14th International Marketing Trends Conference
Paris, January 23-24 2015

Giancarlo Nadin
Università Cattolica del Sacro Cuore Milano
S.E.GEST.A. dept. of management science
giancarlo.nadin@unicatt.it

Key words: pharmacy, innovation, service management, pharmaceutical care

Care services in community pharmacies: the role of Italian pharmacy in Pharmaceutical Care

Introduction

Starting from a generalization, at least valid for the UE countries, population is becoming older and consequently each national healthcare system has to face the problem to organize an increasingly demanding service as elder people have a coefficient of health expenditure that is 5 times the adult one. On the other hand, recent crisis and the need to control public spending is driving toward budget cuts in every chapter of expenditure, included the health system. In this scenario all central administrations are looking for solutions that combine effective and efficient community services to get cost savings. Many countries have seen in the pharmacy care service one opportunity to get these goals. Pfleger et al. (2008) have studied therapeutic pathways in Scotland. It emerges that effectiveness health service depends on the surveillance rather than on appropriateness diagnosis and therapy which have reduced range of errors (van Mil, 2010). The way, patients follow prescription and perform adherence to therapeutic protocol make seriously the difference as regards the quality of health and the total cost for the community as well. That's the reason why almost every country is looking for the correct path to involve community pharmacy in the active support to service offering besides the normal activity of drug distribution (Hughes et al. 2010).

In this paper we want to investigate this issue in the Italian domain, compared to the European one and we ask if the clinical approach to deliver cognitive services to the population fits with management and marketing prescriptions about service in the domain of retailer. To pursuit this goal the author has taken part of an extensive research, sponsored in Italy unconditionally by GSK Italia and Federfarma, aimed to assess Pharmaceutical Care adoption by pharmacists and which has involved 15 EU countries. Pharmaceutical Care (PhC) is a discipline centered on the notion of assistance provided to patient in extension to traditional activity of drug dispensing. Historically pharmacist has moved from a personalized service based on chemistry compounding to a standardized activity based on dispensing pre-packaged pills and drugs manufactured by pharmaceutical companies. This evolution has "industrialized" the distribution of pharmaceutical treatment but on the other hand has divided the pharmacist and the patient from a truly and deeply relationship. The pharmacist nowadays has become in many ways a dispatching terminal for drugs and fulfilling prescriptions loosing great part of his knowledge in the field of chemistry and customization of pharmaceutical treatments.

PhC puts the patient at the core of the activity of the pharmacist and medicines are set in background. PhC that is a model designed for the clinical perspective it is also useful in marketing since it is based on the concept of patient's relationship management (Larry et al. 2008).

Three constructs are at the base of the research: 1) new patient prospection and enrolment, 2) repeated patient relationship and finally 3) management of drug related problems which means interacting with other professionals in a multidisciplinary way to detect and solve patient's problems related to the therapy assumption.

Before the discussion of the specific research a brief dissertation of the literature on this issue is proposed.

Literature review

"Pharmaceutical care is the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life'' (Hepler and Strand 1990).
"Pharmaceutical Care is the pharmacist's contribution to the care of individuals in order to optimize medicines use and improve health outcomes" (PCNE 2013a).
These two definitions encompass the notion of PhC. The second seems to be a narrow one since it is centred on the activity made by pharmacist. Pharmacist can be one of the providers of PhC although not the only one enabled to do it in the field of healthcare professionals. Due to the specific body of knowledge (chemistry, pharmacology, etc.), it is evident that the community should expect pharmacists to be the primary responsible provider of PhC at least as regards medicines intake, that is great part of therapy. As the process of primary care is complex and requires many specializations and expertise, the need of multidisciplinary approach arises. Each health operator (General Practitioner, specialty doctors, nurses, pharmacists, etc.) should focus on their specialty but, at the same time, coordination among the professions is highly required. As a consequence, the PCNE definition which outlines the contribution of the pharmacist in the PhC process implies collaboration between different contributors and does not exclude any other healthcare provider. These arguments which belong explicitly to a clinical domain (PCNE 2013b, van Mil, Fernandez-Llimos, 2013) find also appropriate roots in the service marketing domain and generally in the management theory. Marketing literature (Gadde and Ford, 2008¸ Castells, 1996; Frazier and Antia, 1995) suggests that in any business and especially in services the entrepreneurial success is associated to the capabilities to exploit external competencies and experiences via collaboration. The enterprise becomes a knot in a net and his aptitude to survive and thrive is strongly associated to the attitude to interact with the resources existing in the market. Unfortunately the health service and generally speaking all the actors involved (pharmacies on top) have historically adopted a closeness approach toward interaction, appreciating best and primarily a "silo" mentality work basis (Nadin and Tzannis 2012). In this circumstance the convergence of openness in the field both of "clinical" and "managerial" perspective can reinforce and confirm stronger the need to change approach toward collaboration of pharmacist in respect to other actors. Therefore if clinical disciplines suggest the importance of collaboration as a way to improve the practice of the profession and to innovate it in the direction of PhC (Hepler 2010), managerial and marketing disciplines offer the methodologies, tested in many other industries, to implement it in a profitable way (Gadde and Ford 2008).
The two PhC definitions outline that the provision of pharmaceutical treatment should always be tailored to a person's individual needs, and the same applies for the provision of care. Targeting individuals, and not a population or society as a whole, is a key concept of PhC (PCNE 2013b). The term "care" describes a process that includes, as a minimum, a follow-up to determine the impact of the service. Both of these aspects distinguish PhC from simple counselling at the time of dispensing and from other one-off pharmaceutical services that would be provided by pharmacists (e.g. vaccination programs). The process of PhC delivery should include also patient-centred elements (e.g. adverse drug events, handling difficulties or management of dosing regimen). Even deciding not to take a medicine can be an optimization of medicines usage during the PhC process, if the recipient's health would benefit from this non-use (PCNE 2013b). PhC is therefore a discipline which recognizes and encompasses patient-centred approach as relationship marketing has been indicating for many years in many industries (Gummesson 2002). The evolution of the discipline of marketing due to the saturation of markets and competition has shown that effective business requires a deep knowledge of the customer (customer insight) and the capabilities to interact with him in a one-by-one approach (customer intimacy), leaving "one-size-fits-all" strategy only to mass commodities. The analogy between patient's centricity in PhC and relationship marketing approach (Ravald and Grönroos, 1996) is harbinger of major developments. PhC, differently from drug dispensing which is a "commodity" service, is based on patient's knowledge and intimacy in order to create a professional and trusted rapport between pharmacist and patient; service marketing and relationship marketing offer the methodology to support it and the instruments to implement it (Haas et al. 2005; Kleinsinger 2003; Gillette (2000), Jackson, 1985).

