Do Asylum Seekers Consume More Health Care Resources? Some Evidence from Switzerland

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Abstract: It has been argued that asylum seekers (AS) consume more health care resources than the local Swiss population. In this study we compare the health care costs of a group of AS who attended an outpatient clinic (OPC) at the University Hospital in Basel, Switzerland, between 2000 and 2003 with a control group of local patients attending the same OPC. Using data routinely collected by the hospital finance department, we measured the monthly health care costs of all the AS at the OPC. The mean costs of health care for the AS were lower than those of the local outpatients. These differences remain significant in multiple analyses controlling for sex and screening in the younger age groups, but not in the older age group. Our study did not confirm the assumption that AS consume more health care resources. Our results suggest that younger and middle aged AS may consume fewer health care resources than the general population.

Keywords: Asylum seekers, refugees, health care costs, disparities, migration.

BACKGROUND

Asylum seekers have been the subject of much political attention over the past years [1]. Concerns have been voiced about the extra burden that they may place on host countries' health care and social welfare systems [2]. In several countries there have been cutbacks in health care spending for asylum seekers, based on claims that their health care is more expensive than that of the local population [3].

Although the topic of health care in populations of asylum seekers appears with increasing frequency in the international literature, presented evidence is often anecdotal. Epidemiological and clinical studies are lacking altogether in some areas, are limited in scope, or do not comprise representative samples of asylum seekers [4-6]. There are indications that disease prevalence is high in populations of asylum seekers [7, 8]. Contrary to widely held expectations [1], the actual proportion of communicable diseases among asylum seekers are often low, as shown for example in an Australian study [9] or in our recent study [10] where we found that non-communicable diseases and psycho-social disorders were the most frequently identified health problems. The asylum seekers' disease profiles appear to be similar to the ones of local vulnerable groups.

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In Switzerland, foreigners account for approximately 21% of the total resident population. This is one of the highest proportions in Europe, comparable only to the figures in Luxembourg [11]. In 2000, asylum seekers accounted for 6.5% of the foreign population. In 2006 this figure decreased to 2.9% because of the restrictive asylum policy adopted by the Swiss government, as in other European countries.

Switzerland and the wider international community differentiate between refugees and asylum seekers. While a refugee is a person who "owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion, is outside the country of his nationality, and is unable to or, owing to such fear, is unwilling to avail himself of the protection of that country" [12], an asylum seeker is a person who has fled his/her own country and has sought sanctuary in a second state. In legal terms, an asylum seeker is a person whose application for asylum or refugee status is pending in the administrative or legal processes [13].

Worldwide, there are approximately 13 million refugees and asylum seekers. Most have fled their homes because of war, famine, or human rights violations [14]. In Europe, the number of asylum applications rose from 430,000 in the year 2000 to 440,000 in 2001, and decreased slightly in 2002 to 425,000. The number fell again to 350,000 in 2003 and to 282,000 in 2004 [15] Switzerland showed similar trends: there were 133,000 asylum seekers in Switzerland in 2000,

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and 55,100 in 2004 [16]. This decrease is due to restrictive asylum politics in Europe as well as in Switzerland [17].

People seeking protection in Switzerland can file an asylum application at one of the five border crossing reception centres of the Federal Office for Migration. There, they undergo a first brief round of questioning about their reasons for seeking asylum and have a health check. This includes screening for tuberculosis and hepatitis B, as well as immunisation. (Since the period of the study, Tuberculosis x-ray screening has been abolished [18]). The Swiss border crossing health check is comparable to the screening checks provided for asylum seekers in most other European countries [5]. Asylum seekers are then allocated to one of the 26 Swiss cantons in line with a pre-established quota distribution system. Primary health care for asylum seekers is provided by the public health system in each canton. Since health care insurance is mandatory for all those living on Swiss territory [19], asylum seekers are provided with insurance by the Federal Office of Refugees (now Migration) for as long as they have asylum seeker status [20]. The insurance includes free access to health care and coverage of all health care costs. In some cantons, healthcare and health insurance schemes are organised by specialised Health Maintenance Organisations (HMO).

The health, health care, and health needs of asylum seekers have been widely investigated [1, 21-23]. However, to our knowledge, very few studies have examined the costs of health care for asylum seekers [24] and almost none have compared the health care costs of asylum seekers with those of local patients in a comparable setting [3, 25]. In this study we compared the health care costs of asylum seekers with those of a group of local outpatients.

