

Public perception of dermatology and dermatologists in Italy: Results from a population-based national survey

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Introduction The public perception of Dermatology and dermatologists may be very relevant in guiding strategies for improving dermatologic care but it has been poorly investigated in Europe.

Objective To investigate the public's perception of Dermatology and dermatologists in Italy.

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Methods A representative sampling of Italian adults (n=1500, aged 18-70 years), residing throughout the national territory was interviewed through a population-based telephone survey using a structured questionnaire.

Results The majority of interviewed aged between 35 and 54 years (45%) and had an intermediate educational level (57%), were employed (56%), and had at least one child in the family (68%). 70% of the interviewed knew at least one skin disease, particularly psoriasis, dermatitis, urticaria, skin tumors and nevi. The general practitioner resulted to be the first health care provider to consult in the case of skin problems for 73% of surveyed, with only 27% referring directly the private dermatologist. The dermatologist was the main referral specialist for psoriasis, pruritus and skin tumors by 66%, 54% and 53% of the sample, respectively. The most common reason for dermatological consultation was the control of nevi. In the case of childhood dermatitis, 52% indicated the paediatrician and 38% the dermatologist as the reference specialist. Almost half of the surveyed turned out to have a trusted dermatologist to consult in the case of skin problems. Finally, among those visited at least one time by a dermatologist, 46% were promoters, i.e. they would recommend their dermatologist to a friend (net promoter score, 27).

Conclusions The general population has a wide-ranging understanding of skin diseases and the central role of dermatologists in skin care. Patients are looking for technical competence and loyalty, because this lead to more trusted and satisfactory physician-patient relationship. Public campaigns may be relevant in increasing awareness on curability of common skin diseases.

Introduction

Few studies on the general perception of various medical specialties and their hierarchies have been conducted. The public perception of Dermatology has been poorly investigated in Europe.¹⁻⁹ Recently, a large study conducted in the U.S.A. found that 27% out of 800 subjects perceived that dermatologists spend a majority of their time performing cosmetic procedures concluding that educational efforts are necessary to better inform public understanding and perception of dermatologists' expertise.^{10,11} Dermatology is a wide-ranging and complex medical specialty and the perception of the dermatologist's competencies the by the general population may be different from what expected. Understanding how much diffuse is the knowledge on skin diseases, whether dermatologist is considered as one or the exclusive health care provider for skin problems, and the perceived position in the health care system may have a significant effect on a multitude of issues. These range from the undergraduate to post-graduate medical education, to guiding strategies for improving dermatologic care by adapting to the population's needs and expectations.

In this study, we investigated the public's awareness of skin diseases and the perception and reputation of the dermatologist in Italy. Moreover, we compared the perceived role of the dermatologist with the general practitioner and pediatrician in the case of skin diseases.

Methods

A representative sample of the Italian adult population (18-70 years old), residing throughout the national territory was interviewed through a population-based telephone survey using random digit dialing. The surveys were achieved through the Computer-Assisted Telephone Interviewing (C.A.T.I.) system, using a structured questionnaire (n=26 questions) lasting approximately 15 minutes. Overall, 1,625 individuals were phoned and 1500 agreed to complete the survey. The subjects interviewed were proportional to the reference universe on

the basis of the main socio-demographic parameters, i.e. gender, age, geographical area and schooling. The survey was made from the 13th to 24th October 2014. The geographic origin of the interviewed was 26% from North West, 19% from North East, 19% from Central regions and 35% from the South and the islands, reflecting the distribution of the population in Italy. Data collected included demographic features, i.e. age, gender, level of education, presence of children in the family, employment status and residency. The primary outcome of the study was to investigate the perception of Dermatology and the dermatologist. First were asked questions about selected skin disease and then about the Dermatologist in order of avoiding biased responses. The main areas investigated included the knowledge of skin diseases, the frequency of dermatologic consultation and the relative expectations and satisfaction, the quality of the relationship between the dermatologist and the patient, the efficacy of the consultation and finally the unmet needs. Moreover, the public's perception of the dermatologist in comparison with the general practitioner (GP) and the pediatricians was asked.

