

Migrant patients' satisfaction with health care services: a comprehensive review

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Abstract

Objectives and methods: We sought to determine immigrants' level of satisfaction with health care services in western developed countries. A comprehensive literature search was conducted to identify all relevant studies that assessed patient satisfaction among this population subgroup. As the research encountered different methods and settings, results were synthesized in a narrative form.

Results and conclusions: The search process yielded 54 potentially relevant (published) studies. 26 of them were excluded for reasons presented in the section Exclusion criteria. The remaining 28 were retained for analysis. Usually, immigrant patients showed lower satisfaction levels with western health services.

Key words: migrants, foreigners, patient satisfaction

Background

Health systems have the responsibility not just to improve peoples' health but also to treat them with dignity and to protect them against the financial costs of illness.

Health systems thus have three fundamental objectives [1]. These are:

- improving the health of the population they serve;
- responding to peoples' expectations;
- providing financial protection against the costs of ill-health.

Since these objectives are not always met, public dissatisfaction with the way health services are run or financed is often widespread: there are numerous accounts of errors, delays, rudeness, hostility and indifference exercised by healthcare personnel, as well as accounts of denial of care or exposure to calamitous financial risks by insurers and governments on a grand scale [1].

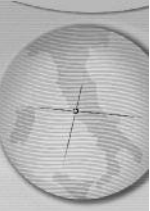
Patient satisfaction is a component of health care quality and is increasingly being used to assess medical care in many countries around the world. Until recently, the rating of medical care was done purely in terms of technical and physiological outcomes [2-4]. Patient satisfaction is, on the other hand, an expression of the gap between the expected and the perceived quality of a service. Satisfaction is a subjective

phenomenon which can be elicited by simply asking how satisfied or not patients are about a service [2,5]. Patient satisfaction level depends on a number of factors [3] that must be considered during its assessment: patient's age, socioeconomic position and expectations, timing of satisfaction measurement, aspects of the provided services, are all important variables that influence satisfaction.

Apart from legal considerations, assessing patient satisfaction is even more justified by the fact that high levels of satisfaction have been reported to be strongly associated to better understanding and memorization of medical information by patients, which consequently results in a higher compliance to the proposed treatments [6].

However, even if assessing patient satisfaction is an important part of health care quality assessment, it cannot replace it totally. Health service quality has, in fact, three dimensions: *client quality, professional quality and management quality*. Client quality is the dimension that receives most attention in discussions of healthcare quality based on how satisfied clients are with the healthcare received [2,5,7,8].

From a management perspective, patient satisfaction with health care services is important for several reasons. Firstly, satisfied patients are



more likely to maintain a consistent relationship with a specific provider. Secondly, by identifying sources of patient dissatisfaction, an organization can address weaknesses in the system, thus improving its risk management. Thirdly, satisfied patients are more likely to follow specific medical regimens and treatment plans. Finally, patient satisfaction measurement adds important information on system performance, thus contributing to the organizations' total quality management [5].

Factor analysis techniques have demonstrated that patient satisfaction is chiefly determined by six dimensions, which are (1) medical care and information (2) food and physical facilities (3) non tangible environment (4) nursing care (5) quantity of food and (6) visiting arrangements [2,9,10]. However, the Picker Institute distinguishes 8 possible dimensions in its patient survey instruments [2,5, 11].

While there are several reports of health status, access to care, treatment and survival for different minority groups [12-22], relatively few reports on patient satisfaction in these minority and immigrant groups are available. In the USA, the National Quality Forum recently addressed measurement issues and challenges in reporting health care quality for minority populations and recommended improved race and ethnicity data collection practices for quality measurement [23]. Even if the target of this report were US racial and ethnic minorities, the immigrant population in other countries can also easily be considered as minority groups and thereby as having similar problems.

This paper aims at synthesizing available published information on patient satisfaction among immigrants. It specifically attempts to determine, for this population subgroup, their levels of satisfaction with host countries' health services. We will perform non systematic comparisons with "indigenous" patients alongside.

Methods

Literature search

Several Medline searches were conducted using the terms migrants, immigrants, foreigners, patient satisfaction, client satisfaction, customer satisfaction and patient experiences/perceptions. The same terms were also searched in Google.

We visited websites of selected institutions specialized in patient satisfaction assessment (Picker Institute, Press Ganey Associates) in order to obtain complementary information if available. The data covered the period January 1960 up to

December 2008.

Typology of studies

Published descriptive and analytic studies on patient satisfaction among adult immigrants.

Inclusion criteria

Studies published in English, French and Italian language or English abstracts of studies published in other languages; data concerning patient satisfaction among adult immigrants from developing countries settled in affluent or developed countries of the "Western world".

Exclusion criteria

Studies concerning satisfaction among "indigenous" patients alone, studies on patient preferences/expectations alone or on a priori patient preferences/expectations, studies written in other foreign languages without abstract in English, studies having developing countries as a setting or refugees, native racial/ethnic minorities like Australian Aborigines, New Zealand Maoris, Arab Israeli, Finnish Lapps, Native Americans and African Americans as their main or exclusive subject.

Selection process

Titles and abstracts of citations identified through the search process were reviewed to identify relevant articles. Bibliographies of reviewed articles and other relevant studies were examined to identify additional studies.

Results

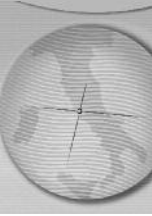
The search process yielded 54 potentially relevant studies. 26 of them were excluded because of the above mentioned exclusion criteria, while 28 studies were retained for analysis. A synthesis of these studies can be seen in Table 1.

