

# **The role of communication and knowledge management as evidenced by HCP vaccination programs in the Netherlands, Germany and Italy: Possible suggestions for medical translators**

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*The main objective of this paper is to study mediation aspects in health communication, particularly in the field of HPV (Human Papilloma Virus) vaccination in three countries: the Netherlands, Germany and Italy. As an additional research question we will try to understand the extent to which medical translation and medical writing can be integrated, in the perspective of a greater recognition of the translators' role as knowledge managers. After comparing the quality level of public service communication in the three countries, we will discuss outcome and social-political conditions of the HPV campaigns. Considering the growing importance of communication professionals in institutional health settings, we will explore possible implications for the social role of medical translators and raise the question of the extent to which translators of medical information material may be allowed to stretch the boundaries of translation and operate more far-reaching choices concerning medical writing. The relevance of this study is to gain insight into health communication in three different language communities and to consider implications for medical translator practice and training.*

## **1. Introduction**

In this paper we discuss general parameters of health communication as evidenced by the HPV (Human Papilloma Virus) vaccination campaigns, introduced in the Netherlands, Germany and Italy at approximately the same time. We will explore the factors that have determined the different success rates of the immunization campaigns in the three countries: in the Netherlands, a relatively low success rate that slightly improved thanks to a better tailored follow-up campaign; in Germany, an initially high attendance rate followed by a significant drop; in Italy, campaigns that had good scores from the onset but showed strong interregional differences.

Determining the success factors of an immunization campaign is an important research question, because of its enormous economic and health impact. Since communication plays a key role in these campaigns, we will first compare the information quality of public services in the three countries (Section 2). Accessible public information is a popular research item investigated within the framework of applied linguistics on “key populations” (Hall, Smith, & Wicaksono, 2011, pp. 52–75). One of these key populations is formed by “preliterate, illiterate or underliterate people” (Hall et al., 2011, p. 53), who are a major concern for public

communication. The language planning efforts undertaken for fostering access to public services appear to be on different levels: compared to the Netherlands, in Italy and Germany awareness among public service providers of the existence of key populations with different profiles and needs is a more recent development, dating back to the 1990s. Of the latter two countries, Germany seems to have gained ground more quickly, at least in the private sector.

In Section 3 we will focus on the relevance of health communication in social and economic terms providing some general information on how health-related issues are communicated in the three countries. Medicine “is one of the highly competitive international fields of research and practice where knowledge transfer and effective communication require a particular sensitivity of specialists towards language” (Busch-Lauer, 2001, p. 849). This requirement is closely linked to explorations of the receivers’ dimension, where measuring health literacy and tailoring the information transfer are crucial issues. The rapidly growing research field on health literacy shows that this is a complex and multifaceted concept (Berkman, Davis, & McCormack, 2010, p. 18) and one of the major factors influencing health status (Perrin, 1998, p. 23, see also van Ballekom, 2008, p. 18).

In Section 4 we will take a close look at the three immunization campaigns and then briefly report about two Trieste research papers. Although rather small-scale, these studies confirm the intercultural contrasts in communicative skills already highlighted in the preceding sections.

Our investigation of medical writing and communication then brings us to a second research question: what consequences may this have for translator training and practice? Making reference to studies on intercultural communication—an important theme in contemporary discourse analysis (Hall et al., 2011, pp. 92–94)—and to sociologically oriented translation studies with their growing emphasis on translation as a social practice (see, for instance, Heilbron & Sapiro, 2007; Pym, Shlesinger, & Jettmarová, 2006; Wolf & Fukari, 2007) we will bring arguments in favor of an integrated approach between medical writing and medical translation.

Considering that the required professional profiles in translation are undergoing radical changes (Gouadec, 2007, p. 173), we will hint at possible new tasks for the translator in health contexts, situated on a more social and communicative level. The traditional tasks of the medical translation profession are described in detail by Montalt Resurrecció and González Davies (2007), but these authors also bring medical translation closer to technical writing. Actually, in order to meet the rapidly changing requirements in today’s health sector, the translator might be called on to perform higher order skills of textual and discourse competence, with increasing use of genre-based competences. In this perspective, translators act more as knowledge managers, applying their knowledge to deal with

complex intercultural situations and thereby generating intellectual capital (Risku, Dickinson, & Pircher, 2010, pp. 88–89).

