0% (7)	0.83 (0.31-2.24)	0.71	
Cardiovascular	3.0% (22)	6.5% (9)	1.77 (0.7-4.49)	0.23	
Musculoskeletal	25.3% (186)	23.7% (33)	0.88 (0.54-1.43)	0.60	
Neurology	2.9% (32)	2.9% (4)	1.13 (0.36-3.46)	0.84	
Psychiatric	1.2% (9)	0.0% (0)	0% (0)	1.0	
Respiratory	34.9% (257)	22.3% (31)	0.61 (0.38-0.99)	0.046	
Skin & allergy	5.8% (43)	7.9% (11)	0.81 (0.34-1.96)	0.64	
Endocrine	0.1% (1)	0.0% (0)	0 (0)	1.00	
Urological	3.1% (23)	7.2% (10)	2.98 (1.25-7.13)	0.01	
Obstetrics & gynecology	2.3% (17)	7.2% (10)	5.52 (2.28-13.4)	<0.001	
Other or data missing	3.7% (27)	7.9% (11)	1.36 (0.54-3.40)	0.51	
Total	100% (736)	100 % (139)			

* Odds ratios are adjusted for age, gender, income and educational attainment

Total 875 (n)	Finnish speakers (males n=175 females n=561)		Swedish speakers (males n=47 females n=92)		Chi-square P value for difference between groups
Income (€) /year	Males (%)				
	0-20 000	38.6	44.4		0.5
	20 001-30 000	30.0	33.3		
	> 30 001	31.0	22.2		
	Females (%)				
	0-20 000	51.5	53.7		0.3
20 001-30 000	33.9	37.8			
> 30 001	14.6	8.5			
Mean difference 95% CI					
Age, years (mean)	39.5	47.5	-8.0 (-10.5 to -5.3)		
Males (mean)	39.5	50.1	-10.6 (-15.5 to -5.67)		
Females (mean)	39.5	46.1	-6.7 (-9.8 to -3.5)		
Education					
Years (mean)	13.7	13.0	0.7 (0.2 to 1.4)		
Men	13.4	12.6	0.8 (-0.5 to 2.0)		
Female	13.8	13.2	0.6 (-0.2 to 1.4)		
BMI % (n)	Males				
	≤20	3.5 % (6)	2.2 % (1)	0.4 (-5.4 to 6.2)	
	20.01-25	35.3 % (61)	26.7 % (12)		
	25.01-30	40.5 % (70)	57.8 % (26)		
	>30	20.8 % (36)	13.3 % (6)		
	Females				
	≤20	13.7 % (75)	2.2 % (2)	-2.6 (-6.2 to 1.1)	
	20.01-25	41.0 % (224)	40.7 % (37)		
25.01-30	24.4 % (133)	37.4 % (34)			
>30	20.9 % (114)	19.8 % (18)			