Geographic setting

Most of the studies found were performed in English-speaking countries, namely 13 in the USA, 6 in Australia and 1 in UK. The other studies considered here had the following settings: Israel (3 studies), Germany (2 studies), Netherlands (2 studies), Norway (1 study), and Denmark (1 study).

Family practice and general medicine

8 studies came from general medicine and family practice. Markova et al. in the USA [24] recruited, by means of a convenience sampling, 156 female subjects aged 18 years and more. 43%



were immigrants, primarily representing 3 ethnicities: Bangladeshi (61%), Yemeni (19%) and Bosnian (13%). The average length of residence in the United States was 8 years. Compared with US-born citizens, the immigrants were more likely to report a household income of less than \$15,000

though they had similar rates of health insurance. In comparison to US-born women, immigrant women reported a higher level of satisfaction with the US health care system.

Green et al. in the USA [25] recruited, by means of a cross-sectional survey, a sample of 4.410

Table 1. Immigrant patients' satisfaction with healthcare services: a comprehensive review.

ID	Authors/Country/Year	Clinical settings	Title / Journal	Data collection, sampling and sample size	Outcomes
1	Dallo FJ et al. (USA) 2008	Unspecified	- Nativity status and patient perceptions of the patient- physician encounter: results from the Commonwealth Fund 2001 survey on disparities in quality of health care. <i>-Med Care. 2008 Feb; 46(2):185-91</i>	-Cross-sectional telephone survey -Sample= 6674 (1518 immigrants)	Lower satisfaction among immigrants (Total sample, OR = 1.43; 95% CI = 1.01-2.04; Asians, OR = 3.25; 95% CI = 1.18-8.95)
2	Gerlach H et al. (GERMANY) 2008	General Medicine	-Discrimination of Blacks on account of their skin colour? Results of focus group discussions with victims in the German health-care System. <i>-Gesundheitswesen. 2008 Jan;70(1):47-53</i>	- Focus group - Sample =33	Lower satisfaction
3	Else L et al. (NORWAY) 2008	General Medicine	-Non-western immigrants' satisfaction with general practitioners' services in Oslo, Norway. <i>-International Journal for Equity in Health 2008 7:7</i>	-2 Population-based surveys - Sample =2876	Lower satisfaction Non-western immigrants were less satisfied than Norwegians (40.6% vs. 62.8%; p<0.05).
4	Mygind A et al. (DENMARK) 2008	Emergency Care	-The effect of patient origin and relevance of contact on patient and caregiver satisfaction in the emergency room. <i>-Scand J Public Health. 2008 Jan; 36(1):76-83</i>	-Questionnaire survey - Sample= 3426 - Response rate 54%	Lower level satisfaction
5	Markova T et al. (USA) 2007	Family Medicine	-Healthcare attitudes and behaviours of immigrant and US-born women in Hamtramck, Michigan: a MetroNet study- <i>Ethn Dis. 2007 Autumn; 17(4):650-6.</i>	-Cross-sectional exploratory questionnaire survey study - Convenience sampling -Sample= 156 (67 immigrants)	Higher level satisfaction among immigrant women (in comparison to US-born women)
6	Gal I et al. (ISRAEL) 2007	Unspecified	-Informal complaints on health services: hidden patterns, hidden potentials. <i>Int J Qual Health Care. 2007 Jun; 19(3):158-63.</i>	- Phone survey -Nationwide stratified random sample= 1500	Lower level satisfaction among immigrants (Aggrieved Immigrants 65.8 %, Israeli-born 25.5%)
7	Kokanovic R et al. (AUSTRALIA) 2007	Diabetes Care Unit (Internal Medicine)	-Exploring doctor-patient communication in immigrant Australians with type 2 diabetes: a qualitative study. <i>-J Gen Intern Med. 2007 Apr; 22(4):459-63</i>	- In-depth interview - Sample =30	Lower level satisfaction
8	Gany F et al. (USA) 2007	General Medicine Emergency Care	-Patient satisfaction with different interpreting methods: a randomized controlled trial. <i>-J Gen Intern Med. 2007 Nov; 22 Suppl 2:312-8</i>	- Randomised Controlled Trial RCT - Sample= 1276	Lower level satisfaction among immigrants with RSMI and U&C interpretations in comparison to patients in language-concordant encounters
9	Heuer LJ et al. (USA) 2006	Diabetes Unit (Internal Medicine)	-Cluster clinics for migrant Hispanic farm workers with diabetes: perceptions, successes, and challenges. <i>Rural Remote Health. 2006 Jan- Mar; 6(1):469</i>	-Written survey (Questionnaire) -Sample =566 (and a convenience Sample= 12 for a qualitative study)	Higher level satisfaction (75-88%)

Table 1. cont.