METHODS

This study compared the health care costs of a sample of asylum seekers cared for at a medical outpatient clinic in Basel, Switzerland, with a control group of local patients attending the same outpatient clinic (OPC). These patients were comparable to the asylum seekers in that they had no health care access to health care other than through the OPC.

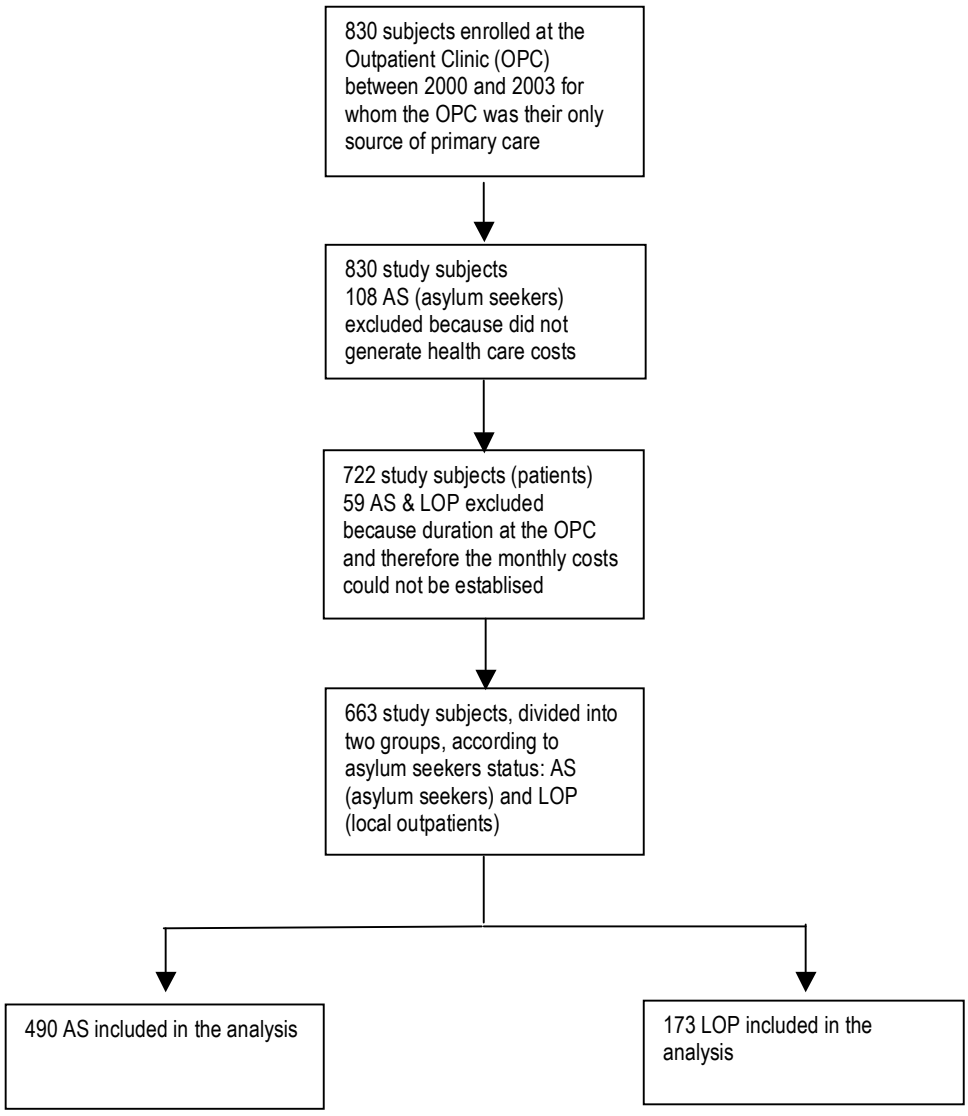

Fig. (1). Study design and sampling.

At the time of the data collection, there were two health care institutions providing health care for asylum seekers: one was the ÖKK HMO (Health Maintenance Organisation), and the other one was "A-Care". A-care was integrated within the University Hospital, a public institution, and was coordinated by the hospital's Department of Ambulatory Internal Medicine, which provided primary care to about 70% of the HMO's patients. The study received clearance from the ethical committee (Ethik-Kommissionbeider Basel) and covered a period from the start of the A-care program in the beginning of January 2000 through the end of December 2003, after which the program was terminated. During that time span, each asylum seeker relocated to the canton of Basel city was alternately assigned to one of the two existing HMO's.

