Exploring the Organizational Health Literacy of Municipal Pharmacies: The Quest for a Health Literate Organizational Environment

Rocco Palumbo
Department of Management and Information Technology
University of Salerno (Fisciano, SA)
e-mail: rpalumbo@unisa.it (Corresponding Author)

Carmela Annarumma
Department of Management and Information Technology
University of Salerno (Fisciano, SA)
e-mail: cannarumma@unisa.it

Abstract

Health literacy has been usually described as an individual trait (French & Hernandez, 2013), which concerns the ability of patients to properly navigate the health care system (Nutbeam, 2008). In line with this prevailing interpretation, the organizational side of health literacy, that is to say the ability of health care organizations to establish clear and comfortable relationships with patients, has been widely overlooked (Brach, et al., 2012). In addition, when examined, the enhancement of organizational health literacy has been mainly understood as a call for action for health care providers (Brach, Dreyer, & Schillinger, 2014), thus neglecting its structural and managerial implications. To the knowledge of the Authors, this paper is one of the first attempt to discuss organizational health literacy as a core attribute of a specific type of organizations operating within the Italian National Health Service. In particular, the attention has been focused on municipal pharmacies, which are conceived as the most fitting organizational context to handle the effects of the patients' inadequate understanding of health information on the effectiveness of health care provision. Drawing from the findings of a mainly exploratory analysis, this paper provides several empirical insights about, on the one hand, the awareness of organizational health literacy of a convenience sample of municipal pharmacies operating in Southern Italy and, on the other hand, their ability to meet the information needs of people living with limited health literacy skills. The results of this study suggest that the units of analysis are aware of the impacts of inadequate health literacy on the appropriateness and effectiveness of health care; however, their commitment to address the needs and the expectations of low health literate patients is still poor.

Keywords
organizational health literacy; health literacy; patient-provider communication; patient-centered care; municipal pharmacies

1. Introduction: conceptualizing organizational health literacy

The achievement of a patient-centered approach to care incites to conceive health care provision as the result of a co-creation process, during which heterogeneous actors (including patients, health care professionals, informal caregivers, and health care organizations themselves) perform as co-producers of health care services. Indeed, patient-centered care implies that patients are called to play an active role in the arrangement and the implementation of a comprehensive supply of health care services.

Sticking to this co-creation approach, the patient is not understood as a passive consumer of health care services. Rather, he or she is deeply involved in the process of health care provision. In other words, the patient is engaged in a dynamic interaction with the health care professionals, cooperating with them for the purposes of health protection and promotion. As a consequence, health care organizations are called to neglect their traditional monocentric approach to care, thus performing as patients' enablers. In particular, they should operate as a reliable source of comprehensive health information, arranging the conditions that allow both the internal stakeholders (*i.e.* providers) and the external ones (*i.e.* patients, users, and informal caregiver) to effectively play the role of value co-creators.

From this point of view, the enhancement of the patients' health-related knowledge should be recognized as a key factor to fully accomplish patient-centered care. In fact, the increased ability to access and use health information paves the way for patient empowerment (Wallerstein, 2006) and contributes in reducing the risks of inappropriateness in the access to health care. Actually, the scientific literature has pointed out that health-related knowledge, both at the individual and at the organizational levels, is one of the strongest predictors of well-being as well as a crucial determinant to achieve enhanced health care outcomes (Kickbusch, 1997).

Scholars and practitioners are used to depict with the epithet "health literacy" the factors which describe the degree and the quality of health care knowledge. Going more into details, health literacy is a representative measure of the individual ability to access, process, understand, and use health information in order to properly discern between the advantages and the undesired effects of health care services (Baker, 2006). Therefore, health literacy is a set of health-related functional, interactive, and critical skills which are crucial to make sound decisions which are aimed at improving the quality of life (Kickbusch, et al., 2005; Nielson-Bohlman, et al., 2004).

Health literacy has been generally considered as an individual trait, that is to say as an attribute concerning any human being (French & Hernandez, 2013) which strictly affects the individual ability to properly navigate the health care system (Nutbeam, 2008). In fact, dealing with the relationship between knowledge and health, many scholars and practitioners have been found to be consistent in claiming that poor health literacy should be conceived as a "silent epidemic" (Parker, Ratzen, & Lurie, 2003, p. 151) which is affecting most of the world population living in disadvantaged conditions (Hls-Eu Consortium, 2012; Pleasant, 2012; Sentell, et al., 2011; Clark, 2011; Marcus, 2006). Drawing from these considerations, the scholars' attention has been widely focused on the attempts to measure the individual levels of health literacy, with the eventual purpose of evaluating its effects on the appropriateness and the effectiveness of the health care provision. Besides, the scientific literature is currently approaching the study of the health care professionals' ability to transfer health information, but still overlooks the organizational determinants of health literacy (Brach, Dreyer, & Schillinger, 2014).