10	Green AR et al. (USA) 2005	Family Medicine	-Interpreter services, language concordance, and health care quality. Experiences of Asian Americans with limited English proficiency. - <i>J Gen Intern Med.</i> 2005 Nov;20(11):1050-6	- Cross-sectional survey - Convenience sampling - Sample =4.410 (3258; responses rate 74%)	- Similar level satisfaction both migrant groups (Rating 100 points scale: interpreter group 51.7, Concordant group 50.9; Adjusted OR: 4.8, 95% CI: 2.3-10.1)
11	McLachlan H et al. (AUSTRALIA) 2005	Maternal Care	-Childbirth experiences in Australia of women born in Turkey, Vietnam, and Australia. - <i>Birth.</i> 2005 Dec; 32(4):272-82	- Questionnaire-based interview - Sample =300	Lower level satisfaction Vietnamese (Satisfied in overall: Australian 79%, Turkish 92%, Vietnamese 39%)
12	Ogden J et al. (UK) 2005	General Medicine	- Patients' experiences and expectations of general practice: a questionnaire study of differences by ethnic group. - <i>Br J Gen Pract.</i> 2005 May;55(514):339-40	- Cross-sectional survey - Sample =604 - Response rate 60.4%	Higher level satisfaction but lower expectations immigrants (expectations means scores 3.05 vs. 3.65; p<0.001)
13	Knipscheer JW et al. (NETHERLANDS) 2004	Mental Health Care	-The importance of ethnic similarity in the therapist-patient dyad among Surinamese migrants in Dutch mental health care. - <i>Psychol Psychother.</i> 2004 Jun; 77(Pt 2):273-8	- Interview - Convenience sampling - Sample =96	Higher level satisfaction (91% immigrants satisfied)
14	Knipscheer JW et al. (NETHERLANDS) 2004	Mental Health Care	-A need for ethnic similarity in the therapist-patient interaction? Mediterranean migrants in Dutch mental-health care. - <i>J Clin Psychol.</i> 2004 Jun; 60(6):543-54	- Interview - Convenience sampling - Sample= 140	Similar levels satisfaction
15	Ngo-Metzger Q et al. (USA) 2004	Not specified	-Asian Americans' reports of their health care experiences. Results of a national survey. - <i>J Gen Intern Med.</i> 2004 Feb; 19(2):111-9	- Telephone interview - Stratified random-digit dialing - Sample= 3726 (521 immigrants)	Lower level satisfaction (Satisfaction odds ratio OR 0.64, 95% confidence interval CI 0.42-0.99)
16	Lee LJ et al. (USA) 2002	Internal Medicine	-Effect of Spanish Interpretation method on patient satisfaction in an urban walk-in clinic. - <i>J Gen Intern Med.</i> 2002 Aug; 17(8):641-5	- Self-administered post-visit questionnaire - Sample= 343	Variable level of satisfaction (77% concordant-language and professional interpreters, 54% family and 49% ad hoc interpreters; p variable < 0.05)
17	Borde T et al. (GERMANY) 2002	Maternal Care	-What Turkish-speaking women expect in a German hospital and how satisfied they are with healthcare during their stay in a gynaecological hospital in Berlin – a comparative approach - <i>Gesundheitswesen.</i> 2002 Aug-Sep; 64(8-9):476-85	- Interview - Sample= 262 immigrant women and 320 Germans	Lower level satisfaction
18	Small R et al. (AUSTRALIA) 2002	Maternal Care	-Immigrant women's views about care during labour and birth: an Australian study of Vietnamese, Turkish, and Filipino women. - <i>Birth.</i> 2002 Dec; 29(4):266-77	- Population-based survey (interview) - Sample =318	Lower level satisfaction among immigrant women (Very satisfied: Vietnamese 26%, Turkish 44.9%, Filipinos 36.4%) Vietnamese satisfaction OR: 0.51, 95% CI 0.30-0.88
19	Reiff M et al. (ISRAEL) 1999	Family Medicine	-Illness and treatment perceptions of Ethiopian immigrants and their doctors in Israel. - <i>Am J Public Health.</i> 1999 Dec; 89(12):1814-8	- Semi structured interviews - Sample =59	Lower level satisfaction among immigrants (47% rated treatment as "not at all helpful"; p=0.04)

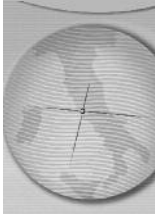


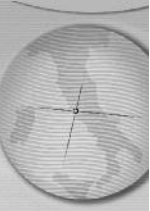
Table 1. cont.

20	Morales LS et al. (USA) 1999	Not specified	-Are Latinos less satisfied with communication by health care providers? - <i>J Gen Intern Med. 1999</i> 14:409-17	-Questionnaire-based survey - Random sampling - Sample =7.093	Lower level satisfaction (Satisfaction score 100 points scale: Latinos 44.9-48.6, Whites 50.3; p<0.01)
21	Carrasquillo O et al. (USA) 1999	Emergency Care	-Impact of language barriers on patient satisfaction in an emergency department. - <i>J Gen Intern Med.1999</i> Feb; 14(2):82-7.	- Cross sectional survey (On-site questionnaire and telephone survey) - Sample =2333	Lower level satisfaction (46% and 56% vs. 71%; p<0.01)
22	Small R et al. (AUSTRALIA) 1999	Maternal Care	-Mothers in a new country: the role of culture an communication in Vietnamese, Turkish and Filipino women's experiences of giving birth in Australia. - <i>Women Health 1999</i> ; 28:77-101.	- Interview - Sample= 318	Lower level satisfaction Vietnamese (odds ratio of satisfaction OR: 0.51, 95% CI 0.30-0.88)
23	Baker DW et al. (USA) 1998	Emergency Care	-Interpreter use and satisfaction with Interpersonal aspects of Care for Spanish-speaking patients. - <i>Med Care. 1998</i> Oct;36(10):1461-70.	- Cross-sectional survey - Sample= 457	Lower levels satisfaction
24	Yelland J et al. (AUSTRALIA) 1998	Maternal Care	-Support, sensitivity, satisfaction: Filipino, Turkish and Vietnamese women's experiences of postnatal hospital stay. - <i>Midwifery. 1998</i> Sep; 14(3):144-54.	- Interview - Sample= 318	Lower level satisfaction (Turkish 35.5%, Filipinos 29.9%, Vietnamese 21.3%)
25	Rice PL et al. (AUSTRALIA) 1998	Maternal Care	-The experience of pregnancy, labour and birth of Thai women in Australia. - <i>Midwifery. 1998</i> Jun; 14(2):74-84	- Ethnographic interview and participant observation - Sample= 30	Higher level satisfaction
26	Taira DA et al. (USA) 1997	General Medicine (University)	-Asian-American patient ratings of physician primary care performance. - <i>J Gen Intern Med. 1997</i> Apr; 12(4):237-42	- Questionnaire-based cross-sectional survey (a retrospective study) - Sample =502	Lower overall satisfaction (Asian 65% vs Caucasian 72; p<0.01)
27	Sherraden MS et al. (USA) 1996	Maternal Care	-Prenatal care experiences and birth weight among Mexican immigrant women. - <i>J Med Syst.1996</i> Oct; 20(5):329-50	- In-depth interviews - Sample=?	Lower levels satisfaction
28	Baider L et al. (ISRAEL) 1995	Clinical oncology	-The impact of culture on perceptions of patient-physician satisfaction - <i>Isr J Med Sci 1995</i> Feb-Mar;31(2-3):179-85	-Questionnaire (self-administered) - Random sampling - Sample =450 (200 Russian immigrants)	Higher level satisfaction