## **2. Public service providers' communication in the three countries**

Fostering access to public services is an increasingly important “arena of action for language planning” (Hall et al., 2011, p. 116). The essential point is to ensure equal access to public communication so that “language differences don't limit clients' access to education, health, legal services” and other public domains (Hall et al., 2011, p. 117). Another crucial issue is that communication can have an impact on people's behavior. Public and social services quite seldom limit themselves to information transmission, mostly they also pursue the aim of convincing and educating people. Proper communication can form and change one's attitude, and this in turn can have an impact on people's behavior (Hoeken, Hornikx, & Hustinx, 2009, p. 14). Progress in this field is, however, not equal in the three countries, as we will argue in the next subsections.

### **2.1. The Netherlands**

Since several decades public and social services in the Netherlands investigate the question of how to efficiently access the public. In 1973 the Dutch parliament nominated a *Commissie Duidelijke Taal* (Commission for Clear Language) to assist public officers in addressing citizens in plain language. Since then, great efforts have been made to foster access to public information (Bohnen, Ceulemans, van de Guchte, Kurvers, & van Tendeloo, 2004, p. 36). Among the most famous publications in this field is the style guide *Schrijfwijzer*, first edited in 1979 and written by discourse analyst Jan Renkema (e.g., Renkema, 1995). At present, there are a great deal of public and private bodies in the Netherlands involved in language assistance and counseling. In 2011 the research project *Begrijpelijke Taal* (Comprehensible Language) received strong financial support from the Dutch Scientific Council NWO for large-scale collaboration between researchers, private companies and public bodies (Sanders, 2011).

It has been estimated that, when checked against the Common European Framework of Reference for Languages, which considers a scale of six levels ranging from the lowest, A1, to the highest, C2, 95% of the Dutch population has a reading comprehension of the Dutch language at B1 level.<sup>1</sup> It is therefore highly desirable for institutional and public settings to lower the linguistic level of their information in publications addressing citizens. Adaptation of the communication flow is not only necessary for illiterate and underliterate people, but also for other key populations, such as linguistic minorities and persons with language-related impairments. It is

precisely against this background that the call for plain language also became a question of protecting the rights of all citizens to have equal access to information.

There is increasing awareness in the Netherlands that the educational aspects of communication and information can have great economic and social benefits. The principal benefits of good communication are: fewer queries, money and time saving, better image for the service providers. Even more significant is the fact that communication can be used as an instrument for social regulation. To influence people's behavior, governments and public administrations can choose between different policy instruments, particularly legislation, social regulation and financial instruments (e.g., special taxes or tax benefits). An important instrument of social regulation is proper information and education (Hoeken et al., 2009, pp. 18–19, quoting an outstanding advisory report for the Dutch government published in 1992).

Specific professionals in organizational knowledge management—defined as “the systematic support of knowledge creation and sharing in an organization rather than the managing of personal knowledge for individuals” (Risku et al., 2010, p. 84)—are *voorlichtingsambtenaren* in public services and institutional settings (i.e., officers assigned to information and orientation tasks), patient informers in healthcare settings, judicial documentalists and terminology managers in the legal sector, among others.