For this study, only patients who were above 18 years of age, for whom the OPC was their only source of primary care, and who were entitled to social benefits were included (n=830, cf. Fig. **1**). Patients whose length of enrolment in the OPC and therefore monthly costs could not be established, were excluded (n=59). The evaluable sample existed of 663 patients, consisting of a group of the asylum seekers (AS, n=490) and a group of local outpatients (LOP, n=173). In order to allow comparability to the group of local outpatients, asylum seekers who did not generate any health care costs were also excluded (n=108). Patients had free access to their HMO. Health care costs were completely covered, including those not generated within the outpatient clinic. The OPC was the only source of primary health care for this sample of people. While the local outpatients (LOP) could not afford private health care, had only the minimum health insurance and were entitled to social benefits, health insurance was provided for the asylum seekers by the state through the Federal Office for Migration. Thus, both the LOP and the AS group could not use any other private health care because it would not have been covered by their insurance.

For the quantitative comparative retrospective analyses of electronic patient records the following variables (and measurements) were used: asylum seekers (dichotomous variable yes/no), age (in years), sex, nationality, number of consultations, duration of treatment/follow-up in health care facility (in months), monthly costs of health care provision items (in EURO), and screening at border health check (dichotomous variable yes/no). With respect to this last variable, a small number (n=35) of asylum seekers came to the HMO only for the screening measures used with all asylum seekers arriving in Switzerland at that time (tuberculosis, hepatitis B, immunisation against DTP Diphtheria-Tetanus-Polio and MMR Measles-Mumps-Rubella [19]). The inclusion of the screening variable enabled us to adjust for the fact that some asylum seekers attended the OPC only for screening. When available, the diagnosis at each consultation was recorded, according to ICD-10 (International Classification of Disease). All costs (accounted for in Swiss Francs) were converted into Euros using the exchange rates current at the time of the study (31 December 2002): 1 CHF = 0.68795 Euro.

Before being used as outcome variable in a general linear model, monthly costs were logarithmized. Entered confounders were those demographical and cost-related variables different in both groups plus screening. Interaction terms of the study group and confounders were added and retained if significant. Reported are both models with and without interaction effects. Analyses were done using SAS 9.1.

RESULTS

The patients' characteristics were as follows (Table **1**). Gender distribution was similar in both groups. A small majority (60%) were men. Asylum-seekers' were younger than local outpatients and had a lower number of consultations (visits). In addition, the time period during which they were cared for and treated at the OPC was half as long for the asylum seekers as for the LOP group. In contrast, the mean number of diagnoses (ICD system) was higher in the asylum-seekers group than in the LOP group.

The asylum seekers came from the following countries or regions: 50% from the Balkan (Serbia-Montenegro, Kosovo, Bosnia-Herzegovina); 11% from sub-Saharan Africa (including, in decreasing order of numbers, people from the Congo, Angola, Nigeria, Togo, Ethiopia, Cameroun, Guinea, Somalia,

Table 1. Patient Characteristics and Health Care Use of Asylum Seekers (AS) Compared to Local Outpatients (LOP)

		Asylum Seekers (n=490)	LOP Patient Comparison Group (n=173)	*Significance Tests Mann-Whitney U/ Chi² Test*
N of males (%)		287 (58.6)	104 (60.1)	*p = 0.723*
N coming from war zones (%)		74 (15.3%)	/	
Origin	Balkan	196 (40.1%)	/	
	South of the Sahara	64 (13.1%)		
	Turkey	40 (8.2%)		
	Iraq	34 (7.0%)		
	Other	334 (31.6%)		
Age (years) (Standard Deviation, SD)		30.70 (10.41)	51.7 (14.61)	*p<0.0001*
Number of consultations (SD)		27 (50.89)	33.9 (26.67)	*p<0.0001*
Number of diagnoses (SD)		1.7 (1.7)	1.2 (1.46)	*p<0.0001*
Duration of care and treatment at OPC (days) (SD)		487 (409.2)	1028 (464.6)	*p<0.0001*
Monthly costs (SD)		295.5 (740.4)	644.7 (1019.9)	*p<0.0001*

Sierra Leone, Liberia, Sudan, Burundi, Mauritania, Guinea-Bissau, Gambia, Côte-d'Ivoire, Kenya, Niger, and Burkina Faso); 6% from Turkey; 5% from Iraq; 5% from Sri Lanka; and 23% from other countries (including people from the countries of Afghanistan, Albania, Algeria, Armenia, Azerbaijan, Bangladesh, Belarus, Bulgaria, the Republic of China, Ecuador, Georgia, India, Iran, Kazakhstan, Colombia, Lebanon, Libya, Lithuania, Morocco, Moldavia, Mongolia, Pakistan, Russia, Syria, Tunisia, Ukraine, and Vietnam).

