

# Effekt av og erfaringer med tolketjenester i offentlig sektor

Notat fra Kunnskapssenteret  
Systematisk litteratursøk med sortering  
Januar 2015

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 kunnskapssenteret

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Nasjonalt kunnskapssenter for helsetjenesten  
Oslo, januar 2015

# Hovedfunn

Nasjonalt kunnskapssenter for helsetjenesten fikk i oppdrag av Integrerings- og mangfoldsdirektoratet (IMDi) å utføre et systematisk litteratursøk med sortering over studier om effekt av og erfaringer med tolketjenester i offentlig sektor på brukere, ansatte, og samfunn.

Vi søkte etter relevante studier og oversiktsartikler i relevante databaser. Søket ble utført i oktober og desember 2014. To forskere gikk uavhengig av hverandre gjennom identifiserte publikasjoner og vurderte relevans i forhold til forhåndsdefinerte inklusjonskriterier. Relevante referanser ble sortert etter studie-, populasjons- og tiltakstype.

## Resultater

Vi identifiserte totalt 20382 unike referanser. Av disse vurderte vi 177 som mulig relevante.

- Vi identifiserte syv systematiske oversikter. Alle så på tiltak i helsesektoren. I tillegg identifiserte vi 22 eksperimentelle studier, 55 observasjonsstudier, 43 kvalitative studier, og 33 studier som brukte diskursanalyse for å undersøke møte mellom ansatte og kunde, to studier som brukte dokumentanalyse, og en studie som brukte blandete metoder. Studiedesign var ikke oppgitt i 14 studier.
- De aller fleste studiene (158) var utført i helsesektoren. De resterende studiene var utført i i velferds- eller sosialtjenestene (7), rettssystemet (3), politiet (4), nødhjelpstjenester (1), eller i flere sektorer (3). Sektoren var uklart i én studie.
- De fleste av de identifiserte studiene ble utført i Nord-Amerika (80). De resterende kom fra Storbritannia/Irland (18), Skandinavia (8), Europa (8), eller Australia (6), Asia/Afrika (6), eller i flere land (2). Land var ikke oppgitt i 49 studier.
- Det foreligger sannsynligvis ikke nok forskning for at det vil være nyttig å utarbeide en systematisk oversikt over effekt av tolketiltak innen sosial- og velferdstjenestene.

Vi har sortert og listet mulige relevante referanser, men vi har hverken lest studiene i fulltekst, vurdert den metodologisk kvaliteten, eller slått sammen funnene.

## Tittel:

Effekt av og erfaringer med tolketjenester i offentlig sektor

## Publikasjonstype:

Systematisk litteratursøk med sortering

Systematisk litteratursøk med sortering er resultatet av å

- søke etter relevant litteratur ifølge en søkestrategi og
- eventuelt sortere denne litteraturen i grupper presentert med referanser og vanligvis sammendrag

## Svarer ikke på alt:

- Ingen kritisk vurdering av studienes kvalitet
- Ingen analyse eller sammenfatning av studiene
- Ingen anbefalinger

## Hvem står bak denne publikasjonen?

Kunnskapssenteret har gjennomført oppdraget etter forespørsel fra Integrerings- og mangfoldsdirektoratet.

## Når ble litteratursøket utført?

Søk etter studier ble avsluttet desember 2014.

# Key messages

The Directorate of Integration and Diversity commissioned a systematic literature search and mapping of studies on the effect and experiences with interpretation and translation devices in the public sector on users, staff or society.

We conducted a systematic search of relevant databases and Google Scholar. The search was completed in October and December 2014. Two researchers independently assessed the identified references for relevance based on predefined inclusion criteria. Potentially relevant references were sorted according to study, population and intervention characteristics.

## Resultater

We identified in total 20 382 references. We assessed 177 of these as possibly relevant.

- We identified seven relevant systematic reviews. We also identified 22 experimental studies, 55 observational studies, 43 qualitative studies, 33 studies that used discourse analysis to examine the meeting between staff and client, two studies that used document analysis and one study that used mixed-methods. Fourteen studies did not describe the study design.
- The majority of the studies were conducted in the health sector (158). The remaining studies were conducted in welfare/social sector (7), court (3), with police (3), emergency services (1), or many sectors (3). In one study the public sector was not specified.
- Most studies were conducted in North America (80). The rest of the studies came from UK/Ireland (18), Scandinavian (8), Europe (8), Australia (6), Asia/Africa (6) or multisite (2). Forty-nine studies did not describe the land in which they were conducted.
- We identified too few experimental studies to conduct a systematic review of interpretation and translation interventions within the social services

We have sorted and listed all possibly relevant references, but we have neither read the papers in full, critically appraised their methodological quality, nor synthesised their findings.

### Title:

Effect of and experience with interpretation and translation services in the public sector – a systematic search and mapping of the literature

### Type of publication:

## Systematic reference list

A systematic reference list is the result of a search for relevant literature according to a specific search strategy. The references resulting from the search are then grouped and presented with their abstracts.

### Doesn't answer everything:

- No critical evaluation of study quality
- No analysis or synthesis of the studies
- No recommendations

### Publisher:

Norwegian Knowledge Centre for the Health Services

### Updated:

Last search for studies: December 2014.

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# Innhold

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# Forord

Seksjon for velferdstjenester ved Nasjonalt kunnskapssenter for helsetjenesten fikk i oppdrag fra Integrerings- og mangfolddirektoratet (IMDi) å utarbeide et systematisk litteratursøk med sortering over studier som ser på effekt av og erfaringer med tolketjenester i offentlig sektor på brukere, ansatte og samfunn.

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# Problemstilling

Formålet med prosjektet var å gjennomføre et systematisk litteratursøk med sortering for å kartlegge effekt av eller erfaringer med ulike type tolketjenester i offentlig sektor på brukere, ansatte og samfunnet.

Hensikten med prosjektet var å kartlegge 1) nyttevirknninger ved bruk av kvalifisert tolk i ulike sektorer i offentlig forvaltning, og 2) negative virkninger av manglende tolkebruk eller bruk av ukvalifisert/lite kvalifisert tolk i ulike sektorer i offentlig forvaltning.



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# Innledning

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## Bakgrunn

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Tilgjengeligheten og kvaliteten av tolking kan ha avgjørende betydning for at tjenesteapparatet skal kunne yte likeverdige offentlige tjenester til alle uansett morsmål. For å kunne imøtekomme den rettspålagte informasjons- og veiledningsplikten har det offentlige ansvaret for å tilkalle tolk i saker der det foreligger en språkbarriere. Tolking bør derfor forstås som en integrert del av ytingen av offentlige tjenester.

I perioden 2006-2011 har IMDi i samarbeid med aktuelle sektormyndigheter kartlagt bruk av tolk i fem ulike sektorer. Kartleggingene viser at underforbruk, manglende kvalitetssikring og bruk av ikke-kvalifiserte tolker, herunder barn, fortsatt er utbredt i offentlig sektor i Norge (1). Dette utgjør et alvorlig rettssikkerhetsproblem og kan ha negative konsekvenser for utføringen av offentlige tjenester. I helsevesenet tar konsekvensene form av dårlige muligheter til å oppdage symptomer, og økt risiko for feildiagnostisering og -behandling. På grunn av språklige barrierer svekkes pasientenes lovpålagte rett til informasjon og medvirkning (2).

I Barnevernet kan manglende tolkebruk medfører at familiene ikke får all den informasjonen de har krav på, og at kvaliteten på samarbeidet med familiene kan bli forringet (1). I straffesakskjeden kan manglende tolkebruk føre til at saker ikke blir tilstrekkelig opplyst, at rettsikkerheten svekkes, at de involverte i en sak samarbeider dårlig, og at mulighetene for å gjøre en faglig forsvarlig jobb svekkes (3). I skolen kan manglende tolkebruk resultere i sviktede samarbeid mellom skole og hjemmet, som igjen kan gjøre det vanskelig for skolen å tilrettelegge undervisning og fange opp barn med spesielle behov (4). I NAV-systemet kan manglende tolkebruk føre til feil og forsinket saksbehandling, og dette kan representere en ekstra kostnad for samfunnet (4).

Sammenhengen mellom økonomi og bruk av tolk har vært et gjennomgående tema i alle IMDis undersøkelser. Selv om undersøkelsene viser at økonomiske hensyn ikke virker styrende på hvorvidt tolk bestilles eller ikke, foreligger det variasjoner i lokale kontorer i ulike offentlige instanser. Særlig i små kontorer og kontorer med stramme budsjett, kan tolkebruk begrenses eller nedprioriteres (4;5). Samtidig viser IMDis kartlegginger om bruk av tolk i ulike sektorer at konsekvensene ved manglende tolkebruk ofte kan være dyre.

Mye tyder på at god tilrettelegging for en fungerende kommunikasjon gjennom bruk av tolk kan føre til innsparing av kostnader som oppstår uten bruk av tolk.

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# Metode

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## Litteratursøking

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Vi søkte systematisk etter litteratur i følgende databaser:

Bibsys

The Campbell Library

Cochrane Library, alle databasene

DARE

ERIC

EPPI-Centre evidence library

ISI Web of Science

Ovid Medline

Ovid PsycINFO

Ovid EMBASE

Sociological Abstracts

Social Care Online

Social Science Research Network (SSRN) eLibrary

Social Services Abstracts

CINAHL

Vi søkte etter grå litteratur gjennom OpenSIGLE – System for Information on Grey Literature in Europe og i Google scholar.

Spesialbibliotekar Malene W. Gundersen planla og utførte samtlige søk. Den fullstendige søkestrategien er gitt ut i vedlegg 2 til denne rapporten. Søk etter studier ble avsluttet i desember 2014.

Vi la bestillingen til grunn ved utarbeiding av litteratursøket og søkte etter artikler som oppfylte våre inklusjonskriterier for populasjon, intervensjon og studiedesign. Når det gjelder studiedesign inkluderte vi alle empiriske studier som undersøkte effekt av og erfaringer med tiltak.

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## Inklusjonskriterier

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**Populasjon:** Brukere av og ansatte i offentlig sektor

**Intervensjon/Tiltak:**

Tolketjenester (autorisert) i offentlig sektor. Med offentlig sektor mener vi offentlig finansierte tjenester for eksempel innen helse, barnevern, politi, utdanning eller andre sosiale tjenester.

**Sammenligning:** Alternativ eller ingen tiltak (alternative tolketjenester, venteliste, eller ingen sammenligning).

**Utfall:** Ulike utfall som måler kvalitet av tjenester og erfaringer med disse, for eksempel endring i sengetid (på helsetjenesten eller sykehus), brukertilfredshet (målt ved numeriske skalaer), endring i bruk av tjenester (for eksempel barnevern, NAV).

**Studiedesign**

Alle empiriske studier om effekt av og erfaringer med disse tiltakene. Med studie mener vi en publikasjon som baserer seg på empiriske data, og som har en form for metodebeskrivelse. Vi vil også inkludere systematiske oversiktsartikler på temaet.

**Språk:** Ikke presisert

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## Artikkelutvelging

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To forskere gikk uavhengig av hverandre gjennom alle identifiserte titler og sammendrag for å vurdere relevans i henhold til forhåndsdefinert inklusjonskriteriene (nevnt ovenfor). Der det var uenighet om vurderingene, ble inklusjon eller eksklusjon avgjort ved konsensus.

Utvelging av litteratur ble kun gjort basert på tittel og sammendrag. Vi bestilte ikke artiklene i fulltekst.

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# Resultat

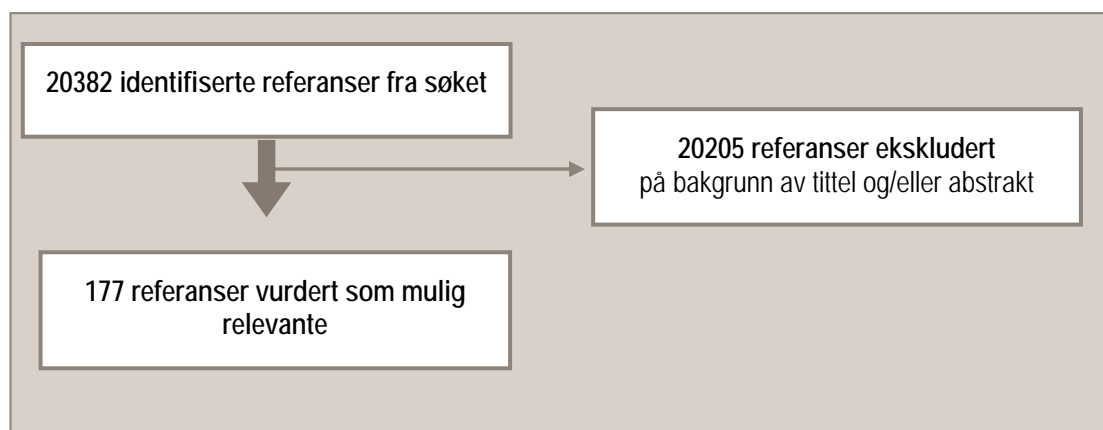
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## Resultat av litteratursøk

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Søket i de elektroniske databasene og etter grå litteratur resulterte i 20382 unike referanser. Av de identifiserte referansene vurderte vi 177 til å være mulig relevante i henhold til inklusjonskriteriene.

*Figur 1. Flytskjema over identifisert litteratur*



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## Resultat av sorteringen

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Vi sorterte de 177 mulig relevante referansene (1-177) etter studiedesign (se Tabell 2), kontekst (den offentlige sektoren der tiltaket ble levert) (se Tabell 3), tiltakstype (se Tabell 4) og studiekarakteristika (se Tabell 5-6).

### Studiedesign

Vi sorterte referansene først etter studiedesign (se Tabell 2). Vi identifiserte syv mulig relevante systematiske oversikter (se Tabell 1 for beskrivelse av oversiktene).

I tillegg til referansene beskrevet nedenfor identifiserte vi en mulig relevant systematisk oversikt som er under utarbeidelse (Tsuruta 2013, se vedlegg 1 for referanse), og som heter «Trained medical interpreters in a face-to-face clinical setting for patients with low proficiency in the local language».

**Tabell 1: Identifiserte systematiske oversikter**

Forfatter, år	Tittel	Sammendrag	Ref nr
Sleptsova, 2014	The role of the health care interpreter in a clinical setting-A narrative review	Objective: To examine published models of health care interpretation and associated roles, expectations, and outcomes. Methods: A literature search was conducted using the key words interpreter/translator, communication, and role and their combinations in PubMed, CINAHL, PsycINFO, and PSYINDEXplus. References mentioned in articles identified with these search terms were then checked by hand in corresponding publications and books. We excluded articles if they were dealing with concepts of interpretation, role definitions, etc., without presenting any empirical evidence to support their recommendations. Thirty-four of 1,121 references that investigated the role of professional interpreters in health care were found to meet inclusion criteria. Results: Out of 34 articles, only 2 recommend strict adherence to the conduit model in which interpreters are faithfully and exclusively transmitting information; the interpreter's role is in 32 studies defined in broader terms as the role of a cultural broker (n = 18), a manager or clarifier (n = 22), a patient advocate (n = 13), or a mediator (n = 6). Conclusion: There are no commonly accepted understandings of the interpreters' role; empirical data are lacking. Practice Implications: The interpreter's function must be explicitly clarified before a health care encounter is conducted. There should be an agreement of some basic rules. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract).	139
Brisset, 2013	Working with interpreters in health care: a systematic review and meta-ethnography of qualitative studies.	OBJECTIVE: To identify relational issues involved in working with interpreters in healthcare settings and to make recommendations for future research. METHODS: A systematic literature search in French and English was conducted. The matrix method and a meta-ethnographic analysis were used to organize and synthesize the data. RESULTS: Three themes emerged. Interpreters' roles: Interpreters fill a wide variety of roles. Based on Habermas's concepts, these roles vary between agent of the Lifeworld and agent of the System. This diversity and oscillation are sources of both tension and relational opportunities. DIFFICULTIES: The difficulties encountered by practitioners, interpreters and patients are related to issues of trust, control and power. There is a clear need for balance between the three, and institutional recognition of interpreters' roles is crucial. COMMUNICATION CHARACTERISTICS: Non-literal	6

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translation appears to be a prerequisite for effective and accurate communication.

CONCLUSION: The recognition of community interpreting as a profession would appear to be the next step. Without this recognition, it is unlikely that communication difficulties will be resolved.

PRACTICE IMPLICATIONS: The healthcare (and scientific) community must pay more attention to the complex nature of interpreted interactions. Researchers need to investigate how relational issues in interpreted interactions affect patient care and health. Copyright 2012 Elsevier Ireland Ltd. All rights reserved.

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Lund Hansen, 2013	[Interpretation in the Danish health-care system]	Communication between health professional and patient is central for treatment and patient safety in the health-care system. This systematic review examines the last ten years of specialist literature concerning interpretation in the Danish health-care system. Structural search in two databases, screening of references and recommended literature from two scientists led to identification of seven relevant articles. The review showed that professional interpreters were not used consistently when needed. Family members were also used as interpreters. These results were supported by international investigations.	50
Bauer, 2010	Impact of Patient Language Proficiency and Interpreter Service Use on the Quality of Psychiatric Care: A Systematic Review.	Abstract: Objective: This literature review examined the effects of patients' limited English proficiency and use of professional and ad hoc interpreters on the quality of psychiatric care. Methods: PubMed, PsycINFO, and CINAHL (Cumulative Index to Nursing and Allied Health Literature) were systematically searched for English-language publications from inception of each database to April 2009. Reference lists were reviewed, and expert sources were consulted. Among the 321 articles identified, 26 met inclusion criteria: peer-reviewed articles reporting primary data on clinical care for psychiatric disorders among patients with limited proficiency in English or in the provider's language. Results: Evaluation in a patient's nonprimary language can lead to incomplete or distorted mental status assessment. Although both untrained and trained interpreters may make errors, untrained interpreters' errors may have greater clinical impact, compromising diagnostic accuracy and clinicians' detection of disordered thought or delusional content. Use of professional interpreters may improve disclosure in patient-provider communications, referral to specialty care, and patient satisfaction. Conclusions: Little systematic research has addressed the impact of language proficiency or	4

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interpreter use on the quality of psychiatric care in contemporary U.S. settings. Findings are insufficient to inform evidence-based guidelines for improving quality of care among patients with limited English proficiency. Clinicians should be aware of the ways in which quality of care can be compromised when they evaluate patients in a nonprimary language or use an interpreter. Given U.S. demographic trends, future research should help guide practice and policy by addressing deficits in the evidence base. (Psychiatric Services 61:765-773, 2010)

Karlner, 2007	Do professional interpreters improve clinical care for patients with limited English proficiency? A systematic review of the literature	<p>OBJECTIVE: To determine if professional medical interpreters have a positive impact on clinical care for limited English proficiency (LEP) patients.</p> <p>DATA SOURCES: A systematic literature search, limited to the English language, in PubMed and PsycINFO for publications between 1966 and September 2005, and a search of the Cochrane Library.</p> <p>STUDY DESIGN: Any peer-reviewed article which compared at least two language groups, and contained data about professional medical interpreters and addressed communication (errors and comprehension), utilization, clinical outcomes, or satisfaction were included. Of 3,698 references, 28 were found by multiple reviewers to meet inclusion criteria and, of these, 21 assessed professional interpreters separately from ad hoc interpreters. Data were abstracted from each article by two reviewers. Data were collected on the study design, size, comparison groups, analytic technique, interpreter training, and method of determining the participants' need for an interpreter. Each study was evaluated for the effect of interpreter use on four clinical topics that were most likely to either impact or reflect disparities in health and health care.</p> <p>PRINCIPAL FINDINGS: In all four areas examined, use of professional interpreters is associated with improved clinical care more than is use of ad hoc interpreters, and professional interpreters appear to raise the quality of clinical care for LEP patients to approach or equal that for patients without language barriers.</p> <p>CONCLUSIONS: Published studies report positive benefits of professional interpreters on communication (errors and comprehension), utilization, clinical outcomes and satisfaction with care. [References: 47</p>	83
Flores, 2005	The impact of medical interpreter services on the quality of health care: a systematic review	<p>Twenty-one million Americans are limited in English proficiency (LEP), but little is known about the effect of medical interpreter services on health care quality. A systematic literature review was conducted on the impact of interpreter services on quality of care. Five database searches yielded 2,640 citations and a final</p>	92



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database of 36 articles, after applying exclusion criteria. Multiple studies document that quality of care is compromised when LEP patients need but do not get interpreters. LEP patients' quality of care is inferior, and more interpreter errors occur with untrained ad hoc interpreters. Inadequate interpreter services can have serious consequences for patients with mental disorders. Trained professional interpreters and bilingual health care providers positively affect LEP patients' satisfaction, quality of care, and outcomes. Evidence suggests that optimal communication, patient satisfaction, and outcomes and the fewest interpreter errors occur when LEP patients have access to trained professional interpreters or bilingual providers. [References: 58]

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Anderson, 2003	Culturally competent healthcare systems. A systematic review	Culturally competent healthcare systems-those that provide culturally and linguistically appropriate services-have the potential to reduce racial and ethnic health disparities. When clients do not understand what their healthcare providers are telling them, and providers either do not speak the client's language or are insensitive to cultural differences, the quality of health care can be compromised. We reviewed five interventions to improve cultural competence in healthcare systems-programs to recruit and retain staff members who reflect the cultural diversity of the community served, use of interpreter services or bilingual providers for clients with limited English proficiency, cultural competency training for healthcare providers, use of linguistically and culturally appropriate health education materials, and culturally specific healthcare settings. We could not determine the effectiveness of any of these interventions, because there were either too few comparative studies, or studies did not examine the outcome measures evaluated in this review: client satisfaction with care, improvements in health status, and inappropriate racial or ethnic differences in use of health services or in received and recommended treatment. [References: 43]	97
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Vi fant også 54 eksperimentelle studier, 55 observasjonsstudier, 43 studier som brukte kvalitative metoder for å undersøke erfaringer knyttet til bruk av tolk, og 33 studier som brukt diskursanalyse for å vurdere enten kvaliteten av tolk/tolketjenester eller varigheten av møte mellom ansatte og kunde, to studier brukte dokumentanalyse, og en studie brukte blandete metoder. Studiedesign var ikke oppgitt i 14 studier.

I de fleste referansene var det vanskelig å få vite akkurat hvilket studiedesign som var tatt i bruk. Det kan hende at noen studier beskriver studiedesign tydeligere i fulltekst, men vi hadde ikke tilgang til slik informasjon da vi sorterte referansene.

**Tabell 2: Antall studier etter studiedesign**

Studiedesign	Antall referanser: 177	Referansenummer
Systematisk oversikt	7	(4, 6, 50, 83, 92, 97, 139)
RCT/eksperimentelt studiedesign med kontrollgruppe	22	(16, 17, 40, 43, 60, 62, 66, 67, 81, 84, 95, 98, 105, 106, 113, 115, 123, 124, 137, 142, 144, 172)
Observasjonsstudie	55	(1, 3, 7, 8, 9, 11, 12, 15, 18, 19, 21, 26, 32, 33, 34, 41, 52, 58, 61, 68, 72, 77, 79, 80, 90, 91, 93, 94, 96, 100, 101, 102, 103, 104, 108, 110, 116, 119, 120, 121, 122, 127, 128, 129, 131, 132, 133, 134, 138, 143, 148, 151, 153, 172, 174)
Kvalitativ studiedesign (f.eks. fokusgruppe, intervju)	43	(14, 20, 22, 25, 27, 28, 29, 31, 35, 37, 42, 44, 45, 49, 51, 54, 65, 69, 75, 76, 78, 82, 86, 89, 114, 118, 140, 141, 147, 149, 150, 154, 157, 158, 160, 164, 166, 167, 168, 169, 170, 171, 176)
Diskursanalyse	33	(5, 10, 13, 23, 24, 30, 36, 38, 39, 46, 48, 53, 63, 64, 70, 71, 85, 87, 99, 107, 109, 117, 125, 130, 145, 146, 155, 159, 161, 162, 165, 175, 177)
Ingen oppgitt	14	(2, 47, 55, 56, 57, 59, 73, 88, 111, 126, 136, 153, 158, 165)
Blandete metoder	1	(135)
Dokumentanalyse	2	(74, 112)

## Kontekst

De 181 identifiserte studiene ble deretter sortert etter sektorområde (se Tabell 4). De aller fleste studiene ble gjennomført innenfor helsesektoren (inkludert apotek og psykisk helse) (n=158). De resterende studiene ble utført innenfor sosialtjenester/velferdsområdet (n=7), rettsvesenet (n=1), nødhjelp (n=1) eller politi (n= 4). I 3 studier ble tiltaket utført innen flere sektorer (se Tabell 3).

**Tabell 3:** Antall studier etter sektorområde (kontekst)

Sektorområde	Antall referanser: 177	Referansenummer
Helse	158	(1, 3-23, 25-27, 29-38, 40-50, 52-120, 122-137, 139, 140, 143, 145, 146, 148, 149, 151-158, 160, 162, 163, 167-173, 176)
Sosialtjenester/velferd	7	(24, 28, 39, 141, 150, 161, 166)
Rettsvesen	3	(2, 138, 177)
Nødhjelp	1	(121)
Politi	4	(142, 144, 159, 165)
Uklart	1	(164)
Flere sektorer	3	(51, 147, 175)

## Tiltak

Deretter klassifiserte vi tiltakene i de inkluderte studiene ut fra beskrivelsen gitt i sammendraget. Ulempen med denne kategoriseringen er at de ulike kategoriene ligger på ulikt presisjonsnivå, som spenner fra den generelle kategorien 'tolk' til mer presise kategorier, f.eks. 'telefonolk/fjerntolk'. I noen tilfeller var det derved mulig å skille mellom profesjonell og ikke-profesjonell tolk ut fra sammendraget, i andre tilfeller ikke.

**Tabell 4:** Antall studier etter tiltakstype

Tiltak	Antall referanser: 177	Referansenummer
Profesjonell tolk	26	(4, 11, 17, 18, 19, 20, 21, 22, 27, 35, 36, 37, 45, 55, 62, 69, 71, 80, 83, 102,

		125, 126, 131, 134, 135, 157)
Tolk ved ufaglærte/ikke-profesjonelle personer	10	(7, 10, 26, 29, 30, 38, 44, 82, 107, 151)
Tospråklig personell	4	(13, 40, 120, 124)
Telefontolk/fjerntolk	10	(1, 16, 47, 76, 77, 114, 119, 121, 132, 142)
Rettstolk	1	(2)
Dialogtolk	1	(15)
Diverse tolketiltak	41	(33, 34, 50, 53, 56, 58, 61, 66, 67, 68, 81, 84, 86, 90, 93, 96, 97, 98, 99, 100, 101, 103, 104, 105, 110, 111, 113, 115, 116, 118, 123, 127, 130, 133, 137, 144, 146, 147, 154, 162, 165)
Tolk (ikke nærmere spesifisert)	84	(3, 5, 6, 8, 9, 12, 14, 23, 24, 25, 28, 31, 32, 39, 41, 42, 43, 46, 48, 49, 51, 52, 54, 57, 59, 60, 63, 64, 65, 70, 72-75, 78, 79, 85, 87, 88, 89, 91, 92, 94, 95, 106, 108, 109, 112, 117, 122, 128, 129, 136, 138, 139, 140, 141, 143, 145, 148, 149, 150, 152, 153, 155, 156, 158-177).

## Studiekarakteristika

De fleste studiene vi identifiserte som mulig relevante er av nyere dato. Blant de 181 inkluderte studiene ble 71 publisert mellom 2011 og 2014.

**Tabell 5:** Antall studier etter publikasjonsår

Publikasjons år	Antall referanser: 177
2011 - 2014	71
2006 - 2010	61
2001 - 2005	30
1996 - 2000	11

Det fleste studiene ble utført i engelsktalende land. Over en tredjedel av studiene (n=72) ble utført i Nord-Amerika, dvs. USA eller Canada, mens kun åtte studier ble utført i de skandinaviske landene.

**Tabell 6:** Antall studier etter land

Land	Antall referanser: 177
Nord-Amerika (USA, Canada)	80
Ikke angitt	49
Skandinavia (Norge, Sverige, Danmark)	8
Storbritannia og Irland	18
Europa	8
Australia	6
Asia/Afrika/Midt-øst	6
Multisite	2

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## Referanseliste

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1. Ammentorp J, Rasmussen AM, Kofoed P. **Telephone interpretation improves conditions for both patients and staff [Danish]**. Sygeplejersken / Danish Journal of Nursing 2006;106(2):52-55.  
Record no: 4718  
Abstract: Every patient has the right to consistent, high quality treatment and care, regardless of their ethnic origins. This is the philosophy of the European Migrant Friendly Hospitals project.  
Kolding Hospital, represented by its children's department, has participated in the European project as a Danish pilot hospital. With the focus on clinical communication, the department has, inter alia, introduced interpreting over the telephone using Sound-station. By means of interviews and questionnaires, the quality of interpretation was monitored before and after implementation of the new method. The survey revealed a marked reduction in the involvement of family and friends in the interpretation process. The staff found that it became easier to get hold of interpreters, and about a third of them found that their working situation improved following implementation of the action plan. European collaboration has also resulted in the formulation of a number of recommendations, which are described in the Amsterdam Declaration.
2. Anger meyer PS. **Translation style and participant roles in court interpreting**. Journal of Sociolinguistics 2009;13(1):3-28.  
Record no: 3438  
Abstract: This paper investigates the translation styles of court interpreters in New York City and the styles' social and pragmatic implications for multilingual interactions in court. Interpreters are found to vary between using first or third person to represent the voice of a translated source speaker, thereby varying between adherence to explicit institutional norms that require first person and accommodation to non-professional interpreting practices that favor the use of reported speech. In a quantitative and qualitative analysis, this variation is shown to be influenced by several pragmatic and social factors, and to index the interpreters' stances towards source speakers and towards the immigrant court users who are the recipients of translations from English. It is argued that translation styles have profound consequences for limited English speakers, as the insistence on institutional norms in translating to them is viewed as a gatekeeping behavior that may impede their full participation in the proceedings. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).
3. Barnes J, Ball M, Niven L. **Providing the Family-Nurse Partnership programme through interpreters in England**. Health & Social Care in the Community 2011;19(4):382-391.  
Record no: 4469  
Abstract: This study looks at the delivery of the Family-Nurse Partnership (FNP) in England with interpreters. This home-visiting programme for vulnerable, young first-time mothers is known in the USA as the Nurse-Family Partnership (NFP). FNP is manualised with a number of fidelity targets and stretch objectives. This study covers the first two phases, pregnancy and infancy (up to 12 months). The programme relies on the development of a close nurse-client relationship. Interpreters can be a

barrier for therapeutic work with vulnerable groups. The aims are to determine from quantitative and qualitative data whether the FNP programme can be delivered with fidelity in the presence of an interpreter and to explore issues concerned with the impact of interpreters on relationships. Statistical comparisons were made of delivery objectives over 2 years, from April 2007 to February 2009, in the 10 sites in England, spread across all nine Government Office Regions providing FNP. Forty-three clients had an interpreter at some point and 1261 did not. Qualitative interviews were conducted between April and May 2009 with 30 stakeholders (nurses, clients, interpreters). In relation to quantitative indicators, the percentage of planned content covered in visits was lower with interpreters (pregnancy 90% vs. 94%; infancy 88% vs. 93%) and both understanding and involvement of clients, as judged by nurses on 5-point scales, were lower (understanding, pregnancy 4.3 vs. 4.6, infancy 3.8 vs. 4.5; involvement, pregnancy 4.4 vs. 4.7, infancy 3.7 vs. 4.5). The interpreter was not thought by nurses to impede the development of a collaborative client-nurse relationship unless the interpreter and client became too close, but some nurses and clients reported that they would rather manage without an interpreter. Some stress was noted for nurses delivering the programme with an interpreter. More research is needed to determine the extent to which interpreters accurately convey the programme's strength-based approach.

4. Bauer AM, Alegria M. **Impact of Patient Language Proficiency and Interpreter Service Use on the Quality of Psychiatric Care: A Systematic Review.** *Psychiatric Services* 2010;61(8):765-773.

Record no: 6027

Abstract: Objective: This literature review examined the effects of patients' limited English proficiency and use of professional and ad hoc interpreters on the quality of psychiatric care. Methods: PubMed, PsycINFO, and CINAHL (Cumulative Index to Nursing and Allied Health Literature) were systematically searched for English-language publications from inception of each database to April 2009. Reference lists were reviewed, and expert sources were consulted. Among the 321 articles identified, 26 met inclusion criteria: peer-reviewed articles reporting primary data on clinical care for psychiatric disorders among patients with limited proficiency in English or in the provider's language. Results: Evaluation in a patient's nonprimary language can lead to incomplete or distorted mental status assessment. Although both untrained and trained interpreters may make errors, untrained interpreters' errors may have greater clinical impact, compromising diagnostic accuracy and clinicians' detection of disordered thought or delusional content. Use of professional interpreters may improve disclosure in patient-provider communications, referral to specialty care, and patient satisfaction. Conclusions: Little systematic research has addressed the impact of language proficiency or interpreter use on the quality of psychiatric care in contemporary U.S. settings. Findings are insufficient to inform evidence-based guidelines for improving quality of care among patients with limited English proficiency. Clinicians should be aware of the ways in which quality of care can be compromised when they evaluate patients in a nonprimary language or use an interpreter. Given U.S. demographic trends, future research should help guide practice and policy by addressing deficits in the evidence base. (*Psychiatric Services* 61:765-773, 2010)

5. Briskina G. **Understanding the Interpreter's Role: An Analysis of Interpreter-Mediated Doctor/Patient Communication.** 1996.

Record no: 5272

Abstract: A study investigated the role of the interpreter in doctor-patient communication by analyzing four complete medical interviews at a large urban hospital, each involving one of two Russian interpreters on staff. Both interpreters were native Russian speakers recently immigrated to the United States. Patients were middle-aged and elderly immigrants with varying English language skills and experience with American health care. Five physicians were involved. Analysis of the discourse in the interviews resulted in development of a model of interpreted medical discourse, including principles of turn-taking, to provide insight into the nature of the relationships created through participants' discourse strategies. In sum, it is concluded that interpreters can control the conversational organization of the medical interview, distribution of turns among the participants, and doctor-patient exchange of information. Direct communication of doctor and patient through the interpreter is the preferred conversational mode because it approximates most closely the normal monolingual interaction and facilitates information exchange. A second common interaction type, in which direct interactions are between doctor and interpreter and interpreter and patient, may result in the interpreter controlling what is said and who gets to talk, endangering quality of care. Contains 25 references. (MSE)

6. Brisset C, Leanza Y, Laforest K. **Working with interpreters in health care: a systematic review and meta-ethnography of qualitative studies.** Patient Education & Counseling 2013;91(2):131-140.

Record no: 128

Abstract: OBJECTIVE: To identify relational issues involved in working with interpreters in healthcare settings and to make recommendations for future research.

METHODS: A systematic literature search in French and English was conducted. The matrix method and a meta-ethnographic analysis were used to organize and synthesize the data.

RESULTS: Three themes emerged. Interpreters' roles: Interpreters fill a wide variety of roles. Based on Habermas's concepts, these roles vary between agent of the Lifeworld and agent of the System. This diversity and oscillation are sources of both tension and relational opportunities.

DIFFICULTIES: The difficulties encountered by practitioners, interpreters and patients are related to issues of trust, control and power. There is a clear need for balance between the three, and institutional recognition of interpreters' roles is crucial. COMMUNICATION CHARACTERISTICS: Non-literal translation appears to be a prerequisite for effective and accurate communication.

CONCLUSION: The recognition of community interpreting as a profession would appear to be the next step. Without this recognition, it is unlikely that communication difficulties will be resolved.

PRACTICE IMPLICATIONS: The healthcare (and scientific) community must pay more attention to the complex nature of interpreted interactions. Researchers need to investigate how relational issues in interpreted interactions affect patient care and health. Copyright 2012 Elsevier Ireland Ltd. All rights reserved.

7. Brua C. **Role-blurring and ethical grey zones associated with lay interpreters: three case studies.** Communication & Medicine 2008;5(1):73-79.

Record no: 548

Abstract: This article examines a context in which immigrants from the former Soviet Union must navigate the English-speaking medical system in a semi-rural area of the USA. In this setting, institutional interpretation



resources are not consistently available, and various informal arrangements emerge. One type consists of naive interpreters such as family members of low bilingual capability and/or medical knowledge. Another arrangement involves relatively skilled bilinguals who have command of medical terminology but who are not professionally trained as interpreters. Three case studies of this latter category of 'lay interpreters' are presented. Among the roles reported by the lay interpreters are information source and advocate. The three interpreters are making a contribution in the absence of institutionally provided professional resources, and their help can be viewed as better than the use of naive interpreters such as patients' children. However, the lay interpreters also occasionally seemed to stray into ethically grey areas. For instance, one interpreter said he discarded a client's outdated medicine against her wishes, and another expressed envy of ungrateful clients who had better healthcare access than she did. While professionally trained interpreters are not immune from ethical challenges, such training would better safeguard both patient and interpreter.

8. Brune M, Eiroa-Orosa F, Fischer-Ortman J, Delijaj B, Haasen C. **Intermediated communication by interpreters in psychotherapy with traumatized refugees.** *International Journal of Culture and Mental Health* 2011;4(2):144-151.  
Record no: 3121  
Abstract: Immigrants in need of psychotherapy are often confronted with the fact that there is no psychotherapist available with whom they can proceed in a common language understood well by both. In some cases psychotherapy with communication intermediated by interpreters is offered. This study compares the outcome of 190 individual psychotherapies with refugees with post-traumatic disorders, half of them with the help of interpreters, the other half without. The results show that psychotherapies with the help of interpreters were as effective as those without, even though the psychosocial conditions (such as employment, training, foreign language proficiency and social network) for those patients who needed interpreters were tougher. We conclude that psychotherapy with the help of an interpreter should not be considered the poorer alternative. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).
  
9. Butow P, Bell M, Goldstein D, Sze M, Aldridge L, Abdo S, et al. **Grappling with cultural differences; communication between oncologists and immigrant cancer patients with and without interpreters.** *Patient Education & Counseling* 2011;84(3):398-405.  
Record no: 311  
Abstract: OBJECTIVE: Immigrants report challenges communicating with their health team. This study compared oncology consultations of immigrants with and without interpreters vs Anglo-Australian patients. METHODS: Patients with newly diagnosed incurable cancer who had immigrated from Arabic, Chinese or Greek speaking countries or were Anglo-Australian, and family members, were recruited from 10 medical oncologists in 9 hospitals. Two consultations from each patient were audio-taped, transcribed, translated into English and coded. RESULTS: Seventy-eight patients (47 immigrant and 31 Anglo-Australian) and 115 family members (77 immigrant and 38 Anglo Australian) participated in 141 audio-taped consultations. Doctors spoke less to immigrants with interpreters than to Anglo-Australians (1443 vs. 2246 words,  $p=0.0001$ ), spent proportionally less time on cancer related issues ( $p=0.005$ ) and summarising and informing ( $p<0.003$ ) and more time on other medical issues ( $p=0.0008$ ) and directly advising ( $p=0.0008$ ).

Immigrants with interpreters gave more high intensity cues (10.4 vs 7.4). Twenty percent of cues were not interpreted. Doctors tended to delay responses to or ignore more immigrant than Anglo-Australian cues (13% vs 5%,  $p=0.06$ ).

**CONCLUSIONS:** Immigrant cancer patients with interpreters experience different interactions with their doctors than Anglo-Australians, which may compromise their well-being and decisions.

**PRACTICE IMPLICATIONS:** Guidelines and proven training programmes are needed to improve communication with immigrant patients, particularly those with interpreters. Copyright 2011 Elsevier Ireland Ltd. All rights reserved.

10. Butow PN, Goldstein D, Bell ML, Sze M, Aldridge LJ, Abdo S, et al.

**Interpretation in consultations with immigrant patients with cancer: how accurate is it?** *Journal of Clinical Oncology*

2011;29(20):2801-2807.

Record no: 324

**Abstract:** **PURPOSE:** Immigrants with cancer often have professional and/or family interpreters to overcome challenges communicating with their health team. This study explored the rate and consequences of nonequivalent interpretation in medical oncology consultations.

**PATIENTS AND METHODS:** Consecutive immigrant patients with newly diagnosed with incurable cancer, who spoke Arabic, Cantonese, Mandarin, or Greek, were recruited from the practices of 10 medical oncologists in nine hospitals. Their first two consultations were audio taped, transcribed, translated into English and coded.

**RESULTS:** Thirty-two of 78 participants had an interpreter at 49 consultations; 43% of interpreters were family, 35% professional, 18% both a professional and family, and 4% a health professional. Sixty-five percent of professional interpretations were equivalent to the original speech versus 50% for family interpreters ( $P= .02$ ). Seventy percent of nonequivalent interpretations were inconsequential or positive; however, 10% could result in misunderstanding, in 5% the tone was more authoritarian than originally intended, and in 3% more certainty was conveyed. There were no significant differences in interpreter type for equivalency of interpretations.

**CONCLUSION:** Nonequivalent interpretation is common, and not always innocuous. Our study suggests that there may remain a role for family or telephone versus face-to-face professional interpreters. **Practice implications:** careful communication between oncologists and interpreters is required to ensure optimal communication with the patient.