## 2.2. Germany

In Germany, the movement for a *leichte* or *einfache* Sprache began to develop approximately fifteen years ago. In the beginning, it was clearly focused on the needs of people with learning difficulties, but it was then gradually extended to other groups, such as elderly people and migrants. More recently, a study on literacy in adults (Grotlüschen & Riekmann, 2011) has highlighted the importance of plain language for wide sectors of the population: a striking percentage of 14.5 of the working-age population is functionally illiterate, that is, they can read or write single sentences, but not continuous texts. The growing awareness of the gap between citizens and institutions has led, among other things, to the creation of a drafting team in the German parliament, with the specific task of enhancing the readability of laws. Another consequence is the establishment of several private firms that offer services of text simplification in various fields and for different text types—services that are often described as *translations* into easier, more comprehensible texts. In addition, some universities are now increasingly active in this field: the University of Dresden, for instance, offers a free service in which volunteering medical students “translate” various types of reports in a more accessible language.<sup>2</sup>

### 2.3. Italy

In this country too, data on literacy are far from being encouraging. The final analysis of the Italian data from the international ALL study (Adult Literacy and Lifeskills), for instance, has revealed a rather dim picture, with 48.8% of the population scoring at the lowest of five levels for document literacy (Gallina, 2006, p. 24). When commenting the data, the author speaks of a “dramatic limitation of the Italian population’s competences as regards functional literacy” (Gallina, 2006, p. 25).

Interest of the public services in how to appropriately use language in different discourse situations is a rather recent development in Italy. According to Cortelazzo, di Benedetto, Viale and Ondelli (2006, p. 5), prescriptions for plain language in Italian administrative settings started in the 1990s, and the first style book for public administrations dates back to 1993. In 2002, the Department of Public Function issued a first directive for the simplification of administrative texts, which was followed by a second one in 2005. On the whole, there is increasing awareness among public and social services that for efficient communication to occur it is not important what you write but what the receiver understands (Cogo, 2009, p. 12, see also pp. 46–48).

A very active research center in this field is operating at the University of Padua, providing counseling to many public bodies. Furthermore, the *Accademia della Crusca*, the Italian Language Academy, has been involved since 2009 in a project for the simplification of institutional, mainly administrative, texts.<sup>3</sup> In many communication fields the shift from providing specialist information to informing the public has still to be made, but Italy is definitely trying to close the gap.

Among public services where communication to the citizens plays an important role—political and institutional settings, justice and other—healthcare can be considered a primary sector. In the next section we will focus on communication in this field.

### 3. Health communication and knowledge management

There are numerous campaigns or public actions in which good communication plays a central role. These actions are often pretested and evaluated by researchers to check how much effect they may have (Hoeken et al., 2009, pp. 22–23). This is particularly the case with health information, which often aims at changing behavior patterns: people must be convinced to be vaccinated, to follow a certain therapy, to undergo clinical tests, etc. (Hoeken et al., 2009, p. 22).

Generally speaking, health information easily reaches and influences the target group, because everybody feels involved in health matters, as these are correlated with quality of life and life expectancy (Hoeken et al.,

2009, p. 31). The healthcare sector also provides the best data about the extent to which communication actually succeeds in influencing people's behavior (Hoeken et al., 2009, p. 21).

There are several reasons why information in health settings is of paramount importance: protection of the patients' rights to be informed and to have equal access to healthcare services, cost saving, the pivotal role of ethics in this field. Proper information is also a very sensitive issue because of the potential asymmetry of communication between healthcare providers and patients. There are different potential scenarios: healthcare providers and patients share the general language proficiency but not the sublanguage (health literacy), providers face patients with poor language proficiency and health literacy, providers and patients come from different cultural and linguistic communities—the first belonging to the dominant language, the second to a minority language. Especially in a situation of “unequal prestige between cultures” (Prunč, 2007, p. 44) there is a higher risk of imbalance of power, giving rise to communication gaps and language problems that “can hinder multiple aspects of healthcare, including access, health status, use of health services, and health outcomes” (Angelelli, 2004, p. 19).

The three countries examined here have very different approaches to health communication problems, as will be described below.