In a nutshell, health literacy seems to be still considered as a component of the relationship between the health care professionals and the patients, while the organizational dimensions of health literacy, that is to say the ability of health care organizations to establish clear and

comfortable relationships with the patients, are neglected by both the scholars and the practitioners (Brach, et al., 2012). Indeed, neither an evaluation of the attitude of health care organizations to give adequate answers to the needs of people with limited health literacy skills, nor an analysis of the health care organizations' ability to devise and implement sound managerial strategies and communicational mechanisms to foster the interaction of the patients with the providers of care have been duly considered so far. Moreover, when examined, the enhancement of organizational health literacy has been mainly understood as a call for action for health care professionals themselves (Brach, Dreyer, & Schillinger, 2014; Matthews & Sewell, 2002), thus disregarding its structural and managerial implications.

Notwithstanding, a systemic approach to the enhancement of health literacy at both the individual and the organizational levels is expected to encourage a process of transformation of the health care system, which allows to achieve an enhanced capacity of health protection and promotion (Koh et al., 2012). In line with this interpretation, health literacy should be included in the strategic planning of health care organizations (Thomacos & Zazryn, 2013; Brach et al., 2012) in order to endorse the commitment of providers toward a health literate approach to care. In fact, when a comprehensive perspective is adopted, health care organizations are understood as the best setting for the promotion of increased levels of health literacy (Palumbo & Annarumma, 2014). From this point of view, several organizational dimensions, including human resource management, culture building, technology assessment, environment and structure co-evolution, communication enhancement, and clinical pathways arrangement (Koh et al. 2012; Brach et al., 2012), should be handled in the perspective of health literacy improvement.

According to this perspective, a health literate health care organization is called to be engaged in improving the ability of the people to navigate the health care system (Altin & Stock, 2015) and in supporting the access to care of disadvantaged patients. Moreover, it participates in reducing the inappropriateness of health care services and in promoting self-care among the patients. Last but not least, it should foster a clear integration of health and social care (Palumbo & Annarumma, 2014).

In an attempt to identify the distinguishing features of health literate health care organizations, Brach and colleagues (2012) have identified ten attributes which suggest the adoption of a comprehensive and systemic approach to the enhancement of organizational health literacy. In particular, a health literate health care organization: 1) has to be provided with a leadership that makes health literacy integral to its mission, structure, and operations; 2) should involve health literacy in its managerial actions, including planning, evaluation measures, patient safety concerns, and quality improvement; 3) prepares its workforce to handle health literacy issues, being aware of the effect of low health literacy levels on health care outcomes; 4) engages the population served in the design, implementation, and evaluation of health information and services; 5) meets the needs of the underserved population, overcoming stigma; 6) uses health literacy strategies in interpersonal communications and confirms users' understanding at all points of contact between people and providers; 7) provides users with easy to access health information and supports them in navigating the health care system; 8) provides, designs and distributes print and audio-visual materials, as well as social media contents that are easy to understand; 9) addresses the patients in high-risk situations, including care transitions and communications about medicines; 10) communicates clearly what health plans cover and what services are financed out of pocket.

In sum, the implementation of an organizational health literacy approach arises from an integrated and multi-faceted effort which involves policies, people, and resources inside and outside the boundaries of the organization. In addition, the establishment of cooperative and

collaborative partnerships with external stakeholders is to be considered crucial for a comprehensive development of a health literate environment (Willis, et al., 2014).

The health care system consists of a huge variety of health care organizations, including local health units, hospitals, health agencies, and pharmacies. Some entities out of them are more frequently at the forefront in supporting people in access and use health information. This is particularly true for pharmacies, which perform as a sort of gatekeepers in the access to care. Indeed, it is widely recognized that pharmacists are important actors in several areas of public health; besides, they play a crucial role in improving the achievable health outcomes in the light of their privileged position in the community, their accessibility, and their ability to establish a one to one relationship with the patients (Stergachis, 2006). From this point of view, this study is aimed at discussing the organizational health literacy of pharmacies with the eventual purpose of evaluating the effectiveness of their actions and their initiatives toward the improvement of the individual ability to properly navigate the health system.

2. Purposes of the research and methodology

As anticipated, this study is aimed at exploring the commitment to organizational health literacy of a convenience sample of municipal pharmacies. The attention has been focused on municipal pharmacies, since they have been considered to play a crucial role within the health care system, which is usually overlooked by both scholars and practitioners. In fact, Rosenthal and Colleagues (2014) have argued that pharmacists could perform as critical patients' navigators, being able to address the information needs and knowledge gaps of the patients in a more comfortable and friendly context as compared with traditional health care settings. From this point of view, it could be maintained that pharmacies serve as one of the most fitting environments to deal with health literacy issues. Actually, beyond providing patients with drugs and information for proper medication use, pharmacists assist patients in navigating the health care system, thus enhancing their health-related skills. In line with this assumption, the prevailing literature has argued that the health care professionals operating in pharmacies are able to help patients in handling complex drug regimens, play a critical role in inciting the self-management of care and encouraging significant life-style changes, provide patients with support and counselling which are required to comply with the health treatments, and foster patient involvement in the provision of health care (see, among the others: Collins, Barber, & Sahm, 2014; Johnson, Moser, & Garwood, 2013; Jennings & McAdam Marx, 2012; Abramowitz, 2009; Bottorff, 2006; Morello, et al., 2006; Alayeto, 2005).