Finally the definition of PhC implies that the expected outcome of PhC is that there are health benefits for the individuals receiving the service. The pharmacist should always consider every aspect of the recipient's well-being, including (but not limited to) quality of life. It is important to decide on measurable health outcomes, in order to assess and quantify PhC services using robust research studies (PCNE 2013b). When we have evidence for validated services that improve health outcomes, we can legitimise the pharmacist's role as a competent healthcare provider, in the face of criticism from other healthcare professionals (PCNE 2013b). PhC is more complex than traditional dispensing activity; dispensing is product oriented as it requires the pharmacist to organize a correct supply chain to deliver the product in time and as needed by the community. PhC is patient centred and therefore it is based on service encounter (Hull and Broquet 2007, Zeithaml, Parasumaran and Berry 1990) which is something partly outside the sphere of total control of the pharmacist as opposed to dispensing. In PhC the pharmacist has to investigate better the encounter process (before, during and after) and understand all the interaction involving other actors as well. This calls for new approach in pharmacy management and particularly two elements. First of all design, implement and control service processes more complex and articulated than the ones for dispensing (Lovelock and Wirtz 2011). Furthermore as service encounter is an evolving concept related to the multifaceted essence of the patient, the method of customer satisfaction and measurement are prerequisites to fine tune pharmacist's behaviours to market demand (Oliver, 1996). Another time, clinical side of PhC meet marketing management constructs and ask the latter to provide methods and toolboxes to put in practice effectively service encounter approach.

Summing up dispensing drug, the traditional business of pharmacies can be categorized in the branch of service distribution and is far poorer than the provision of professional and care services, such as PhC. The paper is therefore aimed to demonstrate that the clinical approach of PhC is also structurally encompassing the notion of service marketing and provision of intensive knowledge service with high value for the customer (here the patient).

Marketing mantra of customer-centric approach (Sheth, J.N., Sisodia R.S. and Sharma A. 2000) is the core of each service strategy aimed to provide intensive service to customer and PhC is, in this perspective, the driving force not only for a clinical purpose but also for implementing relationship marketing in a retail setting that historically is far from competition and therefore innovation or evolution.

Objectives and main hypothesis

PhC approach is based on DRP (Drug Related Problems) detection and management, that's to say discovering and solving problems occurred in the health of patients during the pharmaceutical treatment elapsed-time. Beside this clinical facet of PhC there exists also other factors affecting DRP and determining the notion of PhC as traceable in the conceptual model investigated in the paper and proposed in figure 1.