11. Dang J, Lee J, Tran JH, Kagawa-Singer MA, Foo M, Nguyen TN, et al. **The role of medical interpretation on breast and cervical cancer screening among Asian American and Pacific Islander women.** *Journal of Cancer Education* 2010;25(2):253-262.

Record no: 4524

**Abstract:** We examined whether the impact of medical interpretation services was associated with the receipt of a mammogram, clinical breast exam, and Pap smear. We conducted a large cross-sectional study involving four Asian American and Pacific Islander (AAPI) communities with high proportions of individuals with limited English proficiency (LEP). Participants were recruited from community clinics, churches and temples, supermarkets, and other community gathering sites in Northern and Southern California. Among those that responded, 98% completed the

survey rendering a total of 1,708 AAPI women. In a series of multivariate logistic regression models, it was found that women who typically used a medical interpreter had a greater odds of having received a mammogram (odds ratio [OR] = 1.85; 95% confidence interval [CI] = 1.21, 2.83), clinical breast exam (OR = 3.03; 95% CI = 1.82, 5.03), and a Pap smear (OR = 2.34; 95% CI = 1.38, 3.97) than those who did not usually use an interpreter. The study provides support for increasing language access in healthcare settings. In particular, medical interpreters may help increase the utilization of breast and cervical cancer screening among LEP AAPI women.

12. D'Ardenne P, Ruaro L, Cestari L, Fakhoury W, Priebe S. **Does interpreter-mediated CBT with traumatized refugee people work? A comparison of patient outcomes in east London.** *Behavioural and Cognitive Psychotherapy* 2007;35(3):293-301.  
Record no: 2013  
Abstract: There is controversy about the value of psychological interventions offered to refugee people through an interpreter, but little empirical evidence in this field. This study compared routine clinical outcomes of three groups of PTSD patients receiving CBT: refugees who required interpreters; refugees who did not require an interpreter; and English-speaking non-refugees. The aim of the study was to ascertain whether interpreted CBT is feasible. All three groups attended a similar number of sessions and showed significant improvements after treatment. Refugees receiving treatment with and without interpreting did not differ in treatment outcomes. The findings suggest that interpreters can be used with positive outcome in treating PTSD patients with CBT. This study supports NICE (2005) recommendations that CBT should be offered regardless of language need. 2007 British Association for Behavioural and Cognitive Psychotherapies.
  
13. Elderkin-Thompson V, Cohen Silver R, Waitzkin H. **When nurses double as interpreters: A study of Spanish-speaking patients in a US primary care setting.** *Social Science and Medicine* 2001;52(9):1343-1358.  
Record no: 2367  
Abstract: The United States is experiencing one of its largest migratory waves, so health providers are caring for many patients who do not speak English. Bilingual nurses who have not been trained as medical interpreters frequently translate for these patients. To examine the accuracy of medical interpretations provided by nurses untrained in medical interpreting, we conducted a qualitative, cross-sectional study at a multi-ethnic, university-affiliated primary care clinic in southern California. Medical encounters of 21 Spanish-speaking patients who required a nurse-interpreter to communicate with their physicians were videorecorded. Encounters were transcribed by blinded research assistants. Transcriptions were translated and analyzed for types of interpretive errors and processes that promoted the occurrence of errors. In successful interpretations where misunderstandings did not develop, nurse-interpreters translated the patient's comments as completely as could be remembered and allowed the physician to extract the clinically-relevant information. In such cases, the physician periodically summarized his/her perception of the problem for back-translation and verification or correction by the patient. On the other hand, approximately one-half of the encounters had serious miscommunication problems that affected either the physician's understanding of the symptoms or the credibility of the patient's concerns. Interpretations that contained errors that led to misunderstandings occurred in the presence of one or more of the following processes: (1) physicians resisted reconceptualizing the problem when

contradictory information was mentioned; (2) nurses provided information congruent with clinical expectations but not congruent with patients' comments; (3) nurses slanted the interpretations, reflecting unfavorably on patients and undermining patients' credibility; and (4) patients explained the symptoms using a cultural metaphor that was not compatible with Western clinical nosology. We conclude that errors occur frequently in interpretations provided by untrained nurse-interpreters during cross-language encounters, so complaints of many non-English-speaking patients may be misunderstood by their physicians. Copyright 2001 Elsevier Science Ltd.

14. Galal LP, Galal E. **Tolkning i socialpsykiatrien : en kvalitativ undersøgelse af sindslidende med anden etnisk baggrund og deres oplevelse og erfaring med brug af tolk.** København: Videnscenter for Socialpsykiatri; 2002.  
Record no: 6892  
Abstract: Med serviceloven fra 1998 sættes der fokus på at fremme den enkeltes mulighed for at klare sig selv eller at lette den daglige tilværelse og forbedre livskvaliteten. Hjælpen bør ifølge loven tilrettelægges ud fra den enkelte persons behov, forudsætninger og i samarbejde med den enkelte. Det er i sig selv en vanskelig opgave, der ikke bliver nemmere, når der er tale om sindslidende med anden etnisk baggrund, der ikke taler dansk. Tolken bliver her et afgørende redskab for et egentligt samarbejde mellem den sindslidende og de der skal implementere serviceloven. Denne undersøgelse handler om brugen af tolk i socialpsykiatrien. De centrale spørgsmål i undersøgelsen er: Hvordan oplever brugeren kommunikationen gennem tolk i forbindelse med de socialpsykiatriske tilbud? Hvordan kan sproget medvirke som en barriere for at tage imod de socialpsykiatriske tilbud? Hvad betyder tolkning for socialpsykiatriens mulighed for at efterleve eget værdigrundlag? Disse og en række underordnede spørgsmål danner grundlag for projektets kvalitative interviewundersøgelse, som rapporten belyser fra forskellige vinkler. I rapporten ønsker vi for det første at beskrive selve forskningsprocessen, fordi denne i sig selv peger på problemer og udfordringer i arbejdet med sindslidende med anden etnisk baggrund. For det andet lader vi brugerne få ordet med det formål at lade så mange kvalitative data som muligt danne grundlag for en diskussion af metoder og værktøjer til organiseringen af en effektiv tolkning. Endelig diskuterer vi med udgangspunkt i socialpsykiatriens værdigrundlag, hvad socialpsykiatriens ansvar er i forbindelse med implementeringen af en effektiv tolkning.
15. Gany F, Kapelusznik L, Prakash K, Gonzalez J. **The impact of medical interpretation method on time and errors.** Journal of General Internal Medicine 2007;22:319-323.  
Record no: 6249  
Abstract: Background: Twenty-two million Americans have limited English proficiency. Interpreting for limited English proficient patients is intended to enhance communication and delivery of quality medical care. Objective: Little is known about the impact of various interpreting methods on interpreting speed and errors. This investigation addresses this important gap. Design: Four scripted clinical encounters were used to enable the comparison of equivalent clinical content. These scripts were run across four interpreting methods, including remote simultaneous, remote consecutive, proximate consecutive, and proximate ad hoc interpreting. The first 3 methods utilized professional, trained interpreters, whereas the ad hoc method utilized untrained staff. Measurements: Audiotaped transcripts of the encounters were coded, using a prespecified algorithm to determine medical error and linguistic error, by coders blinded to the interpreting

method. Encounters were also timed. Results: Remote simultaneous medical interpreting (RSMI) encounters averaged 12.72 vs 18.24 minutes for the next fastest mode (proximate ad hoc) ( $p=0.002$ ). There were 12 times more medical errors of moderate or greater clinical significance among utterances in non-RSMI encounters compared to RSMI encounters ( $p=0.0002$ ). Conclusions: Whereas limited by the small number of interpreters involved, our study found that RSMI resulted in fewer medical errors and was faster than non-RSMI methods of interpreting.

16. Gany F, Leng J, Shapiro E, Abramson D, Motola I, Shield DC, et al. **Patient satisfaction with different interpreting methods: A randomized controlled trial.** *Journal of General Internal Medicine* 2007;22:312-318. Record no: 6248  
Abstract: Background: Growth of the foreign-born population in the U.S. has led to increasing numbers of limited-English-proficient (LEP) patients. Innovative medical interpreting strategies, including remote simultaneous medical interpreting (RSMI), have arisen to address the language barrier. This study evaluates the impact of interpreting method on patient satisfaction. Methods: 1,276 English-, Spanish-, Mandarin-, and Cantonese-speaking patients attending the primary care clinic and emergency department of a large New York City municipal hospital were screened for enrollment in a randomized controlled trial. Language-discordant patients were randomized to RSMI or usual and customary (U&C) interpreting. Patients with language-concordant providers received usual care. Demographic and patient satisfaction questionnaires were administered to all participants. Results: 541 patients were language-concordant with their providers and not randomized; 371 were randomized to RSMI, 167 of whom were exposed to RSMI; and 364 were randomized to U&C, 198 of whom were exposed to U&C. Patients randomized to RSMI were more likely than those with U&C to think doctors treated them with respect (RSMI 71%, U&C 64%,  $p < 0.05$ ), but they did not differ in other measures of physician communication/care. In a linear regression analysis, exposure to RSMI was significantly associated with an increase in overall satisfaction with physician communication/care (beta 0.10, 95% CI 0.02-0.18, scale 0-1.0). Patients randomized to RSMI were more likely to think the interpreting method protected their privacy (RSMI 51%, U&C 38%,  $p < 0.05$ ). Patients randomized to either arm of interpretation reported less comprehension and satisfaction than patients in language-concordant encounters. Conclusions: While not a substitute for language-concordant providers, RSMI can improve patient satisfaction and privacy among LEP patients. Implementing RSMI should be considered an important component of a multipronged approach to addressing language barriers in health care.
17. Gany FM, Gonzalez CJ, Basu G, Hasan A, Mukherjee D, Datta M, et al. **Reducing clinical errors in cancer education: interpreter training.** *Journal of Cancer Education* 2010;25(4):560-564. Record no: 4495  
Abstract: Over 22 million US residents are limited English proficient. Hospitals often call upon untrained persons to interpret. There is a dearth of information on errors in medical interpreting and their impact upon cancer education. We conducted an experimental study of standardized medical interpreting training on interpreting errors in the cancer encounter, by comparing trained and untrained interpreters, using identical content. Nine interpreted cancer encounters with identical scripts were recorded and transcribed. Using an "Error Analysis Tool," a bilingual linguist and two bilingual medical providers scored the transcripts for interpreting errors

made, including their potential clinical severity. Trained interpreters were 70% less likely to have clinical errors than untrained ones. The likelihood of medical error increased with the length of the concept and decreased with the precision of vocabulary. It is important to train medical interpreters and to ensure their availability in cancer education encounters to minimize the risk for errors.

18. Green AR, Ngo-Metzger Q, Legedza AT, Massagli MP, Phillips RS, Iezzoni LI. **Interpreter services, language concordance, and health care quality. Experiences of Asian Americans with limited English proficiency.** *Journal of General Internal Medicine* 2005;20(11):1050-1056. Record no: 730

Abstract: BACKGROUND: Patients with limited English proficiency (LEP) have more difficulty communicating with health care providers and are less satisfied with their care than others. Both interpreter- and language-concordant clinicians may help overcome these problems but few studies have compared these approaches.

OBJECTIVE: To compare self-reported communication and visit ratings for LEP Asian immigrants whose visits involve either a clinic interpreter or a clinician speaking their native language.

DESIGN: Cross-sectional survey-response rate 74%.

PATIENTS: Two thousand seven hundred and fifteen LEP Chinese and Vietnamese immigrant adults who received care at 11 community-based health centers across the U.S.

MEASUREMENTS: Five self-reported communication measures and overall rating of care.

RESULTS: Patients who used interpreters were more likely than language-concordant patients to report having questions about their care (30.1% vs 20.9%,  $P < .001$ ) or about mental health (25.3% vs 18.2%,  $P = .005$ ) they wanted to ask but did not. They did not differ significantly in their response to 3 other communication measures or their likelihood of rating the health care received as "excellent" or "very good" (51.7% vs 50.9%,  $P = .8$ ). Patients who rated their interpreters highly ("excellent" or "very good") were more likely to rate the health care they received highly (adjusted odds ratio 4.8, 95% confidence interval, 2.3 to 10.1).

CONCLUSIONS: Assessments of communication and health care quality for outpatient visits are similar for LEP Asian immigrants who use interpreters and those whose clinicians speak their language. However, interpreter use may compromise certain aspects of communication. The perceived quality of the interpreter is strongly associated with patients' assessments of quality of care overall.

19. Guionnet A, Estevez L, Navaza B, Navarro M, Martinez LC, Lopez-Velez R. **Intercultural mediation as solution to linguistic and cultural conflicts between health personnel and migrant patients and a way to social integration.** *Tropical Medicine and International Health* 2009;14:67-68.

Record no: 1854

Abstract: In the past 10 years, Spain became an attractive place for migrants and the number of residents from other cultures grew up significantly. Many immigrants do not speak Spanish, which causes communication problems between health care professionals and patients. Thus a multidisciplinary at our hospital recruited 18 men and women from different cultures to provide language interpretation and management of culture conflicts in social and health fields. The mediators received 100 hours of medical, interpretation

and mediation training and 125 hours of practical training registering interventions (SPSS statistic program). The mediators also passed an Acculturation Scale test (BISS<sup>2</sup>) before and after the practices (Scores 1 = no stress/4 = manifest stress), n = 11. Statistic analysis: Wilcoxon test for paired samples. During two months and a half of practical training, the students intervened 157 times. Languages most often used were English(23%), French (20%), Arab (15%), African languages like Wolof, Pulaar and Bambara (14%), Russian (8%), Bulgarian (8%) and Rumanian (7%). Departments requesting the service most frequently were the TMC (30%) and the Emergency dept. (23%). 69% of the interventions were first visits. The mediators were 10 women and eight men coming from sub-Saharan Africa, Rumania, Bulgaria, Armenia, Morocco and Latin-America. The acculturative stress was reduced after the experience: the average passed from 2.60 to 2.32, (P = 0.026). Perceived discrimination was also reduced: from 2.49 to 2.19 (P = 0.045). This experience shows the advisability of implementing a mediation service in hospitals and health centers in countries with a high percentage of people from other cultures. It also reduced acculturative stress and perceived discrimination in people from other cultures.

20. Hadziabdic E, Albin B, Heikkila K, Hjelm K. **Family members' experiences of the use of interpreters in healthcare.** Primary Health Care Research & Development 2014;15(2):156-169.

Record no: 51

Abstract: AIM: The aim was to explore adults' experiences of their family members' use of interpreters in health-care encounters.

BACKGROUND: Language barriers are a major hindrance for migrants to receive appropriate healthcare. In a foreign country, family members often need support in care of migrant patients. No previous studies focusing on adult family members' experiences of the use of interpreters in healthcare have been found.

METHOD: A purposive sample of 10 adult family members with experiences of the use of interpreters in health-care encounters. Data were collected between May and September 2009 by focus-group interviews and analysed with qualitative analysis according to a method described for focus groups.

FINDINGS: Three categories emerged from the analysis: (1) Experiences of the use of professional interpreters, (2) Experiences of being used as an interpreter and (3) Experiences of what needs to be improved when using interpreters. The main findings showed no agreement in family members' experiences; interpretation should be individually and situationally adapted. However, when family members acted as interpreters, their role was to give both practical and emotional support, and this led to both positive and negative emotions. Use of simple language, better collaboration in the health-care organization and developing the interpreters' professional attitude could improve the use of professional interpreters. The type of interpreter, mode of interpretation and patient's preferences should be considered in the interpretation situation. In order to achieve high-quality healthcare, health-care professionals need to organize a good interpretation situation case-by-case, choose the appropriate interpreters with the patient in focus and cooperate with members of the patient's social network.

21. Hadziabdic E, Albin B, Hjelm K. **Arabic-speaking migrants' attitudes, opinions, preferences and past experiences concerning the use of interpreters in healthcare: a postal cross-sectional survey.** BMC Research Notes 2014;7:71.

Record no: 112

**Abstract: BACKGROUND:** Good communication is an important prerequisite for equal treatment in a healthcare encounter. One way to overcome language barriers when patients and healthcare staff do not share the same language is to use a professional interpreter. Few previous studies have been found investigating the use of interpreters, and just one previous study from the perspective of European migrants, which showed that they perceived interpreters as a communication aid and a guide in the healthcare system as regards information and practical matters. No previous study has gathered quantitative information to focus on non-European migrants' attitudes to the use of interpreters in healthcare encounters. Thus, the aim of this study was to investigate Arabic-speaking individuals' attitudes, opinions, preferences and past experiences concerning the use of interpreters in healthcare in order to: (i) understand how persons' expectations and concerns regarding interpreters may vary, both within and across cultural/linguistic populations; (ii) understand the consequences of diverse opinions/expectations for planning responsive services; and (iii) confirm findings from previous qualitative studies.

**METHOD:** A postal cross-sectional study using a structured self-administered 51-item questionnaire was used to describe and document aspects of Arabic-speaking individuals' attitudes to the use of interpreters in healthcare. The sample of 53 Arabic-speaking migrants was recruited from three different places. Participants were mostly born in Iraq and had a high level of education and were almost equally divided between genders. Data were analysed with descriptive statistics.

**RESULTS:** The main findings were that most of the participants perceived the interpreter's role as being a communication aid and a practical aid, interpreting literally and objectively. Trust in the professional interpreter was related to qualification as an interpreter and personal contact with face-to-face interaction. The qualities of the desired professional interpreter were: a good knowledge of languages and medical terminology, translation ability, and sharing the same origin, dialect and gender as the patient.

**CONCLUSION:** This study confirmed previous qualitative findings from European migrant groups with a different cultural and linguistic background. The study supports the importance of planning a good interpretation situation in accordance with individuals' desire, irrespective of the migrant's linguistic and cultural background, and using interpreters who interpret literally and objectively, who are highly trained with language skills in medical terminology, and with a professional attitude to promote communication, thus increasing cost-effective, high-quality individualized healthcare.

22. Hadziabdic E, Heikkila K, Albin B, Hjelm K. **Migrants' perceptions of using interpreters in health care.** *International Nursing Review* 2009;56(4):461-469.

Record no: 455

**Abstract: BACKGROUND:** The number of foreign-born people who do not share a common language has increased due to extensive international migration, which will increase in the future. There is limited knowledge about the users' perceptions of interpreters in health care.

**AIM:** To describe how individuals from former Yugoslavia, living in Sweden, perceived the use of interpreters in Swedish healthcare services.

**METHOD:** A phenomenographic approach was employed. Data were collected by semi-structured interviews during 2006-2007 with 17 people, aged 29-75 years, from former Yugoslavia, living in Sweden.

**FINDINGS:** Three descriptive categories were identified: (1) prerequisites for good interpretation situations; (2) the interpretation situation - aspects of



satisfaction or dissatisfaction; and (3) measures to facilitate and improve the interpreter situation. The interpreter's competence, attitude, appearance and an appropriate environment are important prerequisites for interpretation. The interpreter was perceived as being a communication aid and a guide in the healthcare system in terms of information and practical issues, but also as a hindrance. A desirable professional interpreter was perceived as highly skilled in medical terminology and language, working in face-to-face interaction.

**CONCLUSION:** Using an interpreter was perceived as a hindrance, though also needed in communication with healthcare staff and as a guide in the healthcare system. Face-to-face interaction was preferred, with the interpreter as an aid to communication. As part of individual care planning it is important to use interpreters according to the patients' desires. Healthcare organizations and guidelines for interpreters need to be developed in order for patients to have easy access to highly skilled professional interpreters.

23. Hudelson P, Dao MD, Perron NJ, Bischoff A. **Interpreter-mediated diabetes consultations: a qualitative analysis of physician communication practices.** *Bmc Family Practice* 2013;14:9.

Record no: 5698

**Abstract:** Background: Patient-provider communication, in particular physicians' ability to listen to their patients, and support them in making difficult lifestyle changes, is an essential component of effective diabetes care. Clinical communication around diabetes can be especially challenging when language barriers are present, and may contribute to poor diabetes management and outcomes. Clinicians need to be aware of and address potential communication difficulties associated with interpreter-mediated consultations. The purpose of our study was to explore how physicians communicate in interpreter-mediated consultations with diabetic patients, and how their communication behaviors may impact diabetes communication and care. Method: We analyzed transcripts from 8 audio recorded, outpatient consultations at the Basel University Hospital general medicine outpatient clinic involving Turkish-speaking patients, German-speaking physicians, and Turkish-German interpreters (both community interpreters and family members). Results: Clinicians used closed questions when asking about symptoms and glucose control. When providing information and explanation, they spoke in long and complex speech turns. They often directed their speech to interpreters or became sidetracked by family members' questions or requests for information. Patients' participation in the consultation was minimal, and limited to brief answers to clinicians' questions. Conclusions: Clinicians need to be aware of common pitfalls that diminish patient-centeredness during interpreter-mediated consultations, and learn strategies to avoid them. Attention to established guidelines on triadic communication is recommended, as is hands-on training with interpreters.

24. Keselman O, et al **Asylum-seeking minors in interpreter-mediated interviews: what do they say and what happens to their responses?** *Child and Family Social Work* 2010;15(3):325-334.

Record no: 7349

**Abstract:** This study explored how Russian-speaking asylum-seeking minors report information when formally interviewed and how their responses are translated by interpreters. Caseworkers at the Swedish Migration Board were asked to send all available audio recordings of interviews conducted with Russian-speaking minors. The study involved 26 audio-recorded asylum hearings with 26 Russian-speaking minors ranging in age from 14 to 18

years. The interviewers were 52 officials and they were assisted by one of 18 interpreters. A qualitative analysis of the responses was used to develop categories that were then analysed quantitatively to elucidate characteristics of the questions asked by the officials, the minors' responses to them and the accuracy with which the minors' responses were rendered. The asylum-seeking minors distinguished themselves as active participants. They appeared eager to disclose relevant information despite being asked many potentially contaminating questions. Most of the children's responses were accurately rendered, but mistranslations can affect the fact-finding process substantially. Both the minors and the officials involved in the asylum-seeking process need to recognise that both the questions asked and the responses given may be influenced by the interpreters.

25. Kuay J, Chopra P, Kaplan I, Szwarc J. **Preparing a clinician working with refugees for psychotherapy with an interpreter.** Australian and New Zealand Journal of Psychiatry 2012;46:45-46.

Record no: 1392

Abstract: Background: There is a need to further examine the nature of psychotherapy undertaken with the assistance of interpreters. Existing guidelines are helpful but do not adequately explain the complexities of this process. Objectives: The aims of this research were to assess how clinicians prepared and used interpreters during psychotherapeutic sessions to investigate the strategies they used to manage the dynamics of this process. Methods: 10 therapists were interviewed at the VFST - a non-government organization that provides counseling to survivors of torture and trauma. A semi-structured interview format was used. Thematic analysis was conducted on transcripts of recorded interviews to identify key Findings: Factors impacting on the effectiveness of psychotherapy with interpreters included matching of interpreters and patients by gender, religion and geographical origin, addressing confidentiality issues, consistency of interpreters, using clear language, clarifying interpretations with interpreters, briefing interpreters prior to sessions, and establishing clear roles and boundaries for interpreters. Contrasting views were expressed with respect to these general guidelines, including the role of the interpreter as a 'co-therapist', the practice of debriefing interpreters, and the role of interpreters as cultural consultants and community advocates. Specific troubleshooting strategies were identified for improving empathy, setting boundaries and adjusting interactions with an interpreter according to their level of skill and experience. Conclusions: Working with interpreters in psychotherapy is a complex process. These findings may benefit novice and senior clinicians providing psychotherapy to non-English speaking patients using interpreters.

26. Larrison CR, Velez-Ortiz D, Hernandez PM, Piedra LM, Goldberg A. **Brokering Language and Culture: Can Ad Hoc Interpreters Fill the Language Service Gap at Community Health Centers?** Social Work in Public Health 2010;25(3-4):387-407.

Record no: 6093

Abstract: The purpose of the research was to explore the ability of ad hoc interpreters to integrate into the organizational climate at a federally qualified community health clinic (CHC) and create satisfactory services for limited-English-proficiency clients. Survey and interview data were gathered from staff (n = 17) and Latino clients (n = 30). The data indicate that clients felt satisfied with interpreters. Some friction existed between the interpreters and the medical staff due to incongruent expectations. The CHC's organizational climate and the interpreters' commitment to the Latino

community mediated the impact of these tensions on services and satisfaction. The study offers important insight into how ad hoc interpreters can become professional medical interpreters within a limited-resource service environment.

27. Lee TS, Lansbury G, Sullivan G. **Health care interpreters: A physiotherapy perspective**. Australian Journal of Physiotherapy 2005;51(3):161-165.  
Record no: 6381  
Abstract: Communication is the greatest barrier in health care provision for people of non-English speaking backgrounds. The New South Wales Health Standard Procedures stipulate that the Health Care Interpreter Service must be used in consultations with clients who cannot fully comprehend English. This study explored the attitudes, thoughts, and feelings of physiotherapists toward health care interpreters and their service. Interviews and observations were conducted at three different hospitals. Six physiotherapists were interviewed in total. The results showed physiotherapists did not collaborate with health care interpreters for all consultations with clients of non-English speaking backgrounds. Physiotherapists were found to be largely negative in their attitude toward the health care interpreter service. Suspicion and distrust of interpreters, time constraints, and the perceived cost of the service were major themes identified in the interviews. Physiotherapists need to be aware that failure to collaborate with interpreters may result in litigation should there be reason to contest the validity of treatment consent or warnings given.
28. Lowe M. **By word of mouth**. SCOLAG Journal 2003;314.  
Record no: 7348  
Abstract: The author, of Amnesty International Scotland, reports on interpretation and translation services in Scotland. The article presents the findings of research which interviewed asylum seekers and interpreters, following concerns over the quality of interpretation and translations services in Glasgow for solicitors dealing with asylum applications and appeals
29. MacFarlane A, Dzebisova Z, Karapish D, Kovacevic B, Ogbebor F, Okonkwo E. **Arranging and negotiating the use of informal interpreters in general practice consultations: experiences of refugees and asylum seekers in the west of Ireland**. Social Science & Medicine 2009;69(2):210-214.  
Record no: 522  
Abstract: This paper focuses on the work involved for service users in arranging and negotiating the use of informal interpreters from their social networks for general practice consultations. The data are drawn from a participatory learning and action research study, carried out in the west of Ireland. Qualitative data were gathered using a peer researcher model from a 'hard to reach' community of Serbo-Croat and Russian refugees and asylum seekers (n=26). The findings elucidate that there is a tension for service users between the experienced benefits of having a trusted friend/family member present to act as their interpreter and the burden of work and responsibility to manage the language barrier. Participants emphasize that, for them, the use of informal interpreters can be inadequate and problematic and can leave them worried, frustrated and with experiences of error and misdiagnosis. Overall, they state a clear preference for the use of professional, trained

interpreters in general practice consultations which is currently unavailable to them in routine Irish general practice consultations.

30. Meeuwesen L, Twilt S, ten Thije JD, Harmsen H. **"Ne diyor?" (What does she say?): informal interpreting in general practice.** Patient Education & Counseling 2010;81(2):198-203.  
Record no: 384  
Abstract: OBJECTIVE: The aim of this study was to offer a comparative analysis of informal interpreters during medical consultations with both good and poor mutual understanding between general practitioners (GPs) and patients.  
METHODS: Sixteen video-registered medical interviews of Turkish immigrant patients were analysed. Stretches of discourse of eight interviews with good mutual understanding between patient and doctor were compared to eight interviews with poor mutual understanding. The discourse analysis focused on: (1) miscommunication and its causes; (2) changes in the translation; (3) side-talk activities.  
RESULTS: In the cases of 'poor mutual understanding', the instances of miscommunication far exceeded those in the 'good mutual understanding' group. Style of self-presentation, content omissions and side-talk activities seemed to hinder good mutual understanding.  
CONCLUSION: Alongside the evidence about problems with informal interpreting, sometimes the use of family interpreters can facilitate medical communication.  
PRACTICE IMPLICATIONS: Recommendations are given in order to increase physicians' awareness of the complex process of interpreting, as well as to empower informal interpreters and patients to effectively deal with this communicative triad. Copyright 2009 Elsevier Ireland Ltd. All rights reserved.
31. Miller KE, Martell ZL, Pazdirek L, Caruth M, Lopez D. **The role of interpreters in psychotherapy with refugees: an exploratory study.** American Journal of Orthopsychiatry 2005;75(1):27-39.  
Record no: 764  
Abstract: Findings are presented from a narrative study that examined the use of interpreters in psychotherapy with refugees. Fifteen therapists and 15 interpreters were interviewed at 14 refugee mental health treatment centers in the United States. Core findings concerned the impact of interpreters on the therapeutic alliance, the complex emotional reactions that may arise within the therapy triad, the effects of interpreting on interpreters' own well-being, the multiple roles that interpreters play in addition to translating language, and the training and supervision needs of interpreters and of therapists who work with them. Implications of these findings for agencies that use interpreters in their clinical work with refugees are considered, and specific recommendations are made concerning the hiring, training, and support of interpreting staff.
32. Moreno G, Morales LS. **Hablamos Juntos (Together We Speak): Interpreters, provider communication, and satisfaction with care.** Journal of General Internal Medicine 2010;25(12):1282-1288.  
Record no: 3201  
Abstract: Background: The Hablamos Juntos-Together We Speak (HJ)-national demonstration project targeted the improvement of language access for Spanish-speaking Latinos in areas with rapidly growing Latino populations. The objective of HJ was to improve doctor-patient communication by increasing access to and quality of interpreter services for

Spanish-speaking patients. Objective: To investigate how access to interpreters for adult Spanish-speaking Latinos is associated with ratings of doctor/office staff communication and satisfaction with care. Design: Cross-sectional cohort study. Patients: A total of 1,590 Spanish-speaking Latino adults from eight sites across the United States who participated in the outpatient HJ evaluation. Measurements: We analyzed two multi-item measures of doctor communication (4 items) and office staff helpfulness (2 items), and one global item of satisfaction with care by interpreter use. We performed regression analyses to control for patient sociodemographic characteristics, survey year, and clustering at the site of care. Results: Ninety-five percent of participants were born outside the US, 81% were females, and survey response rates ranged from 45% to 85% across sites. In this cohort of Spanish-speaking patients, those who needed and always used interpreters reported better experiences with care than their counterparts who needed but had interpreters unavailable. Patients who always used an interpreter had better adjusted ratings of doctor communication [effect size (ES = 0.51)], office staff helpfulness (ES = 0.37), and satisfaction with care (ES = 0.37) than patients who needed but did not always use an interpreter. Patients who needed and always used interpreters also reported better experiences with care in all three domains measured [doctor communication (ES = 0.30), office staff helpfulness (ES = 0.21), and satisfaction with care (ES = 0.23)] than patients who did not need interpreters. Conclusions: Among adult Spanish-speaking Latinos, interpreter use is independently associated with higher satisfaction with doctor communication, office staff helpfulness, and ambulatory care. Increased attention to the need for effective interpreter services is warranted in areas with rapidly growing Spanish-speaking populations. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

33. Novak-Zezula S, Schulze B, Karl-Trummer U, Krajic K, Pelikan JM.

**Improving interpreting in clinical communication: models of feasible practice from the European project 'migrant-friendly hospitals'.** Diversity in Health & Social Care 2005;2(3):223-232.

Record no: 4733

Abstract: Non-local language speakers, especially migrant populations and ethnic minority groups, often cannot communicate with their clinicians adequately to receive necessary information about their care. Members of the clinical staff often do not understand their patients' needs, and so do not receive all relevant information from the patient. This paper presents a report from nine European hospitals which worked together to improve communication between non-local language speakers and clinical staff by developing, implementing and evaluating professional interpreter services. The work was part of the Migrant-friendly Hospitals Project. The article outlines different strategies to improve clinical communication with migrant and ethnic minority patients such as telephone interpreting, face-to-face interpreting, intercultural mediation and written material as supportive information, and presents an evaluation of their effectiveness from the perspective of the providers and the patients in the hospitals concerned. This evaluation was based on a benchmarking design that included a pre- and a post-intervention staff survey and a post-intervention patient survey. In general, evaluation results of the pre- and post-intervention staff surveys showed that the implemented measures proved to be effective for both groups of stakeholders. The paper closes with recommendations for a concerted hospital quality management response to the problem of language barriers in clinical communication.

34. Ramsey KW, Davis J, French G. **Perspectives of Chuukese patients and their health care providers on the use of different sources of interpreters.** *Hawai'i Journal of Medicine & Public Health : A Journal of Asia Pacific Medicine & Public Health* 2012;71(9):249-252.  
Record no: 163  
Abstract: **BACKGROUND:** Immigrants from Chuuk, a Pacific Island nation in Micronesia, are a growing population of limited-English speakers in Hawai'i. The purpose of this study was to examine the perspectives of Chuukese patients and their physicians in Honolulu, Hawai'i on interpreter services.  
**METHODS:** An anonymous multiple choice survey was distributed to potential patients through a Chuukese community group and to physicians through the Hawai'i Residency Programs to examine the following sources of interpreters: Family member or friend, telephone interpreter, or professional in-person interpreter. Statistical significance of cross-tabulated responses was analyzed using Fisher's exact test.  
**RESULTS:** 114 surveys from health care providers and 95 surveys from Chuukese community members were analyzed after exclusion criteria. Using a family member or friend was the method most frequently used by physicians (78%) and Chuukese patients (71%). Telephone interpreters were used the least by physicians (6%) and Chuukese patients (2%) and both rated it poorly in terms of comfort and ease of use. Physicians rated professional in-person interpreters as the best method (67%) while Chuukese patients rated using a family member or friend as the best method (61%), especially among those who reported a lower English proficiency ( $P = .04$ ) and who lived in Hawai'i for fewer years ( $P > .01$ ).  
**DISCUSSION:** The preference of Chuukese patients for using a family member or friend as interpreter differs from national standards which promote the use of a professional interpreter. Given the preference of both physicians and Chuukese patients for in-person interpreters over telephone interpreters, there is a need for increased training and hiring of in-person interpreters.
35. Rosenberg E, Leanza Y, Sellar R. **Doctor-patient communication in primary care with an interpreter: physician perceptions of professional and family interpreters.** *Patient Education & Counseling* 2007;67(3):286-292.  
Record no: 4659  
Abstract: **OBJECTIVE:** This paper explores physician perceptions of the ways professional and family interpreters affect their performance of doctor-communication tasks described in the Calgary-Cambridge Framework.  
**METHODS:** Physicians' (19) encounters with patients (24) accompanied by an interpreter were videotaped. Stimulated recall was used to elicit each of the participants' perceptions of the clinical encounter. We analyzed transcriptions of the physician interviews using Atlas-ti software. **RESULTS:** Physicians perceived all communication tasks to be more difficult using an interpreter than when one was not needed. Physicians perceived family interpreters to be less skilled translators than professional interpreters. Physicians expected professional interpreters to serve as culture brokers at least some of the time. Although only some family interpreters were also caregivers, physicians assumed that all of them fulfilled caregiver roles.  
**CONCLUSION:** With professional interpreters, physicians follow communication rules they were taught. In contrast, physicians act as though these rules are not relevant with family interpreters who they treat as caregivers. **PRACTICE IMPLICATIONS:** Guidelines to working with an interpreter should include directives on working with both professional and

family interpreters, describing the similarities and differences with each type, and modifying the clinical encounter process to correspond to those attributes.

36. Rosenberg E, Richard C, Lussier MT, Shuldiner T. **The content of talk about health conditions and medications during appointments involving interpreters.** *Family Practice* 2011;28(3):317-322.  
Record no: 332  
Abstract: INTRODUCTION: Interpreters often join immigrants and physicians to permit communication.  
OBJECTIVE: To describe the content of talk about health problems and medications during clinical encounters involving interpreters [professionals (PI) or family members (FI)].  
METHODS: We analysed one regularly scheduled encounter for each of 16 adult patients with his family physician and their usual interpreter (10 with a PI and 6 with a FI). A different PI, not involved in the consultations, translated the non-English or French parts. We coded all utterances about each medical problem and each medication using six health problem and 16 medication topics from MEDICODE, a validated coding scheme.  
RESULTS: Physicians and patients addressed an average of 3.6 problems and 3 medications per encounter. No psychosocial problems were discussed in encounters involving FIs. On average, three topics were discussed per problem. In order of frequency, they were follow-up, explanations of the condition, non-drug management, consequences, self-management and emotions about the problem. Encounters involving PIs were more likely than encounters with FIs to include discussions of emotions about the problem (42% versus 4%,  $P = 0.001$ ) and indications for follow-up (88% versus 28%,  $P < 0.001$ ). An average of 6.5 topics was discussed per medication. Commonest topics discussed were medication class, how the drug was being used, achieved effect and expected effect.  
CONCLUSIONS: One can address multiple problems and share vital information even in the presence of a language barrier. When FIs are interpreting, physicians would do well to make a particular effort to bring the patient's psychological and emotional issues into the interaction.
37. Schoenel M. **Effects of professional interpreters on the practice of general practitioners: semi-structured interviews with general practitioners who use professional interpreting.** *Université de Strasbourg*.2014.  
Record no: 7345  
Abstract:
38. Schouten BC, Schinkel S. **Turkish migrant GP patients' expression of emotional cues and concerns in encounters with and without informal interpreters.** *Patient Education & Counseling* 2014;97(1):23-29.  
Record no: 9  
Abstract: OBJECTIVE: The aim of this study was to compare patients' expressions of emotional cues and concerns, and GPs' responses during consultations with and without informal interpreters. Furthermore, informal interpreters' expression of emotional cues and concerns and their responses were examined too.  
METHODS: Twenty-two audiotaped medical encounters with Turkish migrant patients, eleven with and eleven without an informal interpreter, were coded using the Verona Coding Definitions of Emotional Sequences (VR-CoDES) and the Verona Codes for Provider Responses (VR-CoDES-P).

**RESULTS:** In encounters with informal interpreters, patients expressed less emotional concerns than in encounters without informal interpreters. Only half of all patients' cues is being translated by the informal interpreter to the GP. Furthermore, 20% of all cues in encounters with informal interpreters is being expressed by the interpreter, independent of patients' expression of emotions.

**CONCLUSION:** The presence of an informal interpreter decreases the amount of patients' expression of emotional concerns and cues.

Furthermore, a substantial amount of cues is being expressed by the informal interpreter, corroborating the often-made observation that they are active participants in triadic medical encounters.

**PRACTICE IMPLICATIONS:** GPs should be trained in communication strategies that enable elicitation of migrant patients' emotions, in particular in encounters with informal interpreters. Copyright 2014 Elsevier Ireland Ltd. All rights reserved.

39. Ørvig K. **Tolken som redskap eller kulturinformant?: et samhandlingsstudie av tolkede klientsamtaler i sosialtjenesten.**

Universitetet i Tromsø, Det samfunnsvitenskapelige fakultet, Institutt for sosiologi CY - [Tromsø]; 2007.

Record no: 6802

**Abstract:** Min avhandling beskriver og analyserer hva som skjer i klientsamtaler på sosialkontor, når deltakere med ulik språklig og kulturell bakgrunn møtes og skal samhandle ved hjelp av tolk. Denne problematikken har jeg belyst gjennom analyser av observerte klientsamtaler. Datamaterielt omfatter 10 saker i tre kommuner i Rogaland. I tillegg er det gjennomført oppfølgingssamtaler og fokusgruppestudier. Dessverre viser forskningen at det lett blir misforståelser, og brukeren av sosialtjenesten opplever ofte at han/hun ikke forstår eller blir forstått.

Forskningen viser at den manglende forståelsen gjelder særlig i forhold til innholdet i forskjellige byråkratiske begreper som barnetrygd, barnebidrag mm. Dette kan tyde på at sosialarbeidere ikke tar tilstrekkelig hensyn til at klienten ikke har kunnskap om disse ord og uttrykk. Samtidig viser studien at mange sosialarbeidere mangler kompetanse i forhold til hva som er tolkens ansvar og oppgaver.

Avhandlingen antyder at tolkens rolle bør endres, og dermed også tolkeutdanningen. Tolken er ikke bare en språklig oversetter, men en som bidrar til at det oppnås en "felles forståelse". Tolken bør gis mulighet til også å kunne gå inn i rollen som kulturinformant og ikke bare som ren formidler mellom partene. For at profesjonsutøvere skal kunne opptre som kompetente tolkebrukere bør dette komme inn som tema i undervisningen i de ulike utdanningene.

40. Beeber LS, Lewis VS, Cooper C, Maxwell L, Sandelowski M. Meeting the "Now" Need: PMH-APRN-- Interpreter Teams Provide In-Home Mental Health Intervention for Depressed Latina Mothers With Limited English Proficiency. *Journal of the American Psychiatric Nurses Association* 2009;15(4):249-259.

Latina mothers of infants and toddlers are at high risk for developing serious depressive symptoms if they are newly immigrated and have limited English proficiency (LEP). Depressive symptoms compromise these mothers and result in severe consequences for their U.S.-born children. A randomized clinical trial of a short-term, in-home psychotherapy intervention for symptomatic mothers in an area of the United States where bilingual mental health providers were scarce used teams of English-speaking advanced practice psychiatric mental health nurses and bilingual community interpreters who



were trained in a conduit, consecutive model of interpretation. The article describes the development of a theoretically congruent interpreter model, the training program that supported it, the challenges that surfaced and lessons learned during successful implementation in the field. Future refinements in progress and uses of the model are discussed.