All analyses were performed using the STATA (version 10.0 Stata-Corp LP, College Station, TX, USA) software package. Data are expressed as means $\pm$ SD or percentages. Statistical analyses included the unpaired t-test (for continuous variables) and the chi-squared test with Yates's correction for continuity (for categorical variables). Values at $p < 0.05$ were considered statistically significant.

Results

The socio-demographic characteristics of the study population are summarized in Table 1. The participants were asked first about spontaneous knowledge of skin diseases, with 70% knew at least one skin disease. The most common answers were psoriasis, followed by dermatitis, urticaria, skin tumors and nevi. In the case of psoriasis, awareness was higher in

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women, those from North Italy and living in larger cities, with a higher level of education and among businessmen and white collars. In contrast, the awareness of other skin diseases was homogeneous among the interviewed. Then participants were asked about the number of medical visits during the last year. A mean of 5 visits per year was done by the GP, with higher numbers with increasing age (7 in patients older than 54 years), higher in women compared to man ($p<0.05$), in unemployed (which includes older retired people) compared to employed ($p<0.05$) and in the South regions compared to other regions ($p<0.05$). The mean number of specialist visits was 2.3 and overall 70% of surveyed adults were visited by a medical specialist in the previous year. The number of specialist visits was higher in the people aged between 35 and 44 years, and in those with a higher level of education and employed.

Among the various specialists, the dermatologist was contacted by 8% of the interviewed. A dermatologist consultation ranked fourth for frequency, similarly to the dentist and after the ophthalmologist (14%), the gynecologist (13%), the orthopedic (11%) and the cardiologist (10%). The GP resulted in general the first reference figure (73%) in the case of skin problems, with only 27% consulting directly the dermatologist. This was more common among older people, with lower level of education and lower income and in smaller cities. The most common reason for dermatological consultation was the control of nevi (29%), without significant differences according to sex or geographic origin, but with increased frequency in young adults, those with higher level of education, employed and those who regularly see a dermatologist (dermatologist users). The majority of patients have their nevi checked ones a year (57%) or two times per year (21%). Other reasons for consulting a dermatologist in order of frequency were skin “allergy”/dermatitis (15.5%), mycoses/herpes (6.1%), acne (4.5%), psoriasis (3.5%), warts (3.3%), pruritus (3.2%) and hair diseases (2.5%). The dermatologist was indicated as the referral specialist for psoriasis by 66% of the

interviewed and the GP by only 2%. Seventy-eight% of those who knew psoriasis would ask directly to a dermatologist and only 15% would ask to the GP. On the contrary, people who ignore psoriasis would have gone first to the GP (77%) instead of to the specialist dermatologist (12%). As far as urticaria, 96% of the responders knew about this disease, without substantial differences of sex, age, geographical area and level of education, with 66% and 7% indicating the dermatologist and the allergy specialist as the referral specialist, respectively. Similar results were obtained for pruritus with 54% indicating the dermatologist, as the referral specialist. In the case of pruritus, however, 29% indicated the GP as the first doctor to ask for advice, and only 2% indicated the allergy specialist. In the case of hair diseases, 49% was not able to indicate a specialist, 36% indicated the dermatologist and 10% the “trichologist”. Only 3% of the people appointed the endocrinologist, probably thinking about hormones disturbances as the cause of hair diseases, and only 1% would ask to the GP. Also in the case of a suspected skin tumor, people indicated the dermatologist first (53%), followed by the oncologist (27%) and the GP (7%). Also, 64% of the interviewed indicated solar exposition as the main cause of skin tumors, followed by hereditary factors (7%), lifestyle (45), pollution (2%) and skin contact with chemicals (1%).