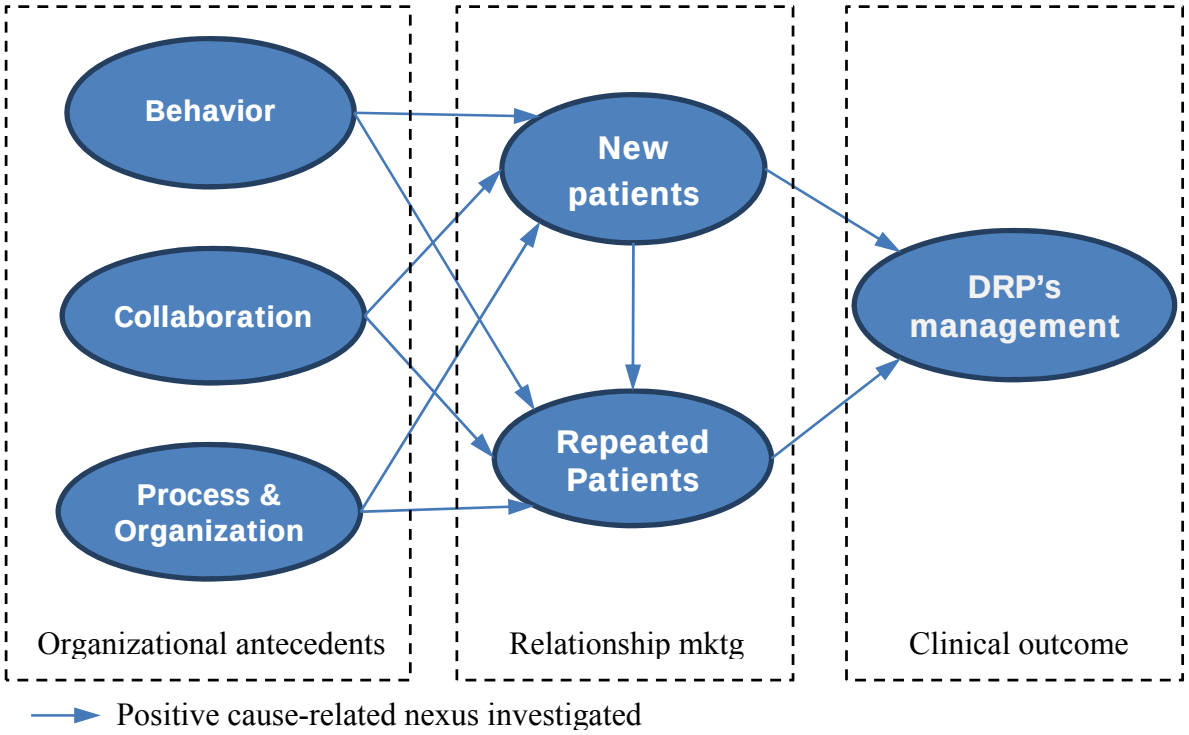

Figure 1 – The investigated model linking DRP to PhC and evoking marketing and managerial concepts.

Taking in charge patients (new patient enrollment, plus continuous care to repeated patients) is the first step of PhC and it evokes, in the management field, the relationship marketing notion.
Then three basic antecedents, which enable pharmacists and pharmacy, are needed to activate and perform adequately PhC: 1) behavior toward service and assistance, 2) tendency to cultivate professional and inter-professional collaboration, and finally 3) structure and organization to deploy service encounters (see organizational antecedents in figure 1). These last three factors are related each other and, in the aim of this paper, they represent a solid backbone to develop professional service marketing in pharmacies.
Therefore we have three blocks composing the model: clinical outcome, relationship marketing and finally organizational antecedents.
Clinical outcome, which is the challenge for the evolution of the profession beyond drug dispensing activity, is measured by the capabilities of the pharmacies to intercept and solve patient's problems related to pharmaceutical treatment.
PhC notion focuses the attention on the patient rather the medicines at the core of the activity. In this perspective PhC recognizes the centrality of **relationship marketing** as a strong tool in an industry which is historically product oriented.
The model finally is devoted to investigate some critical **organizational antecedents** to pharmacy relationship marketing: Pharmacy's owner behavior, openness to collaboration and the role of service processes to manage service encounters.
Underlying the model three main hypotheses are proposed in this paper:

Hp1: Marketing approach and especially the notion of relationship marketing is a driving force not only to sustain profitability but to improve clinical outcome of the pharmacy and in particularly detection and management of DRP's; the clinical side of the model.

Hp2: Relationship marketing approach of a pharmacy is not just depending on the pharmacist's behavior, seen as a competent deployment of the professional body of knowledge, but as a share values, approaches, procedures and structures put in place in the pharmacy and enabling the single pharmacists to operate.

Hp3: In order to manage successfully the entire cycle of PhC, the pharmacy should have to adopt open collaboration with other health operators who maintain relationship with the patient. Differently from the past where pharmacies have been closed or separated from the health care network, to become a knot of the net and therefore collaborate with other actors it will be an emerging issue and a prerequisite for service effectiveness.

The scope of the research

PhC is a discipline started at the end of the last century and investigated by many researchers; PCNE as European catalyst (www.pcne.org). The first approach to study the deployment of the discipline among the practitioners backs to 1996 through a research done in US by Odedina and Segal (1996). Recently a group of academics belonging PCNE have customized the Odedina study trying to depict the state of the art in term of PhC in Europe (Hughes et al. 2010). To compare longitudinally the framework of PhC, the same PCNE's researchers have updated the research in 2013. Italy has taken part, for the first time, in this second wave contributing with 800 interviews on the base of 5.000 covering the participating 15 EU countries.

The research is based on 30 questions administered to pharmacy's owners and aimed to understand their approach to put in practice PhC and manage DRP's.

In Italy, gathering data has started in January 2013 and has lasted 5 months covering all the regions belonging to the nation.

The coverage of the Italian pharmacy population by the sample is quite sufficient since is 4,7% of the entire pharmacies operating on the territory and amounting to 17k units.

The sample is balanced as regards the composition not only in a geographical perspective but also in qualitative one: dimensions of the pharmacies, age and gender of the owner, positioning of the unit (center of town, suburban area and rural pharmacy).

The questionnaire that can be consulted by the previous publication of the first EU research (Hughes et al. 2010) has been reinterpreted in this paper by the model reported in figure 1.

A confirmatory factor analysis, made on the 30 initial questions, suggests the correctness of the construct of the model and internal and external validity are also confirmed as shown in the next chapter of this paper.

Main results

After applying CFA (Confirmatory Factor Analysis) on the 30 questions included in the questionnaire, 7 of them resulted not statistically significant to support the construct or redundant to other and therefore dismissed.