Public or municipal pharmacies, that is to say pharmacies which are fully owned and managed by the municipality and are mainly financed by public resources, are especially committed to enhancing the patients' ability to collect and process health information materials. Indeed, in the light of their public nature, municipal pharmacies operate as an important part of the national health care service. Even though they perform ancillary tasks as compared with other health care institutions, including hospitals, clinics, and medical centers, municipal pharmacies are deeply involved in the improvement of the effectiveness and appropriateness of the health care system. On the one hand, they are placed in a favourable position to address the patients' ability to comply with clinical prescriptions and adhere with medication recommendations, which are key factors to enhance health outcomes and reduce costs. On the other hand, they encourage the self-management of care, representing trusted and reliable providers of health information. In other words, municipal pharmacies are key in increasing individual self-efficacy, which in turn is critical to activate the dormant assets of the patients and to incite their involvement in the provision of care (see, for an illustrative

example: Chen, et al., 2015; Wong, et al., 2011; Morken, et al., 2008; Narhi, Airaksinen, & Enlund, 2002). Besides, the ability of pharmacists to handle the information needs of patients has been found as a predictor of both patients' satisfaction and increased relationship commitment, which in turn pave the way for better health outcomes (AlGhurair, Simpson, & Guirguis, 2012).

Drawing from these insights, organizational health literacy is essential to enhance the ability of municipal pharmacies to establish a friendly and comfortable relationship with the patients. In fact, in the light of what has been depicted in the introductory section, it could be argued that health literate municipal pharmacies are proficient in assisting patients in navigating the health care system, providing them with health information materials which are easy to access and to understand. Alternatively, the poorer the organizational health literacy of municipal pharmacies, the lesser their ability to recognize the knowledge needs of people living with limited functional, relational, and/or critical skills, and the lower their capacity to handle health literacy-related issues. However, as anticipated, inadequate attention has been paid until today to organizational health literacy (Brach, Dreyer, & Schillinger, 2014; Brach, et al., 2012; Weaver, Wray, Zellin, Gautam, & Jupka, 2012). Most of the scholars have focused their attention on the attributes of health literate health care organizations, but efforts aimed at assessing the health literacy levels of specific types of health care organizations are widely lacking.

This study is aimed at contributing to fill such a gap in the scientific literature, exploring the organizational health literacy of municipal pharmacies. In particular, this paper attempts to provide an answer to the following questions of the research:

> *Are municipal pharmacies aware of health literacy issues? Moreover, are municipal pharmacies committed to enhancing their organizational health literacy in order to address the information needs of their patients? And, last but not least, how do municipal pharmacies strive for achieving enhanced organizational health literacy?*

To provide a tentative answer to these questions of the research, a mainly exploratory and qualitative approach has been adopted. Indeed, it has been considered fitting with the specific aims of this study, which are currently intended at responding to "how" and "why" questions through a holistic description of the subject examined.

3. Methods

For the purpose of this study, the Authors assessed the awareness of organizational health literacy of a convenience sample of municipal pharmacies operating within the Italian National Health Service (INHS). To build such a convenience sample, the Authors decided to consider the municipal pharmacies operating within a homogeneous institutional context, in order to avoid potential biases related to either the different attributes of the regional health sub-systems taken into consideration or the demographic and epidemiological characteristics of the population served. Actually, the convenience sample was built with the eventual idea of including in the study the municipal pharmacies which belonged to a specific regional health sub-system, serving a population which showed similar health and social needs.

In particular, an Italian district was randomly selected in line with the exploratory nature of this research. All the municipal pharmacies operating within the district selected were identified as potentially relevant (n=19). Since they participated in the local inter-municipal consortium of municipal pharmacies, a preliminary contact was established with the senior management of the consortium, in order to check the institutional interest to the involvement in the research. After receiving the approval of the inter-municipal consortium, the single

municipal pharmacies were approached, asking for their engagement in the research. All of them accepted to participate in the study.

To assess the awareness of organizational health literacy of the municipal pharmacies involved in the research, the Authors drew from the Health Literacy Assessment Tool which has been arranged by the US Agency for Healthcare Research and Quality (AHRQ) to evaluate the ability of pharmacies to meet the patients' information and knowledge needs (Jacobson, et al., 2007). In general terms, this tool is aimed at assessing the health literacy preparedness of pharmacies from three different perspectives, that is to say: patients, staff, and environment (O'Neal, et al., 2013). However, in the light of the specific purposes of this study, neither the environment nor the patients perspectives were taken into consideration to determine the organizational health literacy of the units engaged in the analysis. Alternatively, the attention was focused on the staff perspective, with the specific intent of appreciating the understanding of municipal pharmacies' employees of the role played by organizational health literacy in improving the quality of the patients-pharmacists interaction, thus paving the way for improved health outcomes.