41. Bernstein J, Bernstein E, Dave A, Hardt E, James T, Linden J, et al. Trained medical interpreters in the emergency department: effects on services, subsequent charges, and follow-up. *Journal of Immigrant Health* 2002;4(4):171-176.

The study was conducted to investigate the impact of an Interpreter Service on intensity of Emergency Department (ED) services, utilization, and charges. This study describes the effects of language barriers on health care service delivery for the index ED visit and a subsequent 90-day period. In all 26,573 ED records from July to November, 1999, resulted in a data set of 500 patients with similar demographic characteristics, chief complaint, acuity, and admission rate. Noninterpreted patients (NIPs) who did not speak English had the shortest ED stay (LOS) and the fewest tests, IVs and medications; English-speaking patients had the most ED services, LOS, and charges. Subsequent clinic utilization was lowest for NIPs. Among discharged patients, return ED visit and ED visit charges were lowest for interpreted patients (IPs). Use of trained interpreters was associated with increased intensity of ED services, reduced ED return rate, increased clinic utilization, and lower 30-day charges, without any simultaneous increase in LOS or cost of visit.

42. Labun E. Shared brokering: the development of a nurse/interpreter partnership. *Journal of Immigrant Health* 1999;1(4):215-222.

In North America, health care providers are facing an increasingly complex health care system with an increasingly culturally diverse client population. Therefore, it is imperative that care providers are able to work with interpreters who are able to interpret both language and culture. A grounded theory study of nurses' experiences (N = 27) in working with Vietnamese clients provided evidence of the shared brokering concept. Nurses in four major cities in North America were interviewed for approximately 1.5 hours using a semistructured guide. Data were analyzed using dimensional analysis and the constant comparative method. Shared brokering was one concept that emerged within a larger theory of cultural discovery. The shared brokering concept, as described by nurses, provided a framework for providing complex, effective, and efficient care for clients who speak Vietnamese and live within the Vietnamese cultural worldview. Criteria necessary for the development of a shared brokering relationship are described. Further research is needed to develop the conditions and criteria for shared brokering.

43. Jimenez N, Jackson DL, Zhou C, Ayala NC, Ebel BE. Postoperative pain management in children, parental English proficiency, and access to interpretation. *Hospital Pediatrics* 2014;4(1):23-30.

**BACKGROUND AND OBJECTIVE:** Patients with limited English proficiency (LEP) are at risk for undertreated pain. The goal of this study was to examine the association between parental language proficiency, interpreted care, and postsurgical pediatric pain management.

**METHODS:** This was a retrospective matched cohort study among children <18 years of age. Children of LEP and English-proficient (EP) parents were

matched according to age group, surgical procedure, and admission date. Mean number of daily pain assessments and mean daily pain scores were compared between language groups. We also compared the association between pain scores and type of medication given (opioid versus nonopioid). Within the LEP group, similar analyses compared pain assessment and treatment of children whose families received > 2 professional interpretations per day versus those who received lower rates of interpretation.

**RESULTS:** A total of 474 children (237 LEP and 237 EP) were included in the study. Children of LEP parents had fewer pain assessments (mean: 7 [95% confidence interval: 2-13] vs 9 [95% confidence interval: 4-15];  $P = .012$ ), and higher levels of pain recorded before receiving opioid analgesics, compared with children of EP parents ( $P = .003$ ). Within the LEP group, children with > 2 interpretations per day had lower pain scores after medication administration ( $P < .05$ ) and were more likely to receive opioids at pain levels similar to those of EP families.

**CONCLUSIONS:** Children of LEP parents received fewer pain assessments and were less likely to receive opioid analgesics for similar levels of pain compared with children of EP parents. More frequent use of professional interpreters when assessing pain may aid in reducing the gap in pain management between LEP and EP pediatric patients.

44. Kilian S, Swartz L, Dowling T, Dlali M, Chiliza B. The potential consequences of informal interpreting practices for assessment of patients in a South African psychiatric hospital. *Social Science & Medicine* 2014;106:159-167.

In South Africa health care practitioners are commonly professionals who speak only one, or at most two, of the languages spoken by their patients. This provides for language provision challenges, since many patients are not proficient in English or Afrikaans and ad hoc and haphazard arrangements are made for interpreting by untrained personnel. As part of a larger study (conducted in 2010) in a public psychiatric hospital, we report here on the potential consequences for diagnostic assessments of 13 psychiatric evaluations mediated by ad hoc interpreters who were employed as health care workers and household aides. The psychiatric evaluations were recorded and transcribed verbatim. The first author checked for accuracy of transcription and translations, and the two members of the author team who are both senior African language academics rechecked transcription and translation. We used the typology developed by Vasquez and Javier (1991) to study interpreter errors (i.e. omissions, additions and substitutions). All errors were independently rated by a senior psychiatrist and a senior clinical psychologist to determine whether the errors were likely to have a bearing on clinical decisions concerning the patient and to rate whether errors deemed clinically significant contributed to making the patient appear more ill psychiatrically, or less ill. Of the 57 errors recorded, 46% were rated as likely to have an impact on the goal of the clinical session. Raters concurred that the clinically significant errors contributed towards potentially making the patient look more psychiatrically ill. Detailed analyses of evaluations demonstrate the complexity of informal interpreter positioning regarding issues of diagnosis and cultural factors in illness. Evaluations conducted where clinicians and interpreters are not trained in language and interpreting issues may create a distorted picture of the patients' mental health conditions. Copyright 2014. Published by Elsevier Ltd.

45. Leanza Y, Boivin I, Rosenberg E. The patient's Lifeworld: building meaningful clinical encounters between patients, physicians and interpreters. *Communication & Medicine* 2013;10(1):13-25.

In this paper, our objectives are first to explore the different ways physicians and interpreters interact with patients' Lifeworld, and second, to describe and compare communication patterns in consultations with professional and those with family interpreters. We conducted analyses of transcriptions of 16 family practice consultations in Montreal in the presence of interpreters. Patterns of communication are delineated, grounded in Habermas' Communicative Action Theory and Mishler's operational concepts of Voice of Medicine and Voice of Lifeworld. Four communication patterns emerged: (1) strategically using Lifeworld data to achieve biomedical goals; (2) having an interest in the Lifeworld for itself; (3) integrating the Lifeworld with biomedicine; and (4) referring to another professional. Our results suggest physicians engage with patients' Lifeworld and may benefit from both types of interpreters' understanding of the patient's specific situations. A professional interpreter is likely to transmit the patient's Lifeworld utterances to the physician. A family member, on the other hand, may provide extra biomedical and Lifeworld information, but also prevent the patient's Lifeworld accounts from reaching the physician. Physicians' training should include advice on how to work with all types of interpreters and interpreters' training should include mediation competencies in order to enhance their ability to promote the processes of co-construction of meaning.

46. Seale C, Rivas C, Al-Sarraj H, Webb S, Kelly M. Moral mediation in interpreted health care consultations. *Social Science & Medicine* 2013;98:141-148.

This paper reports on the moral work done in routine diabetes review consultations in primary care with nurses. Consultations with fluent English speakers are compared with consultations where an interpreter was present, largely involving patients of Bangladeshi origin. The study setting was Tower Hamlets in London, where type 2 diabetes is particularly common. Existing research has shown some dissatisfaction with diabetes care amongst Bangladeshi patients, and studies of care providers in other locations suggest that they at times experience the care of this group as particularly challenging. Through analysis of video-recorded consultations recorded in 2010-2011 we shed light on possible reasons for these difficulties. The 12 non-English speakers often experienced difficulties in raising issues that concerned them, particularly if their interpreter did not translate their utterance because it was deemed to be unrelated to diabetes. These difficulties were not shared by the 24 fluent English speakers, who also found it easier to convey a positive moral reputation and to excuse behaviour that deviated from recommended self-management practices. Interpreters at times also acted as moral mediators. For example, where a participant in the consultation made statements that appeared to convey a negative moral judgement of an other participant, these would often go untranslated. Probably, neither health care providers nor patients are fully aware of the nature of their communication difficulties. Given this, interpreters possess considerable power to influence matters. Understanding the moral work of consultations is important in explaining the findings of other studies showing difficulties in the provision of diabetes care to people with limited English language skills. Copyright 2013 Elsevier Ltd. All rights reserved.

47. Jaroensawat B, Wankijcharoen S. The tele-interpreter service at the Bangkok Hospital Medical Center, Thailand. *World Hospitals & Health Services* 2013;49(2):30-32.

Thailand has become one of the most famous medical hub countries, which is reflected in the increasing number of international patients visiting the Bangkok Hospital Medical Center (BMC). In response, the Interpreter Department at BMC has been established to provide translation for non-English speaking patients. Overtime the Interpreter Department frequently reaches maximum capacity when providing prompt services on demand, resulting in long waiting times and delayed medical treatment. BMC has foreseen the necessity to implement a tele-interpreter system via videoconferencing technology to provide effective translations in the medical environment where delay is usually not tolerated. Tele-interpretation allows doctors to simply select a language icon on their Wi-Fi IP telephone to instantly connect to an interpreter. After implementation in 2009, the overall customer satisfaction index for the Interpreter Department increased from 64.5% in Quarter 1 to 85.5% in Quarter 3 of 2011. The tele-interpretation system is currently the closest approximation to the face-to-face interpretation method.

48. Seale C, Rivas C, Kelly M. The challenge of communication in interpreted consultations in diabetes care: a mixed methods study. *British Journal of General Practice* 2013;63(607):e125-133.

**BACKGROUND:** The experience of diabetes care for individuals from minority ethnic groups, particularly individuals of Bangladeshi origin, shows they are at a significant disadvantage.

**AIM:** To identify the challenges of interpreted consultations for healthcare providers and to explain the disadvantage experienced by patients from minority groups who have diabetes.

**DESIGN AND SETTING:** Comparison of 12 interpreted consultations with 24 consultations involving fluent English speakers in four primary healthcare centres in Tower Hamlets, east London, UK.

**METHOD:** Content analysis of video recordings of routine diabetes review consultations in primary care, involving 36 patients, nine nurses or healthcare assistants, and six interpreters.

**RESULT:** Interpreted consultations were as long as same-language consultations but patients said less. The incidence of misunderstandings was similar but patients in interpreted consultations asked fewer questions. Indicators of social distance in interpreted consultations included less humour and less discussion of the patient's feelings or personal circumstances. Patients in interpreted consultations were less likely to raise issues unrelated to diabetes, to discuss their own ideas about health, or to talk about clinical parameters. Providers commonly addressed English-speaking patients directly but usually addressed patients through interpreters using the third person. Interpreters sometimes changed the meaning or did not translate speech, and they added their own comments.

**CONCLUSION:** The findings explain some of the known problems of diabetes care for individuals from ethnic minorities. Effective training for interpreters and care providers is needed to reduce social distance and to facilitate patients' involvement in self-management.

49. McCarthy J, Cassidy I, Graham MM, Tuohy D. Conversations through barriers of language and interpretation. *British Journal of Nursing* 2013;22(6):335-339.

Ireland has become a multicultural society in just over a decade, with non-Irish nationals comprising 12% of the population. The challenge for nurses working in the Irish healthcare system is to provide culturally appropriate care to this di-

verse population. This paper reports on a qualitative descriptive study exploring nurses' experiences of communicating with people from diverse cultures, and focuses on language barriers and the use of interpreters. The findings indicate that communicating with people who do not share the same first language is challenging, in particular the participants (nurses) were concerned about their ability to make a comprehensive assessment that ultimately forms the basis for quality care provision. The use of interpreters can inform the assessment process, but there are challenges in accessing and utilising these services. Further continuing education is required to promote culturally appropriate care. There is a need for increased discussion between nurses and interpreters to maximise communication with patients.

50. Lund Hansen MT, Nielsen SS. [Interpretation in the Danish health-care system]. *Ugeskrift for Laeger* 2013;175(10):644-648.

Communication between health professional and patient is central for treatment and patient safety in the health-care system. This systematic review examines the last ten years of specialist literature concerning interpretation in the Danish health-care system. Structural search in two databases, screening of references and recommended literature from two scientists led to identification of seven relevant articles. The review showed that professional interpreters were not used consistently when needed. Family members were also used as interpreters. These results were supported by international investigations.

51. Bramberg EB, Sandman L. Communication through in-person interpreters: a qualitative study of home care providers' and social workers' views. *Journal of Clinical Nursing* 2013;22(1-2):159-167.

**AIMS AND OBJECTIVES:** To describe the experiences of home care providers and social workers in communication, via in-person interpreters, with patients who do not share a common language, and to offer suggestions for practice based on this description.

**BACKGROUND:** The use of interpreters is essential for successful communication to provide equal access to health care for patients not sharing a common language with care providers. Successful bilingual communication is probably even more complex within the home care services with its focus on medical treatment, care and daily support in relation to the more exclusive focus on medical treatment within hospital care.

**DESIGN:** An explorative, qualitative, descriptive study.

**METHODS:** Data were collected in seven focus group interviews. A total of 27 persons, working as registered nurses, assistant nurses and social workers in municipal home care, participated. The analysis was inspired by inductive content analysis.

**RESULTS:** The results express a traditional view on interpretation where the in-person interpreter is supposed to act to a greater or lesser extent as an objective and neutral conduit or communicator of what is said. The interpreter is also expected to observe when medical terms and other concepts need to be explained, which thus exceeds the basic role as a communicator of what was said.

**CONCLUSIONS:** This study emphasises the need to view the interpreter as an active and explicit party in a three-way communication.

**RELEVANCE TO CLINICAL PRACTICE:** Viewing the interpreter as an active and explicit party in a three-way communication and as an essential part of the care team might reduce the possible threat to patient confidentiality, and could contribute to solve the problem of interpreting the patient's non-verbal signs. 2012 Blackwell Publishing Ltd.

52. Jimenez N, Moreno G, Leng M, Buchwald D, Morales LS. Patient-reported quality of pain treatment and use of interpreters in spanish-speaking patients hospitalized for obstetric and gynecological care. *Journal of General Internal Medicine* 2012;27(12):1602-1608.

**BACKGROUND:** Assessment and treatment of pain are based largely on patient's self reports. Patients with limited English proficiency (LEP) may have difficulties communicating their pain symptoms in the presence of language barriers.

**OBJECTIVE:** To determine whether interpreter use was associated with quality of acute pain treatment among Latina patients with limited English proficiency.

**DESIGN:** Secondary analysis of two cross-sectional surveys.

**PARTICIPANTS:** One hundred and eighty-five Latino female patients hospitalized for obstetric and gynecological care who required interpreter services. Patients were classified into two groups according to interpreter availability ('Always' and 'Not Always' available).

**MAIN MEASURES:** Quality of pain treatment was measured by patient report of 1) overall level of pain control during hospitalization; 2) timeliness of pain treatment; and 3) perceived provider helpfulness to treat pain.

**KEY RESULTS:** Patients who always received interpreters were more likely to report higher levels of pain control ( $P=0.02$ ), timely pain treatment ( $P=0.02$ ), and greater perceived provider helpfulness to treat their pain ( $P=0.005$ ), compared with patients who not always received interpreters.

**CONCLUSION:** Use of interpreters by LEP patients was associated with better patient reports on quality of pain treatment, and may also improve clinical interactions related to pain.

53. Flores G, Abreu M, Barone CP, Bachur R, Lin H. Errors of medical interpretation and their potential clinical consequences: a comparison of professional versus ad hoc versus no interpreters. *Annals of Emergency Medicine* 2012;60(5):545-553.

**STUDY OBJECTIVE:** To compare interpreter errors and their potential consequences in encounters with professional versus ad hoc versus no interpreters.

**METHODS:** This was a cross-sectional error analysis of audiotaped emergency department (ED) visits during 30 months in the 2 largest pediatric EDs in Massachusetts. Participants were Spanish-speaking limited-English-proficient patients, caregivers, and their interpreters. Outcome measures included interpreter error numbers, types, and potential consequences.

**RESULTS:** The 57 encounters included 20 with professional interpreters, 27 with ad hoc interpreters, and 10 with no interpreters; 1,884 interpreter errors were noted, and 18% had potential clinical consequences. The proportion of errors of potential consequence was significantly lower for professional (12%) versus ad hoc (22%) versus no interpreters (20%). Among professional interpreters, previous hours of interpreter training, but not years of experience, were significantly associated with error numbers, types, and potential consequences. The median errors by professional interpreters with greater than or equal to 100 hours of training was significantly lower, at 12, versus 33 for those with fewer than 100 hours of training. Those with greater than or equal to 100 hours of training committed significantly lower proportions of errors of potential consequence overall (2% versus 12%) and in every error category.

**CONCLUSION:** Professional interpreters result in a significantly lower likelihood of errors of potential consequence than ad hoc and no interpreters. Among professional interpreters, hours of previous training, but not years of experience, are associated with error numbers, types, and consequences. These findings

suggest that requiring at least 100 hours of training for interpreters might have a major impact on reducing interpreter errors and their consequences in health care while improving quality and patient safety. Copyright 2012. Published by Mosby, Inc.

54. Hsieh E, Kramer EM. Medical interpreters as tools: dangers and challenges in the utilitarian approach to interpreters' roles and functions. *Patient Education & Counseling* 2012;89(1):158-162.

**OBJECTIVE:** This study explores the tensions, challenges, and dangers when a utilitarian view of interpreter is constructed, imposed, and/or reinforced in health care settings.

**METHODS:** We conducted in-depth interviews and focus groups with 26 medical interpreters from 17 different languages and cultures and 39 providers of five specialties. Grounded theory was used for data analysis.

**RESULTS:** The utilitarian view to interpreters' roles and functions influences providers in the following areas: (a) hierarchical structure and unidirectional communication, (b) the interpreter seen as information gatekeeper, (c) the interpreter seen as provider proxy, and (d) interpreter's emotional support perceived as tools.

**CONCLUSION:** When interpreters are viewed as passive instruments, a utilitarian approach may compromise the quality of care by silencing patients' and interpreters' voice, objectifying interpreters' emotional work, and exploiting patients' needs.

**PRACTICE IMPLICATIONS:** Providers need to recognize that a utilitarian approach to the interpreter's role and functions may create interpersonal and ethical dilemmas that compromise the quality of care. By viewing interpreters as smart technology (rather than passive instruments), both providers and interpreters can learn from and co-evolve with each other, allowing them to maintain control over their expertise and to work as collaborators in providing quality care. Copyright 2012 Elsevier Ireland Ltd. All rights reserved.

55. Lindholm M, Hargraves JL, Ferguson WJ, Reed G. Professional language interpretation and inpatient length of stay and readmission rates. *Journal of General Internal Medicine* 2012;27(10):1294-1299.

**BACKGROUND:** The population of persons seeking medical care is linguistically diverse in the United States. Language barriers can adversely affect a patient's ability to explain their symptoms. Among hospitalized patients, these barriers may lead to higher readmission rates and longer hospitalizations. Trained interpreters help overcome communication barriers; however, interpreter usage among patients is suboptimal.

**OBJECTIVE:** To investigate differences among patients with limited English proficiency (LEP) in their length of stay (LOS) and 30-day readmission rate associated with their receiving professional interpretation at admission or discharge.

**DESIGN:** We analyzed the rates of interpretation at admission and discharge of all LEP patients admitted to a tertiary care hospital over a three-year period. We calculated length of stay in days and as log of LOS. We also examined 30-day readmission. Using multivariable regression models, we explored differences among patients who received interpretation at admission, discharge, or both, controlling for patient characteristics, including age, illness severity, language, and gender.

**PARTICIPANTS:** All LEP patients admitted between May 1, 2004 and April 30, 2007.

**MAIN MEASURES:** Length of hospital stay as related to use of professional interpreters; readmission to the hospital within 30 days.

**KEY RESULTS:** Of the 3071 patients included in the study, 39 % received language interpretation on both admission and discharge date. Patients who did not receive professional interpretation at admission or both admission/discharge had an increase in their LOS of between 0.75 and 1.47 days, compared to patients who had an interpreter on both day of admission and discharge ( $P < 0.02$ ). Patients receiving interpretation at admission and/or discharge were less likely than patients receiving no interpretation to be readmitted with 30 days.

**CONCLUSIONS:** The length of a hospital stay for LEP patients was significantly longer when professional interpreters were not used at admission or both admission/discharge.

56. Anonymous. Study: To minimize errors, rely on interpreters when caring for LEP patients in the ED. *ED Management* 2012;24(8):89-92.

A new study strongly suggests that it is important for EDs to rely on professional interpreters, rather than ad hoc interpreters or no interpreters at all, when caring for patients with limited English proficiency (LEP). The researchers examined health care encounters involving LEP patients at two pediatric EDs, and found that the encounters associated with professional interpreters were associated with far fewer errors of potential clinical consequence than the encounters associated with ad hoc interpreters or no interpreters. Experts say the most important first step in minimizing language-based errors is to identify patients with LEP when they present for care. Professional interpreters are defined as having at least 100 hours of training. Researchers say that when evaluating interpreters, professional training is more valuable in terms of minimizing errors than experience on the job. Make sure that interpreters are available to LEP patients throughout the course of their ED visit as well as during any follow-up visits or telephone calls.

57. Penn C, Watermeyer J. When asides become central: small talk and big talk in interpreted health interactions. *Patient Education & Counseling* 2012;88(3):391-398.

**OBJECTIVE:** In health interactions which require an interpreter, there are occasions when there are uninterpreted asides between participants. These are often construed to be features which hinder the interpreting process. However they have potential to yield critical information in certain health care contexts.

**METHODS:** This paper examines 17 instances of asides in interpreted interactions which took place in 3 intercultural health care contexts in South Africa. The asides were transcribed, translated and analysed based on conversation analysis principles.

**RESULTS:** The topics of the asides as well as who initiates them appear highly dependent on contextual features. There is evidence for the emergence of 'small talk' which serves the purpose of framing comfort levels, aligning the interpreter and patient or offering guidance for example, and the emergence of 'big talk' or engagement on topics which for cultural and historical reasons and power imbalances between the health practitioner and patient may be too difficult to raise directly. Such information also yields critical diagnostic and therapeutic information.

**CONCLUSION:** Our findings suggest evidence for the presence of multiple patterns and roles that the interpreter may assume in such interactions.

**PRACTICE IMPLICATIONS:** Implications for team training and practice are provided. Copyright 2012 Elsevier Ireland Ltd. All rights reserved.



58. Grover A, Deakyne S, Bajaj L, Roosevelt GE. Comparison of throughput times for limited English proficiency patient visits in the emergency department between different interpreter modalities. *Journal of Immigrant & Minority Health* 2012;14(4):602-607.

Appropriate interpretation is imperative for families with limited English proficiency (LEP). We compared throughput times for ED visits involving families with LEP based on type of interpretation provided: in-person interpretation, remote telephonic interpretation or bilingual providers. This study is a secondary analysis of a prospective study of caretaker satisfaction with different interpreter modalities. We queried the medical record for event time stamps, clinical factors and disposition. The in-person cohort (116 min) had a significantly shorter total throughput time than telephonic (141 min) and bilingual provider (153 min) cohorts ( $P < 0.0001$ ), due to a difference in time seen by provider to disposition. Time seen by provider to disposition remained statistically significantly shorter for the in-person cohort when compared to telephonic interpretation when controlling for potential confounders such as admission rate ( $P = 0.006$ ). In-person interpretation significantly decreased ED throughput times and may be an important consideration in the choice of interpreter modality.

59. Schenker Y, Smith AK, Arnold RM, Fernandez A. "Her husband doesn't speak much English": conducting a family meeting with an interpreter. *Journal of Palliative Medicine* 2012;15(4):494-498.

A growing percentage of critically ill patients and their families in the United States speak limited English. We present the case of a palliative care consult conducted across language barriers to frame a discussion about the use of interpreters for family meetings, including the evidence for using a professional interpreter, the burden experienced by interpreters involved in end-of-life discussions, potential challenges encountered when conducting a family meeting with an interpreter, and recommended best practices for interpreter use in these settings.

60. Casas R, Guzman-Velez E, Cardona-Rodriguez J, Rodriguez N, Quinones G, Izaguirre B, et al. Interpreter-mediated neuropsychological testing of monolingual Spanish speakers. *Clinical Neuropsychologist* 2012;26(1):88-101.

The primary objective of this study was to investigate empirically whether using an interpreter to conduct neuropsychological testing of monolingual Spanish speakers affects test scores. Participants included 40 neurologically normal Spanish speakers with limited English proficiency, aged 18-65 years ( $M=39.7$ ,  $SD=13.9$ ), who completed the Vocabulary, Similarities, Block Design, and Matrix Reasoning subtests of the Wechsler Adult Intelligence Scale-III in two counterbalanced conditions: with and without an interpreter. Results indicated that interpreter use significantly increased scores on Vocabulary and Similarities. However, scores on Block Design and Matrix Reasoning did not differ depending on whether or not an interpreter was used. In addition the findings suggested a trend toward higher variability in scores when an interpreter was used to administer Vocabulary and Similarities; this trend did not show up for Block Design or Matrix Reasoning. Together the results indicate that interpreter use may significantly affect scores for some tests commonly used in neuropsychological practice, with this influence being greater for verbally mediated tests. Additional research is needed to identify the types of

tests that may be most affected as well as the factors that contribute to the effects. In the meantime neuropsychologists are encouraged to avoid interpreter use whenever practically possible, particularly for tests with high demands on interpreter abilities and skills, with tests that have not been appropriately adapted and translated into the patient's target language, and with interpreters who are not trained professionals.

61. Jacobs EA, Fu PC, Jr., Rathouz PJ. Does a video-interpreting network improve delivery of care in the emergency department? *Health Services Research* 2012;47(1 Pt 2):509-522.

**OBJECTIVE:** To measure the impact of a policy change from use of telephonic and face-to-face interpreting to use of a video-interpreting network on Emergency Department (ED) care.

**DATA SOURCES/STUDY SETTING:** Observational study of ED care at two California hospitals.

**STUDY DESIGN:** We compared tests ordered, time in the ED, and admission rates for English- and Spanish-speaking patients presenting with chest pain and abdominal pain before and after the policy change.

**DATA COLLECTION/EXTRACTION METHODS:** Data were extracted from electronic medical and billing records.

**PRINCIPAL FINDINGS:** Mean time in the ED, mean number of laboratory tests, radiology services, electrocardiograms, and echocardiograms, and rates of hospital admission for both language groups at both hospitals went down in the post-video-interpreting network period compared with the pre-video-interpreting network period. The percentage of patients leaving the ED against medical advice (AMA) increased in one hospital for both language groups; this increase was statistically significantly smaller in the Spanish-language group compared with the English group ( $p = .04$ ).

**CONCLUSIONS:** The studied video-interpreting network had minimal impact on health care outcomes in the ED. Health Research and Educational Trust.

62. Bagchi AD, Dale S, Verbitsky-Savitz N, Andrecheck S, Zavotsky K, Eisenstein R. Examining effectiveness of medical interpreters in emergency departments for Spanish-speaking patients with limited English proficiency: results of a randomized controlled trial. *Annals of Emergency Medicine* 2011;57(3):248-256.e241-244.

**STUDY OBJECTIVES:** This study examines whether availability of in-person professional interpreter services during emergency department (ED) visits affects satisfaction of limited English proficient patients and their health providers, using a randomized controlled trial.

**METHODS:** We randomized time blocks during which in-person professional interpreters were available to Spanish-speaking patients in the EDs of 2 central New Jersey hospitals. We assessed the intervention's effects on patient and provider satisfaction through a multilevel regression model that accounted for the nesting of patients within time blocks and controlled for the patient's age and sex, hospital, and when the visit occurred (weekday or weekend).

**RESULTS:** During the 7-month intake period, 242 patients were enrolled during 101 treatment time blocks and 205 patients were enrolled during 100 control time blocks. Regression-adjusted results indicate that 96% of treatment group patients were "very satisfied" (on a 5-point Likert scale) with their ability to communicate during the visit compared with 24% of control group patients (odds ratio=72; 95% confidence interval 31 to 167). (Among control group members who were not very satisfied, responses ranged from "very dissatis-

fied" to "somewhat satisfied.") Similarly, physicians, triage nurses, and discharge nurses were more likely to be very satisfied with communication during treatment time blocks than during control time blocks. We did not assess acuity of illness or global measures of satisfaction.

**CONCLUSION:** Use of in-person, professionally trained medical interpreters significantly increases Spanish-speaking limited English proficient patients' and their health providers' satisfaction with communication during ED visits. Copyright 2010 American College of Emergency Physicians. Published by Mosby, Inc. All rights reserved.

63. Roger P, Code C. Lost in translation? Issues of content validity in interpreter-mediated aphasia assessments. *International Journal of Speechlanguage Pathology* 2011;13(1):61-73.

In many parts of the world, speech-language pathologists (SLPs) are frequently called upon to assess aphasia in bilingual speakers, or in speakers of languages of which they have little or no knowledge. One of the strategies that SLPs employ in these situations is to involve an interpreter in the assessment process. Three authentic interpreter-mediated aphasia assessments were analysed for the present study, which aimed to determine the degree to which the content validity of the individual tests was compromised in the process of their administration through an interpreter. Findings reveal that content validity was frequently weakened either at the point of administration of the test or at the point at which responses were reported back by the interpreter to the SLP. Based on these findings, it is argued that the conduct of interpreter-mediated aphasia assessments needs to be fundamentally re-thought to take account of the limitations inherent in the interpreting process. To this end, this study presents a number of practical recommendations for the involvement of interpreters in aphasia assessments, with a view to making optimal use of existing assessment materials and enhancing the quality of diagnostic information to emerge from such clinical sessions.

64. Watermeyer J. "She will hear me": how a flexible interpreting style enables patients to manage the inclusion of interpreters in mediated pharmacy interactions. *Health Communication* 2011;26(1):71-81.

Interpreters are frequently called upon to assist with communication across language barriers in health care contexts. Research has neglected the voice of the patient, and interpreting practices are often dominated by assumptions about how best to include an interpreter in interactions. Data from a South African study of interpreted pharmacy interactions provide some novel insights into how a flexible interpreting style may enable patients to initiate and manage the inclusion of interpreters in health care interactions. This study confirms the inappropriateness of the conduit model of interpreting and suggests that a flexible approach based on patient preferences and communicative needs may be more successful in realizing communication goals and achieving patient-centered interactions. Recommendations for how this style might be implemented are provided.

65. Hsieh E, Hong SJ. Not all are desired: providers' views on interpreters' emotional support for patients. *Patient Education & Counseling* 2010;81(2):192-197.

**OBJECTIVE:** This study examines (a) providers' expectations and concerns for interpreters' emotional support, and (b) the complexity and dilemma for interpreters to offer emotional support in health care settings.

**METHODS:** We recruited 39 providers from 5 specialties to participate in in-depth interviews or focus groups. Grounded theory was used for data analysis to identify providers' expectations and concerns for interpreters' emotional support.

**RESULTS:** From the providers' perspective, interpreters' emotional support: (a) is embodied through their physical presence, (b) is to be both a human being but also a professional, (c) represents the extension of the providers' care, and (d) imposes potential risks to quality of care.

**CONCLUSION:** Emotional support in bilingual health care is accomplished through the alliance of providers and interpreters, complementing each other to support patients' emotional needs.

**PRACTICE IMPLICATION:** Interpreters should be vigilant about how their emotional support may impact the provider-patient relationship and the providers' therapeutic objectives. Interpreters should be aware that providers also rely on them to provide emotional support, which highlights the importance of giving medical talk and rapport-building talk equal attention in medical encounters. Copyright 2010 Elsevier Ireland Ltd. All rights reserved.

66. Locatis C, Williamson D, Gould-Kabler C, Zone-Smith L, Detzler I, Roberson J, et al. Comparing in-person, video, and telephonic medical interpretation. *Journal of General Internal Medicine* 2010;25(4):345-350.

**BACKGROUND:** Using trained interpreters to provide medical interpretation services is superior to services provided on an ad hoc basis, but little is known about the effectiveness of providing their services remotely, especially using video.

**OBJECTIVE:** To compare remote medical interpretation services by trained interpreters via telephone and videoconference to those provided in-person.

**DESIGN:** Quasi-randomized control study.

**PARTICIPANTS:** Two hundred and forty-one Spanish speaking patient volunteers, twenty-four health providers, and seven interpreters.

**APPROACH:** Patients, providers and interpreters each independently completed scales evaluating the quality of clinical encounters and, optionally, made free text comments. Interviews were conducted with 23 of the providers, the seven interpreters, and a subset of 30 patients. Time data were collected.

**RESULTS:** Encounters with in-person interpretation were rated significantly higher by providers and interpreters, while patients rated all methods the same. There were no significant differences in provider and interpreter ratings of remote methods. Provider and interpreter comments on scales and interview data support the higher in-person ratings, but they also showed a distinct preference for video over the phone. Phone interviews were significantly shorter than in-person.

**DISCUSSION:** Patients rated interpretation services highly no matter how they were provided but experienced only the method employed at the time of the encounter. Providers and interpreters were exposed to all three methods, were more critical of remote methods, and preferred videoconferencing to the telephone as a remote method. The significantly shorter phone interviews raise questions about the prospects of miscommunication in telephonic interpretation, given the absence of a visual channel, but other factors might have affected time results. Since the patient population studied was Hispanic and predominantly female care must be taken in generalizing these results to other populations.

67. Crossman KL, Wiener E, Roosevelt G, Bajaj L, Hampers LC. Interpreters: telephonic, in-person interpretation and bilingual providers. *Pediatrics* 2010;125(3):e631-638.

**CONTEXT:** Language barriers affect health care interactions. Large, randomized studies of the relative efficacy of interpreter modalities have not been conducted.

**OBJECTIVE:** To compare the efficacy of telephonic and in-person medical interpretation to visits with verified bilingual physicians.

**METHODS:** This was a prospective, randomized trial. The setting was an urban pediatric emergency department at which approximately 20% of visits are by families with limited English proficiency. The participants were families who responded affirmatively when asked at triage if they would prefer to communicate in Spanish. Randomization of each visit was to (1) remote telephonic interpretation via a double handset in the examination room, (2) an in-person emergency department-dedicated medical interpreter, or (3) a verified bilingual physician. Interviews were conducted after each visit. The primary outcome was a blinded determination of concordance between the caregivers' description of their child's diagnosis with the physician's stated discharge diagnosis. Secondary outcomes were qualitative measures of effectiveness of communication and satisfaction. Verified bilingual providers were the gold standard for noninferiority comparisons.

**RESULTS:** A total of 1201 families were enrolled: 407 were randomly assigned to telephonic interpretation and 377 to in-person interpretation, and 417 were interviewed by a bilingual physician. Concordance between the diagnosis in the medical record and diagnosis reported by the family was not different between the 3 groups (telephonic: 95.1%; in-person: 95.5%; bilingual: 95.4%). The in-person-interpreter cohort scored the quality and satisfaction with their visit worse than both the bilingual and telephonic cohorts ( $P < .001$ ). Those in the bilingual-provider cohort were less satisfied with their language service than those in the in-person and telephonic cohorts ( $P < .001$ ). Using the bilingual provider as a gold standard, noninferiority was demonstrated for both interpreter modalities (telephonic and in-person) for quality and satisfaction of the visit.

**CONCLUSIONS:** Both telephonic and in-person interpretation resulted in similar concordance in understanding of discharge diagnosis compared with bilingual providers. In general, noninferiority was also seen on qualitative measures, although there was a trend favoring telephonic over in-person interpretation.

68. Napoles AM, Santoyo-Olsson J, Karliner LS, O'Brien H, Gregorich SE, Perez-Stable EJ. Clinician ratings of interpreter mediated visits in underserved primary care settings with ad hoc, in-person professional, and video conferencing modes. *Journal of Health Care for the Poor & Underserved* 2010;21(1):301-317.

Linguistic interpretation ameliorates health disparities disfavoring underserved limited English-proficient patients, yet few studies have compared clinician satisfaction with these services. Self-administered clinician post-visit surveys compared the quality of interpretation and communication, visit satisfaction, degree of patient engagement, and cultural competence of visits using untrained people acting as interpreters (ad hoc), in-person professional, or video conferencing professional interpretation for 283 visits. Adjusting for clinician and patient characteristics, the quality of interpretation of in-person and video conferencing modes were rated similarly (OR 1.79, 95% CI 0.74, 4.33). The quality of in-person (OR 5.55, 95% CI 1.50, 20.51) and video conferencing (OR 3.10, 95% CI 1.16, 8.31) were rated higher than ad hoc interpretation. Self-assessed cultural competence was better for in-person versus

video conferencing interpretation (OR 2.32, 95% CI 1.11, 4.86). Video conferencing interpretation increases access without compromising quality, but cultural nuances may be better addressed by in-person interpreters. Professional interpretation is superior to ad hoc (OR 4.15, 95% CI 1.43, 12.09).

69. Hsieh E, Ju H, Kong H. Dimensions of trust: the tensions and challenges in provider--interpreter trust. *Qualitative Health Research* 2010;20(2):170-181.

In this study we examined the challenges to providers' and interpreters' collaboration in bilingual health care. We conducted in-depth interviews and focus groups with 26 medical interpreters (speaking 17 languages) and 32 providers (from four specialties) in the United States to provide an empirically based framework of provider-interpreter trust. Constant comparative analysis was used for data analysis. We identified four dimensions of trust, theoretical constructs that can strengthen or compromise provider-interpreter trust: interpreter competence, shared goals, professional boundaries, and established patterns of collaboration. In this article we describe how these dimensions highlight tensions and challenges that are unique in provider-interpreter relationships. We conclude with practical guidelines that can enhance provider-interpreter trust, and propose future research directions in bilingual health care.

70. Thornton JD, Pham K, Engelberg RA, Jackson JC, Curtis JR. Families with limited English proficiency receive less information and support in interpreted intensive care unit family conferences. *Critical Care Medicine* 2009;37(1):89-95.

**OBJECTIVE:** Family communication is important for delivering high quality end-of-life care in the intensive care unit, yet little research has been conducted to describe and evaluate clinician-family communication with non-English-speaking family members. We assessed clinician-family communication during intensive care unit family conferences involving interpreters and compared it with conferences without interpreters.

**DESIGN:** Cross-sectional descriptive study.

**SETTING:** Family conferences in the intensive care units of four hospitals during which discussions about withdrawing life support or delivery of bad news were likely to occur.

**PARTICIPANTS:** Seventy family members from ten interpreted conferences and 214 family members from 51 noninterpreted conferences. Nine different physicians led interpreted conferences and 36 different physicians led noninterpreted conferences.

**MEASUREMENTS:** All 61 conferences were audiotaped. We measured the duration of the time that families, interpreters, and clinicians spoke during the conference, and we tallied the number of supportive statements issued by clinicians in each conference.

**RESULTS:** The mean conference time was 26.3 +/- 13 mins for interpreted and 32 +/- 15 mins for noninterpreted conferences ( $p = 0.25$ ). The duration of clinician speech was 10.9 +/- 5.8 mins for interpreted conferences and 19.6 +/- 10.2 mins for noninterpreted conferences ( $p = 0.001$ ). The amount of clinician speech as a proportion of total speech time was 42.7% in interpreted conferences and 60.5% in noninterpreted conferences ( $p = 0.004$ ). Interpreter speech accounted for 7.9 +/- 4.4 mins and 32% of speech in interpreter conferences. Interpreted conferences contained fewer clinician statements providing support for families, including valuing families' input ( $p = 0.01$ ), easing emotional burdens ( $p < 0.01$ ), and active listening ( $p < 0.01$ ).

**CONCLUSIONS:** This study suggests that families with non-English-speaking members may be at increased risk of receiving less information about their loved one's critical illness as well as less emotional support from their clinicians. Future studies should identify ways to improve communication with, and support for, non-English-speaking families of critically ill patients.

71. Pham K, Thornton JD, Engelberg RA, Jackson JC, Curtis JR. Alterations during medical interpretation of ICU family conferences that interfere with or enhance communication. *Chest* 2008;134(1):109-116.

**RATIONALE:** Many conferences in the ICU occur with the families of patients with limited English proficiency, requiring a medical interpreter. Despite the importance of medical interpretation, little is known about the alterations that occur and their effect on communication.

**OBJECTIVES:** This study characterizes the types, prevalence, and potential effects of alterations in interpretation during ICU family conferences involving end-of-life discussions.

**METHODS:** We identified ICU family conferences in two hospitals in which a medical interpreter was used. Ten conferences were audiotaped; 9 physicians led these conferences, and 70 family members participated. Research interpreters different from those attending the conference translated the non-English language portions of the audiotaped conferences. We identified interpretation alterations, grouped them into four types, and categorized their potential effects on communication.

**RESULTS:** For each interpreted exchange between clinicians and family, there was a 55% chance that an alteration would occur. These alterations included additions, omissions, substitutions, and editorializations. Over three quarters of alterations were judged to have potentially clinically significant consequences on the goals of the conference. Of the potentially significant alterations, 93% were likely to have a negative effect on communication; the remainder, a positive effect. The alterations with potentially negative effects included interference with the transfer of information, reduced emotional support, and reduced rapport. Those with potential positive effects included improvements in conveying information and emotional support.