In figure 2 are reported the constructs of the model with each related attribute (single questions), the Standardized Regression Weights and finally the Squared Multiple Correlations.

construct	attribute	Standardised Regression Weights	Squared Multiple Correlations
new patients	ask patient medical condition	.812	.660
	ask patient's goal from drug therapy	.752	.565
	discuss patient's drug therapy	.792	.628
	verify information understanding	.782	.668
repeated patients	ask actual pattern of medication use	.794	.630
	ask about experienced DRP	.835	.698
	ask the perceived effectiveness from drug intake	.839	.705
	ascertain therapeutic goal achievement	.817	.668
DRP's management	indentify DRP	.867	.751
	define the desired therapeutic goal	.879	.773
	strategy implemented to solve DRP	.881	.776
	Carry forword follow up plans	.789	.623
behavior	try to provide PhC to chronic patients	.926	.857
	effort made to provide best support for PhC	.873	.763
collaboration	consultion with other pharmacists for help	.683	.466
	made referrals to GP	.786	.618
	communicated patient's progress to GP	.544	.296
	Initiated interaction with GP when DRP occurred	.545	.297
process & organization	used a quiet location for patient counselling	.718	.516
	used appropriate information services for counselling	.762	.581
	enquired patients about their satisfaction	.633	.401
	used clinical data to evaluate pharmacist's job	.550	.302
	provided general medical info to patients	.587	.344

Fig. 2 - Summary of model measures applied to the Italian dataset.

The summary of model measures (figure 2) reports the standard regression weights of the observed variables towards the unobserved (constructs of the models) and the squared multiple correlations (SMC), which indicate the explanation coefficient of the observed variable inside each cluster represented by the unobserved variable.
As suggested by general rule of thumb, the value of SMC should be higher than 0,40-0,5 in order to explain large part of the variance in the data of the observed variables (Fornell and Larcker, 1981).
In the two final constructs (Collaboration and process & organization) some observed variable (four out of nine included in the constructs) do not get this threshold; nevertheless they are not removed from the model as they are pivotal to interpret the construct.

Figure 3 reports the model interpreted by the Italian dataset composed by 800 respondents.

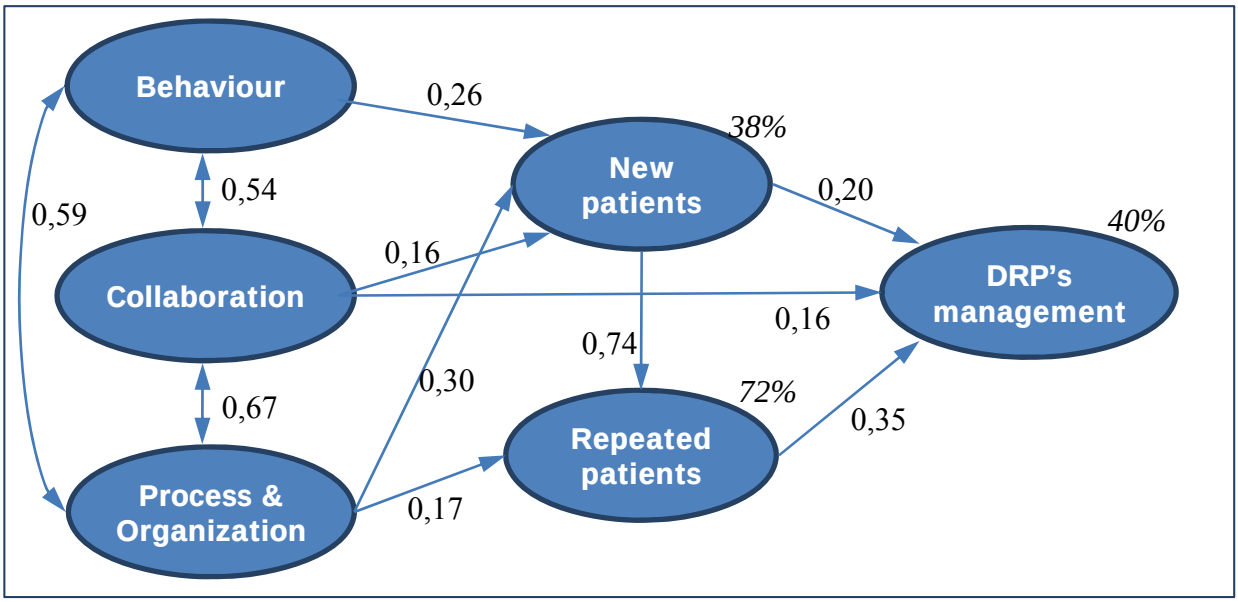

Fig. 3 – dataset represented by the interpretative model

Coefficients in the figure are standard regression weights and measure the effect of one construct (antecedent) versus another (dependent). Numbers in italics represents the variance explained in the constructs that are regressed by antecedents.

As regards the validation of the model, the overall fit indices for the model are:
chi-square goodness of fit ($\chi 2(199) = 646$; $p < 0.000$), the Goodness-of-Fit Index (GFI) = 0,932, the Comparative Fit of Index (CFI) = 0,955, the Root Mean Square Error of Approximation (RMSEA) =0,052 as measures of model fit.
All these tests let the author believe that measures are reliable, one-dimensional and valid according to the general rule of thumb accepted in social science (Anderson and Gerbing, 1988).

Confirmation of the hypothesis

The interpretative model for approaching PhC in a pharmacy setting seems to fit quite well the Italian survey data as shown in figure 3.
Generally speaking the construct is capable to explain a significant percentage of the variance existing in the dataset. DRP's management variance is covered by 40% and the variance included in the answers about the construct of "repeated patients" is highly satisfactorily (72% as shown in figure 3).
Not all the cause-effects links are confirmed. The construct of "behavior" has no significant effect on the "repeated patient" although is an important antecedent for "new patients enrollment".
Repeated patients management is strongly influenced by "new patients" as seen in the regression weight (74% see figure 3) but it does not seem to be influenced by other construct in the model.