subjects with a response rate of 74% (3.258 surveys collected). The average age of the 2715 subjects studied was 53.4 years; 67.5% of them were female; the average residence time in the U.S. was 11.4 years (range 1 to 66 years). These immigrants were of Chinese and Vietnamese origin. Asked to rate interpreter use/ lacking and overall health care on a 5-point Likert scale (combining "excellent" and "very good" as high ratings of quality and "good", "fair" and "poor" as

suboptimal ratings), the overall ratings of care services was high and did not differ significantly between the 2 groups (51.7 and 50.9%). Patients who rated their interpreters highly ("excellent" or "very good") were more likely to rate the health care they received highly (adjusted odds ratio OR 4.8, 95% confidence interval CI 2.3-10.1).

Reiff et al. [26] in Israel conducted semi-structured interviews on a sample of 59 Ethiopian immigrants. That sample included both male and



female subjects between 20 and 70 years of age in 2 sites (39 subjects in temporary housing in a caravan site and 20 in apartments in a residential community). The residents of the caravan site had arrived in Israel in 1991, and those in the residential site had arrived before 1989; the interviews were conducted in 1993. All respondents were cared for by the same family physician, who served General Health Fund clinics in each site. Respondents were selected from lists of residents and clinic records, and they were contacted through community workers or at the clinic and interviewed in their homes. Self-reports of health status and effectiveness of treatment were compared with evaluations made by the primary care physician and supplemented by qualitative data from descriptions of illness, observations of medical visits, informant interviews and participant observations conducted by the anthropologist. 47% of respondents who reported having received treatment perceived that treatment as "not at all" helpful, with an average score of 2 on a scale of 5 ("somewhat"; $n = 46$). The doctor reported that treatment was "not at all" helpful for only 6% of the patients, with an average score of 3 (treatment helped "a lot"; $n = 16$). The sign test showed that the doctor's average treatment effectiveness rating was significantly higher than that of the patients ($p = 0.04$; $n = 16$).

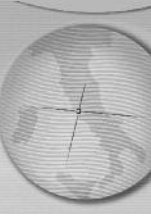
Gerlach et al. in Germany [27] performed studies on 2 focus groups of black immigrants from the Democratic Republic of Congo. Immigrants were asked to talk critically about their experience with German general practitioners. The authors performed a content analysis and a categorical system based on the transcriptions was developed inductively. Immigrants mentioned language as a problem in communication, but it had no priority except for the lack of documents in French. However, they underlined the hectic nature and unfriendliness of German medical staff as well as a diffuse lack of respect shown towards them. They also criticised the insufficient medical competence of German practitioners regarding diseases which are common in Africa and the increasing social injustice, bureaucracy and economic efficiency of the German health care system. Experiences with discrimination and racism were clearly expressed and illustrated in an intermingled structure with other forms of discrimination.

Else et al. in Norway [28] recruited a sample of 2876 immigrants using data from 2 population-based surveys in Oslo. These surveys, the Oslo Health Study and the Oslo Immigrant Health Study,

were performed on selected groups of Oslo citizens in the years 2000 and 2002. The response rates were of 46% and 33%, respectively. In all, 11936 Norwegians and 1102 non-western immigrants from the Oslo Health Study, and 1774 people from the Oslo Immigrant Health Study, were included in this analysis. Non-western immigrants' and ethnic Norwegians' levels of satisfaction with visits conducted by general practitioners were analysed with respect to age, gender, health and working status of the patient and use of translators. Most participants were either moderately or very satisfied with their last visit to a general practitioner. Non-western immigrants were less satisfied than Norwegians (40.6% vs. 62.8%; $p < 0.05$). Dissatisfaction among the immigrants was associated with young age, a feeling of not having good health and coming from Turkey, Iran, Pakistan or Vietnam as compared to Sri Lanka. The attendance rates in the surveys were rather low, and lowest among the non-western immigrants.

In Gany et al.'s study [29], 1276 English-, Spanish-, Mandarin-, and Cantonese-speaking adult patients (over 18 years of age) attending the primary care clinic and emergency department of a large New York City municipal hospital were screened for enrolment in a randomized controlled trial during the period between November 2003 and June 2005. Language-discordant patients were randomized to RSMI (remote simultaneous medical interpreting) or U&C (usual and customary) interpreting. Patients with language-concordant providers received usual care. Demographic and patient satisfaction questionnaires were administered to all participants. 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% vs. U&C 64%; $p < 0.05$), but they did not differ in other measures of physician communication/care. Patients randomized to either arm of interpretation reported less comprehension and satisfaction than patients visited in language-concordant encounters.