**CONCLUSIONS:** Alterations in medical interpretation seem to occur frequently and often have the potential for negative consequences on the common goals of the family conference. Further studies examining and addressing these alterations may help clinicians and interpreters to improve communication with family members during ICU family conferences.

72. Moreno G, Tarn DM, Morales LS. Impact of interpreters on the receipt of new prescription medication information among Spanish-speaking Latinos. *Medical Care* 2009;47(12):1201-1208.

**BACKGROUND:** For Latinos, limited English proficiency (LEP) is a barrier to receiving important information about a new medication prescription. Access to interpreters may impact the receipt of important medication-related information.

**OBJECTIVE:** To examine the association between interpreter use and reports of new prescription medication advice among Latinos with LEP.

**METHODS:** We examined cross-sectional survey data from 1590 Latino adults with LEP from 8 sites across the United States. The main outcomes are 5 measures of new prescription medication advising: (1) explanation of medication purpose, (2) explanation of possible side effects, (3) explanation of medication directions, (4) receipt of written information in Spanish from pharmacy, and (5) receipt of medicine bottle with Spanish language label.

**RESULTS:** Among patients prescribed a new medication, 72% reported being told about the purpose of the medication, 52% about possible side effects, and 70% about how to take the new medicine. Forty-four percent said they received written medication information in Spanish from pharmacy, and 47% said their medicine bottle label was written in Spanish. Interpreter use was independently associated with receiving explanations about: possible side effects (adjusted odds ratio [AOR] = 1.81; 95% confidence intervals [CI]: 1.16-2.45); medication directions (AOR = 2.50; 95% CI: 1.67-3.59); and medication purpose (AOR = 3.55; 95% CI: 2.14-4.65).

**CONCLUSIONS:** Among Latinos with LEP, interpreter use increases patient receipt of important information when a new medication is prescribed. There is a continuing need for effective policies and interventions to improve provider communication with LEP patients.

73. Zayas LH, Cabassa LJ, Perez MC, Cavazos-Rehg PA. Using interpreters in diagnostic research and practice: pilot results and recommendations. *Journal of Clinical Psychiatry* 2007;68(6):924-928.

**OBJECTIVE:** This pilot study examined the impact and role of interpreters in videotaped and some live diagnostic interviews of Hispanic outpatients in an urban psychiatric service.

**METHOD:** The study, conducted from June 2002 to February 2004, included 98 bilingual or Spanish-speaking monolingual adult Hispanic outpatients who participated in live or videotaped diagnostic interviews with English-speaking, non-Hispanic (N = 33) or Hispanic (N = 16) clinicians. Interpreters provided assistance to patients and to non-Hispanic clinicians in 71 cases. After completing live interviews or watching videotaped interviews with interpreter assistance, clinicians independently filled out questionnaires asking for diagnoses and other information (questions about the clinical encounter and rating of symptom severity).

**RESULTS:** Clinicians reported high confidence in their assessments because interpreters provided unbiased, accurate information. Without interpreters, clinicians reported that patient diagnoses and functioning would have been assessed as less severe or the same. Interpreters helped patients with limited English navigate mostly videotaped interviews and respond to clinician queries. Interpreters brokered cultural expressions and colloquialism, distinguished easily misunderstood words and concepts, and were challenged by patients with cognitive deficits and thought disorders.

**CONCLUSIONS:** Findings point to functions, process, and logistics of interpretation, including reaching for linguistic and conceptual fidelity and acting as unobtrusive, disciplined participants to maintain diagnostic accuracy. Recommendations for assuring useful research-quality data are applicable to diagnostic practice.

74. Eamranond PP, Davis RB, Phillips RS, Wee CC. Patient-physician language concordance and lifestyle counseling among Spanish-speaking patients. *Journal of Immigrant & Minority Health* 2009;11(6):494-498.

**OBJECTIVE:** Patient-physician language discordance is associated with worse quality of healthcare for patients with limited English proficiency. Patients with language-discordant physicians have more problems understanding medical situations. The impact of patient-physician language concordance on lifestyle counseling among Spanish-speaking patients is not known.

**METHODS:** We performed a retrospective medical record review and identified 306 Spanish-speaking patients who used interpreter services between June 2001 and June 2006 in two Boston-based primary care practices. Our



primary outcome was counseling on exercise, diet, and smoking. Our main predictor of interest was patient-physician language concordance.

**RESULTS:** Patients with language-concordant physicians were more likely to be counseled on diet and physical activity compared to patients with language-discordant physicians. After adjustment for age, sex, insurance status, number of primary care visits, and comorbidity score, these differences in counseling persisted for diet [odds ratio (OR) = 2.2, CI 1.3-3.7] and physical activity (OR = 2.3, CI 1.4-3.8). There was no significant difference with regard to discussion of smoking (OR = 1.3, CI 0.8-2.1).

**CONCLUSIONS:** Spanish-speaking patients are more likely to discuss diet and exercise modification if they have a Spanish-speaking physician compared to those having a non-Spanish-speaking physician. Further research is needed to explore whether matching Spanish-speaking patients with Spanish-speaking providers may improve lifestyle counseling.

75. Pugh MA, Vetere A. Lost in translation: an interpretative phenomenological analysis of mental health professionals' experiences of empathy in clinical work with an interpreter. *Psychology & Psychotherapy: Theory, Research & Practice* 2009;82(Pt 3):305-321.

**OBJECTIVES:** Although empathy is considered by many to be fundamental to psychotherapeutic practice, little is known about how working with an interpreter may affect empathy in clinical work. Accordingly, the present study aims to provide an exploration of mental health professionals' experiences of empathy in clinical work with an interpreter.

**DESIGN:** A qualitative methodology was utilized in order to provide a rich understanding of participants' shared experiences of empathy in work with an interpreter. Data were gathered using a semi-structured interviewing approach. Interpretative phenomenological analysis (IPA) was chosen as the method of analysis as this would provide a highly descriptive and in-depth account of participants' experiences.

**METHOD:** Interviews were conducted with 10 mental health professionals regularly working with linguistic interpreters. Interviews were transcribed and analysed using IPA.

**RESULTS:** The analysis yielded four major themes which described the effects of translation upon empathic dialogues with service-users; changes in the quality of empathic communication with service-users; the effects of cultural similarities and dissimilarities upon empathy within client-interpreter and client-professional dyads; and opportunities for the interpreter to enrich participants' understanding of service-users' perspectives.

**CONCLUSIONS:** The difficulties participants encountered in work with an interpreter highlight a need for training in cross-language empathy for interpreters and mental health professionals, and encourage the use of transcultural models of psychotherapy in work with non-English speaking service-users. Some of the difficulties associated with adopting traditional humanistic models of empathy, which tend to centralize the therapist within empathic processes, when working with interpreters are also discussed.

76. Thom N. Using telephone interpreters to communicate with patients. *Nursing Times* 2008;104(46):28-29.

Language barriers can affect patients' psychological and physical health. To meet these challenges, nurses need to implement strategies to promote accurate communication. This article discusses how health visitors sought to improve communication by using a telephone interpreter service. Its implementation and evaluation were part of an action research study. Fourteen health

visitors took part and were interviewed before and after implementation. This article focuses on recommendations from the research, offering guidance on using such a service.

77. Cunningham H, Cushman LF, Akuete-Penn C, Meyer DD. Satisfaction with telephonic interpreters in pediatric care. *Journal of the National Medical Association* 2008;100(4):429-434.

**OBJECTIVES:** To compare satisfaction among Spanish-speaking mothers who did and did not use telephonic interpreters during pediatric visits, and to examine resident physician attitudes about telephonic interpreter use.

**DESIGN, SETTING, PARTICIPANTS AND INTERVENTIONS:** Anonymous surveys were administered to 98 mothers limited in English proficiency and presenting for well-baby visits in an urban university hospital-affiliated practice. Pediatric visits were performed by 24 non-Spanish-proficient pediatric residents. The first 46 women (baseline cohort) received routine services, including ad-hoc interpretation or no interpretation; the second 52 women (intervention cohort) used a dual-headset telephonic interpreter service.

**OUTCOME MEASURES:** Mothers completed postvisit interviews assessing overall satisfaction, comfort and ease of communication. Pediatric residents completed self-administered questionnaires assessing attitudes about and experience with telephonic interpretation.

**RESULTS:** The intervention cohort overwhelmingly rated telephonic interpretation as "very helpful" (94%), indicating the visit would have been "harder" without the service (98%). Significantly more intervention cohort mothers reported it was "very easy" to communicate with the physician (83% vs. 22%,  $P < 0.01$ ), they understood "all" that the physician told them (97% vs. 80%,  $P < 0.05$ ) and they were "very satisfied" with the clinic overall (85% vs. 57%,  $P < 0.05$ ). Almost all intervention cohort mothers (96%) reported a preference to use telephonic interpretation at their subsequent visit; however, only one-third of residents believed their patients would prefer to use the telephonic interpreter in the future.

**CONCLUSIONS:** Mothers who used telephonic interpretation reported significantly greater communication and overall satisfaction compared to mothers in routine care. Pediatric residents substantially underestimated their patients' desire to use telephonic interpreters.

78. Fatahi N, Hellstrom M, Skott C, Mattsson B. General practitioners' views on consultations with interpreters: a triad situation with complex issues. *Scandinavian Journal of Primary Health Care* 2008;26(1):40-45.

**OBJECTIVE:** To study a group of general practitioners' (GPs) views on cross-cultural consultations through interpreters in primary healthcare in Sweden.

**DESIGN:** Two group interviews and three personal interviews with experienced GPs regarding clinical consultation through interpreters were carried out. The interviews were transcribed and analysed and the text was categorized according to content analysis.

**SETTING:** Primary healthcare.

**SUBJECTS:** Eight GPs were interviewed.

**MAIN OUTCOME MEASURES:** The response and opinions of the GPs.

**RESULTS:** In the analysis it appeared that an optimal clinical encounter demands an active role by all participants involved in the consultation. The interpreter has to strive after being a stable neutral information bridge, and has a balancing role between the GP and the patient. The GP has to be open to cultural inequalities and recognize consultation through an interpreter as a part of her/his job. The patient needs to be an active and visible participant,

not hiding behind the interpreter. Common obstacles and imperfections to reach the best possible triad were discussed. Additionally, practical assets in the encounter were delineated. Accurate physical placing of the persons in the room, adequate length of consultation time, and using the same interpreter from one visit to another were mentioned as factors influencing the outcome of the consultation.

**CONCLUSION:** Barriers in cross-cultural communications could originate from all persons involved, the interpreter, the GP, and the patient, as well as from tangible factors. Ways to reduce misunderstandings in GP-patient encounters through interpreters are suggested.

79. Bischoff A, Hudelson P, Bovier PA. Doctor-patient gender concordance and patient satisfaction in interpreter-mediated consultations: an exploratory study. *Journal of Travel Medicine* 2008;15(1):1-5.

**BACKGROUND:** Research suggests that doctor-patient communication patterns and patient satisfaction are influenced by gender. However, little is known about the effect of gender in consultations with foreign language-speaking patients and in interpreter-mediated consultations.

**METHODS:** The objective of the study was to explore the effect of doctor-patient gender concordance on satisfaction of foreign language-speaking patients in consultations with and without a professional interpreter. Its design consists of a cross-sectional analysis of patients' reports. A total of 363 consultations with foreign language-speaking patients were included in the analysis. We measured the mean scores of six items on the quality of communication (answer scale 0-10): the doctor's response to the patient's needs, the doctors' explanations, the doctor's respectfulness toward the patient, the quality of communication in general, the overall consultation process, and information provided regarding follow-up.

**RESULTS:** When interpreters were used, mean scores were similar for doctor-patient concordant and discordant pairs. However, in the absence of interpreters, doctor-patient gender discordance was associated with lower overall ratings of the quality of communication (-0.46,  $p=0.01$ ).

**CONCLUSIONS:** Our results suggest that the presence of a professional interpreter may reduce gender-related communication barriers during medical encounters with foreign language-speaking patients.

80. Ngo-Metzger Q, Sorkin DH, Phillips RS, Greenfield S, Massagli MP, Clarridge B, et al. Providing high-quality care for limited English proficient patients: the importance of language concordance and interpreter use. *Journal of General Internal Medicine* 2007;22 Suppl 2:324-330.

**BACKGROUND:** Provider-patient language discordance is related to worse quality care for limited English proficient (LEP) patients who speak Spanish. However, little is known about language barriers among LEP Asian-American patients.

**OBJECTIVE:** We examined the effects of language discordance on the degree of health education and the quality of interpersonal care that patients received, and examined its effect on patient satisfaction. We also evaluated how the presence/absence of a clinic interpreter affected these outcomes.

**DESIGN:** Cross-sectional survey, response rate 74%.

**PARTICIPANTS:** A total of 2,746 Chinese and Vietnamese patients receiving care at 11 health centers in 8 cities.

**MEASUREMENTS:** Provider-patient language concordance, health education received, quality of interpersonal care, patient ratings of providers, and the

presence/absence of a clinic interpreter. Regression analyses were used to adjust for potential confounding.

**RESULTS:** Patients with language-discordant providers reported receiving less health education (beta = 0.17,  $p < 0.05$ ) compared to those with language-concordant providers. This effect was mitigated with the use of a clinic interpreter. Patients with language-discordant providers also reported worse interpersonal care (beta = 0.28,  $p < 0.05$ ), and were more likely to give low ratings to their providers (odds ratio [OR] = 1.61; CI = 0.97-2.67). Using a clinic interpreter did not mitigate these effects and in fact exacerbated disparities in patients' perceptions of their providers.

**CONCLUSION:** Language barriers are associated with less health education, worse interpersonal care, and lower patient satisfaction. Having access to a clinic interpreter can facilitate the transmission of health education. However, in terms of patients' ratings of their providers and the quality of interpersonal care, having an interpreter present does not serve as a substitute for language concordance between patient and provider.

81. Jacobs EA, Sadowski LS, Rathouz PJ. The impact of an enhanced interpreter service intervention on hospital costs and patient satisfaction. *Journal of General Internal Medicine* 2007;22 Suppl 2:306-311.

**BACKGROUND:** Many health care providers do not provide adequate language access services for their patients who are limited English-speaking because they view the costs of these services as prohibitive. However, little is known about the costs they might bear because of unaddressed language barriers or the costs of providing language access services.

**OBJECTIVE:** To investigate how language barriers and the provision of enhanced interpreter services impact the costs of a hospital stay.

**DESIGN:** Prospective intervention study.

**SETTING:** Public hospital inpatient medicine service.

**PARTICIPANTS:** Three hundred twenty-three adult inpatients: 124 Spanish-speakers whose physicians had access to the enhanced interpreter intervention, 99 Spanish-speakers whose physicians only had access to usual interpreter services, and 100 English-speakers matched to Spanish-speaking participants on age, gender, and admission firm.

**MEASUREMENTS:** Patient satisfaction, hospital length of stay, number of inpatient consultations and radiology tests conducted in the hospital, adherence with follow-up appointments, use of emergency department (ED) services and hospitalizations in the 3 months after discharge, and the costs associated with provision of the intervention and any resulting change in health care utilization.

**RESULTS:** The enhanced interpreter service intervention did not significantly impact any of the measured outcomes or their associated costs. The cost of the enhanced interpreter service was \$234 per Spanish-speaking intervention patient and represented 1.5% of the average hospital cost. Having a Spanish-speaking attending physician significantly increased Spanish-speaking patient satisfaction with physician, overall hospital experience, and reduced ED visits, thereby reducing costs by \$92 per Spanish-speaking patient over the study period.

**CONCLUSION:** The enhanced interpreter service intervention did not significantly increase or decrease hospital costs. Physician-patient language concordance reduced return ED visit and costs. Health care providers need to examine all the cost implications of different language access services before they deem them too costly.

82. Hunt LM, de Voogd KB. Are good intentions good enough? Informed consent without trained interpreters. *Journal of General Internal Medicine* 2007;22(5):598-605.

**OBJECTIVE:** To examine the informed consent process when trained language interpreters are unavailable.

**BACKGROUND:** Ensuring sufficient patient understanding for informed consent is especially challenging for patients with Limited English Proficiency (LEP). While US law requires provision of competent translation for LEP patients, such services are commonly unavailable.

**DESIGN AND PARTICIPANTS:** Qualitative data was collected in 8 prenatal genetics clinics in Texas, including interviews and observations with 16 clinicians, and 30 Latina patients. Using content analysis techniques, we examined whether the basic criteria for informed consent (voluntariness, discussion of alternatives, adequate information, and competence) were evident for each of these patients, contrasting LEP patients with patients not needing an interpreter. We present case examples of difficulties related to each of these criteria, and compare informed consent scores for consultations requiring interpretation and those which did not.

**RESULTS:** We describe multiple communication problems related to the use of untrained interpreters, or reliance on clinicians' own limited Spanish. These LEP patients appear to be consistently disadvantaged in each of the criteria we examined, and informed consent scores were notably lower for consultations which occurred across a language barrier.

**CONCLUSIONS:** In the absence of adequate Spanish interpretation, it was uncertain whether these LEP patients were provided the quality and content of information needed to assure that they are genuinely informed. We offer some low-cost practice suggestions that might mitigate these problems, and improve the quality of language interpretation, which is essential to assuring informed choice in health care for LEP patients.

83. Karliner LS, Jacobs EA, Chen AH, Mutha S. Do professional interpreters improve clinical care for patients with limited English proficiency? A systematic review of the literature. *Health Services Research* 2007;42(2):727-754.

**OBJECTIVE:** To determine if professional medical interpreters have a positive impact on clinical care for limited English proficiency (LEP) patients.

**DATA SOURCES:** A systematic literature search, limited to the English language, in PubMed and PsycINFO for publications between 1966 and September 2005, and a search of the Cochrane Library.

**STUDY DESIGN:** Any peer-reviewed article which compared at least two language groups, and contained data about professional medical interpreters and addressed communication (errors and comprehension), utilization, clinical outcomes, or satisfaction were included. Of 3,698 references, 28 were found by multiple reviewers to meet inclusion criteria and, of these, 21 assessed professional interpreters separately from ad hoc interpreters. Data were abstracted from each article by two reviewers. Data were collected on the study design, size, comparison groups, analytic technique, interpreter training, and method of determining the participants' need for an interpreter. Each study was evaluated for the effect of interpreter use on four clinical topics that were most likely to either impact or reflect disparities in health and health care.

**PRINCIPAL FINDINGS:** In all four areas examined, use of professional interpreters is associated with improved clinical care more than is use of ad hoc interpreters, and professional interpreters appear to raise the quality of clinical care for LEP patients to approach or equal that for patients without language barriers.

**CONCLUSIONS:** Published studies report positive benefits of professional interpreters on communication (errors and comprehension), utilization, clinical outcomes and satisfaction with care. [References: 47]

84. Wu AC, Leventhal JM, Ortiz J, Gonzalez EE, Forsyth B. The interpreter as cultural educator of residents: improving communication for Latino parents. *Archives of Pediatrics & Adolescent Medicine* 2006;160(11):1145-1150.

**OBJECTIVE:** To determine whether augmentation of the Spanish interpreter's role to include cultural education of residents can improve the satisfaction of Latino patients.

**DESIGN:** We assessed parent satisfaction during 4 sequential 2-month periods between June 1, 2004, and February 11, 2005, using different interpretation methods: telephone interpretation (n = 91 patient encounters), trained in-person interpretation (n = 49), in-person interpretation with cultural education of residents (n = 65), and postprogram telephone interpretation (n = 45).

**SETTING:** General pediatric practice at a large teaching hospital.

**PARTICIPANTS:** A total of 250 Spanish-speaking parents who were limited in English proficiency.

**INTERVENTIONS:** The cultural education program included 3 brief preclinic conferences taught by an interpreter and one-on-one teaching of residents about language and cultural issues after each clinical encounter.

**MAIN OUTCOME MEASURES:** Parent satisfaction was assessed using 8 questions that have previously been validated in Spanish. Lower scores indicated more satisfaction.

**RESULTS:** Because they were limited in English proficiency, our Spanish-speaking patients were significantly more satisfied when an in-person interpreter was used compared with a telephone interpreter (mean total satisfaction score of 14.5 [in-person] vs 17.4 [telephone];  $P = .006$ ) but were even more satisfied when the interpreter educated residents in cultural and language issues (mean, 11.5 [in-person with education] vs 17.4 [telephone];  $P < .001$ ).

**CONCLUSION:** Although use of an in-person interpreter can increase Latino parents' satisfaction, a program using an interpreter to educate residents in cultural and language issues can increase satisfaction further.

85. Simon CM, Zyzanski SJ, Durand E, Jimenez X, Kodish ED. Interpreter accuracy and informed consent among Spanish-speaking families with cancer. *Journal of Health Communication* 2006;11(5):509-522.

Language interpreters mediate a growing number of health care communication events, including the informed consent process, which underlies the ethical conduct of clinical research. This article explores a key interpretive outcome, accuracy, in 21 Spanish/English informed consent consultations. Discussions were transcribed, translated, and coded according to established techniques. Most (74%) discussion was accurately interpreted (range: 47%-98%; std. deviation: .137). Accuracy was lower in the more technical portions of the discussion when compared with nontechnical portions such as discussion of coping and quality-of-life issues ( $p = .024$ ). The concept of "randomization" often was poorly communicated and interpreted. These differences may be due in part to the use of long, uninterrupted, and jargon-filled sentences by clinicians explaining research, among other factors. The article concludes that accuracy may be promoted if clinicians used less technical language and shorter sentences, and are more "process driven." Interpreters may need to be better informed about research-related concepts such as randomization. Further re-

search is needed to determine the effects of interpretive accuracy on the informed consent process, the decision to participate in research, and other outcomes.

86. Greenhalgh T, Robb N, Scambler G. Communicative and strategic action in interpreted consultations in primary health care: a Habermasian perspective. *Social Science & Medicine* 2006;63(5):1170-1187.

We report a qualitative study of accounts of interpreted consultations in UK primary care. The study sought to explore how three Habermasian tensions between (a) system and lifeworld, (b) communicative and strategic action, and (c) interpersonal and macropolitical spheres played out in the triadic consultation between clinician, interpreter and patient. In a total of 69 individual interviews and two focus groups, we collected narratives from service users (through interpreters or bilingual researchers), interpreters and doctors and other staff in general practice. We recorded, transcribed and analysed these, taking the story as the main unit of analysis. Our data suggest that the pre-conditions for communicative action are rarely met in the interpreted consultation. The interpreter's presence makes a dyadic interaction into a triad, adding considerable complexity to the social situation and generating operational and technical challenges. Lack of trust, intense pressure of time, mismatch of agendas (biomedical versus lifeworld), firm expectations of a specific outcome (e.g. referral, prescription) and profound power imbalances all promote strategic action (i.e. speech that seeks consciously or unconsciously to manipulate an outcome) rather than communicative action (i.e. sincere efforts to achieve understanding, and reach consensus) by all parties. In consultations interpreted by family members (an option traditionally seen as 'second best' by policy makers), the social situation is very different. Family members are generally trusted, share the lifeworld agenda, and shift the power balance in the patient's favour. The interpreter occupies multiple social roles, including translator, interpersonal mediator, system mediator, educator, advocate, and link worker. The essence of professionalism in interpreting is shifting judiciously between these potentially conflicting roles. We discuss the implications of our findings for communication with limited English speakers in healthcare consultations and for realizing contemporary policy goals such as concordance, shared decision-making, empowerment, and choice.

87. Aranguri C, Davidson B, Ramirez R. Patterns of communication through interpreters: a detailed sociolinguistic analysis. *Journal of General Internal Medicine* 2006;21(6):623-629.

**BACKGROUND:** Numerous articles have detailed how the presence of an interpreter leads to less satisfactory communication with physicians; few have studied how actual communication takes place through an interpreter in a clinical setting.

**OBJECTIVE:** Record and analyze physician-interpreter-patient interactions.

**DESIGN:** Primary care physicians with high-volume Hispanic practices were recruited for a communication study. Dyslipidemic Hispanic patients, either monolingual Spanish or bilingual Spanish-English, were recruited on the day of a normally scheduled appointment and, once consented, recorded without a researcher present in the room. Separate postvisit interviews were conducted with the patient and the physician. All interactions were fully transcribed and analyzed.

**PARTICIPANTS:** Sixteen patients were recorded interacting with 9 physicians. Thirteen patients used an interpreter with 8 physicians, and 3 patients spoke Spanish with the 1 bilingual physician.

**APPROACH:** Transcript analysis based on sociolinguistic and discourse analytic techniques, including but not limited to time speaking, analysis of questions asked and answered, and the loss of semantic information.

**RESULTS:** Speech was significantly reduced and revised by the interpreter, resulting in an alteration of linguistic features such as content, meaning, reinforcement/validation, repetition, and affect. In addition, visits that included an interpreter had virtually no rapport-building "small talk," which typically enables the physician to gain comprehensive patient history, learn clinically relevant information, and increase emotional engagement in treatment.

**CONCLUSIONS:** The presence of an interpreter increases the difficulty of achieving good physician-patient communication. Physicians and interpreters should be trained in the process of communication and interpretation, to minimize conversational loss and maximize the information and relational exchange with interpreted patients.

88. Morales LS, Elliott M, Weech-Maldonado R, Hays RD. The impact of interpreters on parents' experiences with ambulatory care for their children. *Medical Care Research & Review* 2006;63(1):110-128.

Health plan members who did not need an interpreter in the past 6 months were compared with those who needed one and always, usually, sometimes, or never got one. In multivariate analyses, Hispanic and Asian/Pacific Islanders (API) members who needed interpreters and usually, sometimes, or never used one reported significantly worse ( $p < .05$ ) provider and office staff communication, access to care, and health plan customer service compared with members who did not need interpreters. Hispanic and API members who needed and always used an interpreter reported similar or significantly better ( $p < .05$ ) provider and office staff communication, access to care, and health plan customer service than members that did not need interpreters. Use of interpreters reduced White-Hispanic disparities in reports of care by up to 28 percent and White-API disparities by as much as 21 percent. Increasing use of interpreters could reduce racial/ethnic disparities and improve health plan performance.

89. Nailon RE. Nurses' concerns and practices with using interpreters in the care of Latino patients in the emergency department. *Journal of Transcultural Nursing* 2006;17(2):119-128.

This phenomenological study aimed to describe nursing care of Latinos in the emergency department to determine how care is planned relative to the patient's ethnicity, including linguistic abilities. Unstructured interviews were conducted with 15 registered nurses from four hospitals in the Northwest. Interpreters play a pivotal role in nurses' practices. Nurses' skills with working with interpreters, interpreter availability, engagement, and accuracy enhance or impede effective care. Linguistic differences challenge effective care provision. Culturally competent care requires secure avenues of accurate communication. Administrators must provide nurses with resources that promote culturally competent care, including training with interpreters to facilitate effective communication.

90. Wagner J, Abbott G, Lacey K. Knowledge of heart disease risk among spanish speakers with diabetes: the role of interpreters in the medical encounter. *Ethnicity & Disease* 2005;15(4):679-684.



**OBJECTIVE:** To investigate heart disease risk knowledge among Spanish speakers with diabetes.

**DESIGN:** Single sample cross-sectional design.

**SETTING:** A Spanish-language diabetes health fair in an inner-city community center in Connecticut.

**PARTICIPANTS:** Ninety-four Spanish-speaking adults participated. They were predominantly from Puerto Rico, had less than high school education, and were economically disadvantaged. Most had type 2 diabetes (96%) for an average of 10 years. Most had health insurance and a primary care provider. A sizable minority relied on ad hoc interpreters (friends or family members) during clinic visits, but most would prefer to use a professional medical interpreter.

**MEASURES AND RESULTS:** Knowledge of risk for heart disease was measured by a Spanish version of the Heart Disease Fact Questionnaire (HDFQ). Knowledge of heart disease was low (mean score 17.5 [out of 25], SD=5.0), and lack of knowledge was found for the risks of diabetes, high-fat foods, cholesterol, physical activity, hypertension, family history of heart disease, sex, and whether one is necessarily cognizant of having heart disease. Regression analyses showed that bank account status and use of ad hoc interpreters contributed significantly to the prediction of HDFQ scores. Having a bank account and not using family or friends as interpreters in visits with the primary care provider predicted higher HDFQ scores.

**CONCLUSION:** Heart disease risk knowledge was low in Spanish speakers with diabetes. Providing professional medical interpretation instead of relying on ad hoc interpreters is recommended for this high-risk group.

91. Preloran HM, Browner CH, Lieber E. Impact of interpreters' approach on Latinas' use of amniocentesis. *Health Education & Behavior* 2005;32(5):599-612.

Communication difficulties in multicultural clinical settings can be exacerbated by translators, but their actual impact on medical decisions has not been systematically evaluated. This study sought to determine the influence of translators participating in clinical encounters in which English-speaking clinicians offered amniocentesis to Spanish-speaking women by conducting systematic observations of 61 prenatal genetic consultations and recording translators' training and background characteristics and patients' amniocentesis decisions. Translators' behavioral styles were classified according to 10 inductively determined criteria. Translators' approaches were classified as Distant, Authoritative, or Missionary. Whereas the first category remained emotionally detached, the others sought to build rapport and trust with the patient. Quantitative analysis revealed statistically significant associations between translation styles that sought to engender trust and likelihood the pregnant woman agreed to amniocentesis. The authors conclude that translators' affective approaches can influence whether patients accept or decline amniocentesis.

92. Flores G. The impact of medical interpreter services on the quality of health care: a systematic review. *Medical Care Research & Review* 2005;62(3):255-299.

Twenty-one million Americans are limited in English proficiency (LEP), but little is known about the effect of medical interpreter services on health care quality. A systematic literature review was conducted on the impact of interpreter services on quality of care. Five database searches yielded 2,640 citations and a final database of 36 articles, after applying exclusion criteria. Multiple studies

document that quality of care is compromised when LEP patients need but do not get interpreters. LEP patients' quality of care is inferior, and more interpreter errors occur with untrained ad hoc interpreters. Inadequate interpreter services can have serious consequences for patients with mental disorders. Trained professional interpreters and bilingual health care providers positively affect LEP patients' satisfaction, quality of care, and outcomes. Evidence suggests that optimal communication, patient satisfaction, and outcomes and the fewest interpreter errors occur when LEP patients have access to trained professional interpreters or bilingual providers. [References: 58]

93. Garcia EA, Roy LC, Okada PJ, Perkins SD, Wiebe RA. A comparison of the influence of hospital-trained, ad hoc, and telephone interpreters on perceived satisfaction of limited English-proficient parents presenting to a pediatric emergency department. *Pediatric Emergency Care* 2004;20(6):373-378.

**BACKGROUND:** Latinos are the fastest growing minority group in the United States with a significant percentage of this population having limited English proficiency.

**OBJECTIVE:** To determine whether mode of interpretation influences satisfaction of limited English-proficient parents presenting to a tertiary care pediatric emergency department.

**DESIGN:** One hundred eighty parents of patients presenting to a pediatric emergency department were surveyed after receiving services from one of the following interpreters: hospital-trained, ad hoc, or telephone. An English-proficient comparison group of 60 parents of any ethnicity was also surveyed (total N = 240).

**RESULTS:** Parents were significantly more satisfied ( $P < 0.001$ ) with hospital-trained interpreters. While no significant difference was found in overall visit satisfaction, there were significant differences in several other outcome variables. When hospital-trained interpreters were used, parents were significantly more satisfied ( $P < 0.001$ ) with their physicians and nurses. With regard to the ability to communicate with pediatric emergency department personnel, parents using hospital-trained interpreters averaged significantly higher scores ( $P < 0.001$ ) than the telephone group. Quality-of-care scores were significantly higher ( $P < 0.001$ ) for parents assigned to hospital-trained interpreters than for the other forms of interpretation. English-proficient parents scored highest in the following categories: ability to communicate, quality of care, and overall visit satisfaction. Parents using hospital-trained interpreters scored higher than English-proficient parents when questioned about physician and nursing satisfaction.

**CONCLUSION:** Hospital-trained interpreters are a valuable and needed resource to facilitate communication with limited English-proficient patients and families. Other interpretation services are useful but have limitations.

94. Karliner LS, Perez-Stable EJ, Gildengorin G. The language divide. The importance of training in the use of interpreters for outpatient practice. *Journal of General Internal Medicine* 2004;19(2):175-183.

**PURPOSE:** Provision of interpreter services for non-English-speaking patients is a federal requirement. We surveyed clinicians to describe their experience using interpreters.

**SUBJECTS AND METHODS:** In this cross-sectional study we surveyed clinicians in three academic outpatient settings in San Francisco (N = 194) regarding their most recent patient encounter which involved an interpreter. Questions about the visit included type of interpreter, satisfaction with content of clinical en-

counter, potential problems, and frequency of need. Previous training in interpreter use, languages spoken, and demographics were also asked. Questionnaires were self-administered in approximately 10 minutes.

**RESULTS:** Of 194 questionnaires mailed, 158 were completed (81% response rate) and 67% were from resident physicians. Most respondents (78%) were very satisfied or satisfied with the medical care they provided, 85% felt satisfied with their ability to diagnose a disease and treat a disease, but only 45% were satisfied with their ability to empower the patient with knowledge about their disease, treatment, or medication. Even though 71% felt they were able to make a personal connection with their patient, only 33% felt they had learned about another culture as a result of the encounter. Clinicians reported difficulties eliciting exact symptoms (70%), explaining treatments (44%), and eliciting treatment preferences (51%). Clinicians perceived that lack of knowledge of a patient's culture hindered their ability to provide quality medical care and only 18% felt they were unable to establish trust or rapport. Previous training in interpreter use was associated with increased use of professional interpreters (odds ratio [OR], 3.2; 95% confidence interval [CI], 1.4 to 7.5) and increased satisfaction with medical care provided (OR, 2.6; 95% CI, 1.1 to 6.6).

**CONCLUSIONS:** Clinicians reported communication difficulties affecting their ability to understand symptoms and treat disease, as well as their ability to empower patients regarding their healthcare. Training in the use of interpreters may improve communication and clinical care, and thus health outcomes.

95. Bischoff A, Perneger TV, Bovier PA, Loutan L, Stalder H. Improving communication between physicians and patients who speak a foreign language. *British Journal of General Practice* 2003;53(492):541-546.

**BACKGROUND:** Communication between physicians and patients is particularly challenging when patients do not speak the local language (in Switzerland, they are known as allophones).

**AIM:** To assess the effectiveness of an intervention to improve communication skills of physicians who deal with allophone patients.

**DESIGN OF STUDY:** 'Before-and-after' intervention study, in which both patients (allophone and francophone) and physicians completed visit-specific questionnaires assessing the quality of communication.

**SETTING:** Two consecutive samples of patients attending the medical outpatient clinic of a teaching hospital in French-speaking Switzerland.

**METHOD:** The intervention consisted of training physicians in communicating with allophone patients and working with interpreters. French-speaking patients served as the control group. The outcomes measured were: patient satisfaction with care received and with communication during consultation; and provider (primary care physician) satisfaction with care provided and communication during consultation.

**RESULTS:** At baseline, mean scores of patients' assessments of communication were lower for allophone than for francophone patients. At follow-up, five out of six of the scores of allophone patients showed small increases ( $P < 0.05$ ) when compared with French-speaking patients: explanations given by physician; respectfulness of physician; communication; overall process of the consultation; and information about future care. In contrast, physicians' assessments did not change significantly. Finally, after the intervention, the proportion of consultations with allophone patients in which professional interpreters were present increased significantly from 46% to 67%.

**CONCLUSIONS:** The quality of communication as perceived by allophone patients can be improved with specific training aimed at primary care physicians.

96. Fagan MJ, Diaz JA, Reinert SE, Sciamanna CN, Fagan DM. Impact of interpretation method on clinic visit length. *Journal of General Internal Medicine* 2003;18(8):634-638.

**OBJECTIVE:** To determine the impact of interpretation method on outpatient visit length.

**DESIGN:** Time-motion study.

**SETTING:** Hospital-based outpatient teaching clinic.

**PARTICIPANTS:** Patients presenting for scheduled outpatient visits.

**MEASUREMENTS AND MAIN RESULTS:** Over a 6-week study period, a research assistant recorded the following information for consecutive patient visits: patient age, gender and insurance type; type of interpreter used (none, hospital interpreter, telephone interpreter or patient-supplied interpreter); scheduled visit length; provider type (nurse practitioner; attending physician; resident in postgraduate year 1, 2 or 3, or medical student); provider gender; amount of time the patient spent in the examination room with the provider (provider time); and total time the patient spent in the clinic from check-in to checkout (clinic time). When compared to patients not requiring an interpreter, patients using some form of interpreter had longer mean provider times (32.4 minutes [min] vs 28.0 min,  $P < .001$ ) and clinic times (93.6 min vs 82.4 min,  $P = .002$ ). Compared to patients not requiring an interpreter, patients using a telephone interpreter had significantly longer mean provider times (36.3 min vs 28.0 min,  $P < .001$ ) and clinic times (99.9 min vs 82.4 min,  $P = .02$ ). Similarly, patients using a patient-supplied interpreter had longer mean provider times (34.4 min vs 28.0 min,  $P < .001$ ) and mean clinic times (92.8 min vs 82.4 min,  $P = .027$ ). In contrast, patients using a hospital interpreter did not have significantly different mean provider times (26.8 min vs 28.0 min,  $P = .51$ ) or mean clinic times (91.0 min vs 82.4 min,  $P = .16$ ) than patients not requiring an interpreter.

**CONCLUSION:** In our setting, telephone and patient-supplied interpreters were associated with longer visit times, but full-time hospital interpreters were not.

97. Anderson LM, Scrimshaw SC, Fullilove MT, Fielding JE, Normand J, Task Force on Community Preventive S. Culturally competent healthcare systems. A systematic review. *American Journal of Preventive Medicine* 2003;24(3 Suppl):68-79.

Culturally competent healthcare systems-those that provide culturally and linguistically appropriate services-have the potential to reduce racial and ethnic health disparities. When clients do not understand what their healthcare providers are telling them, and providers either do not speak the client's language or are insensitive to cultural differences, the quality of health care can be compromised. We reviewed five interventions to improve cultural competence in healthcare systems-programs to recruit and retain staff members who reflect the cultural diversity of the community served, use of interpreter services or bilingual providers for clients with limited English proficiency, cultural competency training for healthcare providers, use of linguistically and culturally appropriate health education materials, and culturally specific healthcare settings. We could not determine the effectiveness of any of these interventions, because there were either too few comparative studies, or studies did not examine the outcome measures evaluated in this review: client satisfaction with care, improvements in health status, and inappropriate racial or ethnic differences in use of health services or in received and recommended treatment. [References: 43]

98. Jones D, Gill P, Harrison R, Meakin R, Wallace P. An exploratory study of language interpretation services provided by videoconferencing. *Journal of Telemedicine & Telecare* 2003;9(1):51-56.

We explored the feasibility and acceptability of the remote provision of a language interpretation service during general practice consultations. Three methods were used to provide an interpretation service: a physically present interpreter (PI), a remote interpreter accessed using an ISDN videoconferencing link at 128 kbit/s (VI) and a remote interpreter accessed by telephone (TI). Thirty-six non-English-speaking patients were invited to take part and 35 agreed to do so. Twenty-nine (83%) of the patients recruited were female. The age range of the participants was 24-51 years. Fourteen consultations took place with a physically present interpreter, 11 using videoconferencing and 10 using the telephone. Mean scores on the Patient Enablement Instrument were 5.2 for the PI group, 2.3 for the VI group and 5.1 for the TI group. Mean scores on the Medical Interview Satisfaction Scale were 5.3 for the PI group, 4.9 for the VI group and 5.3 for the TI group. The visual quality and sound quality of remote interpreting were satisfactory. Both videoconferencing and hands-free telephones can deliver an acceptable interpreting service in primary care.

99. Flores G, Laws MB, Mayo SJ, Zuckerman B, Abreu M, Medina L, et al. Errors in medical interpretation and their potential clinical consequences in pediatric encounters. *Pediatrics* 2003;111(1):6-14.

**BACKGROUND:** About 19 million people in the United States are limited in English proficiency, but little is known about the frequency and potential clinical consequences of errors in medical interpretation.

**OBJECTIVES:** To determine the frequency, categories, and potential clinical consequences of errors in medical interpretation.

**METHODS:** During a 7-month period, we audiotaped and transcribed pediatric encounters in a hospital outpatient clinic in which a Spanish interpreter was used. For each transcript, we categorized each error in medical interpretation and determined whether errors had a potential clinical consequence.

**RESULTS:** Thirteen encounters yielded 474 pages of transcripts. Professional hospital interpreters were present for 6 encounters; ad hoc interpreters included nurses, social workers, and an 11-year-old sibling. Three hundred ninety-six interpreter errors were noted, with a mean of 31 per encounter. The most common error type was omission (52%), followed by false fluency (16%), substitution (13%), editorialization (10%), and addition (8%). Sixty-three percent of all errors had potential clinical consequences, with a mean of 19 per encounter. Errors committed by ad hoc interpreters were significantly more likely to be errors of potential clinical consequence than those committed by hospital interpreters (77% vs 53%). Errors of clinical consequence included: 1) omitting questions about drug allergies; 2) omitting instructions on the dose, frequency, and duration of antibiotics and rehydration fluids; 3) adding that hydrocortisone cream must be applied to the entire body, instead of only to facial rash; 4) instructing a mother not to answer personal questions; 5) omitting that a child was already swabbed for a stool culture; and 6) instructing a mother to put amoxicillin in both ears for treatment of otitis media.