There is a quite strong direct influence of the "collaboration" construct on the "DRP's management", confirming therefore the extended inter-professional feature of PhC. PhC can attribute to pharmacists a pivotal role but at the same time is a cross process covering many discipline and therefore requires a different approach from the traditional dispensing activity that can't be sill managed in a silo-approach manner.
The model filled by the Italian dataset confirms the core construct which links DRP's to patient's management (initial enrolment and continuous relationship).
Furthermore it shows that effective "Patient's management" (new and repeated) needs behavioral, structural and organizational antecedents.

Some consideration can be done as regards the hypotheses underlying this paper.

First of all the notion of relationship marketing and the centrality of the customer (patient) in the field of health are fundamental to the business itself but also tied to clinical work. Patient's relationship is a driving force for DRP's detection and management as confirmed by the positive regression weights existing amongst the three constructs of figure 3.
Unfortunately the domain of marketing in pharmacies has consisted primarily in market communication and advertisement but rarely in the field of approaching customer centricity. Being priority driven by state regulatory system put in place in safeguard of the citizen, pharmaceutical retail channel has always left a clear cut from marketing,. The rhythm of the dispensing activity has pushed pharmacists to concentrate on fast exchange with limited chance to deepen the encounter with the patient.
The finding of the PhC research suggests that in order to improve clinical outcome (DRP's detection) it's better to approach patient in a different way. The knowledge of patient (customer) is the key to perform a better clinical job and at the same time the way to reinforce the relationship to exploit market opportunity and profitability for the pharmacy. The confirmation of the first hypothesis opens a window also on the sustainability of the business. In this field, the notion of marketing, sometimes misinterpreted as the way to take advantage of the needs and the desires of consumers, walks hand in hand with the clinical side of the profession and together connected help to improve patient's health, community interests and goals (reducing health expenditure) and pharmacy profitability and continuity (Federfarma 2013).

The second hypothesis is concerning the role of the pharmacy, as a business, to improve the capability of the pharmacist to perform PhC. The deployment of PhC notion is not a domain of the single pharmacist alone but needs a prerequisite in the organization in which the pharmacist works. Although a pharmacist would practice the discipline of PhC, the knowledge and the experience in the field would not be sufficient alone; there must be a structure and an organization which enables the operator to perform effectively patient's care service. In the marketing sector this is called service marketing and is formed by a special body of knowledge that can be useful in the domain of retail pharmacy as well (Vargo S.L. and Lusch R.F. 2008).
Service marketing recognizes the importance of processes built around the service encounter as to assure high quality and standardization of the approach (Shostack, 1984).
In a service activity where individuality and independent professionalism have been primarily behaviors since the dawn of time, the initiation of managerial approaches, that means organization and structure, do not always sound easy, comprehensible and sometimes also affordable.
The research findings show that relationship patient approach requires coordination, organization and structure. Antecedents of the patient approach (new and repeated) have, in average, regression weights moving in a range from 0,16 to 0,30 although in repeated patients this link is weaker.
The confirmation of this hypothesis is quite important as activating PhC service is basically different from traditional drug dispensing servicing, where the complexity of delivering is intrinsically modest and therefore the mastery of the body of knowledge from each pharmacist is a sufficient threshold to accomplish the dispensing activity.

Third and last hypothesis outlined in the paper is related to the need of open collaboration among professional belonging to the same specialization (pharmacy) and to other domains related to health disciplines (general practitioners, specialized doctors, nurses, etc.).

Although the profession of pharmacy belongs to the health care network, traditionally pharmacists have worked separated from other operators. The stream of primary care service that can be simplified in diagnosis, prescribing, dispensing, treatment administering and outcome monitoring (AHRQ 2011), is a serial and interdependent approach accomplished naturally by different disciplines who should interlock together to get the best result. PhC discipline asks the pharmacist to be involved not on the dispensing phase only but also on the phase of treatment administering. Dispensing activity to the collectivity can be easily performed by pharmacist following a stand-alone approach but treatment administering requires strong interlocking with other operators who take part in the cure path. Treatment administering is made of continuous medicine review and may require therapy review also and this can be done in strong synchronization and adaptation with other cure path phases and consequently in conjunction with other operators who are responsible for.
Furthermore the need for collaboration is also pointed out but by the patient relationship itself. In the marketing domain is said that one-to-one with customer is crucial to develop relationship and in many cases this bond starts and finishes inside the dyad customer and supplier.
Due to the complexity of the cure path, it is near impossible to contain and freeze the relationship to the dyad; in example patient and pharmacist. Since patient is subjected to the relationship with other operators, first of all General Practitioners (GP), pharmacist can't leave aside the content and the interaction developed with the rest of the health providers. With the aim of creating and sustaining trust resources with his customer, Pharmacist is compelled to connect to the rest of the health world as depicted in figure 4 in a way to assure continuity and clarity in the service provided and transparency and convergence in the mind of the patient.