### 3.1. The Netherlands

In this country patient informers are trained for making expert information accessible to the general public. Thanks to their mastering of the specific functions of language and its interpersonal dimensions, they are crucial liaison persons who allow for efficient knowledge transmission. Patient informers are a firmly established professional category in every healthcare setting in the Netherlands but most prominently in hospitals. The importance of health information was already acknowledged in this country in the 1970s, when proper information came to be considered as a means of strengthening the patient's legal position (van Ballekom, 2008, p. 40; Waldmann, 2008, p. 10). At present, there is a differentiation of professional profiles into patient communication managers, patient information assistants and patient communication advisors. There is also growing involvement (and co-decision) by health insurance companies in patient communication, not only to ensure cost control and legal implications control, but also to guarantee patients' rights (see, for instance, De Ridder, 1999, p. 62).

The position of the Dutch patient is empowered by the *Wet op de Geneeskundige Behandeloovereenkomst* (Law on Medical Treatment, 1995), which establishes the public's right to be informed about diagnosis, therapy and health condition (van Ballekom, 2008, pp. 42–44; Waldmann, 2008, p. 7).

Better information turns out to be cost-effective for hospitals, as it guarantees higher compliance to therapy, greater patient autonomy and satisfaction, less suffering and fewer frightened patients (Waldmann, 2008, p. 13, p. 17).

### 3.2. Germany

Nowadays, the key role of information in health settings is fully recognized in Germany as well. According to Ose (2011, p. 41, p. 50), however, this country came to tackle the issue of patients' rights later than other European countries. The urge to strengthen information and consultancy services began to be felt in the 1990s, and—unlike in the Netherlands—it did not lead to the emergence of a new professional role in hospitals and other healthcare institutions. Instead, it led to the development of independent bodies, whose role in the dissemination of patient information and in the promotion of a new culture of communication with the patient can hardly be exaggerated. The *Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen* (Institute for Quality and Cost-Effectiveness in the Health System), for instance, investigates the pros and cons of various treatment options and publishes its results on its website, in German and in English. Moreover, the institute aims at fostering the quality and cost-effectiveness of the German health service by providing both evidence-based reports on new drugs, therapies etc. and understandable information for patients and citizens. Another body, the *Ärztliches Zentrum für Qualität in der Medizin* (the German Agency for Quality in Medicine), not only provides patient information on various subjects, but has also put forward some checklists to evaluate the quality of information, the reliability of portals, the choice of medical sites etc.

In all these contexts, great value is put on the goal of empowering patients, so that they can play an active role in decision-making about their treatment. This process of shared decision making strictly depends on the quality of the information provided: evidence-based information is considered to be the best solution, that is, information on diagnostic examinations and treatments that draws on particular scientific resources, for instance, on randomized controlled trials and meta-analyses. And indeed, evidence-based information represents the frame of reference for the activities, guidelines and standards of the above-mentioned bodies, which in turn seem to influence the communicative approach in hospitals and other health settings. Most websites of German hospitals now have specific patient-oriented sections that provide brochures and other material on various diseases and treatments. Often these websites are certified by bodies such as HON (Health on the Net), which evaluate the quality of medical information available on the internet.

### **3.3. Italy**

The Italian healthcare system does not employ patient informers, but since immigration flows increased, hospitals started to use cultural mediators for communication with immigrants.

In some fields of healthcare information clear progress towards language simplification has been made. The most important example may be Patient Information Leaflets, which in Italy can be drafted either according to the standards of the European Medicines Agency (EMA) or in compliance with the guidelines of the Ministry of Health. The two systems differ in terms of reader orientation, the EMA leaflets being substantially more user-friendly. In 1997, however, measures were taken by Italian authorities to improve the readability of at least some of the other leaflets as well (i.e., those referring to over-the-counter medicines). Another case in point is informed consent forms, which often show a tendency towards clearer formulations: here the need for patient-oriented solutions is particularly acute, not least because of the possible legal consequences of ineffective communication (see Magris, *in press*; Montalt Resurrecció & González Davies, 2007, pp. 64–67). However, other less standardized text types still need to be improved as regards terminology, inclusion of explanations, etc. This also applies to patient information leaflets on the websites of Italian hospitals, which, if available at all, are more complex and less transparent than their Dutch or German counterparts (see Magris & Ross, 2012, for more details).