Taira et al. surveyed 502 patients [30] in the USA, 5% of whom were Asian-Americans. Data for this study were collected from the patients of 27 primary care clinicians at a general medicine group practice in Boston, Massachusetts. 4 of the physicians were Asian-Americans and 12 were



females. The study was a retrospective analysis of the patient subgroups of interest. After adjusting for potential confounders, Asian-Americans rated overall satisfaction, and 10 of 11 scales assessing primary care, significantly lower than whites did (65% vs. 72%; $p < 0.01$). Dimensions of primary care that were assessed include access, comprehensiveness of care, integration, continuity, clinical quality, interpersonal treatment and trust. There were no differences for the longitudinal continuity scale. On average, the rating scale scores of Asian-Americans were 12 points lower than those of whites (on a 100-point scales; $p \leq 0.01$).

Ogden et al. [31] performed a cross-sectional survey among 604 patients attending general practice in London city. The response rate was high (60.4%). Vietnamese patients reported higher satisfaction in comparison to ethnic British and also lower expectations (expectations average scores were 3.05 vs. 3.65; $p < 0.001$). No difference was found between Black Africans/Caribbeans and White British citizens who both reported lower satisfaction.

Maternal care

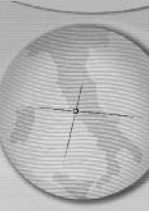
In total, 8 studies on maternal care were found. Small et al. in Australia [32] interviewed 318 immigrant women from Vietnam, Philippines and Turkey. These three groups were among the largest groups of women born overseas in non-English speaking countries who gave birth in Victoria (Australia) during the study period with sufficient numbers to enable the recruitment of an adequate sample. The 3 groups were also characterized by diverse migration patterns and experiences, different degrees of ability with the English language, and distinctly different cultural backgrounds. Women were recruited for the study on the postnatal wards of 3 Melbourne teaching hospitals, and interviewed in their preferred language in their own homes 6 to 9 months later by bicultural interviewers. 96% of the women who participated in the study were not privately insured. Only 9 women received care from a private obstetrician, while 14 received care in a birth center. The remaining 294 women received all their healthcare in the public system. 26% of Vietnamese, 36.4% of Filipinos and 44.9% of Turkish women reported their experience of childbirth as "very good". These values are significantly lower than those of the state-wide survey, in which 61% of women experiencing similar models of care described their care as "very good". Vietnamese women were significantly less likely to rate their care as "very

good" compared with the other two groups combined (OR: 0.51, 95% CI 0.30-0.88). Length of residence in Australia, fluency in English, level of family income, level of education, marital status, maternal age and parity were not associated with satisfaction.

Sherraden et al. in the USA [33] conducted in-depth interviews among a sample of immigrant women who had recently given birth in Chicago and examined women's experiences seeking prenatal care. Many of these women reported receiving less than optimal care during pregnancy.

McLachlan et al. in Australia [34] interviewed, by means of a questionnaire, a group of 200 immigrant women (100 Turkish-born and 100 Vietnamese-born) and 100 Australian-born women who gave birth in the same metropolitan hospital during the same time period. Only women who had a natural birth and gave birth to a healthy baby were included in the study. They were interviewed in the period between 24 hours after the birth and hospital discharge. The Australian-born women had to have an English-speaking background, defined as at least one parent born in Australia. Sample size was based on an estimation of women's overall experience of labour and birth. 70% of the Australian women were expected to be satisfied with their experience, as suggested by previous studies of mainly Caucasian Australian women. Vietnamese women described the overall childbirth experience more negatively than Australian women. 58% said it was "dreadful" compared with only 9% of Australian women. Vietnamese women with a poor ability to understand English were less likely to have a positive childbirth experience than Vietnamese women who understood English well (OR 0.17, 95% CI 0.07-0.42; $p < 0.001$). Turkish women were most positive, with 92% saying the experience was wonderful, pleasant, or okay, compared with 79% of Australian women. Similarly, Vietnamese women had the lowest average score on the 7-point rating scale, followed by Australian and then Turkish women. The 2 overall measures of childbirth experience were highly correlated (Spearman's rank correlation 0.62-0.83, $p < 0.001$).

Borde et al. in Germany [35] interviewed 320 German and 262 Turkish immigrant women via bilingual questionnaires to assess their expectations from and their satisfaction with provided health care services. While no significant differences could be found between the two study groups regarding basic expectations about anticipated health care standards, women of



Turkish origin were markedly less satisfied with provided health care services. High expectations of immigrant patients towards information during their stay, communication with doctors and nurses and psychosocial services were only insufficiently met.

Yelland et al. in Australia [36] interviewed 318 immigrant women from the Philippines (107 subjects), Turkey (107 subjects) and Vietnam (104 subjects). These women were approached by 3 bilingual interviewers in the postnatal wards of the 3 Melbourne teaching hospitals. Women who had given birth to a live baby over 1500g, and whose own health and that of the baby did not warrant concern, were approached for inclusion in the study. Overall satisfaction with care was low and 1 in 3 women left hospital *feeling* that they required more support and assistance with both baby care and their own personal needs (29% of the women in the study were "very satisfied" with their postnatal care, 48.7% were "satisfied", 17.3% rated it as "mixed", 4.7% were "dissatisfied" or "very dissatisfied").