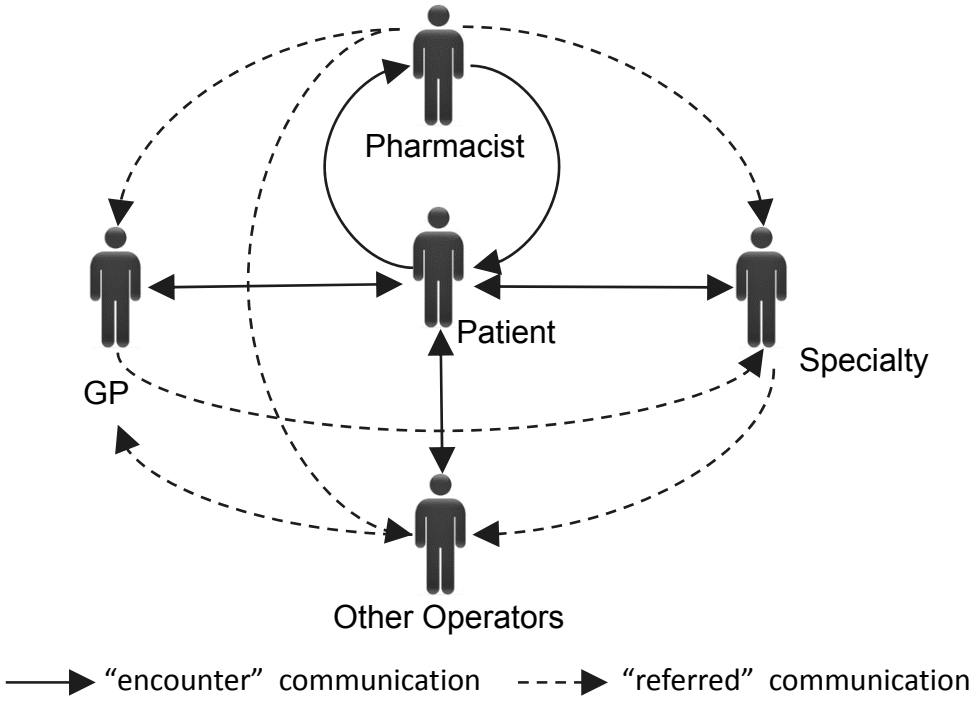

Fig. 4: Web of connection in the primary care health service

The finding of the research shows clearly that communication and collaboration are key components of the work of the pharmacist who wants to practice PhC and interprets his role as knot of the primary care net. The model applied to the Italian dataset suggests that collaboration is not only an important antecedent in the patient relationship but is as well a remarkable component of an effective DRP's management (the regression weight is 0,16).
Interesting to note that there exist also an important link of collaboration as driver for new patient management (RW = 0,16). Actually one critical step in new patient management for pharmacist is identification and enrollment of patient who normally interact with the pharmacy for pure dispensing. A strong bond with GP and other specialty doctors can easily access pharmacist to new

diagnosed patients and potentially start a program of PhC with no relevant communication effort or investment.

Final consideration

The findings of the research outline a series of connections among the constructs of PhC and help to understand better the issues to focus on for improving PhC practice in every pharmacy and as whole in every community (i.e. country level).
But the Italian dataset compared to the average of the entire sample of 15 countries involved in the research program can facilitate otherwise the identification of a path of evolution and improvement as regards the positioning of Italy in the European PhC scenario.
Figure 5 shows, per each attribute (single item of the questionnaire) of each construct composing the entire model, the average of the absolute value declared by the 800 respondents of the Italian survey compared to the average declaration of the European sample composed by 5k respondents.

construct	attribute	AVE Italy bpcs 2	AVE EU bpcs 2 (*)
new patients	ask patient medical condition	1,45	2,20
	ask patient's goal from drug therapy	1,21	2,10
	discuss patient's drug therapy	2,35	3,00
	verify information understanding	3,12	3,60
repeated patients	ask actual pattern of medication use	1,45	2,10
	ask about experienced DRP	1,80	2,50
	ask the perceived effectiveness from drug intake	1,77	2,40
	ascertain therapeutic goal achievement	1,47	2,50
DRP's management	indentify DRP	1,40	1,80
	define the desired therapeutic goal	1,04	1,50
	strategy implemented to solve DRP	1,13	1,50
	Carry out "follow up plans"	0,79	1,60
behavior	try to provide PhC to chronic patients	1,84	2,60
	effort made to provide best support for PhC	1,82	2,30
collaboration	consultion with other pharmacists for help	1,30	2,60
	made referrals to GP	2,49	2,80
	communicated patient's progress to GP	0,98	2,40
	Initiated interaction with GP when DRP occurred	1,75	2,30
process & organization	used a quiet location for patient counselling	2,27	2,80
	used appropriate information services for counselling	1,17	3,40
	enquired patients about their satisfaction	1,91	2,40
	used clinical data to evaluate pharmacist's job	1,86	3,90
	provided general medical info to patients	2,37	2,90
	TOTAL BEHAVIORAL PhC SCORE (BPCS2)	**38,74**	**57,20**
	comparison with maximun total score	34%	50%
(*) simplified to match the Italian model of analysis			

Fig. 5 – Comparison of average declaration per each research item in Italy vs Europe (simplified model).

The absolute score can move in a range from 0 to 5 since per each item it has been asked the pharmacist to declare how many patients have been applied the activity related to the item (attribute in fig. 5). For instance, in the “new patients” construct the first item is related to the activity of investigating patient medical condition. Therefore the question is: in the last five chronic patients you encountered, how many times you asked information about medical condition? The average positioning of the Italian respondents shows that near in one and half patients out of five the

pharmacist has investigated the medical condition of the patient encountered where the average of the EU respondents is 2,2.

Generally speaking the positioning of the Italian practice in the field of PhC is less intensive than in the rest of the EU countries involved in the survey as it can be seen from the average data comparison of figure 5.