Adapting the original version of the Health Literacy Assessment Tool, a structured questionnaire was arranged by the Authors. The items of the survey concerned three key domains to assess organizational health literacy: 1) the accessibility of print informative materials used in the pharmacy; 2) the interpersonal communication between the pharmacy staff and the patients; and 3) the sensitivity of the pharmacy staff to health literacy issues. The English-written version of the survey was independently translated in Italian by two researchers, in the light of the peculiarities which distinguish both the INHS and the activities of Italian municipal pharmacies. The two versions of the translated questionnaire were compared, in order to identify disagreements and fix them. To settle the disagreements which were not resolved after the discussion, the two translated versions of the survey were submitted to a third independent researcher, who facilitated the achievement of common understandings. When the Authors agreed on a unanimous version of the questionnaire, its consistence with the Italian context was tested through the administration of the tool to a municipal pharmacy which was not included in the convenience sample, but showed comparable characteristics with the units of analysis. The results of this pilot testing highlighted several issues concerning few items of the questionnaire, which were adjusted in the light of the opinions of the subjects who participated in the field testing.

The final version of the questionnaire consisted of 35 items, which were asymmetrically distributed in the three domains used to assess the organizational health literacy of municipal pharmacies, according to the following outline: 9 items composed the "print materials" section; 11 items have been included in the "clear verbal communication" section, while 15 items built the "sensitivity to literacy" domain. From this point of view, a formative model was adopted, according to which the three latent constructs of the questionnaire were determined as a combination of the items included in the survey (Coltman, et al., 2008). Therefore, it was assumed that: the items defined the constructs; the items were not interchangeable; and any variation in the layout of the questionnaire implied significant changes in the conceptual domains of the constructs (Diamantopoulos & Siguaw, 2006).

A 9-point Likert scale was attached to each item of the survey, with values close to 1 indicating strong disagreement with the statement reported and values close to 9 indicating strong agreement with it. Several items were reversed, with the eventual purpose of minimizing the risks of "response set". In fact, the units of the analysis which showed a tendency to answer a series of questions following a preconceived schema were excluded from the analysis. The questionnaire was addressed to a key informant for each unit of analysis, who was identified in the senior manager of each municipal pharmacy. Whether the latter was not able to participate in the research, a substitute member was approached,

considering the length of service and the organizational position as the main eligibility criteria.

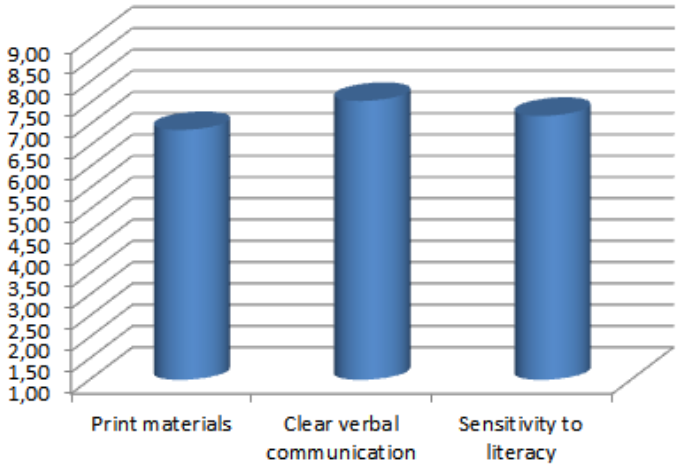
Out of the 19 municipal pharmacies approached for participation in the research, 11 submitted the filled questionnaire within the first deadline. To enlarge the number of participants to the research, a second deadline was established, soliciting the remaining 8 units to engage in the research. As a result, other 7 filled questionnaires were collected; consequently, only one of the approached municipal pharmacies was excluded. All the collected data were independently arranged in an electronic sheet by the Authors. After a preliminary analysis, the Authors agreed to exclude two units from the analysis, due to response set. Hence, the study ultimately involved 16 municipal pharmacies, without any missing data in the questionnaires received.

4. Findings

The results of the research depicted a situation which incites to challenge the propositions of the prevailing literature in the field of organizational health literacy. In fact, most of the scholars are consistent in maintaining that inadequate efforts have been expressed by health care organizations to address health literacy issues and to assist the patients in navigating the health care system. On the other hand, as it could be argued from Figure 1, the units of analysis achieved good performances in each of the three fields of the survey. In particular, with regards to the "print materials" section, the average score realized by the municipal pharmacies was 6,88 with a moderate standard deviation (σ = 0,53). This finding suggested that the entities involved in the research paid a significant attention to the enhancement of the print information materials provided to patients, with the eventual purposes of enhancing the ability of the latter to handle clinical prescriptions and supporting them in complying with the instructions provided by health care professionals. As well, good results concerned the "clear verbal communication" section, where the units of analysis scored 7,56 on the average, with a narrow standard deviation (σ = 0,55). Confirming the awareness of organizational health literacy of the municipal pharmacies engaged in this study, they scored well also in the "sensitivity to literacy" domain, where they achieved an average result of 7,20 (σ = 0,63). In sum, these findings pointed out that health literacy represented a key issue to the municipal pharmacies which participated in this exploratory study.