**CONCLUSIONS:** Errors in medical interpretation are common, averaging 31 per clinical encounter, and omissions are the most frequent type. Most errors have potential clinical consequences, and those committed by ad hoc interpreters are significantly more likely to have potential clinical consequences than those committed by hospital interpreters. Because errors by ad hoc interpreters are more likely to have potential clinical consequences, third-party

reimbursement for trained interpreter services should be considered for patients with limited English proficiency.

100. Hampers LC, McNulty JE. Professional interpreters and bilingual physicians in a pediatric emergency department: effect on resource utilization. *Archives of Pediatrics & Adolescent Medicine* 2002;156(11):1108-1113.

**OBJECTIVE:** To determine the impact of interpreters and bilingual physicians on emergency department (ED) resource utilization.

**DESIGN:** Cohorts defined by language concordance and interpreter use were prospectively studied preceding and following the availability of dedicated, professional medical interpreters.

**SETTING:** Pediatric ED in Chicago, Ill.

**PARTICIPANTS:** We examined 4146 visits of children (aged 2 months to 10 years) with a presenting temperature of 38.5 degrees C or higher or a complaint of vomiting or diarrhea; 550 families did not speak English. In 170 cases, the treating physician was bilingual. In 239, a professional interpreter was used. In the remaining 141, a professional medical interpreter was unavailable.

**MAIN OUTCOME MEASURES:** Incidence and costs of diagnostic testing, admission rate, use of intravenous hydration, and length of ED visit.

**RESULTS:** Regression models incorporated clinical and demographic factors. Compared with the English-speaking cohort, non-English-speaking cases with bilingual physicians had similar rates of resource utilization. Cases with an interpreter showed no difference in test costs, were least likely to be tested (odds ratio [OR], 0.73; 95% confidence interval [CI], 0.56-0.97), more likely to be admitted (OR, 1.7; 95% CI, 1.1-2.8), and no more likely to receive intravenous fluids, but had longer lengths of visit (+16 minutes; 95% CI, 6.2-26 minutes). The barrier cohort without a professional interpreter had a higher incidence (OR, 1.5; 95% CI, 1.04-2.2) and cost (+\$5.78; 95% CI, \$0.24-\$11.21) for testing and was most likely to be admitted (OR, 2.6; 95% CI, 1.4-4.5) and to receive intravenous hydration (OR, 2.2; 95% CI, 1.2-4.3), but showed no difference in length of visit.

**CONCLUSION:** Decision making was most cautious and expensive when non-English-speaking cases were treated in the absence of a bilingual physician or professional interpreter.

101. Lee LJ, Batal HA, Maselli JH, Kutner JS. Effect of Spanish interpretation method on patient satisfaction in an urban walk-in clinic. *Journal of General Internal Medicine* 2002;17(8):641-645.

**OBJECTIVE:** To examine the effect of Spanish interpretation method on satisfaction with care.

**DESIGN:** Self-administered post-visit questionnaire.

**SETTING:** Urban, university-affiliated walk-in clinic.

**PARTICIPANTS:** Adult, English- and Spanish-speaking patients presenting for acute care of non-emergent medical problems.

**MEASUREMENTS AND MAIN RESULTS:** Satisfaction with overall clinic visit and with 7 provider characteristics was evaluated by multiple logistic regression, controlling for age, gender, ethnicity, education, insurance status, having a routine source of medical care, and baseline health. "Language-concordant" patients, defined as Spanish-speaking patients seen by Spanish-speaking providers and English-speaking patients, and patients using AT&T telephone interpreters reported identical overall visit satisfaction (77%;  $P = .57$ ), while those using family or ad hoc interpreters were significantly less satisfied (54% and 49%;  $P < .01$  and  $P = .007$ , respectively). AT&T interpreter use and lan-

guage concordance also yielded similar satisfaction rates for provider characteristics ( $P > .2$  for all values). Compared to language-concordant patients, patients who had family members interpret were less satisfied with provider listening (62% vs 85%;  $P = .003$ ), discussion of sensitive issues (60% vs 76%;  $P = .02$ ), and manner (62% vs 89%;  $P = .005$ ). Patients who used ad hoc interpreters were less satisfied with provider skills (60% vs 83%;  $P = .02$ ), manner (71% vs 89%;  $P = .02$ ), listening (54% vs 85%;  $P = .002$ ), explanations (57% vs 84%;  $P = .02$ ), answers (57% vs 84%;  $P = .05$ ), and support (63% vs 84%;  $P = .02$ ).

**CONCLUSIONS:** Spanish-speaking patients using AT&T telephone interpretation are as satisfied with care as those seeing language-concordant providers, while patients using family or ad hoc interpreters are less satisfied. Clinics serving a large population of Spanish-speaking patients can enhance patient satisfaction by avoiding the use of untrained interpreters, such as family or ad hoc interpreters.

102. Jacobs EA, Lauderdale DS, Meltzer D, Shorey JM, Levinson W, Thisted RA. Impact of interpreter services on delivery of health care to limited-English-proficient patients. *Journal of General Internal Medicine* 2001;16(7):468-474.

**OBJECTIVE:** To determine whether professional interpreter services increase the delivery of health care to limited-English-proficient patients.

**DESIGN:** Two-year retrospective cohort study during which professional interpreter services for Portuguese and Spanish-speaking patients were instituted between years one and two. Preventive and clinical service information was extracted from computerized medical records.

**SETTING:** A large HMO in New England.

**PARTICIPANTS:** A total of 4,380 adults continuously enrolled in a staff model health maintenance organization for the two years of the study, who either used the comprehensive interpreter services (interpreter service group [ISG];  $N = 327$ ) or were randomly selected into a 10% comparison group of all other eligible adults (comparison group [CG];  $N = 4,053$ ).

**MEASUREMENTS AND MAIN RESULTS:** The measures were change in receipt of clinical services and preventive service use. Clinical service use and receipt of preventive services increased in both groups from year one to year two. Clinical service use increased significantly in the ISG compared to the CG for office visits (1.80 vs. 0.70;  $P < .01$ ), prescriptions written (1.76 vs 0.53;  $P < .01$ ), and prescriptions filled (2.33 vs. 0.86;  $P < .01$ ). Rectal examinations increased significantly more in the ISG compared to the CG (0.26 vs. 0.02;  $P = .05$ ) and disparities in rates of fecal occult blood testing, rectal exams, and flu immunization between Portuguese and Spanish-speaking patients and a comparison group were significantly reduced after the implementation of professional interpreter services.

**CONCLUSION:** Professional interpreter services can increase delivery of health care to limited-English-speaking patients.

103. Kuo D, Fagan MJ. Satisfaction with methods of Spanish interpretation in an ambulatory care clinic. *Journal of General Internal Medicine* 1999;14(9):547-550.

**OBJECTIVE:** To describe the utilization of various methods of language interpretation by Spanish-speaking patients in an academic medical clinic and to determine patients' and physicians' satisfaction with these methods.

**METHODS:** Survey administered to medical residents and Spanish-speaking patients asking about their experience and satisfaction with various methods of language interpretation.

**MAIN RESULTS:** Both patients and residents had the highest level of satisfaction for professional interpreters (92.4% vs 96.1% reporting somewhat or very satisfactory,  $p = .17$ ). In contrast, patients were significantly more satisfied than residents with using family members and friends (85.1% vs 60.8%,  $p < .01$ ). Physicians and patients agreed that accuracy, accessibility, and respect for confidentiality were highly important characteristics of interpreters (>90% of both groups reporting somewhat or very important). However, patients were more concerned than residents about the ability of the interpreter to assist them after the physician visit (94% vs 45.1%,  $p < 0.01$ ).

**CONCLUSIONS:** Using family members and friends as interpreters for Spanish-speaking patients should be more seriously considered; however, in order to optimize patient satisfaction, differences between patients and providers should be taken into account when using interpretation in medical settings.

104. Baker DW, Hayes R, Fortier JP. Interpreter use and satisfaction with interpersonal aspects of care for Spanish-speaking patients. *Medical Care* 1998;36(10):1461-1470.

**OBJECTIVES:** Many patients have limited English proficiency and require an interpreter. The authors evaluated the effect of current interpreting practices on Spanish-speaking patients' satisfaction with the patient-provider relationship.

**METHODS:** A cross-sectional survey was conducted of 457 patients seen in a public hospital emergency department. Measures were satisfaction with the provider's friendliness, respectfulness, concern, ability to make the patient comfortable, and time spent for the exam.

**RESULTS:** A total of 237 patients communicated adequately with their provider without the use of an interpreter (group 1), 120 patients communicated through an interpreter (88% of whom were ad hoc interpreters; group 2), and 100 patients communicated directly with the provider but said an interpreter should have been called (group 3). Compared with patients in group 1, patients who communicated through an interpreter (group 2) rated their provider as less friendly, less respectful, less concerned for the patient as a person, and less likely to make the patient comfortable. Patients who said an interpreter should have been called (group 3) had the lowest satisfaction ratings; compared with group 2, they were less satisfied with their provider's friendliness, concern for the patient as a person, efforts to make the patient comfortable, and amount of time spent.

**CONCLUSIONS:** Patients who communicated through an interpreter or who did not have an interpreter when they thought one was necessary were less satisfied with the patient-provider relationship. Further efforts are needed to ensure interpreter availability and proper interpretation technique.

105. Hornberger JC, Gibson CD, Jr., Wood W, Dequeldre C, Corso I, Palla B, et al. Eliminating language barriers for non-English-speaking patients. *Medical Care* 1996;34(8):845-856.

**OBJECTIVES:** More than 31 million persons living in the United States do not speak English, therefore language discordance between the clinician and patient may hinder delivery of cost-effective medical care. A new language service was developed in which interpreters are trained in the skills of simultaneous interpretation commonly used at international conferences. The interpreters are linked from a remote site to headsets worn by the clinician and patient



through standard communication wires. The service is called "remote-simultaneous interpretation," to contrast it with a traditional method of an interpreter being physically present at the interview and interpreting consecutively "proximate-consecutive interpretation." The aim of this study is to assess in a randomized protocol the quality of communication, interpretation, and level of patient, interpreter, and physician satisfaction with these two language services.

**METHODS:** The first postpartum visit with each of 49 mothers and their new born babies was assigned randomly to proximate-consecutive interpretation (control) or to remote-simultaneous interpretation (experimental). Main outcome measures included (1) the number of physician and mother utterances in the visit, (2) the quality of the interpretation, and (3) physician, interpreter, and mother preferences between the two services.

**RESULTS:** The remote-simultaneous interpreter service averaged 8.3 (10%) more physician utterances (95% confidence interval [CI] 4.3, 12.4) and 9.1 (28%) more mother utterances (95% CI 6.1, 12.1). On average, there were 2.8 (12%) fewer inaccuracies of physician utterances in experimental visits compared with control visits (95% CI -5.9, 0.4) and 3.0 (13%) fewer inaccuracies of mother utterances in experimental visits compared with control visits (95% CI -5.4, -0.6). Mothers and physicians significantly preferred the remote-simultaneous service to proximate-consecutive interpretation service. Interpreters stated that they thought mothers and physicians better understood each other using the remote-simultaneous service, although the interpreters preferred to work with the proximate-consecutive service.

**CONCLUSIONS:** Using remote-simultaneous interpretation to improve the quality of communication in discordant-language encounters promises to enhance delivery of medical care for the millions of non-English-speaking patients in the United States.

106. Dodd W. Do interpreters affect consultations? *Family Practice* 1984;1(1):42-47.

Mass migration leads to problems with language and cultural integration and has significant medical implications. The effect of interpreters on the diagnosis of mental diseases and ill-defined conditions was investigated in the primary care department of the Riyadh Al Kharj Hospital Programme, Saudi Arabia. Two groups of general practitioners working in the same health centre with the same patients were compared--10 Arabic-speaking and 10 non-Arabic-speaking. No differences in diagnosis were found that could be attributed to the use of interpreters, although there was a significant difference between experienced and less experienced doctors. The reasons for this finding are discussed, along with suggestions for the organization of an interpreting service.

107. Marcos LR. Effects of interpreters on the evaluation of psychopathology in non-English-speaking patients. *American Journal of Psychiatry* 1979;136(2):171-174.

Non-English-speaking patients in need of psychiatric services are usually evaluated with the help of an interpreter. Discussions with psychiatrists and lay hospital interpreters who had experience in these interviews and content analysis of eight audiotaped interpreter-mediated psychiatric interviews suggested that clinically relevant interpreter-related distortions could lead to misevaluation of the patient's mental status. The author notes that pre- and post-interview meetings of clinicians and interpreters have been found useful in minimizing these distortions.

108. Dunlap JL, Jaramillo JD, Koppolu R, Wright RC, Mendoza FS, Bruzoni M. The effects of language concordant care on patient satisfaction and clinical understanding for hispanic pediatric surgery patients. *Journal of the American College of Surgeons* 2014;1):S106.

**INTRODUCTION:** Over 25 million under-represented minorities immigrated to the United States in the past decade, and 25% speak little-to-no English. It is well known that language barriers adversely affect access to and quality of care for these patients. This results in lower patient satisfaction, longer hospitalizations, and more medical errors. Surgical specialties trail other medical fields in addressing these health inequalities. This study is the first to assess the impact of language concordant care in a pediatric surgery population. **METHODS:** Under IRB approval, a surgery-specific, 7-point Likert scale questionnaire was designed with 14 questions modeled after validated patient satisfaction surveys. Questions addressed provider-patient language concordance, quality of understanding, and general satisfaction. The survey was administered to 226 parents in an outpatient pediatric surgery clinic. Patients were categorized into three groups: English-speakers, regardless of race/ ethnicity; Spanish-speakers communicating through interpreter services; and Spanish-speakers communicating with a Spanish speaking medical team (Hispanic Clinic for Pediatric Surgery, HCPS). The HCPS is designed so that registration, intake examination, and medical encounters are performed exclusively in Spanish. One-way analysis of variance was used to test for group differences. **RESULTS:** Among Spanish-speakers, the HCPS group reported higher overall satisfaction ( $p < 0.01$ ) and improved clinical understanding ( $p < 0.001$ ) than the interpreter group. All Spanishspeakers felt that direct communication with their health care team in their primary language was more important than English-speakers ( $p < 0.001$ ). **CONCLUSIONS:** Language concordant care improves patient satisfaction and clinical understanding for under-represented minority surgical patients. These variables could impact clinical outcomes, cost, and medical error rates in this rapidly growing population.

109. Van Cleave A, Roosen-Runge M, Miller A, Karkazis K, Magnus D. Quality of communication in interpreted versus non-interpreted pediatric ICU family meetings. *Critical Care Medicine* 2013;1):A177.

**Introduction:** High quality physician-family communication in the intensive care unit (ICU) is essential in order to provide comprehensive, family-centered care. However, prior research has shown that the quality of physician-family communication in the ICU is often sub-optimal, and may be even worse for families with limited English proficiency. Most existing data in this area come from retrospective, survey based studies performed in the adult ICU setting. We performed the first prospective analysis of the quality of physician-family communication during interpreted and non-interpreted family meetings in the pediatric ICU setting by audio-recording 30 family meetings in English and Spanish. After examining our transcripts, we hypothesized that the quality of communication during interpreted meetings may actually be superior to noninterpreted meetings due to simpler physician speech, increased opportunity for family speech, and interpreter clarifications that facilitate shared decision-making. **Methods:** Thirty pediatric ICU family meetings (21 English and 9 Spanish) were audio-recorded, transcribed, and analyzed using the qualitative method of directed content analysis. Quality of communication was analyzed in three ways: 1) presence of elements of shared decision-making, 2) balance between physician and family speech, and 3) complexity of

physician speech. Only meetings containing a decisional component were analyzed for the elements of shared decision-making. The balance between physician and family speech was measured by time spent speaking during meetings, as well as weighted percentage of total meeting time spent speaking (speech time divided by physician plus family speech time). Complexity of physician speech was determined by analyzing physician speech passages and assigning a Flesch-Kincaid grade level score. Results: Elements of shared decision making occurred infrequently during both interpreted and non-interpreted meetings. Only 4 of the 11 elements were present in over half of English meetings, and only 3 of the 11 were present in over half of Spanish meetings. Physicians spent more time speaking than families. Physicians spoke for a mean of 20.7 minutes (95% CI 16 - 25.4), while families spoke for 9.3 minutes (95% CI 5.3 - 13.4) during English meetings. During Spanish meetings, physicians spoke for a mean of 14.9 minutes (95% CI 9.7 - 20.1) versus just 3.7 minutes (95% CI 1.5 - 5.9) of family speech. By weighted percentage, English meetings contained 71% physician speech (95% CI 63% - 78%) versus 29% family speech (95% CI 22% - 37%), compared to 80% physician speech (95% CI 73% - 88%) versus 20% family speech (95% CI 12% - 27%) in Spanish meetings. Physician speech complexity received a mean grade level score of 8.2 (95% CI 7.3 - 9.1) in English meetings, compared to 7.2 (95% CI 5.8 - 8.6) in Spanish meetings. Conclusions: The quality of physician-family communication during interpreted and non-interpreted family meetings in the pediatric ICU is poor overall. Interpreted meetings had poorer communication quality as evidenced by fewer elements of shared decision-making and greater imbalance between physician and family speech. However, physician speech may be less complex during interpreted meetings versus non-interpreted meetings. Our data suggest that physicians can improve communication in both interpreted and non-interpreted family meetings by increasing the use of elements of shared decision-making, improving the balance between physician and family speech, and decreasing the complexity of physician speech.

110. Karliner LS, Michael CH, Gregorich S, Green A, Mutha S, Napoles AM, et al. Increased access to professional interpreters in the hospital enhances limited English proficiency patients' understanding of procedural and surgical consent. *Journal of General Internal Medicine* 2014;29:S125-S126.

**BACKGROUND:** Limited English proficient (LEP) patients are at risk for poor communication leading to errors and adverse events. Professional interpreters improve communication, appropriate resource use and patient satisfaction. However, access to professional interpreters in the acute hospital is challenging due to the frequent and brief nature of many interactions, time pressures, the need for advance scheduling of in-person interpreters, and the around the clock nature of hospital care. We evaluated the impact of the bedside interpreter intervention-placement of a dual-handset telephone with 24-hour access to professional interpreters at the bedside of every patient-on LEP patients' understanding of procedural and surgical consent. **METHODS:** In order to evaluate the impact of access to professional interpreters on communication sensitive outcomes, we recruited two cohorts of hospitalized Chinese and Spanish speaking LEP patients from the cardiovascular, orthopedic, and general surgical floors of an urban academic medical center: one cohort before (pre-group) and one cohort after (post-group) implementation of the bedside interpreter intervention. We interviewed patients in each cohort in-person during their hospitalization. If the patient did not pass a cognitive screener or felt too ill to participate, we recruited a family surrogate. Among those participants who reported that they were awaiting or had already had a major procedure (e.g. cardiac catheterization) or surgery (e.g. CABG), we

compared the two cohorts according to participants' report of having signed a consent form, whether they had all of their questions answered, and how well they understood the reason and the risks of the procedure/surgery. RESULTS: : Among the 214 participants, two-thirds were Chinese and one-third Spanish speakers; 56 % were women, average age was 70 (range 45-95), 88 % reported speaking English 'not at all' or 'not well' and the remainder reported speaking English 'well' but preferred Chinese or Spanish for their medical care; there were no demographic difference between pre-and post-intervention groups. The majority (57 %) of participants both pre-and post-intervention were recruited from the cardiovascular floor, 28 % from general surgery and 15 % from orthopedics. At the time of the interview a total of 152 (84 pre-and 68 post-intervention) participants were either awaiting a procedure/surgery or had already had one. Among those 152 participants, post-intervention participants were more likely than pre-intervention participants to remember signing a consent form (93 % vs. 82 %;  $p=.06$ ). More participants in the postintervention group reported that they had all of their questions answered about the procedure/surgery (99 % vs. 89 %;  $p=.02$ ). Likewise, post-intervention participants reported significantly better understanding of the reason for and risks of the procedure/surgery (table). CONCLUSIONS: Placing a dual-handset telephone with 24-hour interpreter access at every bedside is associated with better understanding of the reasons for and risks of major procedures and surgeries for LEP patients. Implementation of systems changes such as the bedside interpreter intervention to improve communication with LEP patients in the hospital may help to increase patient engagement in their own care, and avert errors and adverse events. (Table presented).

111. Diamond LC, Yogendran L, Leng J, Aragonés A, Ramirez J, Gonzalez J, et al. Use of interpreters for limited English proficient patients with cancer. *Journal of General Internal Medicine* 2012;27:S343.

**BACKGROUND:** Underserved minority groups have worse cancer outcomes. Having limited English proficiency (LEP) adds to these disparities. LEP patients with cancer are less accurate in their knowledge of diagnosis. The use of professional interpreters has been shown to improve outcomes for LEP patients but ad-hoc interpreters, such as a patient's family member, may exacerbate misunderstandings. This study identifies which interpreter modalities were used at various types of outpatient visits for LEP oncology patients and what factors influence knowledge of cancer diagnosis. **METHODS:** Patients were recruited at an urban hospital-based cancer clinic in New York City between September 2008 and December 2010. Bilingual staff administered a survey of demographic and self-reported clinical information to  $n=60$  oncology patients. A retrospective chart review verified the diagnosis. Bivariate analyses were conducted using  $\chi^2$ , Fishers Exact test and T-tests to assess factors associated with knowledge of cancer diagnosis. Generalized linear mixed models were used to account for clustering and compare interpreter modality and visit type. **RESULTS:** All patients in the sample were LEP with 85% born in a Latin American country. The majority had been in the US more than 10 years. More than 80% had no primary care physician and had not seen a social worker. Over a third were uninsured and 19% had less than a 6th grade education. Eighteen percent failed to correctly identify their cancer diagnosis. LEP patients with insurance were more likely to know their cancer diagnosis than those without ( $p<.0001$ ). Professional interpreters less likely to be used in visits for chemotherapy ( $p<.0001$ ) and more likely to be used in social work visits ( $p=.01$ ) compared to other visit types. Ad-hoc interpreters were more likely to be used in surgery and oncology clinic visits ( $p=.01$ ,  $p=.0004$ ).

Despite an identified need for an interpreter, none was used in chemotherapy visits ( $p=.0002$ ) more commonly and in oncology clinic visits ( $p=.04$ ) compared to other visit types. There were no significant differences in visit types when clinicians use their own non-English language skills to communicate directly with LEP patients. **CONCLUSIONS:** Many LEP patients with cancer at an urban medical center did not know their cancer diagnosis. Having insurance may help improve knowledge of cancer diagnosis due to increased access to the healthcare system. Using professional interpreters at all types of visits may improve knowledge of cancer diagnosis.

112. Lopez L, Soukup JR, Hicks LR. Use of interpreters by physicians for hospitalized limited English proficiency patients and its impact on patient outcomes. *Journal of General Internal Medicine* 2012;27:S342-S343.

**BACKGROUND:** Use of professional medical interpreters for limited English-proficiency (LEP) patients is associated with increased patient satisfaction and improved disease-specific process measures however data related to clinical outcomes are less well elucidated. More specifically, whether the use of interpreters by physicians in the hospital setting impacts hospitalized patients' clinical outcomes is not clear. We hypothesized that the use of interpreters is associated with decreased length of stay (LOS), 30-day post discharge emergency department (ED) visits and 30-day hospital readmission rates for LEP patients. **METHODS:** We reviewed hospital administrative and interpreter services data for all hospitalized patients in 2009 admitted to the general medicine service at a large tertiary academic center ( $n=4224$ ). For patients self-reported as LEP in administrative data, we collected data regarding use of interpreters during each episode of hospitalization from the hospital interpreter service database and categorized as: (1) interpreter used by non-MD (i.e., nurse); (2) interpreter used by a non-Hospitalist MD; (3) interpreter used by Hospitalist; and (4) no interpreter used during hospitalization. We examined the association of English proficiency and interpreter use (English-speaking vs. each LEP category) on outcomes utilizing poisson models with log transformed LOS and logistic regression for the 30-day ED visits and readmission outcomes with adjustment for patient clustering at the physician level. Each model adjusted for patients' age, gender, race/ethnicity, insurance, discharge diagnosis, Charlson comorbidity score, type of admitting attending physician (Hospitalist/non-Hospitalist), and the number of a patient's hospital admissions in the previous year. Similar stratified analyses were conducted among only LEP patients. **RESULTS:** Of 4224 patients, 564 (13%) were LEP. Of these LEP patients, 65.8% never had a documented interpreter visit, 16.8% utilized an interpreter with a non-MD, 12.6% utilized an interpreter with a non-Hospitalist MD and 4.8% utilized an interpreter with a hospitalist present. In adjusted models, compared to English speakers, LEP patients with no interpreters (OR 0.83 [CI: 0.76-0.90]) and those who had interpreter use with a non-MD (OR 0.83 [CI: 0.78-0.89]) had significantly shorter LOS. Among LEP patients compared to those with no interpreter use, those who had a physician present with interpreter use (both hospitalist [OR 1.32 [CI: 1.09-1.11] and non-hospitalist [OR 1.28 [CI: 1.10-1.53]]) had a longer LOS. There were no differences in unadjusted and adjusted readmission rates (17% vs. 18.3%,  $p=0.47$ ) and ED utilization (both 19.9%,  $p=0.97$ ) between LEP and non-LEP patients. **CONCLUSIONS:** Academic hospital use of interpreters remains highly variable. After accounting for patients' demographic characteristics and severity of disease, LEP patients who had a physician present with interpreter use had longer LOS compared to LEP patients without an interpreter. There were no differences in 30-day post discharge ED visits or readmission rates for LEP patients compared to English speaking patients. Our findings

suggest that physicians may selectively be using interpreters for the sickest patients and that use of interpreters may be associated with use of other unmeasured inpatient services that may appropriately increase LOS. Interventions are needed to increase the consistent use of interpreters for all hospitalized LEP patients.

113. Moreland C, Bresnahan LZ, Fischer W. The impact of professional interpretation on length of stay in an observation unit. *Journal of General Internal Medicine* 2013;28:S218-S219.

**BACKGROUND:** Language barriers contribute to poor access to healthcare. According to the U.S. Census 2007 American Community Survey, about 34.5 million Americans spoke Spanish. The Joint Commission requires that hospitals provide interpretation services for limited-English proficient (LEP) people. Professional interpretation can decrease hospital length of stay (LOS) by days. No study to our knowledge has evaluated the impact of interpretation services on LOS in hospital observation units, where LOS is measured in hours.

**METHODS:** We aimed to measure the impact of Spanish interpretation on LEP patients' LOS in an observation unit. On admission, nurses identified and documented Spanish language use. A Pre-Intervention phase ran September-December 2012, followed by two interpretation phases: telephone and in-person. In January 2012 (Intervention 1), a dual-handset telephone was placed in each room. Providers received education on telephone availability and encouragement to use them with LEP patients. In February 2012 (Intervention 2), a communitybased interpretation vendor provided a professional, on-site interpreter for the observation unit during weekdays. The primary measure was observation unit LOS in hours. **RESULTS:** Pre-Intervention, there were 319 admissions of Spanish speakers with a mean LOS of 34.4 h (SD 20.5). During Intervention 1, there were 60 admissions with a mean LOS of 34.6 h (SD 23.3). During Intervention 2, there were 65 admissions with a mean LOS of 32.0 (SD 15.4). When comparing Pre-Intervention and Intervention 1 phases, the variances (by F test) were not statistically significantly different, nor were the mean LOS. However, the variances were statistically significantly different between Pre-intervention (420.36) and Intervention 2 (237.44) phases ( $p=0.007$ ); Levene's test recalculation (to avoid normal distribution assumptions) showed  $p=0.079$ . The upper half of Figure 1 displays the weekly average of observation hours (green) with upper and lower limits (red), while the lower half shows the weekly standard deviation. From the Pre-Intervention to Intervention 2 phases, the number of outliers and the data variation visibly drop. **CONCLUSIONS:** For Spanish-speaking patients in an academic county hospital observation unit, telephone interpretation did not seem to impact LOS. In-person interpretation resulted in an absolute reduction in LOS with reduction in variation, suggesting that provider behavior with interpretation services may lead to more predictable patient management patterns in the observation unit; the lack of statistically significant difference may be due to a low N for Intervention 2. Such a LOS reduction in an observation unit, where rapid turnaround is key, should be further evaluated with extended inperson interpretation (Figure Presented).

114. Zaw R, Faulkenberry-Miranda C, Zuniga S, Ortiz C, Stoltz G, Yang S. Barriers to clear communication for pediatric primary care providers when using phone interpreters: A focus group study. *Journal of Investigative Medicine* 2013;61 (1):183.

**Purpose of Study:** We are conducting focus groups with healthcare providers (HCP) and parents to investigate communication barriers and solutions when using

phone medical interpretation in primary care. Our clinic is a pediatric resident continuity clinic that serves an ethnically and linguistically diverse, low-income population. The purpose of this abstract is to report our preliminary findings. **Methods Used:** Focus groups of HCP and parents who have used phone interpreters are being conducted (4 groups each, 6 participants/group). Sessions explore participants' perceptions of self-efficacy, facilitators, and barriers about using phone interpreters, and are facilitated by bilingual moderators in Spanish or English. Each group discussion lasts up to 1 hour, and participants complete a demographics questionnaire. Written notes document all comments and behaviors of the group. Notes are transcribed, coded, and analyzed to generate common themes within and between groups. **Summary of Results:** One HCP group has been completed to date. Six female residents from the first and second year classes participated, ranging in age 25-30 years. Multiple issues were discussed a total 53 times. The proportion of issues related to phones not being able to capture body language (0.21) was discussed significantly more often than interruptions from phone disconnections (0.11,  $p < .05$ ), lack of phone availability (0.08,  $p < .01$ ), and incorrect information (0.04,  $p < .001$ ). Techniques commonly used by participants to overcome phone difficulties included: speaking slowly in short sentences, debriefing the interpreter about the patient situation before the encounter starts, and using Google Translator. **Conclusions:** Clear communication is crucial in a primary care setting that serves children at high-risk for medical, psychosocial, and developmental/ behavioral health needs. Medical interpretation via phone has become mainstream in many clinical settings. Our study's preliminary findings highlight the limitations of phone interpretation, and the importance for healthcare organizations to optimize phone interpretation systems and provide alternative modes of high-quality interpretation when attempts with phone interpretation have failed.

115. Zabar S, Pierre G, Burgess A, Hanley K, Murphy J, Stevens D, et al. What happens when residents choose between speaking Spanish or using an interpreter?: The perspective of unannounced standardized patients. *Journal of General Internal Medicine* 2011;26:S250-S251.

**BACKGROUND:** Language skills can be crucial for providing patient-centered care for linguistically diverse patients. Yet not all English speaking physicians can provide care in another language. For those physicians who are not bilingual, ideally an interpreter is utilized. This study assessed residents' competency in an Unannounced Standardized Patient (USP) Spanish language encounter in a clinic setting using either their own language skills or an interpreter. **METHODS:** Nine medical residents completed a bilingual case with an USP and whether the resident chose to conduct the visit in Spanish, English using an interpreter, or just in English was recorded. A highly trained bilingual SP assessed communication skills (12 items,  $I+ = .35$ ), patient satisfaction (4 items,  $I+ = .67$ ), and patient activation (4 items,  $I+ = .92$ ) using behaviorally-anchored checklist items with a 3-point response scale of not done, partly done, and well done. Case-specific items, tailored to the clinical scenario, assessed behaviors across three broad categories: patient assessment ( $I+ = .84$ ), education and counseling ( $I+ = .60$ ), and treatment plan and management ( $I+ = .72$ ). Scores were calculated as % well done. Two-sample t-tests were used to examine differences in performance between the residents. **RESULTS:** Four medical residents who self-reported as Spanish speakers spoke Spanish with the USP while 5 medical residents who self-reported as English speakers used an interpreter with the USP. Choice of communication strategy did not differ by PGY. Overall communication scores were significantly higher, on average, for residents who spoke Spanish with the USP than for

residents who used an interpreter with the USP (English 75%, SD 12% vs. Spanish 90%, SD 4%,  $p=.05$ , mean difference=15%, 95% CI [-29% - 0%]). Patient activation scores (English 15%, SD 22% vs. Spanish 69%, SD 47%,  $p=.06$ , mean difference=-54%, 95% CI [-110% - 2%]) were marginally higher for residents who spoke Spanish with the USP while patient satisfaction scores (English 60%, SD 42% vs. Spanish 94%, SD 13%, mean difference=-34%, 95% CI [-85% - 17%]) did not differ between the residents. Among the three case-specific domains, education and counseling scores (English 18%, SD 9% vs. Spanish 55%, SD 13%,  $p=.005$ , mean difference=-36%, 95% CI [-53% - 19%]) were significantly higher for residents who spoke Spanish with the USP than for residents who used an interpreter with the USP whereas patient assessment scores (English 31%, SD 18% vs. Spanish 42%, SD 36%, mean difference=-11%, 95% CI [-64% - 43%]) and treatment plan and management scores (English 75%, SD 35% vs. Spanish 100%, SD 0%, mean difference=-25%, 95% CI [-69% - 19%]) did not differ between residents. Overall, there were no consistent differences in performance when comparing residents' score on this USP case with 2 other USP cases, whether focusing on residents who spoke Spanish with the USP (and therefore were communicating in English for the other non-bilingual cases) or on residents who used a translator (and therefore were communicating in English for the other non-bilingual cases). And Spanish-speaking residents did not consistently perform better than English-speaking residents on an annual OSCE conducted prior to these USP visits.

**CONCLUSION:** Residents who spoke Spanish with the USP appeared to be more effective in communication, patient activation, and education and counseling than those who used an interpreter. This difference is not simply due to our Spanish speaking residents having superior clinical skills. What our results do suggest is that Spanish-speaking residents made the right choice in deciding to conduct the visit in Spanish rather than using an interpreter. Future research should investigate this in a larger sample and explore the impact of fluency on both the choice and impact of the communication strategy.

116. Stevens LA, Mitchell PM, Vasquez J, Lopez GM, Gutierrez A, McGrath ME. Spanish-speaking patient satisfaction with interpreter services in the emergency department: Comparison of in-person versus live-feed video interpretation. *Annals of Emergency Medicine* 2011;1):S308.

**Study Objectives:** The purpose of this study was to compare limited English proficient Spanish-speaking patient satisfaction with professional in-person versus live-feed video interpreters in the emergency department (ED). **Methods:** This was a prospective cohort study conducted from November 2010 to April 2011 in an urban, academic ED with > 130,000 annual visits. A convenience sample of limited English proficient Spanish-speaking ED patients was invited to participate in an anonymous survey of their experience using in-person, live-feed video, or telephone interpreter services during their visit. We sought to compare patient satisfaction with all 3 modalities; due to small sample size we excluded telephone from analysis. We included ED patients age >21, who self identified primary language as Spanish and used a single method of interpretation in the ED. We excluded those who were critically ill or had altered mental status. After informed consent was obtained, the survey instrument was administered verbally in Spanish. The survey instrument was adapted by study investigators from previously published work and piloted prior to onset of the study. Questions included both closed-format anchored 5-point Likert scale responses and open ended responses. Strongly agree/agree and strongly disagree/disagree/unsure were collapsed for analysis. Descriptive statistics were calculated and Fisher's exact test was used to compare responses between participants who used in-person interpretation and



those who used live-feed video interpretation. Results: A total of 61 patients were enrolled in the study (58% female) with a median age range of 56-60 years. In-person interpretation was used by 48/61 (79%) of participants and live-feed video interpretation was used by 13/61 (21%) of participants. Of all participants: 59/61 (97%) were satisfied with their experience with interpreter services and 100% thought the interpreter relayed the entire conversation to the doctor, with no significant differences between the groups. When asked preference between in-person, live-feed video and telephone, participants frequently cited visual communication as a positive aspect of in-person and live-feed video interpretation. Participants disliked long wait times for in-person interpreters and cited the ready availability of live-feed video interpreters as desirable. Conclusion: There was no significant difference in satisfaction between in-person vs. live-feed video interpretation in limited English proficient Spanish-speaking participants. Our results suggest that live-feed video interpretation is an acceptable method of interpretation in limited English proficient Spanish-speaking ED patients.

117. Raymond CW. Conveying information in the interpreter-mediated medical visit: the case of epistemic brokering. *Patient Education & Counseling* 2014;97(1):38-46.

**OBJECTIVE:** This study introduces the concept of epistemic brokering in interpreter-mediated medical visits and illustrates how it can be used to effectively convey information between providers and patients/parents.

**METHODS:** Conversation analysis is used to analyze 24 pediatric genetics consultations (=17.75 h) involving 16 Spanish-speaking families, their various English-speaking healthcare providers, and four on-staff bilingual interpreters.

**RESULTS:** Interpreters-as-epistemic-brokers can aid in the transfer of information between clinicians and patients/parents (i) by (re)designing content to be appropriately fitted to a specific recipient's understanding, and (ii) by monitoring the ongoing medical visit for moments in which one or more interactants may be in a relatively unknowledgeable position and taking steps to secure common ground.

**CONCLUSION:** It is posited that epistemically brokering interaction can serve to promote the development of positive relationships with potentially hard-to-reach patients/parents. Although seemingly minor, these moments in interaction contribute to these individuals' overall experience with and understanding of the institution of medicine. Future research is needed to identify the particular strategies associated with effective epistemic brokering.

**PRACTICE IMPLICATIONS:** Interpreters and clinicians should be aware of the role that discursive practices play in conveying information in the medical visit, and reconceptualize interpreters as collaborators in this process. Copyright 2014 Elsevier Ireland Ltd. All rights reserved.

118. Patel SG, Firmender WM, Snowden LR. Qualitative evaluation of mental health services for clients with limited English proficiency. *International Journal of Mental Health Systems* 2013;7(1):27.

**BACKGROUND:** To meet federal requirements under Title VI of the Civil Rights Act, the state of California instituted policies requiring that comprehensive mental health services in native languages be made available to limited English proficiency (LEP) populations when concentrations exceed "threshold" levels.

**METHODS:** This paper builds on promising results from quantitative evaluations by reporting on qualitative interviews with Latino and Vietnamese LEP clients in mental health services (N=20) to examine the awareness, impact, and implications of these threshold language policies.

**RESULTS:** Results suggest that, while individuals are often not aware of the policies themselves, the language-related services they receive that are prompted by the policies are critical to treatment initiation and retention. Results also convey the complexities of using interpreters for sensitive psychological topics, and suggest that, for LEP individuals seeking mental health treatment, providers who speak their native languages are generally preferred.

**CONCLUSIONS:** Access to language-appropriate services seems to be an important part of why LEP populations seek mental health treatment. However, there are multiple variables that factor into the usage and usefulness of such services.

119. Langer T, Wirth S. [Overcoming language barriers with telephone interpreters: first experiences at a German children's hospital]. *Zeitschrift fur Evidenz Fortbildung und Qualitat im Gesundheitswesen* 2014;108(5-6):278-282.

Language barriers in the care for patients with limited German language proficiency contribute to impaired quality of care, more frequent medical errors and decreased patient satisfaction. However, professional interpreters are not systematically used in Germany. We conducted a pilot study in a German paediatric hospital to explore the demand for an interpreter by conducting a survey among parents and to test the use of telephone interpreters. Eight percent of the respondents said they were interested in interpreter support. All physicians and parents using a telephone interpreter were very satisfied with the quality and the organisation of the service. Copyright 2013. Published by Elsevier GmbH.

120. Ngo-Metzger Q, Sorkin DH, Phillips RS. Healthcare experiences of limited english-proficient asian american patients: a cross-sectional mail survey. *The Patient: Patient-Centered Outcomes Research* 2009;2(2):113-120.

**BACKGROUND:** : Among patients with limited English-language proficiency (LEP), provider-patient language discordance is related to lower patient satisfaction. However, little is known about how language barriers are associated with specific patient experiences, and how these experiences in turn may influence patient satisfaction.

**OBJECTIVE:** : To evaluate the degree of health education and the quality of interpersonal care that occurs during patient visits, and their associations with patient satisfaction, in LEP Asian American patients.

**METHODS:** : A cross-sectional mail survey was conducted in 2746 LEP Chinese and Vietnamese patients aged >18 years from 11 community health centers in eight US cities. We examined self-reported healthcare experiences of LEP patients who had visits to a language concordant (speaks the patient's language) or discordant (does not speak the patient's language) provider over the previous month. Multivariable logistic regressions were conducted to examine the associations between interpersonal care, discussions of health-related behaviors, and patient satisfaction.

**RESULTS:** : Discussions of health-related behaviors and the quality of interpersonal care received were independent predictors of patient satisfaction ( $p < 0.001$ ). For language-discordant visits without access to an interpreter, patients who received poor-quality interpersonal care were more likely to be dissatisfied with the visit (adjusted odds ratio [AOR] 2.44; 95% CI 1.67, 3.57) and with the provider (AOR 4.43; 95% CI 1.71, 11.48) [both  $p < 0.01$ ].

**CONCLUSIONS:** : Improving the quality of interpersonal care and the degree of health-related discussions may result in greater satisfaction among LEP patients. The quality of the provider's interpersonal care is especially important

to patient satisfaction. Interpreter services may alleviate some disparities in care.