And yet, there is a growing consensus on the importance of good communication practices, as extensively explained in Cogo (2009). The medical code of conduct in Italy (2006)<sup>4</sup> explicitly states that the physician has to take into consideration the patient's understanding capacity, in order to ensure maximum adherence to diagnostic-therapeutic proposals. Another important reference in this respect is the Florence chart (2005),<sup>5</sup> which aims at fostering greater patient autonomy. In consideration of this and similar documents it seems that in Italy, too, health communication is slowly shifting towards a new, more patient-centered approach. A slightly different stance is taken by the Italian Ministry of Health in its Guidelines for online communication on health matters, published in 2010.<sup>6</sup> These guidelines stress the need to optimize linguistic aspects such as sentence structure, but at the same time they insist on the importance of technical language as a guarantee for the author's reliability and professionalism, which means that the author-centered approach is still at least partially recommended.

In conclusion, all three countries, albeit with different degrees of emphasis, show a strong trend towards developing increased self-decision for patients, shared responsibility and “the importance of effective communication in the building of a successful relationship” in the healthcare provider-patient interaction (Angelelli, 2004, p. 15).

#### 4. Case study: HPV campaign in three countries

Since vaccination programs belong to “the world’s most cost-effective public health strategies” (Waisbord & Larson, 2005, p. 1), they may offer interesting insights into communication strategies. In our study we have taken a look at the implementation of the HPV immunization program in the Netherlands, Germany and Italy.

The Human Papilloma virus is one of the main viruses responsible for cervical cancer. Cervical cancer is the second most frequently occurring cancer in women worldwide, the fifth most frequently occurring in the Netherlands (van ’t Klooster, Kemmeren, de Melker, & van der Maas 2011, p. 14), and the fifth or sixth in Italy.<sup>7</sup> In Germany its incidence and mortality are significantly higher (see ECCA, 2009, p. 5).

After introduction of the quadrivalent HPV vaccine in 2006 several national vaccination programs were started in the United Kingdom, Canada, Australia and other countries, because the vaccine can protect against approximately 70% of all cases of cervical cancer (van Keulen, 2010, pp. 2–3; van ’t Klooster et al., 2011, p. 17). Italy, Germany and the Netherlands followed suit shortly after. According to the European Cervical Cancer Association (ECCA, 2009), all three countries offer the vaccination free of charge to at least one age cohort of females.

In the following sections we will show in greater detail how the campaign has been implemented in the three countries.

##### 4.1. The Netherlands

The vaccine has been on the Dutch market since 2007. HPV immunization was introduced in 2009, to be provided to all females aged 13 to 16 (birth cohorts 1993 to 1996). In addition to this catch-up campaign, the vaccination was incorporated in a vaccination program for 12-year-olds (van ’t Klooster et al., 2011, p. 13). The latter was an on-demand vaccination, supported by invitation and public education (ECCA, 2009, p. 6).

The catch-up campaign had a quite negative outcome: take-up was between 45 and 50%, which is a very low percentage compared to the usual 95% rate for RVP (Dutch vaccination program). The Research Organization TNO was therefore commissioned to perform a study on the social and psychological determinants of the low compliance to the HPV campaign and to trace failures in the nationwide information campaign (van Keulen, 2010, pp. 1–2).

The TNO study revealed that social-demographic factors (age, education) had little impact on the low vaccination acceptance, and the knowledge level of the target population was generally good. Instead, social-psychological factors, such as attitude, current ideas (about security,

sexuality, confidence in the public sector, etc.), risk perception and other, had played a significant role (van Keulen, 2010, pp. 2–3).

A crucial factor was negative publicity. According to the TNO study, media attention for the anti-vaccination lobby had a significant emotional effect on the target population (van Keulen, 2010, p. 3; see also ECCA, 2009, p. 6). This is in keeping with what Waisbord and Larson (2005) state about the acceptance process of immunization programs, which have to face the “formidable” challenge that a “global, fast-paced communication environment makes it possible for negative publicity and anti-immunization positions to be disseminated quickly” (pp. 5–6).