The units of analysis were consistent in claiming that the print information materials they provided to the patients were easy to access and to understand. Indeed, a plain and familiar language was claimed to be used to devise the information materials which were distributed to patients. Besides, the print information materials were assumed to be effective in enhancing the medication adherence of the patients and to improve their ability to grasp with medical prescriptions. As well, most of respondents maintained that the municipal pharmacies' layout and signage were adequate to assist the patients in navigating the organization, making it easier to know where to go in order to obtain the services or the products needed. The findings of the research also indicated that the municipal pharmacies were likely to arrange and use up-to-date informative posters, which provided patients with information and tips to properly deal with emerging health-related issues.

Figure 1. Average scores for "print materials", "clear verbal communication", and "sensitivity to literacy" sections (*n*=16).



Source: Authors' elaboration

However, several limitations affected the effectiveness of print information materials devised and provided by the municipal pharmacies to their patients. First of all, the respondents stated that it was quite uncommon that the information tools used by the units involved in the study included pictures and graphics beyond texts to improve the ability of patients to understand and process complex health information. In addition, while information concerning timely health-related topics was common, brochures and pamphlets incorporating advices on the services provided by municipal services were poorly used. In fact, only half of the units included in the convenience sample declared to use information tools containing clues and instructions about the services offered by the staff of the municipal pharmacy. These limitations were reinforced by the perceived lack of organizational delegates who were in charge for the improvement of the readability of print information materials. Actually, most of the units of analysis asserted that, when a problem with print information materials was detected, it was difficult to identify a member of the organization who was able and available to deal with it.

Echoing the assumption according to which the health care professionals are the most important resources to improve the ability of health care organizations to meet the needs of people living with limited health literacy skills, the section labelled "clear verbal communication" included the items with the highest scores. Indeed, the respondents agreed in maintaining that the pharmacy staff was zealous in assessing whether the patients served were aware of the health-related issues they faced. Moreover, the employees of the municipal pharmacies involved in the research were presented as used to disclose to the patients the importance of medication and treatment adherence for the enhancement of health outcomes. What is even more significant is that all of the respondents were consistent in claiming that the pharmacy workforce was receptive to the tacit and explicit signals of the patients which suggested poor health literacy skills. As well, most of the pharmacy employees showed to be committed to assist low health literate patients through counselling and support.

In spite of these findings, several limitations undermined the ability of the municipal pharmacies' staff to handle the communication needs of the patients and to establish a friendly and comfortable relationship with them. In particular, most of the units of analysis emphasized that they did not provide interpreters or specific support to the patients for whom Italian was a second language or to non-Italian speaking patients. Only 7 out of the 16 units involved in the research stated to have a private space to discuss confidential information with

the patients. As a consequence the establishment of a friendly relationship between the patients and the pharmacy staff was prevented by the unwillingness of the former to disclose their poor ability to understand and process health information, in order to avoid the stigma which is usually associated with inadequate health literacy. Besides, half of the units of analysis claimed that the senior management of the municipal pharmacy was not committed in improving organizational health literacy, thus being not prone to engage the pharmacy workforce in initiatives directed at addressing the specific information and knowledge needs of people living with limited health literacy skills. Actually, in most of the cases organizational health literacy was only promoted by front-office employees, who were in direct contact with the patients.

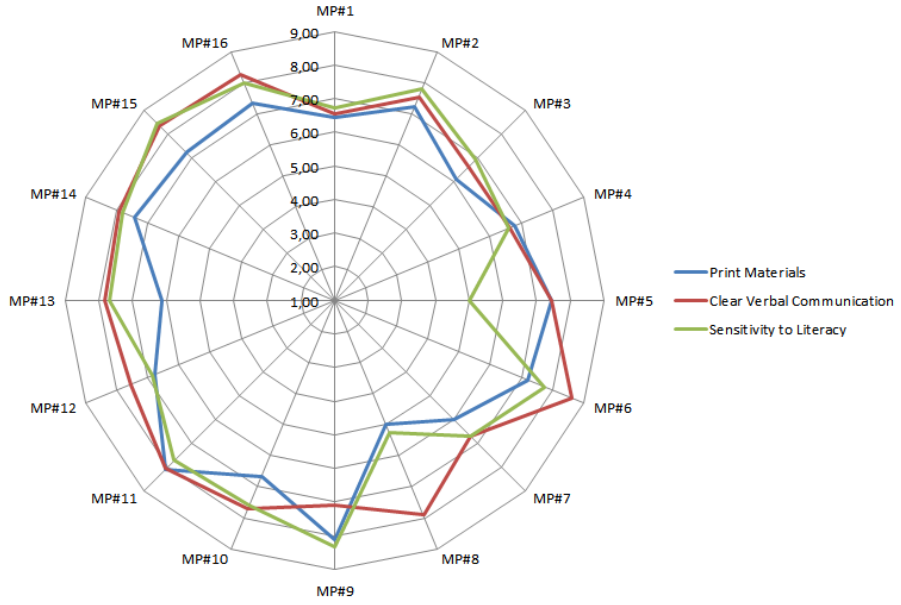
Last but not least, the units of analysis expressed a significant sensitivity to health literacy. Indeed, most of the municipal pharmacies involved in the research maintained that they were used to arrange and implement standard practices which were tailored to the needs and the expectations of poor health literate patients. In particular, all of the respondents agreed that the pharmacy staff was proficient in adapting its communication strategies to the health literacy skills of the patients served, being aware of the behaviors that indicated limited health literacy-related competencies. As well, the findings of the research suggested that the pharmacy employees were committed to provide patients with tailored and clear information about the attributes and the effectiveness of over-the-counter drugs, with the eventual purpose of minimizing the risk of inappropriate use of medications. The units of analysis also claimed that the pharmacy staff was used to devise specific and tailored strategies to deal with patients who were at risk of poor medication adherence, due to their inadequate understanding of health information.