Some EU countries (generally speaking the northern ones) are very experienced as the NHS (National Health Service) or insurance companies, as stakeholder and payer in the health industry, have pushed historically community pharmacies to adopt PhC behaviors.
Some others such as Italy are at the bottom of the list as regards experience in practicing PhC.
The total score of Italy, based on 800 respondents, is 39 where the score for the total sample of 5k EU pharmacies is 57. Note that the maximum score available is fixed to 115 points as we have 23 items (according to the simplified Italian interpretative model shown in figure 2) which max score is 5. No country in the survey is able to get maximum score but as overall Italy gets 34% of it as EU average is 50%.
This means that there is room for improvement for many countries but especially for Italy who has to regain position in the rank at least to get the average threshold of 50%.
To get this goal a lot of measures must be taken in all the constructs and in each items included in the model as, in none of them, the Italian score is at the level the EU average; as suggested by each line in figure 5.
The model then it is useful to identify a potential path of evolution toward PhC development as shown in figure 6.

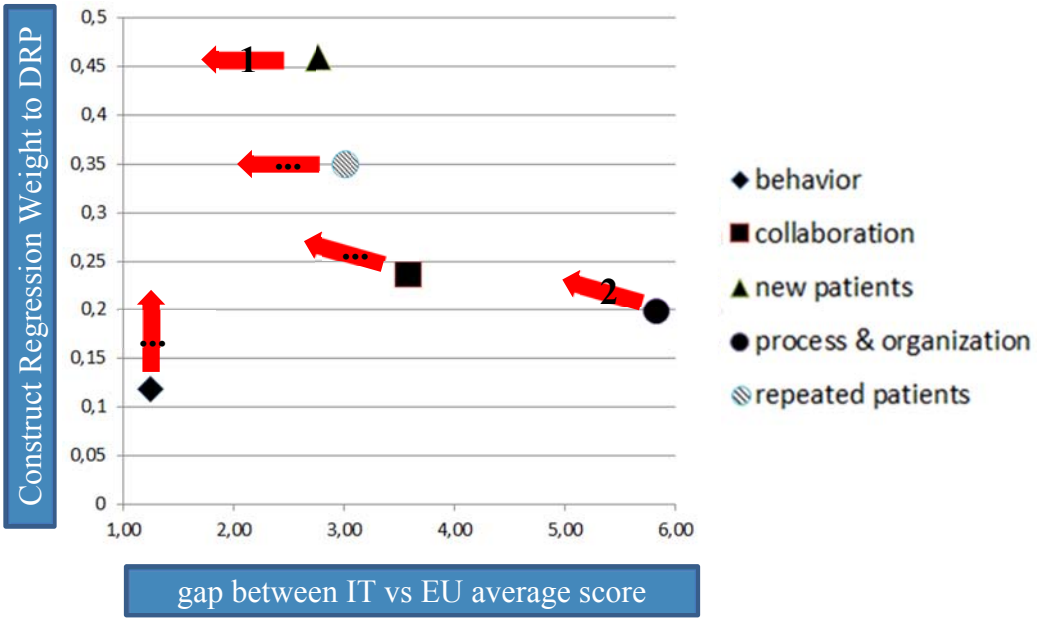

Fig. 6 – Positioning the constructs as to severity of change and impact on the DRP's management

Figure 6 has been designed putting in comparison (the two axis of chart in fig 6) the score gaps (IT vs EU) and the coefficient of regression between each construct and DRP considering DRP as the final outcome of all PhC process. The first axis has been calculated by the sum of the differences in the IT score versus the EU per each item in each construct. The latter has been determined has the coefficient of regression between each construct and DRP; therefore it determines the impact of improvement each construct (seen as antecedent) has on DRP.
The combination of these two vectors represents a surface upon which can be defined priorities of intervention to improve PhC practice.
Since resources require prioritization, a first move could be to approach areas of intervention where the impact on the final outcome is sensible such as "new patients" (see red arrow 1 on fig.6).

A second issue to focus on could be the construct of "process & organization". Although the impact is not so strong, here the gap versus EU is very wide therefore must be taken in account for measure of improvement. The intervention can be as well directed to reinforce the perception of importance of organization as antecedent to an optimal practice of PhC and therefore as approach that boost detection and management of DRP's (see red arrow 2 on fig.6). Following the same approach it can be defined a wider agenda of intervention involving as well the other constructs of the model.

Future research

The Italian participation to the European research network of PCNE, specialized in the field of PhC, and the implementation of the survey aimed to investigate the practice of PhC in every single country have given the chance to shed light to pharmacy management from two different disciplines, one clinical and the other managerial – service marketing, and potentially reinforce the attitude of pharmacy owners to conceive innovation in the business by complex service attribute.

The trajectory of evolution toward PhC and therefore the provision of high value services enriching the traditional dispensing services, can see in the research findings a great contribution but it must be reinforced by a deeper knowledge about the way the new business model can be sustained from the economic stand point.

Services provided by pharmacists generate incremental costs and the medicine revenues could not be enough to cover them and then leaving a satisfactorily operative margin to pharmacy.

A stream of research should be open therefore to investigate remuneration of service.

Two are the mains path of research in this direction. One is the evaluation of potential out-of-pocket expenditure by chronic patients, who would benefit from cognitive services provided by pharmacists. The second option is to obtain a public remuneration from NHS (National Health Service) (Pfleger et al. 2008). This would mean to evaluate the outcome of the PhC service in terms of rate of decrease in hospitalization and generally by the cut health expenditure coming from stabilization of chronic patients.

These two streams of research have already been put in place in other European countries (Barner and Branvold 2005), and in other continents but no evidence is available for Italian market.