According to TNO another important factor determining the low success rate was the campaign material: existing information was limited and obsolete, and the information managers had clearly failed to understand the importance of interactive media such as Hyves, indicated as the girls’ favorite internet resource.

TNO’s recommendations consisted essentially of the following: better targeted and tailored future campaigns, adequate information transmission using more communication channels such as news media, multimedia, social networks and platforms, and variation in information (van Keulen, 2010, pp. 4–5).

In April 2010 the Dutch campaign restarted, this time organized by a marketing office. The program boasts a better communication strategy and is much more interactive, including weekly chat sessions, a mini-magazine, online forums that can correct inexact information quickly. In addition, texts were simplified and made more attractive, as exemplified by the new brochure issued by the *Rijksinstituut voor Volksgezondheid en Milieu* (National Institute for Public Health and the Environment, 2011, *Prik en bescherm*). Preliminary results of the HPV campaign in 2010 show a slight increase in vaccine coverage (van ’t Klooster et al., 2011, p. 53), however, trust in this vaccination remains relatively low.

#### 4.2. Germany

HPV vaccination was first introduced in 2006 and since 2007 it has been recommended by the *Ständige Impfkommission* (Permanent Commission on Vaccination) for girls aged 12-17 years. Vaccination is given on demand (ECCA, 2009, p. 8). The vaccines for this age group are paid by the statutory medical insurance companies. The costs, however, are subject of heated discussion, as they are held to be excessively high in international comparison (see Bönig, 2008, p. 29).

At first, the campaign obtained very high rates (up to 80%), which in the following years, however, dropped dramatically: now the national average is as low as 30%. It must be stressed that the rates vary

substantially from one Land to another (ranging from 20–21% in Hessen and Brandenburg to 46–48% in Saarland and Schleswig-Holstein).<sup>8</sup>

According to some experts, the main reason for this poor outcome could be linked to organizational aspects: while in the Netherlands vaccination programs are centrally organized and applied, in Germany there is no public vaccination program at national level. Moreover, awareness-raising campaigns are planned and conducted at regional level, which probably explains some of the above-mentioned variations. Another major factor that reversed the campaign's initial outcome is the emotional coverage of some cases by mass-media. In 2007 two girls died shortly after having been vaccinated. Even though there appears to have been no causal relationship between vaccination and the deaths, the news raised concern and fears, and many girls and their parents began to change their attitudes towards the program.

As far as the information campaigns are concerned, Germany seems to offer a wide variety of materials, ranging from flyers to brochures, which are available at various places (drugstores, medical practices and counseling centers), to a huge number of online documents, and even to DVDs and books (pro familia, 2008, pp. 37–40). The efficacy of some of these information materials has been tested on women in order to improve their readability and acceptability. One of the studies (pro familia, 2008, pp. 30–36), for instance, employed a think-aloud method in order to identify the strengths and weaknesses of a particular brochure. The results indicated that purely evidence-based information should be accompanied by more concrete and catchy descriptions and narrative parts.

### 4.3. Italy

In Italy, the HPV vaccine was introduced in some regions in 2007, but no more than one year later, in 2008, an agreement was signed between State and regions implementing a national vaccination scheme. Since then, the right to free participation in the programme has been granted in most Italian regions; the vaccine is provided free of charge to women aged twelve through local health centers with direct invitation by letter (ECCA, 2009, p. 8).

Today, Italy occupies the third position in Europe, after Great Britain and Portugal, with a coverage rate of 65%.<sup>9</sup> This result is well below the initial target of 95%, but is nevertheless quite satisfactory when compared with Germany and especially the Netherlands, moreover Italy has not registered any significant decrease in coverage with time. Despite the centrally organized program, there is strong variation among regions, with Puglia, Toscana, Basilicata and Veneto showing the best outcomes (75–80%), Campania and Sicilia the worst ones (27 and 34%, respectively). This may be partly due to regional differences in the vaccination program

itself (e.g., different cohorts eligible for free vaccination, different numbers of doses, etc.),<sup>10</sup> but also to differences in the organization of information campaigns: some regions, such as Emilia Romagna, are very active, whereas others are still lagging behind (see ECCA, 2009, pp. 8–9 for some details on different approaches by the Italian regions).