Even though the results of this study pointed out that the municipal pharmacies engaged in the research showed a strong sensitivity to health literacy, several shortcomings affected the ability of the pharmacy workforce to recognize the cases of poor health literacy and to properly deal with them. In fact, only 4 out of the 16 units of analysis stated that the pharmacy employees were involved in specific training activities which concerned health literacy issues. As a consequence, it could be assumed that the engagement of the staff to overcome the health literacy barriers through the establishment of a familiar and reliable relationship with the patients was not supported by a clear organizational commitment. In addition, time limitations were generally recognized as one of the most significant issues which prevented the ability of the municipal pharmacies' employees to address the information needs of people living with limited health literacy. Actually, the respondents were consistent in arguing that the pharmacy staff was not able to adequately manage the relationship with the patients who had to deal with multiple chronic diseases, since the latter were used to demand for different services and information at any point of contact. Lastly, the pharmacy staff seemed to be not able to handle the needs of patients who did not understand the mechanism of medication co-payment or were not able to afford the amount of the co-payment. In these cases, the municipal pharmacies' employees were used to perceive sentiments of stress and frustration, which prevented them to address both the information and the knowledge needs of their patients.

Figure 2 depicts the average scores achieved by each unit of analysis for the three sections of the questionnaire. Clear verbal communication was regularly the section with the highest average scores, with only few exceptions. Indeed, only in 5 out of 16 cases (*MP#1*, *MP#2*, *MP#3*, *MP#9*, and *MP#16*) the sensitivity to literacy was characterized by higher average scores as compared with clear verbal communication. Besides, only in 1 case the items included in the print materials section showed higher average values as compared with those included in the clear verbal communication section (*MP#9*). These findings induce to presume that the health care professionals play a crucial role to enhance the organizational

health literacy of municipal pharmacies, performing as critical patients' navigators. In fact, by establishing a clear and comfortable relationship with the patients, they are able to address the information and communication needs of the latter, thus reducing the drawbacks of poor health literacy on both medication adherence and health outcomes. At the same time, the results of this study suggest that the municipal pharmacies involved in the research were receptive to the issues related to organizational health literacy and were aware of the negative effects produced by limited health literacy. Notwithstanding, it seems that poor attention was paid to the implementation of institutional arrangements aimed at assisting the patients in navigating the health care system and at improving organizational health literacy.

Figure 2. Average scores for "print materials", "clear verbal communication", and "sensitivity to literacy" by units of analysis (*n*=16).



Source: Authors' elaboration

5. Discussion

5.1 The enhancement of organizational health literacy through print information materials

Functional health literacy is the most common interpretation of health literacy among both scholars and practitioners. In general terms, functional health literacy involves the individual literacy and numeracy skills which are required to properly collect, process, and understand relevant health information for the eventual purpose of health status improvement. The findings of this research pointed out that the promotion of the patients' functional health literacy skills was considered to be key to advance the organizational health literacy of municipal pharmacies. In fact, the participants to this study were consistent in claiming that the municipal pharmacies were committed to the arrangement of plain print information materials to assist patients in navigating the health care system. In particular, in all of the cases examined the respondents argued that the municipal pharmacies arranged effective signage to address the patients within the health care setting. Besides, the layout of the pharmacy was designed in the light of the specific needs and demands of the population served, in order to allow a better access of the patients to the services offered.

The municipal pharmacies involved in the research revealed that they were engaged in providing patients with useful information about timely health topics. In other words, the

municipal pharmacies participated in the prevention activities of the health care system, with the intent of increasing the patients' awareness of ongoing health-related issues. This information was mainly communicated through posters and brochures, which were devised according to both national and international guidelines. Alternatively, digital tools were poorly exploited to establish a clearer and more reliable relationship with the patients. It is interesting to emphasize that most of the units of analysis stated that the pharmacy workforce was engaged in specific training activities aimed at enhancing the individual ability to identify and prepare health information materials that were easy to access and to understand for poor health literate patients. Actually, the municipal pharmacies agreed in claiming that the language they used for the arrangement of the health information materials was familiar and free of jargon, thus minimizing the risk of patients' inadequate understanding.

However, several counterintuitive findings incite to challenge the ability of municipal pharmacies to meet the functional health literacy needs of the patients. First of all, most of the respondents suggested that the tasks related to organizational health literacy were not contemplated in the design of municipal pharmacies. In fact, 9 out of 16 units of analyses affirmed that the pharmacy staff did not know who was in charge for the promotion and the enhancement of the health information materials provided to the patients. This result incites to question if organizational health literacy did really represent an organizational priority for the municipal pharmacies involved in this study. Besides, several gaps affected the ability of the municipal pharmacies to support the patients in navigating the health care setting. Among the others, most of the information materials supplied to patients were merely textual, without the inclusion of images and graphics to facilitate the understanding of the patients. As well, while the units of analysis were willing to provide patients with timely information about health-related issues, they were not proficient in properly communicating the range of services offered to the population served, with consequent drawbacks on their capacity to meet the patients' expectations.