Next, it was asked to which they would refer in the case of a sudden and diffuse reddening of the skin accompanied by fever. In this case, 50% would have ask advice to the GP, and only 28% to the dermatologist, indicating that when skin disease is associated with systemic alarming symptoms the role of the dermatologist become secondary. With regard to pediatric diseases, when the participants were asked to indicate a referral specialist in the case of childhood dermatitis, 52% indicated the pediatrician and 38% the dermatologist, and only 1% the allergy specialist.

Almost half of the surveyed turned out to have a trusted dermatologist to consult in the case of skin problems. This was especially true for people from South Italy (57%), people with a good level of education (53%) and people who consulted a dermatologist in the last year (65%). When participants were asked to express their level of satisfaction thinking to the last dermatological examination 85% declared to be very satisfied or satisfied, and 15% averagely satisfied or dissatisfied. Those who consulted a dermatologist during the last year and those who had a trusted dermatologist appeared much more satisfied. Furthermore, in 75% of cases the dermatologist was referred to be competent in solving the patient's problem. The participants were also asked to express their agreement as regards to some statements about the dermatologist's behavior during the last dermatological visit, indicating a number from 0 (not agree at all) to 10 (strongly agree). The majority of interviewed strongly agreed that the dermatologist gave clear information, formulated a diagnosis in a short time (mean vote of 8) and recommended the appropriate treatments. The dermatologist was also told to solve almost always the skin problem, and to be easily and rapidly accessible. Comparing the answers of those who had seen a dermatologist to those who had not, there was a gap of perception with a tendency to give a lower score in the second group. In particular, those who did not consult a dermatologist were less positive about perceived efficacy in diagnosis and treatment compared to those who had had a direct experience, indicating the existence of some prejudice about the efficacy of dermatological consultation among those not having a recent experience.

The Net Promoter Score is a tool that can be used to measure patient's experience and satisfaction.¹² The participants were asked if they would recommend their dermatologist to a friend. Among those visited at least one time by a dermatologist, 46% were promoters, 35% were passives and 19% detractors, with a Referral Index (RI = promoters - detractors) of 27. More specifically, the greater number of promoters was found in the group visited recently by

a dermatologist (53% - RI, 37), compared to those visited more than one year before (42% - RI, 22; $p < 0.05$). The greater proportion of promoters (60%) was among those who had a trusted dermatologist (dermatologist users), with a RI of 51 (Table 2). The same question was asked about the GP. The results showed that 46% were promoters, 34% passives and 19% detractors, with a RI of 25, similar to the dermatologist. Patient satisfaction was much higher among those that in the case of skin problems consult directly the dermatologist (RI, 41) as compared to those who went first to their GP (RI, 21; $p < 0.05$).

Discussion

In this study the public perception of dermatology and dermatologists in Italy was investigated. This information may be relevant to health policy decisions, the allocation of research funding and the planning of information campaigns. The study showed that the general population has a good knowledge of common skin diseases such as psoriasis, dermatitis and urticaria. In particular, the awareness of psoriasis was particularly higher in people living in larger cities and with a higher level of education, possibly reflecting the media campaigns supported by pharmaceutical industries manufacturing biologics.

The dermatologist is perceived as the main reference specialist in the case of skin diseases such as psoriasis, pruritus or skin tumors, particularly by people with a higher level of education and with a good knowledge of skin diseases. However, the GP has also an important role because he is frequently contacted first in the case of skin problems as the GP is the primary authorized figure to prescribe a specialist visit within the national health system, and patients do not pay for GP consultation. Moreover, the GP may be more relevant in the case of skin problems associated with systemic alarming symptoms (e.g., fever), when the patient is looking for a more “holistic” or “internistic” professional figure. This is observed also among physicians and medical students: a survey conducted in Norway showed that