It may be noted that, although take-up in Italy is relatively high, this might be due more to other factors than to the efficacy of the information campaigns, as the information available on the subject has been considered unsatisfactory.<sup>11</sup> There is therefore still room for improvement and, as some experts stress, not only organizational, but also communicative factors will make the difference for the future success of the immunization campaign.<sup>12</sup>

Summing up: immunization “is a story of both successes and failures” (Waisbord & Larson, 2005, p. 1). Convincing people to accept immunization is more complex than it might seem. It is not simply a matter of disseminating knowledge about vaccines: the distribution of adequate information remains an influential factor. In the next subsection, we will briefly report on two research papers from the University of Trieste analyzing patient information leaflets. The three countries discussed above are now taken together for reasons of space.

#### **4.4. Patient information leaflets in the three countries**

The first study is an MA paper, written by a Trieste student (Usai, 2010), based on a small corpus of five information leaflets per country used for the HPV campaign. The study shows that the Dutch and German campaigns are generally more user-friendly and more comprehensible for a non-specialist public, better tailored to the target group of young females and their parents (some leaflets also address school teachers), graphically they are more appealing, with more illustrations. By contrast, the Italian linguistic material is mostly characterized by an author-centered approach that results in excessively scientific information (Usai, 2010, p. 181), a limited use of illustrations, poor consideration for the primary target group and the increasing numbers of healthcare users from immigrant circles with low literacy. The study also hypothesizes that the Italian authors show more restraint when dealing with delicate subjects or taboos, for instance, when explaining concepts relating to sexuality (Usai, 2010, p. 181). On the other hand, the Dutch and German texts give full priority to objective, neutral information and almost totally refrain from using persuasive elements (Usai, 2010, p. 124, p. 173), which might be not the most effective strategy to counteract emotional reactions and foster compliance to the program.

The same kind of contrast, but on a more linguistic level, has been evidenced by Magris and Ross (2012) on the basis of a corpus of patient information leaflets on medically assisted procreation. The Dutch and German texts, mostly hospital publications, were more target-oriented, the

language was more simplified and terminology was better explained, while the Italian texts, mainly available from patients' associations and private clinics, were more content-oriented and definitely less user-friendly.

Taken together, these findings point to different dissemination competences, differences between a more target-oriented approach and a more author/content-oriented transmission. This brings us to our second research question: to what extent can medical writing be integrated into medical translation and what kind of role may translators play in the important communication processes going on in healthcare settings? This will be the subject of the last section.

## **5. Translators as knowledge managers**

In Magris and Ross (2012) we concluded tentatively that translators working in health communication might benefit from adopting dissemination strategies and interaction modes used by language communities with good communication skills. Translators might thus put forward innovative translation strategies in the target text and implement more drastic choices, for instance by adding clarifying glosses, using more down-to-earth synonyms, simplifying syntactic structures, etc. This does not imply being less loyal to the source text or to the target text, but simply being loyal to all interaction partners: medical staff, nurses, patients, mediators.

In this way the medical translator engages him/herself in knowledge management tasks. This seems already to be going on in medical translation practice, as illustrated by Montalt Resurrecció and González Davies (2007). In their comprehensive survey, the authors outline paths for becoming a highly skilled problem solver by discussing translation strategies, text genres, terminology management etc. At the same time they illustrate how the traditional focus on terminological equivalence gives way to other relevant aspects such as style and register shifts, formal conventions, issues relating to both translation and writing. Among what could be termed the "common tasks" of medical translators Montalt Resurrecció and González Davies (2007, pp. 27–28) include translating web pages and research articles, but also revising or drafting original texts, rewriting and adapting texts, as well as knowledge management.