Therefore, the findings of the research in the field "print materials" pointed out an unbalanced situation. On the one hand, municipal pharmacies seemed to be aware of the importance of functional health literacy skills to improve the ability of the patients to navigate the health care system and achieve enhanced health outcomes. From this point of view, several initiatives have been realized to support the patients in handling health information, including the arrangement and the communication of easy to access and tailored information tools about timely health-related topics. On the other hand, functional health literacy was not formally included among the organizational concerns of the municipal pharmacies. In fact, most of the units of analysis were not able to identify a member of the staff who was in charge for the issues related to organizational health literacy and to whom exceptions related to the enhancement of organizational health literacy could be referred.

5.2 Pharmacy employees as crucial patients' navigators

As anticipated, the findings of this exploratory research were consistent with the propositions of the prevailing literature in the field of organizational health literacy. In fact, they encouraged to identify the health care professionals as the most important actors to address the health literacy-related issues within health care organizations. Therefore, it could be argued that organizational health literacy mainly concerns the enhancement of the patients' interactive skills, that is to say their capacity to establish reliable and comfortable relationships with the health care professionals, thus achieving enhanced ability to collect, process and understand health information.

In fact, all of the respondents agreed in claiming that the pharmacy workforce was committed to use a plain and clear language to explain medical jargon and clinical issues to the patients, even though it was generally not incited to do so by the senior management of

the municipal pharmacy. Moreover, confirming that the pharmacy staff was aware of the negative effects produced by poor health literacy on medication adherence and health outcomes, most of the units of analysis affirmed that the front-office employees were used to check the patients' understanding of the health information provided using the teach-back method, that is to say by asking the patients to repeat the key points of the messages communicated to them. Echoing these findings, the municipal pharmacy employees were considered to routinely assess whether the patients were conscious: of the main health problem they were facing; of the importance of medication adherence to effectively deal with their health-related problems; and of the way changes in health treatments should be managed in order to avoid disease exacerbation.

What is even more significant is that all of the units of analysis confirmed that the pharmacy staff was used to look for implicit or explicit patients' signs which indicated limited health literacy skills. This is especially relevant to enable the health care professionals to address the drawbacks which are associated with inadequate health literacy. In fact, people living with low functional, interactive, and critical health literacy skills are willing to conceal their inadequate understanding of health information, in order to avoid the stigma which is associated with their impaired ability to collect and process health information. To overcome the barriers to the establishment of trusted patient-provider relationships which are produced by the worry of stigma, the municipal pharmacy workforce is called to adopt tailored communication strategies, aimed at engaging the patients in a process of value co-creation. In line with this assumption, the results of this research pointed out that the municipal pharmacy staff was consistent in assuming that one-to-one and verbal counselling was more effective in meeting the patients' knowledge needs as compared with textual tools and print information materials.

In spite of the health care professionals' commitment to the improvement of organizational health literacy through enhanced interpersonal relationships with the patients, several limitations impoverished the ability of the pharmacy workforce to address the knowledge gaps of several categories of patients. First of all, most of the units of analysis emphasized that they did not have a private space within the municipal pharmacy environment to discuss confidential information with the patients. Obviously, this circumstance increased the risks of reducing the willingness of the patients to disclose their poor understanding of relevant health information, thus preventing the capacity of health care professionals to handle health literacy issues. Moreover, all the entities involved in the research agreed that their ability to deal with patients for whom Italian was a second language and with non-Italian speaking patients was poor. As a consequence, the stigma potentially associated with poor health literacy was compounded by the perception of a non-familiar environment, which did not encourage patient engagement.

In sum, the municipal pharmacy employees do play the role of critical patients' navigator, providing the users with information and support which are key to assist the latter in effectively navigating the health care system. However, the findings of this research revealed two interesting issues. One of them concerned the design of municipal pharmacies. In most of the cases, they lacked private spaces to discuss confidential information with patients. As a consequence, patients were usually prevented to ask for clarifying questions to health care professionals, even when they were not confident with the information they collected. The second issue affected the language skills of the health care professionals themselves. Actually, they were generally not proficient in meeting the information and knowledge needs of non-Italian speaking patients, thus being not able to improve their understanding of health-related information. This situation is especially dangerous, since ethnic minorities and disadvantaged groups of the population are at greater risk of poor health literacy and inappropriate access to health care services as compared with other categories of patients.

5.3 The impaired sensitivity to health literacy of municipal pharmacies

In general terms, all of the municipal pharmacies involved in this study showed a relevant sensitivity to health literacy. Organizational health literacy itself has been identified as crucial to the enhancement of health outcomes. In fact, the respondents agreed in declaring that the health literacy skills of the patients play an important role in improving their medication adherence and their compliance with clinical prescriptions. From this point of view, the pharmacy employees were consistent in maintaining that their activity did not solely concern the delivery of drugs and medications. Rather, they performed as mentors of the patients, assisting them in navigating the health care system.