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diseases that hit abruptly had a higher prestige score and the dermatologist was in the lower part of the hierarchy if compared with the internist.¹¹ Another possible explanation is the faster access to the GP compared to the dermatologist. When people were asked to which specialist consult in the case of suspected skin tumor, 53% indicated the dermatologist but a significant proportion (27%) indicated the oncologist (“tumor specialist”). However, this did not apply to nevi, which are not perceived as true cancer, and they are the most common reason for dermatological consultation. In the case of children, particularly in the first years of life, the pediatrician was indicated as the first reference specialist, with the dermatologist consulted secondarily, unless among the family members there are “dermatologist users”. Almost half of the surveyed turned out to have a trusted dermatologist to consult in the case of skin problems. This is particular important in the public perception of the usefulness of Dermatology. Indeed, the perceived efficacy of the dermatologist in diagnosis and treatment of skin diseases is higher in those who have a trusted reference dermatologist compared to those who have not. A trusted doctor-patient relationship appears very important in overcoming the difficulties in the management of chronic skin diseases. A higher levels of satisfaction is reported by those you have a consolidated relationship with a reference dermatologist, i.e. dermatologist users who would recommend their dermatologist to a friend. Indeed, there is a growing interest whether the Net Promoter Score is a valid measure for summarizing patient experiences.¹² We found that among those visited at least one time by a dermatologist, 46% were promoters, 35% were passives and 19% detractors, with a Referral Index (RI = promoters - detractors) of 27.

Limitations of this study are related to the use of telephone interview. Face-to-face interviews have long been the dominant interview technique in the field of qualitative research.¹³ However, the telephone interview is an accepted and well-studied approach for quantitative data collection. When compared to in-person interviews, the advantages of using

the telephone include decreased cost, increased access to geographically disparate subjects, decreased space requirements and increased interviewer safety. Telephones permit more anonymity, privacy and decrease social pressure.¹⁴ However, disadvantages of telephone interview include lack of telephone coverage for some participants, absence of visual cues and the potential for distraction of participants by activities in their environments, although such distractions were also reported during in-person interviews. Another reported disadvantage is that telephone interviews must be kept short compared to face-to-face interviews.¹⁴ In case of our study, that is a national survey, we decided for telephone interview mainly because it enabled us to contact people from all over Italy. Face-to-face interviewing would have been much more expensive and taken much more time compared to telephone interview.

The study findings suggest that educational strategies, at both local and national level, could contribute to address patients to the right specialist, improving patients' physical well-being, their quality of life and their level of satisfaction. Moreover, important opportunities exist to inform the general public regarding the burden and curability of many chronic inflammatory skin diseases including psoriasis, atopic dermatitis, autoimmune bullous diseases and skin tumors, and the dermatologists' specific expertise in treating these diseases.

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Table 1. The socio-demographic characteristics of the study population (n=1500)

Gender (Females)	51%
Age:	
25-34	317%
35-44	23%
45-54	22%
55-64	18%
65-70	9%
Education:	
Low (primary school, junior high)	27%
Medium (high-school diploma)	57%
High (graduation)	17%
Children in the family	68%
Employment status:	
Unemployed	24%
Employed	56%
Students and retired	20%
Centre of residence:	
Big town	26%
Minor centre	74%
Visited by a dermatologist:	
In the last year,	23%
In the whole life	64%

Table 2. Net Promoter Score of the trusted dermatologist*

	Visited at least once in the lifetime (%)	Visited in the last year (%)	Visited more than 1 year before (%)	<u>Patients with a trusted dermatologist (%)</u>
Promoters (vote 9-10)	46	53	42	60
Passive (vote 7-8)	35	30	38	32
Detractors (vote 0-6)	19	16	20	9
Referral Index (promoters-detractors)	27	37	22	51 [^]
Base	959	347	612	466

*Question asked to the interviewed: Would you recommend your dermatologist to a friend?

“Consiglieresti il tuo dermatologo ad un amico?”

[^] p<0.05 vs the other groups