Adequate knowledge management requires a keen awareness of text genres. Medical information is indeed carried out "through well-established genres" (Montalt Resurrecció & González Davies, 2007, p. 61), some of which are internationally conventionalized with regard to content and structure, while others are language/culture-specific. Within a genre-based approach, medical writing and medical translation are closely interrelated.

Text writing is one of the fundamental elements of today's digital society with its global communication environment, its multimodality and

increasing variety of information materials: combination of oral and written sources, of internet and print material, creative use of graphic material and illustrations. In this dynamic context, according to Pym (2004), the traditional bilateral sender-receiver model gives way to a “model in which texts are generated by a group of specialists and are then communicated to a wide range of receivers situated in many cultures” (p. 16). In a society where an “increasingly relevant role” is “played by teams, tools and time” (Risku, 2010, p. 107), the translators’ position and tasks change rapidly.

In many fields, professional translation practices are already evolving in new directions, “stretching and even breaking the boundaries of translation” (Koskinen, 2010, p. 15). But especially in professions that have a strong public orientation, i.e., service professions such as healthcare (Antia & Yassin, 2001, p. 871), where important matters relating to personal health and public finance are at stake, a more assertive role of the translator can be a benefit for all the communication partners. The idea that translators act as communication managers and providers of knowledge transfer has just started to circulate:

Knowledge management [...] has gained increasing importance in the business world of the last decade. [...] Although it is obviously being regarded as a knowledge profession, the field of professional translation is rarely included in general discussions on knowledge work. (Risku et al., 2010, pp. 83–84)

When translators apply their knowledge, they generate intellectual capital (Risku et al., 2010, pp. 88–89). Reflection on this dimension has particularly gained ground in the field of literary translation, where concepts as the imbalance of cultures and the translator’s “social capital” are opening new horizons (see, for instance, Heilbron & Sapiro, 2007). This is in line with recent efforts in Translation Studies to provide a coherent framework for analyzing translation as a social practice (Wolf, 2006, p. 129). In his introduction to *Sociocultural aspects of translation and interpretation*, Pym (2006) observes:

[...] for some scholars and more particularly in some fields of research, the focus has shifted from texts to mediators. [...] We would like to know more about who is doing the mediating, for whom, within what networks, and with what social effects. (p. 4)

The imbalance of power, inherent in so many community settings, favors a higher mediation role and is at odds with the present undefined status of the translation profession. One aspect of this indefiniteness is the position of healthcare translators in relation to community interpreters. While community interpreters are often required to “engage in explanation, cultural brokerage, and mediation” (Angelelli, 2004, p. 13), it remains to be

investigated in which way medical translators may play an active role in fostering communication between the interaction partners. Montalt Resurrecció and González Davies (2007) leave no doubt: “medical translators do not simply translate. They have also become writers, terminologists, revisers, web creators, multilingual knowledge managers, language quality control experts, community interpreters and community experts” (p. 28).

From our own investigation we can also conclude that medical translators should be empowered. Considering that the translator’s fundamental work tool is the use of parallel texts, we think that this material may be analyzed by translators to their own benefit not only for the sake of terminology and phraseology but also in order to acquire insight into the way they are structured and organized in other languages and cultures. Taking this material as a model, the translator may feel authorized to move beyond pure lexical-semantic concerns and introduce changes into the linguistic contents, privileging, if necessary and depending on the text genre, the target readership. This would imply information restructuring operations, use of different document presentation strategies, changes in interpersonal focus, and other interventions that can also involve content information. Comparison of medical communication material in different language communities makes clear what is a good performance and what not. Translators could act as importers of efficient communication strategies from other cultures.

## **6. Summary and outlook**

The empowerment of translators fits well with increasingly important concepts in health communication such as social inclusion and health literacy. As shown in this paper, there is a different degree of awareness in the Netherlands, Germany and Italy of the importance of information and communication management. It may be hypothesized that in the important field of medical communication, translation will be increasingly linked to medical writing, allowing translators to act as knowledge managers and information brokers. Further investigations on how the boundaries of translation could be stretched are necessary.

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