Rice et al. [37] performed ethnographic interviews with participants' observation on a sample of 30 Thai women who were then living in Melbourne. When asked to compare maternity services between Thailand and Australia, most of the women believed that services in Australia were better. However, women who had had good experiences of childbirth in Thailand tended to have negative feelings about the Australian experience. There was also evidence in this study that most of these Thai women did not receive adequate information about care.

In a second study Small et al. in Australia [38] interviewed 318 Vietnamese, Turkish and Filipino women who gave birth in 3 major city hospitals in Melbourne (Australia) about their experiences of maternity care. Outcomes and experiences were studied according to women's different levels of English fluency, as well as women's needs and preferences for assistance with an interpreter. Observation of traditional cultural practices surrounding childbirth and the impact of the lack of such practices on women's experiences of care were also explored. Women who were not fluent in English experienced problems in communicating with their caregivers and this was reflected in a less positive perception of healthcare experiences.

Emergency care

4 studies on emergency care were found. Gany's study [29] has already been cited in a previous paragraph

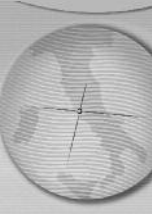
Carrasquillo et al. in the USA [39] performed a cross-sectional survey during the period February-May 1995 and follow-up interviews 10 days after Emergency Department ED visit in 5 urban teaching hospital EDs in Northern USA (Boston) on a sample of 2333 patients. A measure of overall satisfaction showed that only 46% (recent immigrants, ≤ 10 years) and 56% (long-term immigrants, >10 years) of non English-speaking patients were satisfied as compared to 71% of English-speaking ones ($p < 0.01$)

Baker et al. in the USA [40] conducted a cross-sectional survey study of 457 patients that accessed a public hospital emergency department. Measures considered were satisfaction with the providers' friendliness, respectfulness, concern, ability to make the patient feel comfortable, and time spent for the clinical exam. A total of 237 patients communicated adequately with their provider without the use of an interpreter, 120 patients communicated through an interpreter (88% of whom were ad hoc interpreters), and 100 patients communicated directly with the provider but said that an interpreter should have been called. Satisfaction was variable, depending on interpretation patterns: use/lack (similar or lower satisfaction). 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.

Mygind [41] in Denmark surveyed, by means of a questionnaire, patients and caregivers of various origin attending emergency care. The response rate was 54%. A definitive sample of 3426 subjects was analysed using bivariate and stratified analyses. Immigrant patients (Middle Eastern) reported lower level of satisfaction compared to Danish-born.

Mental health care

2 studies on mental health care were found. Both of them were conducted by the same author, i.e. Knipscheer. In the first study [42], the author conducted semi-structured interviews on a convenience sample ($n=96$) of Surinamese outpatients in a community mental health care setting. The aim of the study was to establish the importance of ethnic similarity in mental health care among these immigrants in the Netherlands. The majority of the outpatients ($n=52$, 75.4%) were treated by a Surinamese therapist, while 17 outpatients (24.6%) were treated by an indigenous Dutch service provider. Most outpatients ($n=61$, 91.0%) reported to be satisfied with the services; six people were dissatisfied.



Logistic regression analysis yielded ethnic matching (ethnic similarity) and gender (female) as the variables independently predictive for service.? Clear? Satisfactory service?

In a second study [43] with identical design, the same author conducted interviews on Mediterranean immigrants (82 Turkish and 58 Moroccan outpatients of a community mental health care). The majority of the respondents did not value ethnic matching as important. Clinical competence and compassion were considered to be more relevant than ethnic background. An ethnically dissimilar therapist treated the majority of outpatients. Outpatients treated by a native Dutch therapist reported similar satisfaction with the services provided as those treated by an ethnically similar therapist.

Other clinical settings

The remaining 8 studies taken into consideration were conducted in the following settings: Internal medicine (1 study), diabetes care units (2 studies), clinical oncology (1 studies). In 4 cases, the clinical setting was not clearly indicated.

Lee et al. [44] in the USA performed a survey in an internal medicine setting on a sample of 343 adults aged 18 years and more, that spoke English or Spanish and did not have an emergent medical condition requiring immediate evaluation by a medical provider. A self-administered post visit questionnaire was used. 77% (n=264) of language-concordant respondents were satisfied with their overall clinic visit (p=0.57). English-speaking and Spanish-speaking patients did not differ in their reported rates of satisfaction. Among language-discordant respondents, use of AT&T interpreters was associated with greatest satisfaction, followed by family interpreters and ad hoc interpreters. The proportion of patients using AT&T interpreters who were satisfied with their clinic visit (n=44, 77%) was similar to that of patients using language-concordant providers. However, only 54% (n= 35; p<0.01) of those using family interpreters and 49% (n=18; p<0.007) of those using ad hoc interpreters were satisfied.

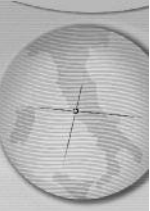
Baider et al. [45] conducted a survey on a sample of 450 cancer patients randomly selected at the Sharett Institute of Oncology (Israel). 200 were veteran Israelis and most of the other 250 patients were immigrants from the former Soviet Union who had arrived in Israel during the previous 4 years. Patients were asked to describe their physicians using an 8-item questionnaire and then to describe their ideal physician using the same questionnaire. Findings show that satisfaction among the Russian patients was very

high with scarcely any discrepancy between actual and ideal physician.