Our modelling showed that health care costs were lower for asylum seekers than for local patients (Tables **1** and **2**). The relationship between costs and age was different for the two study groups, as shown by the significant interaction term of group and age. Fig. (**2**) shows this relationship in a bivariate space. Post-hoc testing using contrasts on a categorized age variable showed that the difference in costs between asylum seekers and local patients only existed in the younger patient group. After the age of 50, costs were not statistically different between both groups. A similar relationship to costs could be found with the number of diagnoses. Here, costs were only significantly lower for the asylum seekers than for the local outpatients if patients had less than 3 ICD diagnoses. Table **2** also shows that patients who received a border screening (n=35; 3.5%) had lower monthly health care costs. This was in spite of the fact that the costs resulting from the screening were included in the monthly costs.

DISCUSSION

Over the last two decades, there has been a considerable amount of research documenting the health care provision to asylum seekers [6]. Most of them are qualitative studies with few, if any quantitative or economic data. Little knowledge exists about the costs of health care for asylum seekers. In this study we sought to compare asylum seekers' costs of illness with the costs of a comparable group of local patients. To our knowledge, this is one of the first studies to compare the health care costs of asylum seekers with those of local people. The results show lower health care costs for asylum seekers compared to the local patients among younger patients, and similar costs among older patients. The fact that health care costs of LOP remained fairly stable over different age groups, suggests that (younger) LOP represented a vulnerable population. Still, our findings do not suggest that AS generated more costs than LOP. They are in line with the findings of a study that looked at (US) immigrants in general, which concluded that health care expenditures were substantially lower for immigrants than for US-born persons [2], thereby refuting the assumption that immigrants place a disproportionate financial burden on the US health care system [3].

Some other issues should be taken into account while interpreting the findings. First, the sample sizes were small; especially in the younger LOP population. A larger population would have entailed a longer follow-up period, which was not possible due to the limited time period in which A-care existed. Second, it was not possible to control for potential confounders such as country of origin or socio-economic status of either AS or LOP people. It was also not possible to examine possible alternative causes that might have led to a lower health care usage of asylum seekers such as expectations from health care services, and implicit rationing of the offered health care, for instance due to the effect of language barriers on the health care provision [3]. Systematic use of interpreter services would have required substantial resources that were not available for this study. Finally, we are aware that we did not compared AS to the *average* Swiss population, because we only included LOP

Table 2. Regression Analysis Modelling Monthly Costs of Asylum Seekers (Logarithmized)

	Parameter	DF	Estimate	95% Confidence Limits		Chi²	P-Value
Model without interactions R^2=30%	Intercept	1	3.9197	3.3347	4.5048	172.43	<.0001
	Study group (1=Asylum seekers; 2= Local outpatients)	1	0.9063	0.6355	1.1771	43.04	<.0001
	Age	1	0.0014	-0.0067	0.0094	0.11	0.7367
	Number of visits	1	0.0126	0.0104	0.0148	128.32	<.0001
	Number of diagnoses	1	0.0719	0.0121	0.1317	5.56	0.0184
	Follow-up screening (1 = cost data were available, otherwise 0)	1	-0.5717	-0.9902	-0.1531	7.17	0.0074
Model with interactions R^2=33%	Intercept	1	1.9493	0.8322	3.0664	11.70	0.0006
	Study group (1=Asylum seekers; 2= Local outpatients)	1	2.3204	1.5697	3.0712	36.70	<.0001
	Age	1	0.0388	0.0148	0.0627	10.05	0.0015
	Number of visits	1	0.0109	0.0087	0.0132	89.95	<.0001
	Number of diagnoses	1	0.4268	0.2372	0.6163	19.48	<.0001
	Follow-up screening (1 = cost data were available, otherwise 0)	1	-0.4880	-0.9005	-0.0755	5.38	0.0204
	Study group*age	1	-0.0250	-0.0410	-0.0090	9.39	0.0022
	Study group*number of diagnoses	1	-0.2780	-0.4224	-0.1335	14.23	0.0002