121. Carroll LN, Calhoun RE, Subido CC, Painter IS, Meischke HW. Serving limited English proficient callers: a survey of 9-1-1 police telecommunicators. *Prehospital & Disaster Medicine* 2013;28(3):286-291.

**INTRODUCTION:** The emergency telephone number 9-1-1 serves as a lifeline to the public during emergencies, and first responders rely on information gathered by 9-1-1 telecommunicators who speak with callers. Timely, accurate information from the telecommunicators is essential for providing appropriate care on scene. Language barriers can hamper these efforts and result in less efficient information exchange. Although 9-1-1 telecommunicators may access over-the-phone interpreter (OPI) services to facilitate communication, managing three-way communication during an emergency is challenging. Problem There is little published on the relationship between limited English proficient (LEP) callers and 9-1-1 police telecommunicators, and the role of OPI services during these calls. Further, little is known about effective strategies to manage such calls.

**METHODS:** In King County, Washington, 9-1-1 police telecommunicators were surveyed about their experiences handling LEP calls and managing three-way communication with OPI services. The survey contained 13 multiple-choice and three open-response questions addressing communication strategies, challenges with LEP callers, and three-way communication with OPI services. Goodman-Kruskal Gamma and chi-square tests were conducted with OPI use as the dependent variable. Additional analyses were conducted using stress levels as the dependent variable.

**RESULTS:** Of 123 respondents, 69 (56.5%) 9-1-1 telecommunicators reported utilizing OPI services at least 75% of the time when receiving a call from an LEP caller. Further, 35 (28.7%) of these telecommunicators reported calls with LEP individuals as more stressful than calls with fluent English speakers. Dispatcher stress level during LEP calls compared with stress during calls with fluent English speakers was positively associated with use of OPI services ( $P < .01$ ). Further, stress level was also positively associated with telecommunicator difficulties in assessing the situation with respect to officer safety ( $P < .01$ ). Sixty-three (58.3%) of the telecommunicators described difficulties assessing the situation to determine the appropriate response as the biggest challenge with LEP callers. Additionally, 62 (53%) identified knowing their location in English as information LEP callers need to know prior to calling 9-1-1.

**CONCLUSION:** These results highlight intervention opportunities for both 9-1-1 telecommunicators and LEP communities. Together, interventions such as working with LEP communities to educate them on best communication practices during 9-1-1 calls, and with 9-1-1 telecommunicators to help them manage three-way communication and reduce stress associated with concern for officer safety may improve emergency communication during 9-1-1 calls.

122. Hacker K, Choi YS, Trebino L, Hicks L, Friedman E, Blanchfield B, et al. Exploring the impact of language services on utilization and clinical outcomes for diabetics. *PLoS ONE [Electronic Resource]* 2012;7(6):e38507.

**BACKGROUND:** Significant health disparities exist between limited English proficient and English-proficient patients. Little is known about the impact of language services on chronic disease outcomes such as for diabetes.

**METHODS/PRINCIPAL FINDINGS:** To determine whether the amount and type of language services received during primary care visits had an impact on diabetes-related outcomes (hospitalization, emergency room utilization, glycemic control) in limited English proficient patients, a retrospective cohort design was utilized. Hospital and medical record data was examined for 1425 limited English proficient patients in the Cambridge Health Alliance diabetes registry. We categorized patients receiving usual care into 7 groups based on the amount and combination of language services (language concordant providers, formal interpretation and nothing) received at primary care visits during a 9 month period. Bivariate analyses and multiple logistic regression were used to determine relationships between language service categories and outcomes in the subsequent 6 months. Thirty-one percent of patients (445) had no documentation of interpreter use or seeing a language concordant provider in any visits. Patients who received 100% of their primary care visits with language concordant providers were least likely to have diabetes-related emergency department visits compared to other groups ( $p < 0.001$ ) in the following 6 months. Patients with higher numbers of co-morbidities were more likely to receive formal interpretation.

**CONCLUSIONS/SIGNIFICANCE:** Language concordant providers may help reduce health care utilization for limited English proficient patients with diabetes. However, given the lack of such providers in sufficient numbers to meet patients' communication needs, strategies are needed to both increase their numbers and ensure that the highest risk patients receive the most appropriate language services. In addition, systems serving diverse populations must clarify why some limited English proficient patients do not receive language services at some or all of their visits and whether this has an impact on quality of care.

123. de Bocanegra HT, Rostovtseva D, Cetinkaya M, Rundel C, Lewis C. Quality of reproductive health services to limited English proficient (LEP) patients. *Journal of Health Care for the Poor & Underserved* 2011;22(4):1167-1178.

**BACKGROUND:** Medical patients with limited English proficiency (LEP) frequently receive health care services of suboptimal quality.

**METHODS:** We explored whether clients served with staff interpreters (language-discordant, LDI) receive reproductive health care of lower quality than clients seen by a bilingual clinician (language concordant, LC). We conducted a medical record review of 1,589 reproductive health visits of female and male LEP clients.

**RESULTS:** Multivariate analyses showed that LDI visits were significantly less likely than LC visits to contain documentation of the provision of education and counseling services and less likely to have documentation of sexually transmitted infection (STI) risk assessment among new female clients. Female clients in LDI and LC visits were equally likely to be tested for Chlamydia.

**CONCLUSIONS:** Quality improvement activities should target family planning providers who must use interpreters when serving LEP clients. Medical charts should document the use of interpreters and bilingual clinicians to monitor quality of care.

124. Eamranond PP, Davis RB, Phillips RS, Wee CC. Patient-physician language concordance and primary care screening among spanish-speaking patients. *Medical Care* 2011;49(7):668-672.

**BACKGROUND:** Language discordance between patient and physician is associated with worse patient self-reported healthcare quality. As Hispanic patients have low rates of cardiovascular and cancer screening, we sought to determine

whether patient-physician language concordance was associated with differences in rates of screening.

**METHODS:** We performed a retrospective medical record review of 101 Spanish-speaking patients cared for by 6 Spanish-speaking PCPs (language-concordant group) and 205 Spanish-speaking patients cared for by 44 non-Spanish-speaking PCPs (language-discordant group). Patients were included in the study if they were of age 35 to 75 years and had used interpreter services 2001 to 2006 in 2 Boston-based primary care clinics. Our outcomes included screening for hyperlipidemia, diabetes, cervical cancer, breast cancer, and colorectal cancer with age-appropriate and sex-appropriate subgroups. Our main predictor of interest was patient-physician language concordance. In multivariable modeling, we adjusted for age, sex, insurance status, number of primary care visits, and comorbidities. We adjusted for clustering of patients within individual physicians and clinic sites using generalized estimating equations.

**RESULTS:** Patients in the language-discordant group tended to be female compared with patients in the language-concordant group. There were no significant differences in age, insurance status, number of primary care visits, or Charlson comorbidity index between the 2 groups. Rates of screening for hyperlipidemia, diabetes, cervical cancer, and breast cancer were similar for both language-concordant and language-discordant groups. However, patients in the language-concordant group were less likely to be screened for colorectal cancer compared with the language-discordant group risk ratio 0.78 (95% confidence interval, 0.61-0.99) after multivariable adjustment.

**CONCLUSIONS:** This study finds that Spanish-speaking patients cared for by language-concordant PCPs were not more likely to receive recommended screening for cardiovascular risk factors and cancer. Furthermore, language concordance was associated with lower likelihood colorectal cancer screening. Further research is needed to examine which conditions are optimal to improve cardiovascular and cancer screening for Spanish-speaking patients, particularly for colorectal cancer, which has a low rate of screening.

125. Jackson JC, Nguyen D, Hu N, Harris R, Terasaki GS. Alterations in medical interpretation during routine primary care. *Journal of General Internal Medicine* 2011;26(3):259-264.

**BACKGROUND:** Increasing numbers of patients require medical interpretation, yet few studies have examined its accuracy or effect on health outcomes.

**OBJECTIVE:** To understand how alterations in medical interpretation affect health care delivery to patients with limited English proficiency (LEP), we aimed to determine the frequency, type, and clinical significance of alterations. We focused on best-case encounters that involved trained, experienced interpreters interacting with established patients.

**DESIGN:** We audio-recorded routine outpatient clinic visits in which a medical interpreter participated. Audiotapes were transcribed and translated into English. We identified and characterized alterations in interpretation and calculated their prevalence.

**PARTICIPANTS:** In total, 38 patients, 16 interpreters, and 5 providers took part. Patients spoke Cantonese, Mandarin, Somali, Spanish, and Vietnamese, and received care for common chronic health conditions.

**MEASURES:** Unlike previous methods that report numbers of alterations per interpreted encounter, we focused on alterations per utterance, which we defined as the unit of spoken content given to the interpreter to interpret. All alteration rates were calculated by dividing the number of alterations made during the encounter by the number of utterances for that encounter. We defined

clinically significant changes as those with potential consequences for evaluation and treatment.

**KEY RESULTS:** We found that 31% of all utterances during a routine clinical encounter contained an alteration. Only 5% of alterations were clinically significant, with 1% having a positive effect and 4% having a negative effect on the clinical encounter.

**CONCLUSION:** Even in a best case scenario, the rate of alteration remains substantial. Training interpreters and clinicians to address common patterns of alteration will markedly improve the quality of communication between providers and LEP patients.

126. Fung CC, Lagha RR, Henderson P, Gomez AG. Working with interpreters: how student behavior affects quality of patient interaction when using interpreters. *Medical Education Online* 2010;15.

**BACKGROUND:** Despite the prevalence of medical interpreting in the clinical environment, few medical professionals receive training in best practices when using an interpreter. We designed and implemented an educational workshop on using interpreters as part of the cultural competency curriculum for second year medical students (MSIIs) at David Geffen School of Medicine at UCLA. The purpose of this study is two-fold: first, to evaluate the effectiveness of the workshop and second, if deficiencies are found, to investigate whether the deficiencies affected the quality of the patient encounter when using an interpreter.

**METHODS:** A total of 152 MSIIs completed the 3-hour workshop and a 1-station objective-structured clinical examination, 8 weeks later to assess skills. Descriptive statistics and independent sample t-tests were used to assess workshop effectiveness.

**RESULTS:** Based on a passing score of 70%, 39.4% of the class failed. Two skills seemed particularly problematic: assuring confidentiality (missed by 50%) and positioning the interpreter (missed by 70%). While addressing confidentiality did not have a significant impact on standardized patient satisfaction, interpreter position did.

**CONCLUSION:** Instructing the interpreter to sit behind the patient helps sustain eye contact between clinician and patient, while assuring confidentiality is a tenet of quality clinical encounters. Teaching students and faculty to emphasize both is warranted to improve cross-language clinical encounters.

127. Hornberger J, Itakura H, Wilson SR. Bridging language and cultural barriers between physicians and patients. *Public Health Reports* 1997;112(5):410-417.

**OBJECTIVE:** This study explored a group of primary care physicians' use of various methods to bridge language and cultural barriers between themselves and their patients and the physicians' perceptions of the availability and quality of these methods.

**METHODS:** The authors mailed a questionnaire to 495 primary care physicians in the Greater Bay Area of northern California, an area chosen for its ethnically diverse population. Respondents were asked to estimate how many patients they saw per week, how many encounters they had per week with non-English-speaking patients, and how often they used each of six interpretation methods. They were also asked to assess the availability and quality of interpretation services.

**RESULTS:** Physicians reported that, on average, 21% of visits were with non-English-speaking patients. Trained medical interpreters or the AT&T Language Line were used, on average, in fewer than 6% of these encounters, and no interpreters were used in 11%. In 27% of encounters with non-English-speaking

patients, the physician could speak the patient's language, in 20% interpretation was done by a staff member who had no formal interpretation training, and in 36% a family member or companion of the patient interpreted. Physicians who had access to trained interpreters reported a significantly higher quality of patient-physician communication than physicians who used other methods ( $P < 0.0001$ ).

**CONCLUSIONS:** In an area of great ethnic diversity where physicians who had access to the services of trained interpreters reported a significantly higher quality of patient-physician communication, the low rates of use of trained interpreters suggest that factors other than quality, such as costs, preclude greater use of these services.

128. Baxter H, Cheng LY. Use of interpreters in individual psychotherapy. *Australian & New Zealand Journal of Psychiatry* 1996;30(1):153-156.

**OBJECTIVE:** This paper was written after one of the authors treated a case by individual therapy using an interpreter, as patient and therapist spoke different languages. There is little literature on this subject, and this paper describes our findings and recommendations for using this approach.

**METHOD:** A 15-year-old Chinese, Cantonese-speaking in-patient in Hong Kong was treated with individual psychodynamic psychotherapy by an English-speaking Caucasian psychotherapist. The Chinese interpreter attended each session, and therapy was supervised by a bilingual Chinese supervisor. The alternative was to not carry out any therapy, as there was no other therapist available.

**RESULTS:** The patient was treated for a total of 32 sessions. Issues involving language and culture differences between therapist and patient, issues of therapy in a triadic situation involving group dynamics, and specific therapy difficulties raised by the presence of the interpreter are discussed.

**CONCLUSION:** Therapy was not as effective as hoped, but the patient made some improvements. Finding a suitable interpreter is difficult and their role must be well defined. A bilingual supervisor is also needed to monitor the translation as well as supervising the therapist. Psychotherapy through an interpreter is feasible but not ideal.

129. Waseem M, Lugo B, Reynolds T, Devas N, Leber MJ. Are there still differences in understanding discharge instructions after utilizing a language interpreter service? *Academic Emergency Medicine* 2010;17:S102.

We hypothesize that providing a language interpreter service (LIS) in the emergency department would equalize the rates of inadequate discharge instructions between Hispanics who spoke no English vs. those Hispanics who were bilingual. **Objective:** To determine the understanding of discharge instructions in the emergency department (ED) after the utilization of the LIS. **Methods:** Design: Survey. Setting: Inner-city teaching hospital. Population: Spanish-speaking parents. All participants were able to access the LIS, which was available from 10 am to 10 pm. After hours, over the phone service was utilized. A five part questionnaire was administered after parents received discharge papers. Adequate discharge instructions were defined as knowing the diagnosis, the medication doses and frequency, the follow-up appointment, and where to return. Knowing the name of the treating physician was treated separately. Univariate and bivariate analysis was performed. **Results:** Caregivers of 195/200 children visiting a pediatric ED were analyzed. Five were excluded because their principal language was not English or Spanish. 96.9% knew the diagnosis and 88.7% knew the medications dosage and frequency. 97.9% were able to provide follow-up appointment date and time whereas

96.9% verbalized the return instructions. Seventy-one percent knew the name of the treating physician, 169 (84.5%) received adequate discharge. Caregivers who spoke some English were more likely to receive adequate discharge compared to a Spanish-speaking only caregiver (90.8% vs. 79.1%;  $p=0.02$ ). There was no statistical difference between caregivers in knowing who the treating physician was (75.2% vs. 68.6%;  $p=0.30$ ). One variable (not knowing the medication dosage and frequency) identified 22/28 (79%;  $p < 0.0001$ ). Conclusion: Even with LIS, Spanish only caregivers received inadequate discharge instructions. Misunderstanding of medication dosage and frequency was the main variable that determined inadequate vs. adequate discharge instructions.

130. Santoyo-Olsson J, Napoles AM, Karliner L, Perez-Stable EJ. Language interpretation errors and their clinical significance in the medical encounters of spanish-speaking latinos. *Journal of General Internal Medicine* 2013;28:S113.

**BACKGROUND:** Limited English proficient (LEP) patients with language concordant clinicians experience better outcomes of care than LEP patients with discordant clinicians. Due to shortages of language concordant physicians, there is a need to understand the impact of language interpretation on physician-patient communication and quality of care. Across three interpretation modes: professional in-person (PI), remote professional via videoconferencing (VMI), and ad hoc (non-professional, untrained; AH) interpreters, this study compared: 1) the frequency of interpreter communication behaviors, and 2) ratings of the clinical significance of interpretation errors. **METHODS:** Selected patients, representing 3 modes of language interpretation (PI=5, VMI=22, AH=5), were recruited from a public hospital primary care clinic in Northern CA between May-Oct 2005 and audio recorded. Verbatim transcripts were independently coded by two investigators using a coding scheme that classified interpreter behaviors into one of eight categories: two positive (non-error) or six negative (error) codes: accurately interprets (+), asks for clarification (+), makes an addition (-), makes a substitution (-), answers for patient or clinician (-), makes an omission (-), editorializes (-), and uses incorrect words (-). The unit of analyses was an identifiable segment of continuous speech or text unit (TU). Two general internists verified the coding of the first two coders and applied independently another coding scheme to the negative behaviors (errors) that assessed their clinical significance on a 1=clinically insignificant to 4=highly clinically significant scale. All coding was adjudicated until consensus was reached. **RESULTS:** Mean age of patients ( $n=32$ ) was 53 years (SD 15.8), 75 % were women, 88 % had < high school education, and 56 % were uninsured. Mean age of clinicians ( $n=14$ ) was 51 years (SD 11.5), 71 % women, 50 % non-Latino White, 80 % general internists, and 50 % had no previous training on using interpreters. A total of 2,945 TUs were coded; 30 % ( $N= 872$ ) of text units were coded as errors, with an average of 27 errors per visit. Errors of omission were 65 % of all errors coded. Accurate interpretation occurred less frequently in AH interpreted visits (38 % vs. PI=66 % and VMI=65 %;  $p<.05$ ). The distribution of types of interpreter errors by mode of interpretation was similar except for makes an omission (AH=33 %, vs. PI=16 % and VMI=16 %;  $p<0.05$ ) and answers for patient or clinician (AH=16 %, vs. PI=1 % and PVC=1 %;  $p<0.05$ ), which occurred more frequently in AH interpreted visits. Clinically significant errors occurred frequently, (59 % of all errors, although only 7 % were rated as moderately or highly clinically significant). The mean clinical significance rating of errors was 1.67 (SD 0.61). **CONCLUSIONS:** Clinically significant errors in medical interpretation are fairly common in primary care visits of Spanish-speaking



patients. Ad hoc interpreted visits result in more interpreter errors of omission and answering for patients or clinicians, indicating lower quality interpretation. Expansion of professional interpreter services for LEP patients either through in-person or videoconferencing modes is warranted.

131. Talama ntes E, Moreno G, Guerrero LR, Mangione C, Morales L. Hablamos juntos (together we speak): A brief patient-reported measure of the quality of interpreters. *Journal of General Internal Medicine* 2013;28:S83.

**BACKGROUND:** Although research supports the use of trained interpreters when providers care for patients with limited English proficiency (LEP), less is known about the quality of interpretation from the patient's perspective. This study examined the psychometric properties of a patient-reported measure of quality of interpreters and its association with patient's reports of doctor communication and satisfaction with care. **METHODS:** We analyzed pooled, cross-sectional survey data collected in two waves between 2003 and 2006 from 1590 Latino adult women and men with LEP who participated in the Hablamos Juntos (HJ) national demonstration project. Quality of interpreters was assessed with four survey items that asked patients about their experiences with interpreters (item 1. listening carefully, item 2. repeating questions to doctor, and item 3. using words that are hard to understand, and item 4. spending enough time with patients). Doctor communication was examined with a multiple-item measure (listening carefully to patients, explaining things in a way patients can understand, showing respect for what patients have to say, and spending enough time with patients), and satisfaction with care was assessed with a single-item measure. **RESULTS:** Sixty-nine percent (1,104) of patients surveyed used interpreters. Cronbach's alpha for the three items assessing interpreter quality was 0.31; dropping item 3 resulted in an alpha of 0.56. Items 1 and 2 were moderately correlated with doctor communication and satisfaction with care scores ( $r=0.21-0.39$ ) supporting construct validity. The associations between interpreter quality and doctor communication and satisfaction with care remained significant in analyses adjusting for sex, gender, education, marital status, income, insurance coverage, health status, survey wave, and site of care. **CONCLUSIONS:** Two of three items can be scaled to measure quality of interpretation from the patient's perspective. Quality of interpretation reported by patients is associated with doctor communication and satisfaction with care. More research is needed to fully elucidate how patients with LEP evaluate the quality of interpreters and how it relates to patient outcomes.

132. Zaw R, Faulkenberry C, Ortiz C, Gibson C, Yang S. Am I making myself clear? Barriers to patient-doctor communication while using phone interpreters in a medical home for at-risk children. *Journal of Investigative Medicine* 2012;60(1):183-184.

**Purpose of Study:** The Children's Health Center (CHC) is a primary care Health Professional Shortage Area facility in Fresno County that serves economically disadvantaged children from diverse cultural & linguistic backgrounds who are at high-risk for developmental, behavioral, and psychosocial problems. The purpose of this study is to test the hypothesis that caregivers and health care providers in the Newborn Follow-up (NB) and Continuity Clinics (CC) will report increased communication difficulties with phone interpretation when compared to caregivers and providers in the Urgent Care (UC) Clinic. **Methods Used:** This is a descriptive study of a convenience sample of caregivers and providers in the NB Follow-up, CC, and UC Clinics at CHC who agreed to participate during a 3 month study period. Study participants were

asked to complete a questionnaire after each encounter to rate the quality of communication during the encounter. General demographic information and open-ended questions about the encounter were also obtained. Surveys were validated in English for providers and Spanish for caregivers. Summary of Results: 29 providers (48% Caucasian, 48% Asian, 4% Other) completed 94 surveys. Caregivers (95% Spanish speakers, 91% were patient's mother) completed surveys from 103 encounters. There were no significant differences in mean ratings by caregivers or providers regarding the quality of communication during the encounter when comparing NB, CC, or UC clinics. However, overall mean ratings revealed provider & parent difficulties with phone interpreters not noticing problems with understanding of one another, providers not feeling they have enough time with patients, and caregivers not feeling at ease talking with interpreters. Conclusions: Literature shows that using trained medical interpreters is crucial in providing family-centered, culturally competent health care. Our preliminary findings reveal barriers to clear communication between provider and parent that should be considered when using phone interpretation. Future research is planned to understand communication barriers related to phone interpretation faced by pediatric providers and parents in difficult primary care situations, such as when dealing with psycho-socio-behavioral concerns.

133. Borum M, Chaudhari R, Dubin S, Barocas J. Non-english speaking patients have similar adherence to recommendations with institutional or family-provided translation and navigation services. *American Journal of Gastroenterology* 2010;105:S406.

Purpose: Patients with liver disease often require multifaceted approach to evaluation and treatment. Individuals with potentially life-threatening disorders benefit from education about their disease and adherence to medical recommendations. Research has demonstrated that individuals who are not proficient in the language of their physician are less compliant. Translation and patient navigation services can improve adherence to recommendations. However, medical groups may not always have the ability to provide these services. This study compared the compliance rate of patients with liver disease who received translation and navigation services provided by the institution to those who received services by a recruited family member. Methods: All medical records of consecutive non-English speaking patients with liver disease who received documented translation and navigation services were evaluated. Patient gender, age, primary language, compliance with recommendations and type of translation and navigation services were documented. A database was created using Microsoft Excel. Statistical analysis was performed using Fisher's Exact test with significance set at  $p < 0.05$ . Results: Twenty-six medical records of non-English speaking patients with documented translation and navigation assistance were reviewed. There were 15 men and 11 women, with a mean age of 60.3 years. The primary languages were Spanish (38%), Arabic (23%) and Anharic (19%). In the 14 patients (54%) who received translation and navigation services provided by the institution, 13 complied with all of the physician recommendations. In the 12 patients (46%) who received translation and navigation services by a recruited family member, 10 complied with all of the physician recommendations. There was no significant difference ( $p=1$ ) in the rate of compliance with medical recommendations if translation and navigation services were provided by the institution or the family. Conclusion: Translation and patient navigation services can improve adherence to medical recommendations. Patients with complex medical disorders who are not proficient in the language of their physicians may benefit from these services. However, there are no studies

that evaluate the effect of institutionally-provided or family-provided translation and navigation services in a gastroenterology practice. This study reveals that non-English speaking patients had excellent adherence to medical recommendations with translation and navigation services. There is no difference in the patient compliance based upon whether services are provided by the medical group or a recruited family member.

134. Taktakishville O, Garra G, Singer AJ. Professional translation does not result in decreased length of stay for Spanish speaking patients with abdominal pain. *Academic Emergency Medicine* 2012;19:S121.

**Background:** Language discordance is the most frequently reported communication barrier (CB) with patients. CBs are associated with decreased diagnostic confidence, increased diagnostic test utilization, and increased ED length of stay (LOS). **Objectives:** Our primary objective was to determine whether professional translation results in decreased ED LOS for patient with abdominal pain. Our secondary objective was to determine differences in test/consult utilization and disposition. Our hypothesis was that professional translation service would result in a 1-hour decrease in LOS. **Methods:** Study design: Prospective observational. Setting: University ED with 90,000 visits/yr. Subjects: Spanish-speaking patients presenting to the ED for abdominal pain. Measures: An anonymous survey tool was completed by the treating physician. Data collected included demographics, triage time, disposition time, type of translation method utilized, and ancillary testing and consultations obtained in the ED. Analysis: descriptive statistics. Continuous variables were compared with analysis of variance (ANOVA), and binary variables were compared with phi coefficient. Results: Ninety-two patients were enrolled; mean age was 35 (IQR 27-42), 76% were female. The median ED LOS was 270 min (IQR 199-368). Labs were obtained in 98%, CT in 37%, US in 30%, and consultation in 23%. 18% of the cohort was admitted to the hospital. The most commonly utilized source of translation was a layman (35%). A professional translator was used in 9% and translation service (language line, MARTY) in 30%. The examiner was fluent in the patient's language in 11%. Both the patient and examiner were able to maintain basic communication in 11%. There were 47 patients in the professional/ fluent translation group and 44 patients in the lay translation group. There was no difference in ED LOS between groups 288 vs 304 min;  $p = 0.6$ . There was no difference in the frequency of lab tests, computerized tomography, ultrasound, consultations, or hospital admission. Frequencies did not differ by sex or age. **Conclusion:** Translation method was not associated with a difference in overall ED LOS, ancillary test use, or specialist consultation in Spanish-speaking patients presenting to the ED for abdominal pain.

135. Zimbudzi E, Thompson S, Terrill B. How accessible are interpreter services to dialysis patients of Non-English Speaking Background? *Australasian Medical Journal* 2010;1(3):205-212.

**Background:** Benefits of utilizing professional interpreters in clinical settings have been well documented. However, not many studies have focused on use of professional interpreters by dialysis patients of Non-English Speaking Background (NESB) who are in the clinical settings every second day of their lives. The underlying question for this research was to determine the level of interpreter utilisation by dialysis patients of NESB at a major urban teaching hospital. **Method:** A multi-method approach was used involving (a) in-depth interviews of health care professionals working with dialysis patients to elicit their views regarding interpreter access and use by dialysis patients of NESB,

(b) observations of interactions between staff and dialysis patients of NESB and (c) review of medical records belonging to dialysis patients of NESB who were admitted 24 months prior to the study. Results: Interviews revealed that only 50% of Health Care Workers (HCWs) had accessed an interpreter for dialysis patients of NESB over a period of six months. Observations of staff/NESB patient interactions showed that professional interpreters were used in only 25% of the observed occasions. The review of medical records revealed that there was no evidence of interpreter use in 32% of the records belonging to dialysis patients of NESB. The study also showed that non-compliance with dialysis treatment regime was more likely to occur among patients who had limited access to interpreters. Conclusion: The study demonstrated a suboptimal utilisation of interpreter services by dialysis patients of NESB. Several barriers to inaccessibility and underutilisation of professional interpreters were identified. Recommendations to improve communication between HCWs and dialysis patients of NESB are suggested.

136. Boss-Prieto OL, De Roten Y, Elghezouani A, Madera A, Despland JN. Differences in therapeutic alliance when working with an interpreter: A preliminary study. *Schweizer Archiv fur Neurologie und Psychiatrie* 2010;161(1):14-16.

This preliminary study aims to analyze the therapeutic alliance in a crosscultural triadic setting, where there is a therapist and a client who speak a different language but are able to interact thanks to an interpreter/cultural mediator. The participants' (therapists, clients, interpreters) representations associated with the notion of therapeutic alliance, and the level of alliance between each group was obtained and compared. Clients (N = 9) were all from Albanese origin. The results show that the three groups of participants give particular meanings to the alliance and tend to evaluate their alliance level differently. The interpreter's mediating role in the construction of the therapeutic alliance is discussed.

137. Grover A, Roosevelt G, Deakyn S, Bajaj L, Hampers L. Comparison of throughput times for limited English proficiency patient visits in the emergency department between different interpreter modalities. *Pediatric Emergency Care* 2009;25 (10):707.

Purpose: The rising number of LEP (limited English proficiency) patients seeking health care within the US system has led to increased awareness of the legal and socioeconomic pitfalls associated with failure to provide appropriate interpretive services to these patients and their families. However, there has been little guidance provided to hospital and practice administrators in comparing different interpreter modalities. The purpose of this study was to compare throughput times for ED visits involving patients and caretakers with LEP based on the type of language service provided: on site professional interpreters, remote telephonic interpreters or bilingual providers. Methods: This is a secondary data analysis of a large randomized trial of different interpreter modalities in which 1198 Spanish-speaking families were enrolled: 405 randomized to telephonic interpretation; 376 to on-site interpretation; 417 interviewed by a bilingual physician. For this analysis, we queried the electronic medical record for process and resource utilization data regarding the visit including event time stamps, clinical factors, lab and radiology utilization and disposition. Chi square tests were used for categorical variables. Continuous variables, age and time, were analyzed with the Kruskal-Wallis test as the distributions were not normal. Results: The cohorts (telephonic, on-site interpretation, bilingual physician) did not differ with respect to patient age or

sex, or the parent's country of origin. The patients in the on-site interpretation cohort (median 116 minutes) had a significantly shorter total throughput time than both telephonic (median 141 minutes) and bilingual provider (153 minutes) cohorts ( $p < .0001$ ). There was no difference in the cohorts between arrival time to triage and triage time to time seen by a physician. Time to see a physician until disposition was significantly shorter in the on-site interpretation cohort (median 52 minutes) as compared to telephonic (72 minutes) and bilingual providers (81 minutes) ( $p < .0001$ ). There was no difference between the cohorts on laboratory ( $p = 0.28$ ) or radiology utilization ( $p = .73$ ). However, there was a lower admission rate in the on-site cohort (3.5%) as compared to both telephonic (9.4%) and bilingual provider (8.6%) cohorts ( $p = .02$ ). Conclusions: On-site interpretation significantly decreased ED throughput times for LEP patients by decreasing the time between physician evaluation and disposition. This may have varying implications for Hospital and ED administrators depending on the volume of LEP patients as well as the resources available.

138. Gallez E, Maryns K. Orality and authenticity in an interpreter-mediated defendant's examination: A case study from the Belgian Assize Court. *Interpreting* 2014;16(1):49-80.

This case study examines how a court's perception of the defendant's socio-legal identity may be affected by interpreting. Since this perception relies largely on language, interpreters are expected to minimise their impact on the dynamics of direct communication between primary participants. The analysis focuses on an interpreter-mediated defendant's examination, recorded in an attempted murder case tried before the Belgian Assize Court, identifying possible departures from the principles of orality and authenticity. The recordings include exchanges, not necessarily audible to the court, between the defendant and the interpreter. Our analysis shows that: (a) the participation framework (directness) of the defendant's input is altered, while the relative inaudibility of the interaction between defendant and interpreter deprives the jury of access to authentic features of the defendant's delivery; (b) the interpreter's intervention may shift the defendant's oral exposition into a different style, and hence condition the way the defendant is eventually perceived by the jury. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract).

139. Sleptsova M, Hofer G, Morina N, Langewitz W. The role of the health care interpreter in a clinical setting-A narrative review. *Journal of Community Health Nursing* 2014;31(3):167-184.

Objective: To examine published models of health care interpretation and associated roles, expectations, and outcomes. Methods: A literature search was conducted using the key words interpreter/translator, communication, and role and their combinations in PubMed, CINAHL, PsycINFO, and PSYINDEXPlus. References mentioned in articles identified with these search terms were then checked by hand in corresponding publications and books. We excluded articles if they were dealing with concepts of interpretation, role definitions, etc., without presenting any empirical evidence to support their recommendations. Thirty-four of 1,121 references that investigated the role of professional interpreters in health care were found to meet inclusion criteria. Results: Out of 34 articles, only 2 recommend strict adherence to the conduit model in which interpreters are faithfully and exclusively transmitting information; the interpreter's role is in 32 studies defined in broader terms as the role of a cultural broker ( $n = 18$ ), a manager or clarifier ( $n = 22$ ), a patient advocate ( $n =$

13), or a mediator (n = 6). Conclusion: There are no commonly accepted understandings of the interpreters' role; empirical data are lacking. Practice Implications: The interpreter's function must be explicitly clarified before a health care encounter is conducted. There should be an agreement of some basic rules. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract).

140. Becher EH, Wieling E. The Intersections of Culture and Power in Clinician and Interpreter Relationships: A Qualitative Study. *Cultural Diversity and Ethnic Minority Psychology* Aug 2014(Pagination):No Pagination Specified.

Ongoing racial/ethnic health disparities place increasing emphasis on the importance of interpreters in mental health treatment. Yet there is a limited body of research examining how interpreters and clinicians work together in delivering care. This article used an ethno-culturally informed qualitative procedure to ask interpreters and clinicians about their experiences in cross-language mental health treatment. Seventeen semistructured interviews were conducted with 10 interpreters and 7 clinicians. The interplay of power was experienced differently by interpreters and clinicians as exemplified by 3 categories of meaning: Interpreters speaking out, The relationship matters, and Who has the power? The authors recommend future research focus on the clinician-interpreter relationship as an essential piece of cross-cultural mental health delivery. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract).

141. Sawrikar P. How effective do families of non-english-speaking background (nesb) and child protection caseworkers in australia see the use of interpreters? A qualitative study to help inform good practice principles. *Child & Family Social Work* Aug 2013(Pagination):No Pagination Specified.

Abstract Little empirical research has been conducted in Australia on what constitutes as effective practice with interpreters in child protection matters. This study aimed to address this gap. Qualitative interviews were conducted with 29 non-English-speaking background (NESB) client families and 17 child protection caseworkers (as part of a larger study). Four examples of good practice (e.g. accurate translation) and 14 examples of ineffective practice emerged. The examples of poor practice were consequently grouped as issues with: (i) interpreters (e.g. inaccurate translation); (ii) caseworkers (e.g. insufficient time); (iii) NESB families (e.g. refusing to use an interpreter); and (iv) resources (e.g. insufficient face-to-face interpreters). As expected, the results largely replicate the (scant) national and international literature, indicating that features of good practice, and barriers to them, are similar across multicultural countries. This paper does however argue that training for interpreters dealing in such sensitive matters and training for caseworkers on working effectively with interpreters seem to be at the heart of good practice. This study is significant because it draws on the richness of data that qualitative methods offer to identify the full range of relevant variables and provide empirical support for principles of good practice. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract).

142. Braun S. Keep your distance? Remote interpreting in legal proceedings: A critical assessment of a growing practice. *Interpreting* 2013;15(2):200-228.

Remote interpreting, whereby the interpreter is physically separated from those who need the interpretation, has been investigated in relation to conference and

healthcare settings. By contrast, very little is known about remote interpreting in legal proceedings, where this method of interpreting is increasingly used to optimise interpreters' availability. This paper reports the findings of an experimental study investigating the viability of videoconference-based remote interpreting in legal contexts. The study compared the quality of interpreter performance in traditional and remote interpreting, both using the consecutive mode. Two simulated police interviews of detainees, recreating authentic situations, were interpreted by eight interpreters with accreditation and professional experience in police interpreting. The languages involved were French (in most cases the interpreter's native language) and English. Each interpreter interpreted one of the interviews in remote interpreting, and the other in a traditional face-to-face setting. Various types of problem in the interpretations were analysed, quantitatively and qualitatively. Among the key findings are a significantly higher number of interpreting problems, and a faster decline of interpreting performance over time, in remote interpreting. The paper gives details of these findings, and discusses the potential legal consequences of the problems identified. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract).

143. Schweitzer RD, Rosbrook B, Kaiplinger I. Lost in translation, found in translation: A case study of working psychodynamically in an interpreter-assisted setting. *Psychodynamic Practice: Individuals, Groups and Organisations* 2013;19(2):168-183.

Effective use of psychotherapeutic treatment in interpreter-assisted settings is well established; however, there has been little discussion of the use of psychodynamically informed treatments in such settings. The literature suggests that therapy facilitated by interpreters is not conducive to psychodynamic approaches due to the presence of a third person, the perceived lack of intimacy, and the difficulties of working with translated material. However, transference, countertransference and other unconscious communications and responses necessarily occur in every therapeutic setting, including triadic therapy using interpreters. This article describes a short-term (12 session) psychodynamically oriented intervention with a 52-year-old Cantonese-speaking man suffering from depression. A female, Chinese-born interpreter assisted in every session. The integral role of supervision in supporting a containing relationship between the therapist and the patient and the difficult emotional responses experienced by the interpreter is highlighted. The article attempts to trace some of the unconscious communications that occurred during the therapy and demonstrates the feasibility of working psychodynamically in an interpreter-assisted setting. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract).

144. Pruss N. The effects of using a scripted or unscripted interview in forensic interviews with interpreters. *Dissertation Abstracts International: Section B: The Sciences and Engineering* 2009;69(12-B):7831.

The current study set out to replicate and expand the results of a study by Pruss (2007) which found that information is lost when interviews are conducted through interpreters. In the present study, Viewers (i.e., mock eyewitnesses) fluent in Spanish watched a video of a burglary and then were interviewed in Spanish about what they had seen. Half of Viewers were randomly assigned to be interviewed by an English-speaking Interviewer through a bilingual Interpreter (Interpreter condition), and the other half were randomly assigned to be interviewed directly by a Spanish speaking Interviewer with no Interpreter

(No Interpreter condition). Within each of these two conditions, half of interviews were conducted following a script of open-ended questions (Scripted condition), and the other half were conducted without a script (Unscripted Condition). The total number of groups was 120 and the total number of participants was 300. Interviews were coded for the amount of information transmitted during the interview. Consistent with the findings of Pruss (2007), the present study found that Interviewers extracted more information when they questioned Viewers directly than when they questioned Viewers through an Interpreter. The open-ended script significantly increased the yield of information when Interviewers questioned Viewers directly, but not when Interpreters were used. More generally, the results of this study support the use of open-ended questions in investigative interviews and the practice of tape recording such interviews. (PsycINFO Database Record (c) 2012 APA, all rights reserved).

145. Greenhalgh T, Voisey C, Robb N. Interpreted consultations as 'business as usual'? An analysis of organisational routines in general practices. I: Ethnicity, health and health care: Understanding diversity, tackling disadvantage. Malden: Blackwell Publishing; 2008. s. 131-153.

(create) This study, jointly funded by a local Primary Care Trust (PCT) and Primary Care Research Network, was set up to address a perceived organisational problem in the NHS locally. Policymakers were concerned that the NHS interpreting service was inefficient (e.g. it was not easy to incorporate the booking of hourly-paid interpreters in a range of languages into the busy and time-constrained routines of GP surgeries). There was wide variation in practice (some GP surgeries made very high use of the NHS interpreting service but an estimated 50% did not use it at all), and anecdotal stories abounded of limited English speaking patients receiving suboptimal (and possibly dangerous) care because of communication difficulties. Use of professional interpreting services was said to be particularly low in single-handed practices. Our empirical work (described below) produced rich data and our initial analysis of this dataset produced a Habermasian analysis of communication within the interpreted clinical consultation (Greenhalgh et al. 2006) and a study of the role of the interpreter in the mediation of trust between clinicians and patients (Robb and Greenhalgh 2006)-papers which align with recent sociological work on the varying and conflicting roles of the interpreter in the clinical consultation (Angelelli 2005, Green et al. 2005, Jalbert 1998, Leanza 2005). In a further analysis reported here, we sought to address the wider organisational questions relevant to the NHS locally-that is: a. Why are current NHS interpreting services [perceived as] inefficient? b. Why is there such variation in the use of the interpreting service between general practices, with some not using the service at all? This study analyses interpreted consultations as a complex innovation using the organisational routine as the focal unit. (PsycINFO Database Record (c) 2012 APA, all rights reserved).

146. Garces CV. Doctor-patient consultations in dyadic and triadic exchanges. *Interpreting* 2005;7(2):193-210.

This article presents the results of a study on doctor-patient interaction in dyadic and triadic exchanges. The analysis is based on transcripts of recordings done at healthcare centres in northern Madrid, Spain, and Minneapolis, USA. The methodological approach is that of institutional discourse analysis as developed by Drew and Heritage (Drew & Heritage 1992; Heritage 1995, 1997; Drew & Sorjonen 1997). Three different types of doctor-patient interaction



are examined: (1) doctor/foreign-language patient; (2) doctor/foreign-language patient/ad hoc interpreter; (3) doctor/foreign-language patient/trained interpreter. Topics such as the assignment of participant roles, changes in the general structure, turn-taking, and asymmetrical relationships are explored. The study is mainly descriptive and qualitative, but also includes some comparative quantitative analyses. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

147. Edwards R, Temple B, Alexander C. Users' experiences of interpreters: The critical role of trust. *Interpreting* 2005;7(1):77-95.