Heuer et al. [46], in the USA used quantitative and qualitative data to study patient satisfaction in migrant farm workers. 566 subjects compiled a questionnaire and 12 of them selected by convenience sampling were thoroughly interviewed. All of the 566 subjects were Hispanic and 91% of them had type 2 diabetes. Spanish was the primary language for more than 40% of these clients who ranged in age from 23 to 77 years (average age=51, Standard deviation SD=11) with 14% being 65 years and older. Females constituted 53% of the sample. The main findings of the project indicated that 75-88% of the clients rated the services provided at the 37 cluster clinics as "excellent"; an additional 21-25% rated them as "good". More than 85% of the clients indicated either that "nothing should be changed" (59%) or that "everything was fine" (26%). These ratings and content analysis of the interview data revealed clients perceived they had received quality services at these cluster clinics.

Kokanovic et al. [47] in Australia, conducted in-depth interviews with 30 men and women from Greek, Indian, Chinese and Pacific Island backgrounds living in Melbourne (Australia), to elicit their perception of diabetes management and its impact. Participants were recruited through a convenience sample of general practitioners and community organizations providing support to people living with diabetes. Topics discussed included initial reaction to diagnosis, patient-health care provider communication, and the influence of message framing on the perception of the quality of the doctor-patient relationship. Numerous issues facilitate or inhibit constructive and positive relationships between doctors and patients with type 2 diabetes. Patients reported difficulty in absorbing all the information provided to them at early consultations and experienced difficulty comprehending the practical aspects of diabetes management. Overall satisfaction was low.

Dallo et al.'s study [48] in the USA examined the association between patient perception of the patient-physician interaction and nativity status using a cross-sectional telephone survey. A total of 6674 individuals (US-born = 5156, foreign-born = 1518) of 18 years of age and older were surveyed. For both the total sample and for native Asians compared with US-born subjects, foreign-born individuals were at greater odds (total sample, OR=1.43; 95% CI=1.01-2.04; Asians, OR=3.25; 95% CI=1.18-8.95) of reporting that their physician did not involve them in their care as much as they



would have liked. Compared with US-born Asians, foreign-born Asians were at greater odds of reporting that their physician did not spend as much time with them as they would have liked (OR=4.19; 95%CI=1.68-10.46). Overall satisfaction thereby was low.

Gal et al. in Israel [49] conducted a phone survey on a Nationwide stratified random sample of 1500 patients. The questionnaire was developed through a multi-stage pilot project and was administered by the Survey Center of the University of Haifa, a professional survey firm. Interviews were conducted in Hebrew, the language spoken by the majority of the population, and also in Russian and Arabic, each spoken by roughly 16% of the population. Responses to open-ended or semi-structured questions were content-analysed; coding categories were constructed based on a sampling of questionnaires and validated on further replies. Of the 1500 subjects, 74.5% reported that they had no cause for grievance during the past 12 months, whereas 382 (25.5%) reported that they had had a grievance (herein after 'aggrieved'), and 143 (9.5%) had actually complained (herein after 'complainants'). Thus, 37.4% of the aggrieved complained, whereas 3/4 did not. The number of actual complainants in the Jewish sector was close to 11%, more than 4 times that of the 2.4% in the non-Jewish sector ($p < 0.001$). There was a significant association between immigration status and pattern of complaining. Those born in Israel or who immigrated and resided in the country for over 20 years, which constituted the majority of this national sample, tended to have higher proportions of aggrieved persons compared to those who had immigrated into the country during the previous 20 years.

Morales et al. in the USA [50] examined the associations between patient ratings of communication by health care providers and patient language (English v Spanish) and ethnicity (Latino vs. white). A random sample of patients receiving medical care from a physician group association concentrated on the West Coast was studied. A total of 7093 questionnaires in English and Spanish were returned for an overall response rate of 59%. 5 questions asking patients to rate communication by their health care providers were examined in this study. All 5 questions were administered with a 7-point response scale. The authors estimated the associations between satisfaction ratings and language (English vs. Spanish) and ethnicity (white vs. Latino) using ordinal logistic models, controlling for age and gender. Latinos responding in Spanish

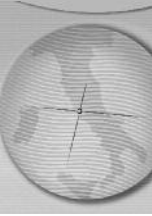
(Latino/Spanish) were significantly more dissatisfied compared than Latinos responding in English (Latino/English) and non-Latino whites responding in English (white) when asked about: (1) the medical staff listened to what they say (29% vs. 17% vs. 13% respectively rated this "very poor", "poor" or "fair"; $p < 0.01$); (2) answers to their questions (27% vs. 16% vs. 12%; $p < 0.01$); (3) explanations about prescribed medications (22% vs. 19% vs. 14%; $p < 0.01$); (4) explanations about medical procedures and test results (36% vs. 21% vs. 17%; $p < 0.01$); and (5) reassurance and support from their doctors and the office staff (37% vs. 23% vs. 18%; $p < 0.01$).

Ngo-Metzger et al. in the USA [51] conducted telephone interviews on a sample of 3726 subjects (521 of which were Asian immigrants) using random-digit dialing, stratified to over-sample adults living in areas with disproportionately large numbers of minorities. Asian Americans were less likely than whites to report that their doctors ever talked to them about lifestyle or mental health issues ($P \leq 0.01$). They were more likely to report that their regular doctors did not understand their background and values ($P \leq 0.0001$). When asked about the last visit to the practitioner, they were more likely to report that their doctors did not listen to, spend as much time with, or involve them in decisions about care as much as they wanted (all $P \leq 0.0001$). In multivariable analyses, Asian Americans were less likely than whites to report that they were very satisfied with care (OR= 0.64; 95% CI= 0.42-0.99).