References

AHRQ (2011), Agency for Healthcare U.S. Department of Health "Enabling Medication Management Through Health Information Technology"), http://www.ahrq.gov/research/findings/evidence-based-reports/medmgt-evidence-report.pdf

Anderson J.C. and Gerbing D.W. (1988); Structural Equation Modelling in practice: A new and recommended two-step approach. Psychological Bulleting, 103 (may), 411-423

Barner JC, Branvold A. (2005), Patients' willingness to pay for pharmacist-provided menopause and hormone replacement therapy consultations, Res Soc Admin Pharm. 2005;1(1):77-100.

Castells, M. (1996), The Rise of the Network Society, Blackwell, Oxford,

Federfarma (2013), Le novità e le prospettive della farmacia italiana, http://www.federfarma.it/Edicola/Comunicati-stampa/04-12-2013-15-10-35.aspx

Fornell C and Larcker DF (1981), Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research 18(3): 39–50.

Frazier, G . and Antia, K., (1995). Exchange relationships and inter-finn power in channels of distribution. journal of the Academy of Marketing Science, 23(4), pp. 321-6.

Gadde, L.-E. and Ford, D., (2008). Distribution research and the industrial network approach. IMP Journal, 2(3), pp. 36-52.

Gillette R. (2000), 'Problem Patients': A Fresh Look at an Old Vexation. FPM. August 2000. http://www.aafp.org/fpm/20000700/57prob.html

Gummesson, E. (2002), Total Relationship Marketing, 2nd (revised) ed., Butterworth-Heinemann, Oxford.

Haas L, et al. (2005) Management of the Difficult Patient. AFP. November 2005. http://www.aafp.org/afp/2005/1115/p2063.pdf

Hepler C.D., (2010), "A dream deferred", Am J Health-Syst Pharm. 2010; 67:1319-25

Hepler CD, Strand LM. (1990) Opportunities and responsibilities in pharmaceutical care. Am J Hosp Pharm. 1990;47 (3):533–43.

Hughes C.M. et al. (2010) Provision of pharmaceutical care by community pharmacists: a comparison across Europe , Pharm World Sci (2010) 32:472–487

Hull S, Broquet K. (2007) How to Manage Difficult Patient Encounters.FPM. June 2007. http://www.aafp.org/fpm/20070600/30howt.pdf

Jackson, B.B. (1985), "Build customer relationships that last", Harvard Business Review, pp.120-8.

Kleinsinger F. (2003), Understanding Noncompliant Behavior: Definitions and Causes. The Permanente Journal. Fall 2003. http://xnet.kp.org/permanentejournal/fall03/behavior.pdf

Larry B. Mauksch, MEd; David C. Dugdale, MD; Sherry Dodson, MLS; Ronald Epstein, MD (2008) Relationship, Communication, and Efficiency in the Medical EncounterCreating a Clinical Model From a Literature Review Arch Intern Med. 2008;168(13):1387-1395.

Lovelock C. and Wirtz J. (2011), Services marketing: people, technology and strategy, Pearson 2011

Montgomery A.T., Sporrong S., Manap N., Tully M.P., Lindblad A. (2010), Receiving a pharmaceutical care service compared to receiving standard pharmacy service in Sweden–How do patients differ with regard to perceptions of medicine use and the pharmacy encounter?, Research in Social and Administrative Pharmacy 6 (2010) 185–195

Nadin G and Tzannis A. (2012), Chronic disease management in Lombardy's region: the challenge to co-opt physician and involve other operators on a network perspective. Paper published at the 28th IMP-conference in Rome, Italy in 2012 (impgroup.org)

Odedina FT, Segal R. (1996), Behavioral pharmaceutical care scale for measuring pharmacists' activities. Am J Health Syst Pharm. 1996;53:855–65.

Oliver, R.L. (1996), Satisfaction, McGraw-Hill, Boston, MA

PCNE (2013a), What is Pharmaceutical Care, http://pcne.org/about-us.php last consultation 9-9-2014

PCNE (2013b), Position Paper on the definition of Pharmaceutical Care 2013, http://pcne.org/docs/PCNE%20Definition%20Position%20Paper%20final.pdf

Pfleger D.E., McHattie L.W., Diack H.L., McCaig D.J., Stewart D.C. (2008) Developing consensus around the pharmaceutical public health competencies for community pharmacists in Scotland, Pharm World Sci (2008) 30:111–119"

Ravald, A., Grönroos, C. (1996), "The value concept and relationship marketing", European Journal of Marketing, Vol. 30 No.2, pp.19-30.

Roberts, Benrimoj, Chen, Williams e Aslani (2005) Understanding practice change in community pharmacy: A qualitative study in Australia Research in Social and Administrative Pharmacy 1 (2005) 546–564

Sheth, J.N., Sisodia R.S. and Sharma A. (2000), The Antecedents and Consequences of Customer-Centric Marketing Journal of the Academy of Marketing Science January 2000 28: 55-66

Shostack, G. L. (1984) "Designing Services that Deliver", Harvard Business Review, vol. 62, no. 1 January - February 1984, pp. 133–139

van Mil J. W. F., Fernandez-Llimos F. (2013), What is 'pharmaceutical care' in 2013? Int J Clin Pharm 8 january 2013

Vargo S.L. and Lusch R.F. (2008), Service-dominant logic: continuing the evolution, J. of the Acad. Mark. Sci. (2008) 36:1–10

Zeithaml V, Parasumaran A., Berry L. (1990): Delivering Service Quality, ISBN 0-02-935701-2, The Free Press