This article explores the experiences of people who need interpreters to gain access to and use of a range of services, drawing on semi-structured interviews with people from Chinese, Kurdish, Bangladeshi, Indian and Polish minority ethnic groups living in Manchester and London, UK. We describe our research methodology, and place the study in its political and community context. We look at the qualities the people we interviewed considered made for a good interpreter, and their experiences using both professional interpreters, and family and friends as interpreters. We show how personal character and trust are important in people's understandings of good interpreting, leading them to prefer interpreters drawn from their own informal networks. We consider the implications of this for policy and practice. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

148. Angelelli CV, Geist-Martin P. *Enhancing Culturally Competent Health Communication: Constructing Understanding Between Providers and Culturally Diverse Patients. I: Health communication in practice: A case study approach.* Mahwah, NJ: Lawrence Erlbaum Associates Publishers; US; 2005. s. 271-283.

(from the chapter) In this case, we meet Ramira. Ramira is over 30 years old and is pregnant. She is from a rural area in Mexico and speaks only Spanish. She does not have any children and is excited about their first baby. We take you to one of her prenatal appointments during the second month of her pregnancy. What we will discover is that during this appointment, the nurse attempts to inform Ramira that she has the option of having an amniocentesis to find out if the baby is healthy. In this conversation between Ramira, the nurse, and the interpreter, we see how interpreting language is not simply a process of translating the words that each participant speaks. As we will see when this story unfolds, interpretation and communication about illness and disease, diagnosis and treatment, caring and curing often are complicated by the "collision" of cultural communities. Clearly, the differences in health care beliefs and practices of persons seeking and providing health care can lead to problems in communicating with one another (Geist-Martin, Ray, & Sharf, 2003). Members of these diverse cultural groups often conceive health, disease, pain, and health care practices differently. What we learn in this case is how essential it is to examine and understand why these differences may lead to breakdowns in communication. (PsycINFO Database Record (c) 2012 APA, all rights reserved).

149. Raval H, Smith JA. Therapists' Experiences of Working with Language Interpreters. *International Journal of Mental Health* 2003;32(2):6-31.

While practitioners working in the mental health care context are making greater use of interpreters, there remains a paucity of literature that is informed by a critiqued theoretical, clinical, empirical, and research grounding. This study

employed a qualitative methodology and used Interpretative Phenomenological Analysis (IPA) to elicit an in-depth understanding of child and adolescent mental health practitioners' experiences in carrying out assessments and therapeutic work with the help of an interpreter. Participants spoke about their reliance on language, and how the process of communication lost important attributes through translation. A striking quality about this work was related to the difficulties the participants experienced in being able to establish a constructive working alliance with an interpreter. This in turn had a negative effect on being able to establish a working alliance with families. The interventions offered by practitioners tended to become simplified. Such findings lead to a closer questioning of why these difficulties occur. It is suggested that addressing structural inequalities and training issues, and incorporating good practice guidelines can go a long way toward ensuring improved clinical services for many minority ethnic service users... (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

150. Hwa-Froelich DA, Westby CE. A Vietnamese Head Start interpreter: A case study. *Communication Disorders Quarterly* 2003;24(2):86-98.

This is a case study of a Vietnamese interpreter working for a Head Start center in a midwestern city in the United States. The data are from a larger ethnomethodological study involving nine Southeast Asian families, 10 Southeast Asian children, and three Euro-American Head Start staff. The interpreter was expected to play multiple roles as a Head Start interpreter/health service worker, but these roles were neither explicitly designated nor described by the participants. This article describes the different role expectations of the various participants and the conflict that occurred because of these differences. Interpretation of the data includes description of the following cultural constructs: interpreter roles, independence/interdependence, power/distance, and cultural perspectives about time. Implications drawn from this case study are discussed. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

151. Miller G. Triangulated therapy: Cross-cultural counseling. *Women & Therapy* 1998;21(3):41-47.

Presents a case study of cross-cultural counseling involving a Hispanic female client and her friend, who served as a translator for the client in sessions. During 3 1-hr counseling sessions, a variety of ethical issues emerged. Intervention strategies and recommendations for cross-cultural counseling in this context are discussed. (PsycINFO Database Record (c) 2012 APA, all rights reserved).

152. Shah AK. Interviewing mentally ill ethnic elders with interpreters. *Australasian Journal on Ageing* 1997;16(4):220-221.

Reports an account of interviewing mentally ill ethnic elders with interpreters in a psychogeriatric service. Important strategies for effective interpretation are described. For example, it may be necessary to interview patients on several occasions to complete the clinical picture; repeated interviews will allow clarification of details and gradual accumulation of information. Studies designed to quantify interpretation difficulties and evaluate strategies are required as the size of the ethnic elderly population is increasing. (PsycINFO Database Record (c) 2012 APA, all rights reserved).

153. Maher P, Waters JE. The use of interpreters with deaf clients in therapy. *Journal of the American Deafness and Rehabilitation Association* 1984;17(4):11-15.

Surveyed 75 professional therapists and 34 interpreters who had worked with deaf clients to determine their attitudes on the use of interpreters in psychotherapeutic situations with deaf clients. 55% of the therapists had not used an interpreter in their work with deaf clients, and 40% of these Ss stated that they would not be willing to do so. The majority of therapists indicated that they would prefer to decrease the frequency of using interpreters and increase the frequency of professionals with fluent sign-language ability. The most frequently cited advantage in using interpreters with deaf clients reported by therapists was fast, accurate communication, while the disadvantage cited by therapists most frequently was the possibility of a negative 3rd-party influence. 76% of interpreters favored restricted use of interpreters, while 24% reported that they favored use of interpreters with no restrictions. The most often cited advantage reported by interpreters was facilitated communication, and the most frequently cited disadvantage by these Ss was difficulty in avoiding personal involvement. The majority of both professional therapists and interpreters, however, emphasized that interpreters are necessary for adequate provision of mental health services at present. (7 ref) (PsycINFO Database Record (c) 2012 APA, all rights reserved).

154. Haith-Cooper M. Mobile translators for non-Englishspeaking women accessing maternity services. *British Journal of Midwifery* 2014;22(11):795-803.

It is becoming increasingly common for midwives to care for women who do not speak English, and UK interpreting services are often inadequate and underused. Persistent language barriers have been found to contribute to maternal and perinatal mortality thus it is essential that these barriers are overcome to provide safe maternity care. This article reports on a two-stage study undertaken to address this. The study aimed to: Identify difficulties midwives experience when communicating with non-English-speaking women. Through undertaking a group interview with 11 senior students, four themes emerged: accessing interpreters, working with interpreters, cultural barriers and strategies to address persistent language barriers. Explore the feasibility of using mobile devices with a translation application to communicate in clinical practice. Google Translate was tested in a simulated clinical environment with multi-lingual service users. Google Translate was not adequately developed to be safely used in maternity services. However, a maternity-specific mobile application could be built to help midwives and women communicate in the presence of a persistent language barrier.

155. Estrada RD. An Analysis of Interpreter-Mediated Healthcare Interactions. University of South Carolina. Tilgjengelig fra: <http://search.ebsco-host.com/login.aspx?direct=true&db=cin20&AN=2012669836&site=ehost-live>.

The content and quality of communication between nurse practitioners and patients in primary care encounters contributes to diagnostic decision making, the provision of culturally appropriate interventions, and ultimately may impact health outcomes. In caring for patients with limited English proficiency, the addition of language discordance increases the complexity of the interaction and communication processes and the potential for disparate health outcomes. Most prior research on interpreter-mediated healthcare interactions has focused on accuracy, cost, satisfaction, and role enactment, but there is a

lack of systematic research examining the actual interaction processes within the context of primary care clinic visits.

The aim of this descriptive, exploratory research was to examine the content and processes of triadic clinical communication encounters between Spanish speaking adult patients with limited English proficiency, primary care nurse practitioners, and language interpreters. Three nurse practitioners, 3 language interpreters, and 5 Spanish speaking adult patients with limited English proficiency participated in the research, conducted at two primary care clinics in a large metropolitan area in the southeast. Data sources included 5 audio-recorded triadic clinical encounters; 5 self-administered post-counter surveys completed by the nurse practitioners; 5 brief post-encounter audio-recorded interviews with the patients, in Spanish; and field notes from observations and interactions with the clinic staff.

The analysis of the recorded triadic clinical encounter data incorporated techniques from both conversation and situational analysis. Findings from the conversational analysis revealed situations in which one or more of the interactants actively identified and responded to communication trouble spots, which resulted in facilitated and enhanced triadic communication. In instances where the interactants did not recognize these trouble spots, important details that were salient to the diagnostic and decision making process were glossed over or even missed entirely, potentially affecting diagnostic decision-making and health outcomes. The situational analysis revealed the influence of macro-level policies and practices on the communication and decision-making processes. Interactive processes included knowing how to negotiate relationships, coming to a mutual understanding, and dealing with multiple systems..

These findings highlighted the complexity of interpreter-mediated healthcare interactions, revealed the influence of larger structural issues on language interactions during clinic visits, and underscored ways in which the use of language may impact individual health outcomes and broader health disparities. Implications for nursing practice include raising awareness of the ways in which broader political, social and economic pressures and constraints may be manifest in healthcare communication encounters and the need for attention and vigilance for communication cues that may indicate the need for further elucidation or exploration. Language interpreters, nurses, and other members of primary healthcare teams need education and training on how to identify and negotiate potential communication problems in real time to facilitate understanding, and incorporate intra-professional collaboration and practice to lessen health disparities for patients with limited English proficiency. Future research should compare and contrast the style and efficacy of interpretation as practiced by triads who have an ongoing relationship as opposed to those who have had no previous interactions to determine if there are differences in satisfaction and healthcare outcome. An additional area of study would be exploration of non-verbal communication in interpreter-mediated healthcare interactions.

156. Grayham A, Gilchrist K, Rector C. OB nurses' experiences communicating with non-English speaking OB clients with/without an interpreter. *Communicating Nursing Research* 2010;43:290-290.

157. Thompson P. Interpreters in the acute neurosurgery setting: a report on the study nurses' perceptions of the impact of the program 'Neurological Assessment in Languages other than English' (NALOTE). *Australasian Journal of Neuroscience* 2001;14(1):9-17.

The under-utilisation of professional interpreters for non-English speaking (NES) patients can affect the quality of their care and the accuracy and completion of neurological observations. This paper reports on a study that explored neurosurgical nurses' perceptions of using professional interpreters in a prescribed way, that is through the pilot program 'Neurological Assessment in Languages Other Than English' (NALOTE). The purpose of the study was to explore nurses' attitudes regarding their utilisation of interpreters and whether they perceived using professional interpreters had any effect on the accuracy of neurological observations.

Informed by an evaluative methodology, a semi-structured questionnaire was used to collect qualitative and quantitative data from 25 neurosurgical nurses at a major metropolitan hospital in Melbourne. After using the NALOTE Program, participants generally reported increased comfort when using professional bedside interpreters and perceived the accuracy of their neurological observations improved. Further research in the form of a multi-centred, pre and post test study of the NALOTE Program would add depth to the findings of this study. Additional in-depth qualitative investigations into the experiences of the interpreters and patients could contribute to future applications of the program.

158. Brooks N, Magee P, Bhatti G, Briggs C, Buckley S, Guthrie S, et al. Asian patients' perspective on the communication facilities provided in a large inner city hospital. *Journal of Clinical Nursing* 2000;9(5):706-712.

\* Existing studies indicate the importance of communication, particularly for patients from minority ethnic groups, and the difficulties that occur in the healthcare arena when this communication is not effective.

\* This study explored how verbal communication took place in an acute NHS trust between inpatients who spoke Urdu or Punjabi and health care providers.

\* A total of 277 patients were recruited, of whom 34% spoke and understood English fluently, 35% spoke and understood limited English and 31% did not speak or understand English.

\* Only half the respondents were aware of the existence of the interpreting service, the majority of whom found it useful. When the interpreting service was not available communication was directed primarily through relatives and visitors, members of staff and other patients, whilst a small percentage were unable to communicate at all.

\* Patients were able to identify service improvements such as more interpreters, increasing patient awareness of the service, more Asian nurses and doctors working on the wards, interpreters linked to the wards and increased availability and accessibility of the interpreting service over the 24 h.

\* This study has been successful in identifying the effectiveness of current communication provision and in developing recommendation for the Trust in order to shape and inform future service developments for minority ethnic groups.

159. Fraser B, Freedgood L. Interpreter Alterations to Pragmatic Features in Trial Testimony. 1999

A study demonstrated that court interpreter failure to preserve pragmatic features in the interpreted version of courtroom testimony can potentially distort both the lawyer's question and the witness' response. Pragmatic features are defined as those aspects of an utterance that signal how the speaker intends the message to be taken. While some of the alterations made in translation are

relatively trivial, others are serious and may critically influence the jury's assessment of whether the defendant is guilty or innocent. Data were drawn from court colloquies involving English-speaking attorneys and Spanish-speaking witnesses, using audio and videotapes from four trials. Focus of the analysis is on alterations to pragmatic markers, words or phrases that modify the basic message or signal a separate one. Results indicate that addition of pragmatic markers and features to witness answers can make the witness appear less confident of the testimony. When the witness is the defendant, the situation is potentially more critical. In contrast, deleting these same features from a witness response removes disfluencies, making the witness or defendant appear more confident, and he/she may be potentially perceived more favorably by the jury. (MSE)

160. Zimanyi K. "Somebody has to be in charge of a session" On the control of communication in interpreter-mediated mental health encounters. *Translation and Interpreting Studies* 2013;8(1):94-111.

Interpreting between a minority language speaker or user (a service user or client) and a representative of an authority (service provider) is frequently referred to as Community Interpreting. One of the challenges of such triadic communication between linguistically and culturally diverse participants is to establish who may speak for how long in order to maintain meaningful communication without any loss of information. At first glance, the service provider emerges as the apparent figure of authority, while the client often provides significant input concerning the content of the encounter. Nevertheless, the final responsibility for the information transfer rests with the interpreter. This article reports on how participants of a study conducted in the area of interpreting in mental healthcare in Dublin, Ireland viewed the issue of communication control. Interview respondents of the research, who comprised mental health professionals and interpreters working in mental healthcare, revealed that there is a constantly fluctuating delicate balance regarding the control of the communication flow when an interpreter is involved in an encounter between a service user and a service provider.

161. Pollabauer S. Gatekeeping Practices in Interpreted Social Service Encounters. *Meta* 2012;57(1):213-234.

This paper presents results gathered from a project implemented by an interdisciplinary project team between 2007 and 2009, which focused on interpreting in social service and welfare institutions (Community Interpreting und Kommunikationsqualität im Sozial- und Gesundheitswesen [Community Interpreting and Communication Quality in Social Service and Healthcare Institutions]). One of the aspects investigated by the project was the interpreting practice at two Austrian municipal social service and welfare institutions via in-depth interviews and recordings of authentic interpreter-mediated encounters. After a brief overview of the history of gatekeeping theory and the application of the gatekeeping concept in *Translation and Interpreting Studies*, some of the project results are analysed using one specific model of gatekeeping theory proposed by Shoemaker and Vos in 2009. Taking a leaf from this work, the analysis is based on five different levels, namely the individual level, communication routines, the organisation level, the social institutional level, and the social system level. The analysis investigates "gates" present in the communication routines at the two institutions and which may prevent non-German speaking clients from full access and understanding, as well as the role of interpreters as "gatekeepers."

162. White K, Laws MB. Role Exchange in Medical Interpretation. *Journal of Immigrant and Minority Health* 2009;11(6):482-493.

Prior research has documented that medical interpreters engage in non-conduit roles during medical visits. However, agreement on the appropriateness of these roles and their impact on the medical encounter have not yet been achieved. The purpose of this study was to identify non-conduit behavior (role exchange), elucidate the various forms it takes among different types of interpreters, and assess its potential to affect clinical encounters. Using audiotapes from 13 pediatric outpatient visits, we found that "chance" and uncertified hospital interpreters engaged in role exchange by assuming the provider's role; the patient's role; and taking other non-interpretive roles such as socializing with mothers or acting in one's alternate professional role. These behaviors occurred frequently among both types of interpreters while the provider was actively engaged in conducting the medical visit. In most instances, the interpreter did not make his or her behavior transparent to either the provider or the mother. Implications for interpreter and provider training are discussed.

163. Schenker Y, Wang F, Selig S, Ng R, Fernandez A. The impact of language barriers on informed consent at a hospital with on-site interpreter services. *Journal of General Internal Medicine* 2007;22:161-161.

164. Save the Children LUK. Don't let me be misunderstood Users views and experiences of interpreting services in West Newcastle. London, UK: Save the Children; 1995

165. Fowler Y. Non-English-speaking defendants in the magistrates court : a comparative study of face-to-face and prison video link interpreter-mediated hearings in England. UK: Aston University; 2013  
This study compares interpreter-mediated face-to-face Magistrates Court hearings with those conducted through prison video link in which interpreters are located in court and non-English-speaking defendants in prison. It seeks to examine the impact that the presence of video link has on court actors in terms of interaction and behaviour. The data comprises 11 audio-recordings of face-to-face hearings, 10 recordings of prison video link hearings, semistructured interviews with 27 court actors, and ethnographic observation of hearings as viewed by defendants in Wormwood Scrubs prison in London. The over-arching theme is the pervasive influence of the ecology of the courtroom upon all court actors in interpreter-mediated hearings and thus on the communication process. Close analysis of the court transcripts shows that their relative proximity to one another can be a determinant of status, interpreting role, mode and volume. The very few legal protocols which apply to interpreter-mediated cases (acknowledging and ratifying the interpreter, for example), are often forgotten or dispensed with. Court interpreters lack proper training in the specific challenges of court interpreting, whether they are co-present with the defendant or not. Other court actors often misunderstand the interpreter's role. This has probably come about because courts have adjusted their perceptions of what they think interpreters are supposed to do based on their own experiences of working with them, and have gradually come to accept poor practice (the inability to perform simultaneous interpreting, for example) as the norm. In video link courts, mismatches of sound and image due to court clerks' failure to adequately track current speakers,

poor image and sound quality and the fact that non-English-speaking defendants in pre-and post-court consultations can see and hear interpreters but not their defence advocates are just some of the additional layers of disadvantage and confusion already suffered by non- English-speaking defendants. These factors make it less likely that justice will be done. ;

166. Kriz K, Skivenes M. Lost in translation: how child welfare workers in Norway and England experience language difficulties when working with minority ethnic families. *British Journal of Social Work* 2010;40(5):1353-1367.

This study, based on 53 interviews, investigates the challenges that social workers in child welfare agencies in Norway and England experience when working with minority ethnic families who are not proficient in the country's language. Findings showed that social workers encountered several challenges when using interpreters in their work with minority ethnic families – loss of information, time and trust. Although England has had more extensive experience with ethnic minority families and more stringent anti-discrimination laws, there were hardly any differences between the two countries. The findings also suggest that minority ethnic families may lose out on accurate assessments and access to services due to problems arising from the use of interpreters. The authors discuss four sets of implications for practice, including strong ethical guidelines for and testing of interpreters, training of social workers in working with interpreters, affirmative strategies on the part of local authorities to eliminate language-related barriers for ethnic minorities and pro-active child welfare systems that address the challenges language differences pose to the child welfare work.

167. Hsieh E. Interpreters as co-diagnosticians: overlapping roles and services between providers and interpreters. *Social Science and Medicine* 2007;64(4):924-937.

This study examined medical interpreters' practice of the co-diagnostician role and further explored its practical, institutional, and ethical implications. Twenty-six professional interpreters (of 17 languages), 4 patients, and 12 health-care providers were recruited for this study, which involves participant observation and interviews undertaken in the Midwestern US. Constant comparative analysis was used to develop themes of interpreters' communicative practices. Interpreters justified their role performances by claiming the identity of a member of the health care team and their work as part of the team effort. Their communicative strategies as a co-diagnostician reflect their pre-conception of the social hierarchy of health-care settings and the emphasis on diagnostic efficacy. I have identified five strategies for the co-diagnostician role. These were assuming the provider's communicative goals; editorializing information for medical emphasis; initiating information-seeking behaviours; participating in diagnostic tasks; and volunteering medical information to the patients. Although many strategies can be attributed to interpreters' effort to conserve providers' time and to bridge the cultural differences, they also pose risks to patients' privacy, clinical consequences, and provider–patient relationships.

168. Costa B, Briggs S. Service-users' experiences of interpreters in psychological therapy: a pilot study. *International Journal of Migration Health and Social Care* 2014;10(4):231-244.

Purpose: Working across languages is playing an increasingly important role in the delivery of mental health services, notably through psychotherapy and



psychological therapies. Growing awareness of the complex processes that ensue in working across languages, including the presence and role of an interpreter, is generating new conceptualisations of practice, but there is a need now to evidence how these impact on service users. Design/methodology/approach: This paper discusses the model for working with interpretation developed by Mothertongue multi-ethnic counselling service, which conceptualises the therapeutic process as working within triangular relationships consisting of service user, therapist and interpreter. Second, the paper discusses the qualitative, practice-near methods applied in, and findings from a pilot study to evaluate the interpreter's role. Findings: Three patterns of response to interpreters were identified: negative impacts on the therapy, the interpreter as conduit for therapy and the therapist and interpreter jointly demonstrating a shared enterprise. It is concluded that the method and findings of the pilot justify a larger study that will further evaluate the experiences of service users and continue to develop and test conceptualisations for best practice. Originality/value: The studies originality lies, first, in the discussion of a new clinical approach to working with interpreters, and second in the methods used to access the views of service users about their experiences of interpreters. (Edited publisher abstract)

169. Gerrish K, al. E. Bridging the language barrier: the use of interpreters in primary care nursing. *Health and Social Care in the Community* 2004;12(5):407-413.

Language barriers present a major obstacle to minority ethnic communities accessing primary healthcare. Whereas it is recognised that interpreting services are generally inadequate and inappropriate reliance is placed on family members to interpret, little is known about how nurses working in primary care utilise interpreters to overcome language barriers. The present paper reports on a study examining the utilisation of interpreting services by a range of primary care nurses from the perspectives of the nurses, interpreters and minority ethnic communities. Focus groups were undertaken with five separate groups of district nurses, health visitors, practice nurses, community midwives and specialist nurses, three groups of interpreters from different interpreting services, and five groups of participants from the main community languages in the locality where the study was undertaken (i.e. Arabic, Bengali, Cantonese, Somali and Urdu). Focus group discussions were tape-recorded and subsequently transcribed. Data analysis drew upon the principles of 'framework' analysis. The use of interpreters by primary care nurses varied considerably. Nurses who had received training in using interpreters and who had most control over the timing of patient visits were more likely to use interpreting services. Inadequate training of both nurses and interpreters adversely affected the quality of interaction where interpreters were used. Primary care nurses acted as gatekeepers to interpreting services. Whereas interpreting services were generally perceived to be inadequate, many nurses were accepting of the status quo and prepared to rely on family members to interpret rather than champion the need to improve services.

170. Alexander C, al. E. Access to services with interpreters: user views. Joseph Rowntree Foundation; 2004  
People decide for themselves what level of English proficiency is necessary on particular occasions, and who is best able to meet their need for an interpreter. Sometimes they feel they can manage themselves, sometimes they seek help from a family member, friend or professional interpreter. Specialist help is seen as important in medical or legal matters. A good interpreter is regarded as someone who does more than change words into another language.

People prefer proactive interpreters who can empathise with them, help with understanding procedures and plead their case. The personal character, attitude and trustworthiness of an interpreter are seen as crucially important. There is a lack of knowledge about who is a professional interpreter and how to get access to one. Even people who know how to access them often have difficulties in obtaining one. Experiences of professional interpreters are mixed. On the one hand users can value them for their knowledge of medical and legal systems, and can establish trust with an individual interpreter they get to know over time. On the other hand users are often critical of them, feeling that service providers control provision and that they have an uncaring attitude or are even actively against them. People mostly prefer family or friends to interpret for them. They trust them because they have an ongoing relationship with them that includes emotional commitment and loyalty. The researchers conclude that training in the basics of interpreting should be made more widely available to members of minority ethnic communities who regularly act as interpreters for family members or friends. Refocusing professional interpreting services to allow for a 'case load' approach, where feasible, would help to build the ongoing, trusting relationship between service user and interpreter that users want.

171. Engstrom DW, Roth T, Hollis J. The use of interpreters by torture treatment providers. *Journal of Ethnic and Cultural Diversity in Social Work* 2010;19(1):54-72.

American mental health professionals increasingly rely on interpreters to bridge language and cultural gaps between themselves and clients who do not speak English, but little is known about the factors that enhance or impede successful communication between providers and clients who speak different languages. This study analyses in-depth ethnographic interviews with 10 mental health professionals involved in a torture treatment and assessment centre to examine how the use of interpreters affects mental health service delivery. The findings highlight the following factors that affect the clinical process: challenges to communication, accuracy of communication (both linguistic content and cultural context), changes in therapy dynamics, and the emotional reactions of interpreters to the stories told by clients. This study discusses the need to properly train interpreters and to safeguard against their exposure to vicarious trauma, noting that interpreters must interpret accurately and completely, without embellishment or editing, and to assist the interpreters' clinicians' needs to formulate non-complex questions.

172. Jacobs E, Shepard D, Suaya J, Stone E-L. Overcoming Language Barriers in Health Care: Costs and Benefits of Interpreter Services. *American Journal of Public Health* 2004;94(5):866-869.

Objectives. We assessed the impact of interpreter services on the cost and the utilization of health care services among patients with limited English proficiency. Methods. We measured the change in delivery and cost of care provided to patients enrolled in a health maintenance organization before and after interpreter services were implemented. Results. Compared with English-speaking patients, patients who used the interpreter services received significantly more recommended preventive services, made more office visits, and had more prescriptions written and filled. The estimated cost of providing interpreter services was \$279 per person per year. Conclusions. Providing interpreter services is a financially viable method for enhancing delivery of health care to patients with limited English proficiency

173. Casas RN. Interpreter-mediated neuropsychological testing of monolingual Spanish speakers: Does it have an effect on test scores? *Dissertation Abstracts International: Section B: The Sciences and Engineering* 2012;73(5-B):3258.

Nearly 13.8 million Hispanics in the United States speak English "less than very well." This has important implications for the field of clinical neuropsychology. Patients who do not speak English fluently are being increasingly referred for neuropsychological services, and many of these individuals are assessed with the aid of language interpreters. However, whether or how the use of an interpreter has an effect on neuropsychological test scores is not known. For lack of a better alternative, it generally is assumed that the test data obtained through an interpreter are a valid indication of the patient's cognitive functioning, but with almost no empirical support, this assumption appears tenuous at best. The effect of an interpreter, in fact, could be substantial, making this issue all the more deserving of rigorous investigation. The primary objective of the current study was to determine whether using an interpreter to conduct neuropsychological testing of monolingual Spanish speakers had an effect on the neuropsychological test scores. Participants included 40 neurologically normal Spanish-speakers with limited English proficiency, ages 18-65 years, ( $M = 39.65$ ,  $SD = 13.91$ ) who completed a 2-hour battery of verbal and nonverbal neuropsychological tests both with and without an interpreter. The condition of test administration was counterbalanced across participants and test score differences between the two conditions were compared. Results indicated that use of an interpreter significantly affected mean scores for some neuropsychological tests from the verbal modality. Also, variability in test scores generally was higher when an interpreter was used, significantly so for one verbal test. Results of this study contribute to the extant literature concerning the use of interpreters to facilitate neuropsychological testing of individuals with limited English proficiency. Specifically, they indicate that neuropsychologists should avoid interpreter use and refer patients to bilingual clinicians whenever possible. For situations in which this may not be a viable option, neuropsychologists should limit their test batteries to measures that require minimal reliance on the interpreter. Tests that rely almost entirely on interpreter skills for administration and scoring - such as the Vocabulary and Similarities subtests of the Wechsler Adult Intelligence Scale (WAIS) - should probably not be used. Larger confidence intervals should be used when interpreting observed scores from interpreter-mediated neuropsychological tests. (PsycINFO Database Record (c) 2013 APA, all rights reserved).

174. Mofrad L, Webster LA. The treatment of depression and simple phobia through an interpreter in the North East of England: A case study. *the Cognitive Behaviour Therapist* 2012;5(4):102-111.

A 35-year-old Middle Eastern woman, experiencing moderate depression compounded by animal phobia was referred to an Improving Access to Psychological Therapies (IAPT) service. Shared understandings were gradually developed using written functional analyses translated in session. Activity scheduling was integrated with graded exposure to increase access to positive reinforcement. Questionnaires and subjective data indicated a reduction in phobic avoidance and functioning increased. Despite the complexity of working as a triad, a positive therapeutic relationship was achieved with increased mutual cultural understanding. Indirect communication led to difficulties maintaining guided discovery and focus. There is limited evidence to support CBT when delivered through an interpreter. IAPT recommendations suggest staff reflect the community; the North East has one of the lowest foreign-born

populations in the UK indicating that IAPT services may be ill prepared to work with ethnic minorities. Learning points for the therapist were: maintain simplicity, take time to formulate incorporation of cultural difference, and use transcultural interventions. The interpreter brought advantages; providing means of communication and understanding of cultural differences. Disadvantages were the potential for bias or lost information, increased time and complexity of delivering therapy. This case indicates a deficit in high intensity training and lack of literature to support therapists. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract).

175. Gavioli L, Baraldi C. Interpreter-mediated interaction in healthcare and legal settings. *Interpreting* 2011;13(2):205-233.

Studies of dialogue interpreting have shown that interpreters are active participants in interpreter-mediated interaction and that their contributions are not simply a gloss of the interlocutors' turns. Wadensjo (1998), in particular, has underlined the coordinating and mediating functions of dialogue interpreters. In this paper we analyse the activity of interpreters in the interaction by looking at different ways of organizing sequences of turn-taking and their effects on intercultural mediation. We analysed a sample of 65 encounters in healthcare and legal settings in Italy, involving (Italian) institutional representatives, (English speaking) patients/defendants from West African regions and an interpreter. We note that different types of interpreter-mediator contributions are promoted or prevented in different ways in the medical and in the legal sets of data, in line with different contextual expectations, and with different results for the involvement of participants, particularly the "laymen". (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

176. Hadziabdic E, Albin B, Heikkila K, Hjelm K. Healthcare staffs perceptions of using interpreters: A qualitative study. *Primary Health Care Research and Development* 2010;11(3):260-270.

**Aim:** The aim of this study was to describe how healthcare professionals experience and perceive the use of interpreters in their contacts with patients with whom they do not share a common language. **Background:** Language barriers lead to poor-quality care and fewer medical contacts. To avoid language barriers and their consequences, interpreters are recommended. However, communicating through an interpreter can be difficult. To develop effective interpreter service it is important to study healthcare staff's perceptions of using an interpreter. **Methods:** An explorative descriptive study design was used. The study was conducted in different healthcare settings in Sweden and included 24 healthcare staff, of whom 11 were physicians, 9 nurses, 2 physiotherapists and 2 assistant nurses. Data were generated through written descriptions of the use of interpreters in healthcare service and were analysed using qualitative content analysis. **Findings:** Two main categories emerged from the data: 1) aspects related to the interpreter and 2) organizational aspects. The study showed that having a face-to-face, professional, trained interpreter, with a good knowledge of both languages and of medical terminology, translating literally and objectively, was perceived positively. The organizational aspects that affected the perception were functioning or non-functioning technical equipment, calm in the interpretation environment, documentation of the patients' language ability, respect for the appointed time, and the level of availability and service provided by the interpreter agency. It is important to develop a well-functioning interpreter organization that offers trained interpreters with a professional attitude to improve and ensure cost-

effective and high-quality encounters and care. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

177. Lee J. Interpreting reported speech in witnesses' evidence. *Interpreting* 2010;12(1):60-82.

Drawing on the discourse of interpreter-mediated examinations of Korean-speaking witnesses in an Australian courtroom, this paper explores court interpreters' renditions of reported speech contained in witnesses' evidence. Direct reported speech is generally preferred in the courtroom because of the evidentiary rule against the admission of hearsay. However, Korean-speaking witnesses who are not familiar with this rule and with the discursive practices of the court tend to use indirect reported speech. This paper examines how Koreans' general preference for indirect reported speech is handled by court interpreters. The findings suggest that the tendency among Korean interpreters to convert indirect into direct reported speech in English renditions may have implications for the accuracy of interpreted evidence. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

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# Vedlegg

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## Vedlegg 1: Andre referanser

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1. Integrerings- og Mangfoldsdirektoratet (IMDi). Bruk av tolk i barnevernet. IMDi-rapport 5-2008. Oslo: IMDi; 2008
2. Integrerings- og Mangfoldsdirektoratet (IMDi). Fastleger og tolketjenester. IMDi-rapport 6-2007. Oslo: IMDi; 2007
3. Integrerings- og Mangfoldsdirektoratet (IMDi). Bruk av tolk i straffesakskjeden. IMDi-rapport 6-2009 Oslo: IMDi; 2009
4. Integrerings- og Mangfoldsdirektoratet (IMDi). «Mora mi forstår ikke når lærerne snakker». Bruk av tolk i grunnskolen i Oslo. IMDi-rapport 2-2011 Oslo: IMDi; 2011a
5. Integrerings- og Mangfoldsdirektoratet (IMDi). Bruk av tolk i Arbeids- og velferdsforvaltningen (NAV). IMDi-rapport 3-2011. Oslo: IMDi; 2011b
6. Tsuruta, H., Karim, D., Sawada, T., & Mori, R. (2013). Trained medical interpreters in a face-to-face clinical setting for patients with low proficiency in the local language. *Cochrane Database of Systematic Reviews*, (3). <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD010421/abstract> doi:10.1002/14651858.CD010421

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## Vedlegg 2: Søkestrategier

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**Database:** Ovid Medline  
**Dato:** 24.09.2014  
**Antall treff:** 1163

#	Searches	Results
1	"emigrants and immigrants"/	6186
2	refugees/	6822
3	"transients and migrants"/	8508
4	(immigrant* or migrant* or emigrant* or refugee* or asylum seeker* or alien* or foreigner* or nomad*).tw.	39734

5	or/1-4	46643
6	Translating/	3000
7	(translate or translating or translator* or translation* or interpret or interpreting or interpreter* or interpretation*).tw.	374878
8	6 or 7	376160
9	5 and 8	1369
10	(comment or editorial or letter).pt.	1369771
11	9 not 10	1347
12	Humans/	13789379
13	Animals/	5422978
14	13 not (12 and 13)	3920844
15	11 not 14	1315
16	limit 15 to (case reports or clinical trial, all or clinical trial or comparative study or controlled clinical trial or evaluation studies or interview or meta analysis or observational study or randomized controlled trial or "review" or systematic reviews)	349
17	exp Methods/	586599
18	exp epidemiologic studies/ or intervention studies/	1714662
19	qualitative research/	21388
20	(intervent* or empirical* or study or studies or design* or method* or experiment* or quasiexperiment* or qualitative or (focus adj group*) or (matched adj control*) or controlled or cohort or longitudinal or survey or randomis* or randomiz* or randomly or (random adj allocat*) or (group? and (random* or between* or control*)) or compare or comparison* or compared or (before adj5 after) or (pre adj5 post) or pretest or (pre adj test) or posttest or (post adj test) or evaluat* or effect? or effectiveness or impact or time series or time point? or repeated measur*).tw.	12533920
21	exp research/	451915
22	or/17-21	13161516
23	15 and 22	1116
24	16 or 23	1163

**Database:** Ovid EMBASE

**Dato:** 26.09.2014

Antall treff: 1609

#	Searches	Results
1	exp migration/	37260
2	immigrant/	10135
3	illegal immigrant/	142
4	migrant worker/	1035
5	refugee/	7547
6	exp migration/	37260
7	foreign worker/	4469
8	(immigrant* or migrant* or emigrant* or refugee* or asylum seeker* or alien* or foreigner* or nomad*).tw.	43477
9	or/1-8	75233
10	interpreter service/	293
11	"translating (language)"/	255
12	(translate or translating or translator* or translation* or interpret or interpreting or interpreter* or interpretation*).tw.	421642
13	or/10-12	421750
14	9 and 13	1840
15	Human/	14986160
16	Nonhuman/ or Animal/ or Animal Experiment/	6279958
17	16 not (15 and 16)	4988989
18	14 not 17	1773
19	(editorial or letter).pt.	1313351
20	18 not 19	1764
21	limit 20 to (meta analysis or "systematic review" or (clinical trial or randomized controlled trial or controlled clinical trial or multicenter study or phase 1 clinical trial or phase 2 clinical trial or phase 3 clinical trial or phase 4 clinical trial) or "review")	250
22	exp methodology/	3776093
23	exp research/	620781



24	"types of study"/ or action research/ or exp comparative study/ or exp controlled study/ or experimental study/ or feasibility study/ or field study/ or exp in vitro study/ or exp in vivo study/ or exp methodology/ or exp model/ or observational study/ or panel study/ or pilot study/ or prevention study/ or quasi experimental study/ or replication study/ or theoretical study/ or trend study/ or validation study/	15301766
25	(intervent* or empirical* or study or studies or design* or method* or experiment* or quasiexperiment* or qualitative or (focus adj group*) or (matched adj control*) or controlled or cohort or longitudinal or survey or randomis* or randomiz* or randomly or (random adj allocat*) or (group? and (random* or between* or control*)) or compare or comparison* or compared or (before adj5 after) or (pre adj5 post) or pretest or (pre adj test) or posttest or (post adj test) or evaluat* or effect? or effectiveness or impact or time series or time point? or repeated measur*).tw.	14801283
26	or/22-25	20093641
27	20 and 26	1575
28	21 or 27	1609

**Database:** Ovid PsycINFO  
**Dato:** 26.09.2014  
**Antall treff:** 1536

#	Searches	Results
1	Immigration/	14876
2	Human Migration/	4473
3	refugees/	3628
4	migrant farm workers/	327
5	romanies/	217
6	foreign workers/	474
7	(immigrant* or migrant* or emigrant* or refugee* or asylum seeker* or alien* or foreigner* or nomad*).tw.	37562
8	or/1-7	41548
9	interpreters/	437

10	foreign language translation/	7566
11	(translate or translating or translator* or translation* or interpret or interpreting or interpreter* or interpretation*).tw.	132165
12	or/9-11	136474
13	8 and 12	1902
14	("column/opinion" or "comment/reply" or editorial or encyclopedia entry or letter or obituary or poetry).dt.	155555
15	13 not 14	1835
16	limit 15 to ("0200 clinical case study" or "0400 empirical study" or "0430 followup study" or "0450 longitudinal study" or "0451 prospective study" or "0453 retrospective study" or "0600 field study" or "0700 interview" or "0750 focus group" or "0800 literature review" or "0830 systematic review" or 1200 meta analysis or 1400 nonclinical case study or 1600 qualitative study or 1800 quantitative study or "2000 treatment outcome/clinical trial")	1100
17	exp methodology/	87760
18	exp experimentation/	62284
19	exp experimental design/	48092
20	(intervent* or empirical* or study or studies or design* or method* or experiment* or quasiexperiment* or qualitative or (focus adj group*) or (matched adj control*) or controlled or cohort or longitudinal or survey or randomis* or randomiz* or randomly or (random adj allocat*) or (group? and (random* or between* or control*)) or compare or comparison* or compared or (before adj5 after) or (pre adj5 post) or pretest or (pre adj test) or posttest or (post adj test) or evaluat* or effect? or effectiveness or impact or time series or time point? or repeated measur*).tw.	2665007
21	17 or 18 or 19 or 20	2689610
22	15 and 21	1378
23	16 or 22	1536

**Database:** The Cochrane Library via Wiley, all databases

**Dato:** 26.09.2014

**Antall treff:** 25

ID	Search	Hits
#1	MeSH descriptor: [Emigrants and Immigrants] this term only	92

#2	MeSH descriptor: [Refugees] this term only	70
#3	MeSH descriptor: [Transients and Migrants] this term only	53
#4	(immigrant* or migrant* or emigrant* or refugee* or (asylum next seeker*) or alien* or foreigner* or nomad*):ti,ab,kw	560
#5	#1 or #2 or #3 or #4	560
#6	MeSH descriptor: [Translating] this term only	43
#7	(translate or translating or translator* or translation* or interpret or interpreting or interpreter* or interpretation*):ti,ab,kw	16324
#8	#6 or #7	16324
#9	#5 and #8	25

**Database:** DARE via CRD

**Dato:** 26.09.2014

**Antall treff:** 3

#	Search	Hits
1	MeSH DESCRIPTOR emigrants and immigrants IN DARE	8
2	MeSH DESCRIPTOR refugees IN DARE	5
3	MeSH DESCRIPTOR transients and migrants IN DARE	4
4	((immigrant* or migrant* or emigrant* or refugee* or asylum seeker* or alien* or foreigner* or nomad*)) IN DARE	34
5	#1 OR #2 OR #3 OR #4	34
6	MeSH DESCRIPTOR Translating IN DARE	3
7	((translate or translating or translator* or translation* or interpret or interpreting or interpreter* or interpretation*)) IN DARE	2803
8	#6 OR #7	2803
9	#5 AND #8	3

**Database:** Cinahl

**Dato:** 26.09.2014

Antall treff:

554

#	Query	Results
S1	(MH "Immigrants+")	7,053
S2	(MH "Emigration and Immigration")	3,423
S3	(MH "Transients and Migrants")	1,705
S4	(MH "Gypsies")	134
S5	TI ( (immigrant* or migrant* or emigrant* or refugee* or asylum seeker* or alien* or foreigner* or nomad* ) OR AB ( (immigrant* or migrant* or emigrant* or refugee* or asylum seeker* or alien* or foreigner* or nomad* ) )	10,175
S6	S1 OR S2 OR S3 OR S4 OR S5	15,895
S7	(MH "Interpreter Services")	1,218
S8	TI ( (translate or translating or translator* or translation* or interpret or interpreting or interpreter* or interpretation* ) OR AB ( (translate or translating or translator* or translation* or interpret or interpreting or interpreter* or interpretation* ) )	35,208
S9	S7 OR S8	35,858
S10	S6 AND S9	636
S11	S6 AND S9 Limiters - Publication Type: Case Study, Clinical Trial, Meta Analysis, Meta Synthesis, Randomized Controlled Trial, Research, Review, Systematic Review Search modes - Boolean/Phrase	487
S12	(MH "Research Methodology+")	842,260
S13	(MH "Research by Type and Subject+")	328,200
S14	TI ( (intervent* or empirical* or study or studies or design* or method* or experiment* or quasiexperiment* or qualitative or (focus N1 group*) or (matched N1 control*) or controlled or cohort or longitudinal or survey or randomis* or randomiz* or randomly or (random N1 allocat*) or (group* and (random* or between* or control*)) or compare or comparison* or compared or (before N5 after) or (pre N5 post) or pretest or (pre N1 test) or posttest or (post N1 test) or	1,074,401

	<p>           evaluat* or effect* or effectiveness or impact or time series or time point* or repeated measur* ) OR AB ( (intervent* or empirical* or study or studies or design* or method* or experiment* or quasiexperiment* or qualitative or (focus N1 group*) or (matched N1 control*) or controlled or cohort or longitudinal or survey or randomis* or randomiz* or randomly or (random N1 allocat*) or (group* and (random* or between* or control*)) or compare or comparison* or compared or (before N5 after) or (pre N5 post) or pretest or (pre N1 test) or posttest or (post N1 test) or evaluat* or effect* or effectiveness or impact or time series or time point* or repeated measur* ) )         </p>	
S15	S12 OR S13 OR S14	1,304,809
S16	S10 AND S15	532
S17	S11 OR S16	554

**Database:** ERIC  
**Dato:** 30.09.2014  
**Antall treff:** 718

#	Query	Results
S1	DE "Immigration"	1,299
S2	DE "Migration"	1,505
S3	DE "Immigrants"	9,860
S4	DE "Migrants"	1,072
S5	DE "Undocumented Immigrants"	496
S6	DE "Brain Drain"	242
S7	DE "Migrant Children"	1,067
S8	DE "Migrant Workers"	950
S9	DE "Refugees"	2,307
S10	DE "Migrant Problems"	382
S11	DE "Foreign Nationals"	528
S12	DE "Foreign Students"	4,739
S13	DE "Foreign Workers"	299
S14	TI ( (immigrant* or migrant* or emigrant* or refugee* or asylum seeker* or alien* or foreigner* or nomad*) ) OR AB ( (immigrant* or migrant* or emigrant* or refugee* or asylum seeker* or alien* or foreigner* or nomad*) )	18,746
S15	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14	28,687
S16	(DE "Translation") OR (DE "Interpretive Skills")	3,461
S17	TI ( (translate or translating or translator* or translation* or interpret or interpreting or interpreter* or interpretation*) ) OR AB ( (translate or translating or translator* or translation* or interpret or interpreting or interpreter* or interpretation*) )	41,505
S18	S16 OR S17	42,314
S19	DE "Research Methodology" OR DE "Control Groups" OR DE "Experimental Groups" OR DE "Grounded Theory" OR DE "Interaction Process Analysis" OR DE "Matched Groups" OR DE "Mixed Methods Research" OR DE "Multitrait Multimethod Techniques" OR DE "Protocol Analysis" OR DE "Scientific Methodology"	51,744

S20	DE "Behavioral Science Research" OR DE "Integration Studies" OR DE "Psychological Studies" OR DE "Interest Research" OR DE "Personality Studies" OR DE "Longitudinal Studies" OR DE "Followup Studies" OR DE "Graduate Surveys" OR DE "Vocational Followup" OR DE "Classroom Research" OR DE "Curriculum Research" OR DE "Effective Schools Research" OR DE "Reading Research" OR DE "Writing Research" OR DE "Dialect Studies" OR DE "Television Research" OR DE "Textbook Research" OR DE "Evaluation Research" OR DE "Critical Theory"	74,487
S21	DE "Economic Research" OR DE "Research" OR DE "Action Research" OR DE "Behavioral Science Research" OR DE "Case Studies" OR DE "Cohort Analysis" OR DE "Communication Research" OR DE "Community Study" OR DE "Cross Cultural Studies" OR DE "Dropout Research" OR DE "Educational Research" OR DE "Environmental Research" OR DE "Exceptional Child Research" OR DE "Feasibility Studies" OR DE "Field Studies" OR DE "Institutional Research" OR DE "Investigations" OR DE "Language Research" OR DE "Library Research" OR DE "Media Research" OR DE "Medical Research" OR DE "Methods Research" OR DE "Nursing Research" OR DE "Operations Research" OR DE "Participatory Research" OR DE "Qualitative Research" OR DE "Schematic Studies" OR DE "Scientific Research" OR DE "Social Science Research" OR DE "Statistical Studies" OR DE "Student Research" OR DE "Use Studies"	198,469
S22	(DE "Literature Reviews") OR (DE "State of the Art Reviews")	26,973
S23	TI ( (intervent* OR empirical* OR study OR studies OR design* OR method* OR experiment* OR quasiexperiment* OR qualitative OR (focus N0 group*) OR (matched N0 control*) OR controlled OR cohort OR longitudinal OR survey OR randomis* OR randomiz* OR randomly OR (random N0 allocat*) OR (group* AND (random* OR between* OR control*)) OR compare OR comparison* OR compared OR (before N5 after) OR ("pre" N5 post) OR pretest OR ("pre" N0 test) OR posttest OR (post N0 test) OR evaluat* OR effect* OR effectiveness OR impact OR (time N0 serie*) OR (time N0 point*) OR (repeated N0 measur*)) ) OR AB ( (intervent* OR empirical* OR study OR studies OR design* OR method* OR experiment* OR quasiexperiment* OR qualitative OR (focus N0 group*) OR (matched N0 control*) OR controlled OR cohort OR longitudinal OR survey OR randomis* OR randomiz* OR randomly OR (random N0 allocat*) OR (group* AND (random* OR between* OR control*)) OR compare OR comparison* OR compared OR (before N5 after) OR ("pre" N5 post) OR pretest OR ("pre" N0 test) OR posttest OR (post N0 test) OR evaluat* OR effect* OR effectiveness OR impact OR (time N0 serie*) OR (time N0 point*) OR (repeated N0 measur*)) )	955,648
S24	S19 OR S20 OR S21 OR S22 OR S23	1,023,843
S25	S15 AND S18 AND S24	718

**Database:** ISI Web of Science  
**Dato:** 30.09.2014  
**Antall treff:** 1047

Set	Results	Search
# 16	1,047	#15 AND #7
# 15	20,322,891	#14 OR #13 OR #12 OR #11 OR #10 OR #9 OR #8
# 14	9,886,393	TS=(evaluat* or effect* or effectiveness or impact or time series or time point* or repeated measur*)
# 13	315,715	TS=((before NEAR/5 after) or (pre NEAR/5 post) or (pre NEAR/1 test) or (post NEAR/1 test))
# 12	4,436,276	TS=(compare or comparison* or compared or pretest or posttest)
# 11	1,497,178	TS=((random NEAR/1 allocat*) or (group* and (random* or between* or control*)))
# 10	4,690,940	TS=(controlled or cohort or longitudinal or survey or randomis* or randomiz* or randomly)
# 9	101,705	TS=((focus NEAR/1 group*) or (matched NEAR/1 control*))
# 8	14,892,360	TS=(intervent* or empirical* or study or studies or design* or method* or experiment* or quasiexperiment* or qualitative)
# 7	1,419	#6 OR #3
# 6	465	#5 AND #4
# 5	177,102	TI=(translate OR translating OR translator* OR translation* OR interpret OR interpreting OR interpreter* OR interpretation*)
# 4	96,784	TS=((immigrant* or migrant* or emigrant* or refugee* or asylum seeker* or alien* or foreigner* or nomad*))
# 3	1,179	#2 AND #1
# 2	850,486	TS=(translate OR translating OR translator* OR translation* OR interpret OR interpreting OR interpreter* OR interpretation*)
# 1	46,972	TI=((immigrant* or migrant* or emigrant* or refugee* or asylum seeker* or alien* or foreigner* or nomad*))

**Database:** BIBSYS  
**Dato:** 30.09.2014  
**Antall treff:** 514



((translat? OR interpret? OR tolk? OR simultantolk?) AND (immigr? OR emigra? OR migrati? OR migrant? OR innvand? OR flyktning? OR asyl? OR refugee? OR foreigner? OR nomad?))

**Database:** Sociological abstracts and Social Services Abstracts via ProQuest  
**Dato:** 01.10.2014  
**Antall treff:** 173

(SU.EXACT("Immigration") OR SU.EXACT("Immigrants") OR SU.EXACT("Undocumented Immigrants") OR SU.EXACT("Emigration") OR SU.EXACT("Brain Drain") OR SU.EXACT("Migration") OR SU.EXACT("Migrants") OR SU.EXACT("Migrant Workers") OR SU.EXACT("Labor Migration") OR SU.EXACT("Foreign Workers") OR SU.EXACT("Foreigners") OR SU.EXACT("Refugees") OR SU.EXACT("Gypsies") OR SU.EXACT("Nomadic Societies") OR ti(immigrant\* OR migrant\* OR emigrant\* OR refugee\* OR asylum seeker\* OR alien\* OR foreigner\* OR nomad\*)) AND (SU.EXACT("Translation") OR SU.EXACT("Interpretation/Interpretations/Interpretative") OR ti(translate OR translating OR translator\* OR translation\* OR interpret OR interpreting OR interpreter\* OR interpretation\*)))

**Database:** Social Care Online  
**Dato:** 06.10.2014  
**Antall treff:** 134 + 39  
**Antall treff uten dubletter:** 134

*Søk nr. 1:*

(translat\* OR interpret\*) AND (immigra\* OR migra\* OR emigra\* OR refugee\* OR asylum\* OR alien\* OR foreigner\* OR nomad\*)

*Søk nr. 2:*

(SubjectTerms:""interpreting"" including this term only OR SubjectTerms:""translation services"" including this term only) AND (SubjectTerms:""immigrants"" including this term only OR SubjectTerms:""immigration"" including this term only OR SubjectTerms:""migrants"" including this term only OR SubjectTerms:""migration"" including this term only OR SubjectTerms:""refugees"" including this term only OR SubjectTerms:""asylum seekers"" including this term only)

**Database:** Social Science Research Network (SSRN) eLibrary  
**Dato:** 07.10.2014  
**Antall treff:** 789  
**Kommentarer:** Dårlig søkefunksjonalitet medfører flere enkeltsøk. Siden det ikke er mulig å fjerne dubletter på tvers av søkene vil det sannsynligvis være mange dubletter blant treffene.

*Utførte enkeltsøk:*

Translate AND immigrant = 14

Translate AND immigrants = 14  
Translate AND immigration = 24  
Translate AND migrant = 3  
Translate AND migrants = 10  
Translate AND migration = 21  
Translate AND emigrant = 0  
Translate AND emigrants = 0  
Translate AND emigration = 1  
Translate AND refugee = 2  
Translate AND asylum = 0  
Translating AND immigrant = 1  
Translating AND immigrants = 2  
Translating AND immigration = 2  
Translating AND migrant = 2  
Translating AND migrants = 1  
Translating AND migration = 4  
Translating AND emigrant = 0  
Translating AND emigrants = 0  
Translating AND emigration = 0  
Translating AND refugee = 1  
Translating AND asylum = 0  
Interpret AND immigrant = 7  
Interpret AND immigrants = 15  
Interpret AND immigration = 34  
Interpret AND migrant = 10  
Interpret AND migrants = 10  
Interpret AND migration = 29  
Interpret AND emigrant = 0  
Interpret AND emigrants = 0  
Interpret AND emigration = 2  
Interpret AND refugee = 10  
Interpret AND asylum = 7  
Interpreting AND immigrant = 6  
Interpreting AND immigrants = 5  
Interpreting AND immigration = 23  
Interpreting AND migrant = 1  
Interpreting AND migrants = 5  
Interpreting AND emigrant = 0  
Interpreting AND emigrants = 1  
Interpreting AND emigration = 1  
Interpreting AND refugee = 11  
Interpreting AND asylum = 9  
Translation AND immigrant = 4

Translation AND immigrants = 9  
Translation AND immigration = 10  
Translation AND migrant = 4  
Translation AND migrants = 2  
Translation AND migration = 9  
Translation AND emigrant = 0  
Translation AND emigrants = 0  
Translation AND emigration = 1  
Translation AND refugee = 2  
Translation AND asylum = 2  
Interpretation AND immigrant = 19  
Interpretation AND immigrants = 43  
Interpretation AND immigration = 135  
Interpretation AND migrant = 15  
Interpretation AND migrants = 25  
Interpretation AND migration = 53  
Interpretation AND emigrant = 0  
Interpretation AND emigrants = 2  
Interpretation AND emigration = 3  
Interpretation AND refugee = 68  
Interpretation AND asylum = 57  
Translator AND immigrant = 0  
Translator AND immigrants = 0  
Translator AND immigration = 0  
Translator AND migrant = 1  
Translator AND migrants = 0  
Translator AND migration = 1  
Translator AND emigrant = 0  
Translator AND emigrants = 0  
Translator AND emigration = 0  
Translator AND refugee = 0  
Translator AND asylum = 0  
Translators AND immigrant = 0  
Translators AND immigrants = 0  
Translators AND immigration = 0  
Translators AND migrant = 0  
Translators AND migrants = 0  
Translators AND migration = 0  
Translators AND emigrant = 0  
Translators AND emigrants = 0  
Translators AND emigration = 1  
Translators AND refugee = 0  
Translators AND asylum = 0

Interpreter AND immigrant = 3  
Interpreter AND immigrants = 2  
Interpreter AND immigration = 4  
Interpreter AND migrant = 0  
Interpreter AND migrants = 0  
Interpreter AND migration = 0  
Interpreter AND emigrant = 0  
Interpreter AND emigrants = 0  
Interpreter AND emigration = 0  
Interpreter AND refugee = 2  
Interpreter AND asylum = 0  
Interpreters AND immigrant = 1  
Interpreters AND immigrants = 4  
Interpreters AND immigration = 6  
Interpreters AND migrant = 0  
Interpreters AND migrants = 1  
Interpreters AND migration = 0  
Interpreters AND emigrant = 0  
Interpreters AND emigrants = 0  
Interpreters AND emigration = 0  
Interpreters AND refugee = 3  
Interpreters AND asylum = 0

**Database:** OpenSIGLE  
**Dato:** 08.10.2014  
**Antall treff:** 296

(translate OR translating OR translator OR translators OR translation OR interpret OR interpreting OR interpreter OR interpreters OR interpretation) AND (immigra\* OR migra\* OR emigra\* OR refugee\* OR asylum\* OR alien\* OR foreigner\* OR nomad\*)

**Database:** Google scholar  
**Dato:** 08.10.2014  
**Antall treff:** 300  
**Kommentarer:** Søket gav over 1,560,000 treff. De 300 høyest rangerte treffene er tatt ut.

(translate OR translating OR translator OR translators OR translation OR interpret OR interpreting OR interpreter OR interpreters OR interpretation) AND (immigrant OR immigrants OR immigration OR migrant OR migrants OR migration OR emigrant OR emigrants OR emigration OR refugee OR refugees OR asylum OR alien OR aliens OR foreigner OR foreigners OR nomad OR nomads)

**Database:** The Campbell Library

**Kommentarer:** Manuell gjennomgang av denne databasen av prosjektlederen.

**Database:** EPPI-Centre Evidence Library

**Kommentarer:** Manuell gjennomgang av denne databasen av prosjektlederen.

**Database:** Ovid Medline

**Dato:** 02.12.2014

**Antall treff:** 3125

#	Searches	Results
1	"emigrants and immigrants"/	6550
2	refugees/	7032
3	"transients and migrants"/	8786
4	Minority groups/	11059
5	exp Ethnic groups/	120876
6	language/	29037
7	multilingualism/	3054
8	communication barriers/	5019
9	Vulnerable Populations/	6478
10	(immigrant* or immigrate* or migrant* or migrate* or emigrant* or emigrat* or refuge- gee* or asylum seeker* or alien* or foreign* or nomad* or transient* or minority or mi- norities or ethnic*).tw,kw.	540776
11	(non native or nonnative or language or accent* or speak* or tongue*).tw.	177186
12	or/1-11	811824
13	(translate or translating or translator? or translation? or interpret or interpreting or interpreter? or interpretation?).ti.	46926
14	(translator? or interpreter?).ab.	2966
15	13 or 14	49225
16	12 and 15	4363
17	(comment or editorial or letter).pt. or (Animals/ not (Animals/ and Humans/))	5361449

18	16 not 17	3983
19	exp Methods/ or exp epidemiologic studies/ or intervention studies/ or qualitative research/ or exp research/ or (intervent* or empirical* or study or studies or design* or method* or experiment* or quasiexperiment* or qualitative or (focus adj group*) or (matched adj control*) or controlled or cohort or longitudinal or survey or randomis* or randomiz* or randomly or (random adj allocat*) or (group? and (random* or between* or control*)) or compare or comparison* or compared or (before adj5 after) or (pre adj5 post) or pretest or (pre adj test) or posttest or (post adj test) or evaluate* or effect? or effectiveness or impact or time series or time point? or repeated measur*). tw.	13487880
20	limit 18 to (case reports or clinical trial, all or clinical trial or comparative study or controlled clinical trial or evaluation studies or interview or meta analysis or observational study or randomized controlled trial or "review" or systematic reviews)	955
21	18 and 19	3127
22	20 or 21	3294
23	remove duplicates from 22	3125

**Database:** Ovid EMBASE  
**Dato:** 02.12.2014  
**Antall treff:** 4869

#	Searches	Results
1	exp migration/	37473
2	exp migrant/	18867
3	illegal immigrant/	143
4	medically underserved/	371
5	vulnerable population/	7360
6	foreign worker/	4483
7	minority group/	11458
8	exp ethnic group/	72272
9	language/	52717
10	exp multilingualism/	462
11	language ability/	8160
12	english as a second language/	617
13	interpersonal communication/	120282
14	(immigrant* or immigrate* or migrant* or migrate* or emigrant* or emigrat* or refu- gee* or asylum seeker* or alien* or foreign* or nomad* or transient* or minority or mi- norities or ethnic*).tw,kw.	610636
15	(non native or nonnative or language or accent* or speak* or tongue*).tw.	199303
16	or/1-15	1000521
17	interpreter service/	296
18	(translate or translating or translator? or translation? or interpret or interpreting or interpreter? or interpretation?).ti.	50404
19	(translator? or interpreter? or (language adj2 (interpret* or translat*))).ab.	4201
20	or/17-19	53819
21	16 and 20	6027
22	Human/	15121310
23	Nonhuman/ or Animal/ or Animal Experiment/	6313044
24	23 not (22 and 23)	5011805

25	(editorial or letter).pt.	1318227
26	24 or 25	6281809
27	21 not 26	5550
28	limit 27 to (meta analysis or "systematic review" or (clinical trial or randomized controlled trial or controlled clinical trial or multicenter study or phase 1 clinical trial or phase 2 clinical trial or phase 3 clinical trial or phase 4 clinical trial) or "review")	729
29	exp methodology/ or exp research/ or "types of study"/ or action research/ or exp comparative study/ or exp controlled study/ or experimental study/ or feasibility study/ or field study/ or exp in vitro study/ or exp in vivo study/ or exp methodology/ or exp model/ or observational study/ or panel study/ or pilot study/ or prevention study/ or quasi experimental study/ or replication study/ or theoretical study/ or trend study/ or validation study/ or (intervent* or empirical* or study or studies or design* or method* or experiment* or quasiexperiment* or qualitative or (focus adj group*) or (matched adj control*) or controlled or cohort or longitudinal or survey or randomis* or randomiz* or randomly or (random adj allocat*) or (group? and (random* or between* or control*)) or compare or comparison* or compared or (before adj5 after) or (pre adj5 post) or pretest or (pre adj test) or posttest or (post adj test) or evaluat* or effect? or effectiveness or impact or time series or time point? or repeated measur*).tw.	20257326
30	27 and 29	4767
31	28 or 30	4869



**Database:** Ovid PsycINFO  
**Dato:** 02.12.2014  
**Antall treff:** 3261

#	Searches	Results
1	immigration/	15135
2	human migration/	4564
3	refugees/	3674
4	migrant farm workers/	330
5	foreign workers/	475
6	exp "racial and ethnic groups"/	96980
7	minority groups/	10985
8	multiculturalism/	5357
9	language/	32168
10	foreign languages/	2742
11	bilingualism/	7437
12	english as second language/	5062
13	exp multilingualism/	8336
14	(immigrant* or immigrate* or migrant* or migrate* or emigrant* or emigrat* or refugee* or asylum seeker* or alien* or foreign* or nomad* or transient* or minority or minorities or ethnic*).tw.	156300
15	(non native or nonnative or language or accent* or speak* or tongue*).tw.	197003
16	or/1-15	402464
17	interpreters/	463
18	(translate or translating or translator? or translation? or interpret or interpreting or interpreter? or interpretation?).ti.	15127
19	(translator? or interpreter?).ab.	3007
20	or/17-19	17238
21	16 and 20	4098
22	("column/opinion" or "comment/reply" or editorial or encyclopedia entry or letter or obituary or poetry).dt.	157815
23	21 not 22	3949

24	limit 23 to ("0200 clinical case study" or "0400 empirical study" or "0430 followup study" or "0450 longitudinal study" or "0451 prospective study" or "0453 retrospective study" or "0600 field study" or "0700 interview" or "0750 focus group" or "0800 literature review" or "0830 systematic review" or 1200 meta analysis or 1400 nonclinical case study or 1600 qualitative study or 1800 quantitative study or "2000 treatment outcome/clinical trial")	2255
25	exp methodology/	89045
26	exp experimentation/	63180
27	exp experimental design/	48492
28	(intervent* or empirical* or study or studies or design* or method* or experiment* or quasiexperiment* or qualitative or (focus adj group*) or (matched adj control*) or controlled or cohort or longitudinal or survey or randomis* or randomiz* or randomly or (random adj allocat*) or (group? and (random* or between* or control*)) or compare or comparison* or compared or (before adj5 after) or (pre adj5 post) or pretest or (pre adj test) or posttest or (post adj test) or evaluat* or effect? or effectiveness or impact or time series or time point? or repeated measur*).tw.	2697037
29	or/25-28	2721818
30	23 and 29	2964
31	24 or 30	3261

**Database:** The Cochrane Library via Wiley, all databases  
**Dato:** 02.12.2014  
**Antall treff:** 155 (CDSR: 46, DARE: 3, Trials: 79, CMR: 27)

ID	Search	Hits
#1	MeSH descriptor: [Emigrants and Immigrants] this term only	95
#2	MeSH descriptor: [Refugees] this term only	70
#3	MeSH descriptor: [Transients and Migrants] this term only	53
#4	MeSH descriptor: [Minority Groups] this term only	255
#5	MeSH descriptor: [Ethnic Groups] explode all trees	2907
#6	MeSH descriptor: [Language] this term only	468
#7	MeSH descriptor: [Multilingualism] this term only	84
#8	MeSH descriptor: [Communication Barriers] this term only	84
#9	MeSH descriptor: [Vulnerable Populations] this term only	133
#10	(immigrant* or immigrate* or migrant* or migrate* or emigrant* or emigrat* or refugee* or (asylum next seeker*) or alien* or foreign* or nomad* or transient* or minority or minorities or ethnic*):ti,ab,kw	16466
#11	((non next native) or nonnative or language or accent* or speak* or tongue*):ti,ab,kw	12149
#12	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11	29676
#13	(translate or translating or translator* or translation* or interpret or interpreting or interpreter* or interpretation*):ti	975
#14	(translator* or interpreter*):ab	120
#15	#13 or #14	1077
#16	#12 and #15	155

**Database:** DARE via CRD  
**Dato:** 02.12.2014  
**Antall treff:** 124

Line	Search	Hits
1	MeSH DESCRIPTOR Emigrants and Immigrants IN DARE	9
2	MeSH DESCRIPTOR Refugees IN DARE	5
3	MeSH DESCRIPTOR Transients and Migrants IN DARE	4
4	MeSH DESCRIPTOR Minority Groups IN DARE	39
5	MeSH DESCRIPTOR Ethnic Groups EXPLODE ALL TREES IN DARE	112
6	MeSH DESCRIPTOR Language IN DARE	14
7	MeSH DESCRIPTOR Multilingualism IN DARE	2
8	MeSH DESCRIPTOR Communication Barriers IN DARE	9
9	MeSH DESCRIPTOR Vulnerable Populations IN DARE	14
10	((immigrant* or immigrate* or migrant* or migrate* or emigrant* or emigrat* or refugee* or asylum seeker* or alien* or foreign* or nomad* or transient* or minority or minorities or ethnic*))	1956
11	((non native or nonnative or language or accent* or speak* or tongue*))	12143
12	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11	13291
13	((translate or translating or translator* or translation* or interpret or interpreting or interpreter* or interpretation*)):T1	46
14	((translator* or interpreter*))	146
15	#13 OR #14	187
16	#12 AND #15	124

**Database:** Cinahl  
**Dato:** 02.12.2014  
**Antall treff:** 1425

#	Query	Results
S1	(MH "Immigrants+")	7,217
S2	(MH "Emigration and Immigration")	3,460
S3	(MH "Transients and Migrants")	1,731
S4	(MH "Ethnic Groups+")	72,896
S5	(MH "Minority Groups")	6,425
S6	(MH "Language")	6,568
S7	(MH "Multilingualism")	1,542
S8	(MH "English as a Second Language")	1,153
S9	(MH "Communication Barriers")	3,141
S10	(MH "Special Populations")	2,616
S11	(MH "Communication Skills")	3,467
S12	TI ( (immigrant* or immigrate* or migrant* or migrate* or emigrant* or emigrat* or refugee* or (asylum N1 seeker*) or alien* or foreign* or nomad* or transient* or minority or minorities or ethnic*) ) OR AB ( (immigrant* or immigrate* or migrant* or migrate* or emigrant* or emigrat* or refugee* or (asylum N1 seeker*) or alien* or foreign* or nomad* or transient* or minority or minorities or ethnic*) )	53,742
S13	TI ( ((non N1 native) or nonnative or language or accent* or speak* or tongue*) ) OR AB ( ((non N1 native) or nonnative or language or accent* or speak* or tongue*) )	43,882
S14	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13	162,711
S15	(MH "Interpreter Services")	1,228

S16	TI (translate or translating or translator# or translation# or interpret or interpreting or interpreter# or interpretation#)	6,383
S17	AB (translator# or interpreter#)	898
S18	S15 OR S16 OR S17	7,730
S19	S14 AND S18	1,941
S20	S14 AND S18 Limiters - Publication Type: Case Study, Clinical Trial, Interview, Meta Analysis, Meta Synthesis, Randomized Controlled Trial, Research, Review, Systematic Review	1,184
S21	(MH "Research Methodology+")	855,454
S22	(MH "Research by Type and Subject+")	332,827
S23	TI ( (intervent* or empirical* or study or studies or design* or method* or experiment* or quasiexperiment* or qualitative or (focus N1 group*) or (matched N1 control*) or controlled or cohort or longitudinal or survey or randomis* or randomiz* or randomly or (random N1 allocat*) or (group* and (random* or between* or control*)) or compare or comparison* or compared or (before N5 after) or (pre N5 post) or pretest or (pre N1 test) or posttest or (post N1 test) or evaluat* or effect* or effectiveness or impact or time series or time point* or repeated measur*) ) OR AB ( (intervent* or empirical* or study or studies or design* or method* or experiment* or quasiexperiment* or qualitative or (focus N1 group*) or (matched N1 control*) or controlled or cohort or longitudinal or survey or randomis* or randomiz* or randomly or (random N1 allocat*) or (group* and (random* or between* or control*)) or compare or comparison* or compared or (before N5 after) or (pre N5 post) or pretest or (pre N1 test) or posttest or (post N1 test) or evaluat* or effect* or effectiveness or impact or time series or time point* or repeated measur*) )	1,088,357
S24	S21 OR S22 OR S23	1,322,855
S25	S19 AND S24	1,341
S26	S20 OR S25	1,425

**Database:** ERIC  
**Dato:** 02.12.2014  
**Antall treff:** 1487

#	Query	Results
S1	DE "Immigration" or DE "Migration" or DE "Immigrants" or DE "Migrants" or DE "Undocumented Immigrants" or DE "Brain Drain" or DE "Migrant Children" or DE "Migrant Workers" or DE "Refugees" or DE "Migrant Problems" or DE "Foreign Nationals" or DE "Foreign Students" or DE "Foreign Workers"	20,816
S2	DE "Language Minorities" or DE "English Language Learners" or DE "Limited English Speaking" or DE "Non English Speaking" or DE "Bilingualism" or DE "Minority Groups" or DE "Ethnic Groups"	44,314
S3	DE "Alaska Natives" or DE "American Indians" or DE "Anglo Americans" or DE "Canada Natives" or DE "Chinese Americans" or DE "Eskimos" or DE "Filipino Americans" or DE "French Canadians" or DE "Hawaiians" or DE "Hmong People" or DE "Italian Americans" or DE "Japanese Americans" or DE "Korean Americans" or DE "Mexican Americans" or DE "Pacific Islanders" or DE "Polish Americans" or DE "Samoan Americans" or DE "Spanish Americans" or DE "Language" or DE "Multilingualism" or DE "Bilingualism" or DE "Monolingualism" or DE "Language Proficiency" or DE "Language Fluency"	42,095
S4	TI ( (immigrant* or immigrate* or migrant* or migrate* or emigrant* or emigrat* or refugee* or (asylum N1 seeker*) or alien* or foreign* or nomad* or transient* or minority or minorities or ethnic*) ) OR AB ( (immigrant* or immigrate* or migrant* or migrate* or emigrant* or emigrat* or refugee* or (asylum N1 seeker*) or alien* or foreign* or nomad* or transient* or minority or minorities or ethnic*) )	92,270
S5	TI ( ((non N1 native) or nonnative or language or accent* or speak* or tongue) ) OR AB ( ((non N1 native) or nonnative or language or accent* or speak* or tongue) )	159,128
S6	S1 OR S2 OR S3 OR S4 OR S5	250,016
S7	TI (translate or translating or translator# or translation# or interpret or interpreting or interpreter# or interpretation#)	5,672
S8	AB (translator# or interpreter#)	1,756
S9	S7 OR S8	6,852
S10	S6 AND S9	2,188
S11	DE "Research Methodology" OR DE "Control Groups" OR DE "Experimental Groups" OR DE "Grounded Theory" OR DE "Interaction Process Analysis" OR DE "Matched Groups" OR DE	51,744

	"Mixed Methods Research" OR DE "Multitrait Multimethod Techniques" OR DE "Protocol Analysis" OR DE "Scientific Methodology"	
S12	DE "Behavioral Science Research" OR DE "Integration Studies" OR DE "Psychological Studies" OR DE "Interest Research" OR DE "Personality Studies" OR DE "Longitudinal Studies" OR DE "Followup Studies" OR DE "Graduate Surveys" OR DE "Vocational Followup" OR DE "Classroom Research" OR DE "Curriculum Research" OR DE "Effective Schools Research" OR DE "Reading Research" OR DE "Writing Research" OR DE "Dialect Studies" OR DE "Television Research" OR DE "Textbook Research" OR DE "Evaluation Research" OR DE "Critical Theory"	74,487
S13	DE "Economic Research" OR DE "Research" OR DE "Action Research" OR DE "Behavioral Science Research" OR DE "Case Studies" OR DE "Cohort Analysis" OR DE "Communication Research" OR DE "Community Study" OR DE "Cross Cultural Studies" OR DE "Dropout Research" OR DE "Educational Research" OR DE "Environmental Research" OR DE "Exceptional Child Research" OR DE "Feasibility Studies" OR DE "Field Studies" OR DE "Institutional Research" OR DE "Investigations" OR DE "Language Research" OR DE "Library Research" OR DE "Media Research" OR DE "Medical Research" OR DE "Methods Research" OR DE "Nursing Research" OR DE "Operations Research" OR DE "Participatory Research" OR DE "Qualitative Research" OR DE "Schematic Studies" OR DE "Scientific Research" OR DE "Social Science Research" OR DE "Statistical Studies" OR DE "Student Research" OR DE "Use Studies"	198,469
S14	(DE "Literature Reviews") OR (DE "State of the Art Reviews")	26,973
S15	TI ( (intervent* OR empirical* OR study OR studies OR design* OR method* OR experiment* OR quasiexperiment* OR qualitative OR (focus N0 group*) OR (matched N0 control*) OR controlled OR cohort OR longitudinal OR survey OR randomis* OR randomiz* OR randomly OR (random N0 allocat*) OR (group* AND (random* OR between* OR control*)) OR compare OR comparison* OR compared OR (before N5 after) OR ("pre" N5 post) OR pretest OR ("pre" N0 test) OR posttest OR (post N0 test) OR evaluat* OR effect* OR effectiveness OR impact OR (time N0 serie*) OR (time N0 point*) OR (repeated N0 measur*)) ) OR AB ( (intervent* OR empirical* OR study OR studies OR design* OR method* OR experiment* OR quasiexperiment* OR qualitative OR (focus N0 group*) OR (matched N0 control*) OR controlled OR cohort OR longitudinal OR survey OR randomis* OR randomiz* OR randomly OR (random N0 allocat*) OR (group* AND (random* OR between* OR control*)) OR compare OR comparison* OR compared OR (before N5 after) OR ("pre" N5 post) OR pretest OR ("pre" N0 test) OR posttest OR (post N0 test) OR evaluat* OR effect* OR effectiveness OR impact OR (time N0 serie*) OR (time N0 point*) OR (repeated N0 measur*)) )	955,648
S16	S11 OR S12 OR S13 OR S14 OR S15	1,023,843
S17	S10 AND S16	1,487

**Database:** ISI Web of Science

**Dato:** 08.12.2014



Antall treff: 3672

Set	Results	
# 14	3,672	#13 AND #8
# 13	20,578,289	#12 OR #11 OR #10 OR #9
# 12	10,023,574	TS=(evaluat* or effect* or effectiveness or impact or time series or time point* or repeated measur*)
# 11	4,712,547	TS=(compare or comparison* or compared or pretest or posttest) OR TS=((before NEAR/5 after) or (pre NEAR/5 post) or (pre NEAR/1 test) or (post NEAR/1 test))
# 10	5,362,955	TS=(controlled or cohort or longitudinal or survey or randomis* or randomiz* or randomly) OR TS=((random NEAR/1 allocat*) or (group* and (random* or between* or control*)))
# 9	15,111,056	TS=(intervent* or empirical* or study or studies or design* or method* or experiment* or quasiexperiment* or qualitative) OR TS=((focus NEAR/1 group*) or (matched NEAR/1 control*))
# 8	6,530	#7 OR #3
# 7	3,383	#6 AND #2
# 6	214,062	#5 AND #4
# 5	3,505,804	TS=((information OR (ad NEAR/1 hoc) OR communi* OR training OR simultaneous* OR consecutive* OR proficien* OR lay OR informal OR untrained OR trained))
# 4	1,174,170	TS=(immigrant* or immigrate* or migrant* or migrate* or emigrant* or emigrat* or refugee* or (asylum NEAR/1 seek*) or alien* or foreign* or nomad* or transient* or minority or minorities or ethnic* or (non NEAR/1 native) or nonnative or language or accent* or speak* or tongue*)
# 3	4,109	#2 AND #1
# 2	183,356	TI=(translate OR translating OR translator* OR translation* OR interpret OR interpreting OR interpreter* OR interpretation*) OR TS=(translator or interpreter*)
# 1	387,241	TI=(immigrant* or immigrate* or migrant* or migrate* or emigrant* or emigrat* or refugee* or (asylum NEAR/1 seek*) or alien* or foreign* or nomad* or transient* or minority or minorities or ethnic* or (non NEAR/1 native) or nonnative or language or accent* or speak* or tongue*)

Database: BIBSYS

Dato: 08.12.2014

Antall treff: 458

(immigr? OR emigra? OR migrati? OR migrate? OR migrant? OR transient? OR alien? OR minorit? OR ethnic? OR nonnative OR native OR accent? OR speak? OR innvand? OR flyktning? OR offentlig? OR asyl? OR refugee? OR foreign? OR nomad? OR språk? OR morsmål? OR tale? OR muntlig? OR etnisk? OR fremmed?) AND ( translate OR translating OR translator? OR translation? OR interpret OR interpreting OR interpreter? OR interpretation? OR tolk?

OR oversette? OR oversatt?) AND (e-bøker OR artikler og bokkapitler OR bøker OR doktoravhandlinger OR nettressurser OR master- og hovedfagsoppgaver)

**Database:** Sociological abstracts and Social Services Abstracts via ProQuest  
**Dato:** 08.12.2014  
**Antall treff:** 520

(SU.EXACT("Immigration") OR SU.EXACT("Immigrants") OR SU.EXACT("Undocumented Im-  
migrants") OR SU.EXACT("Emigration") OR SU.EXACT("Brain Drain") OR SU.EXACT("Migra-  
tion") OR SU.EXACT("Migrants") OR SU.EXACT("Migrant Workers") OR SU.EXACT("Labor Mi-  
gration") OR SU.EXACT("Foreign Workers") OR SU.EXACT.EXPLODE("Minority Groups") OR  
SU.EXACT("Ethnic Minorities") OR SU.EXACT.EXPLODE("Ethnic Groups" OR "Ethnolinguistic  
Groups") OR SU.EXACT("Foreigners") OR SU.EXACT("Refugees") OR SU.EXACT("Gypsies") OR  
SU.EXACT("Nomadic Societies") OR SU.EXACT.EXPLODE("Dialects" OR "Language" OR "Lan-  
guage Varieties") OR SU.EXACT("Multilingualism") OR ti(immigrant\* OR immigrate\* OR mi-  
grant\* OR migrate\* OR emigrant\* OR emigrat\* OR refugee\* OR asylum seek\* OR alien\* OR  
foreign\* OR nomad\* OR transient\* or minority OR minorities OR ethnic\* OR language\* OR  
native OR nonnative OR accent\* OR speak\* OR tongue\*)) AND (SU.EXACT("Translation") OR  
SU.EXACT("Interpretation/Interpretations/Interpretative") OR ti(translate OR translating OR  
translator\* OR translation\* OR interpret OR interpreting OR interpreter\* OR interpreta-  
tion\*))

**Database:** Social Care Online  
**Dato:** 12.12.2014  
**Antall treff:** 116  
**Uten dubletter fra forrige søk:** 97

(SubjectTerms:""interpreting"" including this term only OR SubjectTerms:""translation ser-  
vices"" including this term only OR PublicationTitle:'translat\* OR interpret\*') AND ((Subject-  
Terms:""ethnicity"" including this term only OR SubjectTerms:""black and minority ethnic  
people"" including this term only OR SubjectTerms:""cultural identity"" including this term  
only OR SubjectTerms:""multicultural society"" including narrower terms OR (AllFields:'tran-  
sient\* or minority or minorities or ethnic\* or non native or nonnative or language or ac-  
cent\* or speak\* or tongue\*'))

**Database:** Social Science Research Network (SSRN) eLibrary  
**Dato:** 15.12.2014  
**Antall treff:** 2629 (title/abstract) eller 69 (title)  
**Kommentarer:** Se egne dokumenter for både søkehistorikk og treff

**Database:** OpenSIGLE  
**Dato:** 16.12.2014  
**Antall treff:** 290  
**Kommentarer:** Se eget dokument for treff

(title:translate OR title:translating OR title:translator OR title:translators OR title:translation OR title:interpret OR title:interpreting OR title:interpreter OR title:interpreters OR title:interpretation) AND (transient OR transients OR minority OR minorities OR ethnic\* OR non native OR nonnative OR language OR accent OR accents OR speak\* OR tongue\*)

**Database:** Google scholar

**Dato:** 17.12.2014

**Antall treff:** 300

**Kommentarer:** Søket gav over 2,080,000 treff. De 300 høyest rangerte treffene er tatt ut. Se eget dokument for treffene.

(allintitle:translate OR translating OR translator OR translators OR translation OR interpret OR interpreting OR interpreter OR interpreters OR interpretation) AND (allintitle:transient OR minority OR minorities OR ethnic OR native OR language OR speaking)

**Database:** The Campbell Library

**Kommentarer:** Heather gjennomgår denne basen manuelt.

**Database:** EPPI-Centre Evidence Library

**Kommentarer:** Heather gjennomgår denne basen manuelt.