Discussion

Health systems, as previously stated, have the responsibility not only of providing care to the people they serve or protecting them against the excessive financial burden that may ensue, but also of responding to patients expectations. Responding to patients expectations significantly affects overall satisfaction with health care services because this dimension is most strongly associated to patient satisfaction [52-54]. Patient satisfaction is also now acknowledged as a valid component of the quality of clinical care equation [1,55]. Assessing patient satisfaction is thereby important in the process of quality evaluation especially when dealing with population subgroups at higher risk of inequalities such as immigrants or ethnic minorities.

Most of the studies found in our review showed a general trend toward lower levels of satisfaction among immigrant patients. In fact, 19 studies out of 28 (68%) documented lower scores among



immigrant patients, only 6 (21.4%) showed higher values and the remaining 3 studies (10.71%) showed similar or variable levels of satisfaction.

Before commenting these results, let us again recall the large heterogeneity of the studies retrieved which motivated the choice of a narrative presentation. Designs included large cross-sectional surveys, convenience hospital and non hospital surveys, one RCT, community-based surveys, qualitative studies, etc... with variable modes of sampling (simple or stratified random, non probability samplings, etc...) and were conducted on different immigrant groups. Size also varied largely from the small study of Kokanovic (n=30) and Rice (n=30) in Australia, to the large community-based surveys of Else in Norway (n=2876) and Morales in the USA (n=7093). Another problem is posed by the utilization of different scales and the absence of a standardized manner to define the levels of satisfaction and therefore the lack of a cut-off. Most authors used Likert scales with 4-7 scores while others used a 100 points-scale. Studies of maternal care satisfaction routinely assumed as "satisfied" the highest rating ("excellent" or "very good") and "not satisfied" the remaining scores.

At first glance, it is obvious that the number of available studies is too limited particularly if we think of the high and increasing demographic weight of immigrant populations in affluent countries of the western world [56-60]. Moreover, virtually all of these studies were conducted in English-speaking countries (USA, Australia, UK) in spite of the fact that they do not have significantly different patterns of immigrant presence compared to other non English-speaking western countries. For example, we did not find any study concerning France and Italy, i.e. countries having a rooted (France) and large immigrant population. The reasons of this lack should probably be searched for in the different traditions of research and the different sensitivity to these population subgroups' expectations in these countries.

The most reported socio-demographic variables were age, sex, marital status, occupation and insurance status, household income and duration of stay in host country. Most of these covariants have not been frequently object of specific assessment in relation to satisfaction, but rather have been routinely included in multivariate analyses. However, significant associations were found between satisfaction with care and younger age [28], female sex [28], better health [28], education [39], higher

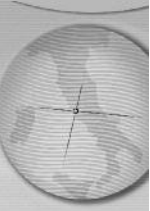
household income [24,39] and working conditions [28]. It is striking that young people seemed to be more satisfied than older ones in Else study [28], a fact in contradiction with the general trend found in literature [3]. This can be explained by the probable lack of representativeness of this study which recorded a very low response rate (nearly 30%). The same author also found that full-time workers were more likely to be satisfied with care perhaps because of lower stress associated to occupational stability. Gerlach in Germany [27] found a significant and non surprising association between perceived discrimination and satisfaction, a phenomenon also documented in health care use studies [61-64]. Most of the patients included in the study had lived in host countries for less than 10 years but no study specifically assessed the association between the duration of stay and satisfaction.

Factors correlated to communication (information, host language ability, etc...) and non tangible environment (respect, courtesy, kindness, safety etc...) were constantly associated with satisfaction. In fact, in virtually all these studies, patients who complained about inappropriate communication, inadequate information, disrespect, unkindness, lack of support and visiting arrangements reported lower scores of satisfaction with the care provided. Most of the studies retrieved did not give information about a possible association between material conditions (hygienic status of rooms, comfort etc...) and satisfaction. This point deserves an appropriate study because these problems are widespread in the home countries of most immigrants (developing countries).

Overall, the review shows lower levels of satisfaction (19/28 studies=68%) among adult immigrant patients using western countries health care services. Factors that most seem to significantly determine satisfaction among this group can be attributed to 2 broad categories: information/communication and non tangible environment. Perceived discrimination, duration of stay in host country and material conditions deserve supplemental attention and investigation.

There also are several limits concerning the results of this comprehensive review and this leads to cautiousness in the interpretation:

1. Limited number of countries interested (USA, Australia, 5 European countries, Israel) and immigrant groups studied (almost always Latinos in the USA and Asian in the USA/Australia)
2. Large variability in methods used (design,



sampling and samples size, data collection and analysis, intervals of time, scales, clinical settings, etc...)

3. Absence of a standard cut-off between higher and lower levels of satisfaction.

Classification of selected immigrant groups was also challenging: is Russia a developed country? Are African Americans US natives, too? How do we distinguish recent from ancient US-African immigrants? Therefore we decided to include Russian immigrants in the review and exclude all studies dealing with African Americans as main or exclusive subject.

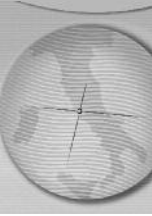
Conclusions

In conclusion, patient satisfaction in cross-cultural patient-physician interactions was likely

to be related to a constellation of factors including age, gender, level of education, socioeconomic status, culture, race and ethnicity, time, the logistics and quality of the interpreting method. In previous studies, satisfaction has been shown to have a positive impact on clinical outcomes [9]. Lower satisfaction among immigrant patients documented in this review has several implications. First of all, it is necessary to conduct more large-scale and accurate studies in order to obtain reliable results and information. Secondly, greater efforts have to be undertaken in order to "demolish" the main barriers (different culture, lack or scarcity of communication or finances etc...) interfering with immigrants' satisfaction in relation to western health care services and therefore clinical outcomes.

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