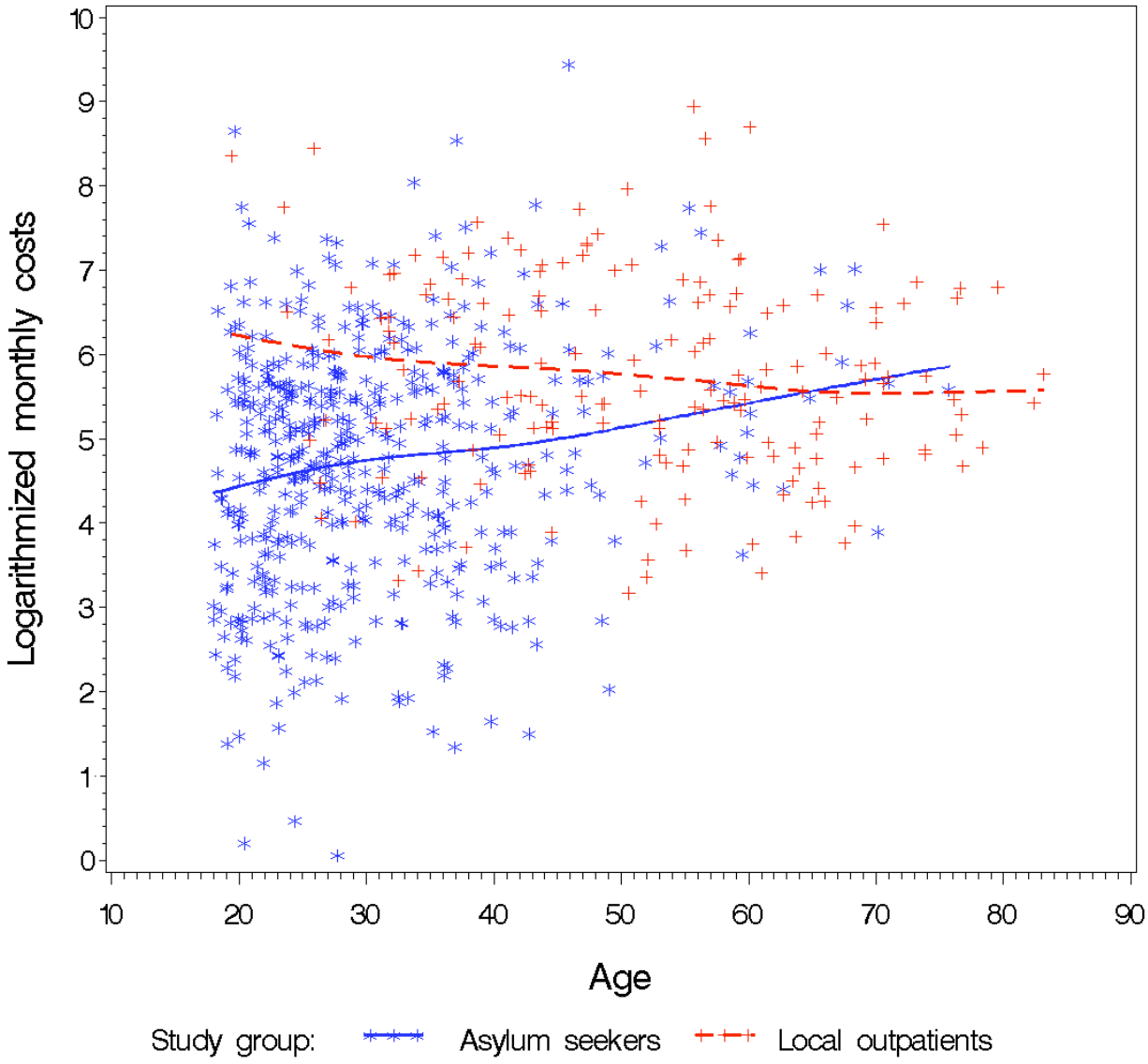

Fig. (2). Relationship between costs and age.

who did not have their own (private) general practitioner as a source of primary health care. The sub-group of local patients studied received welfare benefits (called "*Sozialhilfeempfänger*") and are comparable to asylum seekers in the sense that they too had the OPC as their sole source of primary health care, and that they could not choose their health care provider. Nevertheless, this group provided a reference to which asylum seekers could be compared.

Our study highlights the need for more research on the real costs of health care for asylum seekers. In particular, greater understanding is required of the effects of asylum seeker status and the accessibility of primary health care services. Further study on possible remediatable causes of health care rationing, such as language barriers, is indicated. In conclusion, our study does not confirm the widespread assumption that asylum seekers consume more health care resources. On the contrary, our results suggest that younger and middle-aged asylum seekers may consume fewer health care resources than the general population.

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AUTHORS CONTRIBUTIONS

AB carried out and coordinated the study and wrote the manuscript. PS participated in the design of the study and provided statistical supervision. MS participated in the data collection and statistical analyses. EB participated in the design of the study and helped to draft the manuscript. KD participated in statistical analysis and manuscript writing and review. All authors read and approved the final manuscript.

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