The participants to the research indicated several circumstances when the pharmacy workforce had to pay particular attention to the health literacy skills of the patients, since the inadequate understanding of health information could produce significant drawbacks on the achievable health outcomes. For the sake of the argument, the changes in the health treatments prescribed to the patients were considered as critical events, which could pave the way for impaired compliance and poor medication adherence if not properly handled. Obviously, the lower the health literacy skills of the patients, the higher the risks that the change in the health treatments could turn in reduced medication adherence and poorer health outcomes. Similarly, the patients' manifestation of signals of anger and irritation toward the functioning of the health care system has been considered to be difficult to deal with during the patient-provider relationship. To avoid the conflict and encourage patients to comply with clinical prescriptions, the health care professionals operating within pharmacies should perform as mediators, filling the gaps between the patients and the health care system through tailored and friendly communication tools.

The findings of this study highlighted that the municipal pharmacies were proficient in meeting the information and knowledge needs of people living with limited health literacy. Actually, all of the units of analysis pointed out that the pharmacy staff was able to adapt its communication strategies and approaches to the specific functional, interactive and critical competencies of the patients. Besides, only 1 out of the 16 pharmacies involved in the convenience sample claimed that the pharmacy employees were not able to assist the patients when the latter demanded for over-the-counter drugs. Indeed, most of the respondents argued that patients were provided with easy to understand information to properly use non-prescribed medications and reduce the risks of inappropriateness.

In spite of these considerations, the sensitivity to literacy of the municipal pharmacies engaged in the research seemed to be tacit and not formalized. Actually, health literacy itself was not contemplated among the organizational priorities of the units of analysis. As well, only 4 out of 16 respondents stated that they attended at specific training activities aimed at raising their awareness of organizational health literacy issues. Moreover, the senior management of the municipal pharmacies did not incite the participation of the pharmacy staff in training activities in the field of health literacy, considering them not crucial to the improvement of organizational outcomes. Last but not least, time constraints were identified by most of the respondents as the main barrier to the establishment of a comfortable and reliable relationship with the patients.

Therefore, it could be assumed that all of the municipal pharmacies involved in the research were receptive to the health literacy issues and were committed in assisting the patients in navigating the health care system. However, in most of the cases the municipal pharmacies' sensitivity to health literacy did not result in a formal engagement to the improvement of organizational health literacy. Rather, the health care professionals operated as the leading advocate of health literacy within municipal pharmacies, attempting to address the information needs of the patients through the establishment of comfortable and clear relationships with them. On the other hand, several barriers still prevent the improvement of

organizational health literacy within municipal pharmacies, including the inadequate commitment of senior management and the health care professionals' perceived lack of time.

6. Conclusions

The results of this study should be read in the light of its limitations. In particular, since the research concerned a convenience and non-representative sample of municipal pharmacies, the findings above discussed are not generalizable. In fact, in line with the exploratory aims of this study, they provided several insights about the awareness of organizational health literacy of municipal pharmacies, highlighting the gaps which prevent the ability of the pharmacy workforce to meet the knowledge and information needs of patients living with limited health literacy. As well, the decision to focus on the staff perception about organizational health literacy, neglecting both the environment and the patients' points of view, undermined the reliability of this research. Nonetheless, it allowed to collect timely and useful data about the perceived importance of organizational health literacy within municipal pharmacies.

The units of analysis were consistent in claiming that the role played by health literacy in improving the relationship between the patients and the pharmacy employees was significant. However, several barriers prevent the enhancement of organizational health literacy within municipal pharmacies. First of all, it seems that an organizational commitment to the advancement of organizational health literacy is still lacking. Besides, the health care professionals operating in municipal pharmacies do not usually have either the time or the interactive and linguistic competencies to properly deal with poor health literate patients, especially when they face multiple diseases and have to comply with different medication treatments. Lastly, the municipal pharmacies involved in the research showed that the print information materials provided to patients are usually not tailored to the specific needs of people with limited health literacy skills; moreover, they usually consist of text, while graphics and pictures to improve the comprehensibility of health information are uncommon.

The findings of this study pave the way for further conceptual and empirical developments. On the one hand, the specific attributes of municipal pharmacies' organizational health literacy are generally overlooked, even though they exhibit a lot of peculiarities as compared with other health care settings. In particular, greater attention should be paid to the role of pharmacists as patient navigators, who assist the users in properly using health information and navigating the health system. In addition, deeper empirical studies should be addressed to the examination of the barriers which prevent the improvement of organizational health literacy within municipal pharmacies. Actually, the reasons which motivate the poor organizational commitment to organizational health literacy should be explored in-depth, identifying the factors which inhibit the inclusion of health literacy among the main organizational priorities of the municipal pharmacies. As well, the effects of poor health literacy on the establishment of trusted and comfortable relationships between the municipal pharmacy employees and the patients should be better examined, pointing out how the impaired patient-provider communication affects the achievable health outcomes.

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