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## ARTÍCULO ORIGINAL

**Un enfoque holístico e integrado de la implantación de los servicios farmacéuticos cognitivos****A holistic and integrated approach to implementing cognitive pharmaceutical services**Benrimoj S. I. (Charlie)<sup>1</sup>, Feletto E.<sup>2</sup>, Gastelurrutia MA<sup>3</sup>Martinez Martinez F<sup>3</sup> and Faus MJ<sup>3</sup>

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## RESUMEN

La Farmacia Comunitaria forma parte del sistema de salud. Este sistema actualmente se encuentra sometido a presiones económicas y debe afrontar cambios en la demanda tanto de los consumidores como de los gobiernos. La respuesta de la profesión farmacéutica está dirigida a orientar su práctica hacia el paciente y a implantar servicios cognitivos farmacéuticos (CPS). En distintos países estos servicios tienen objetivos similares aunque presentan diferencias en el énfasis de los servicios, en sus definiciones, denominaciones y en la utilización de diferentes herramientas. Sin embargo, todos ellos pueden clasificarse utilizando un amplio modelo jerárquico que se basa en la toma de decisiones clínicas y en la amplitud del cambio requerido. (Box 1). Los retos que debe afrontar la profesión están relacionados con el desarrollo de un nuevo modelo de farmacia orientado al paciente que afecta a las políticas de salud, a la formación e investigación, a la evolución de los mercados, a los abordajes del cambio tanto a nivel individual como organizacional, y a la implantación de CPS. Estos temas y la investigación en práctica farmacéutica que se ha venido realizando con anterioridad han sido sintetizados para proporcionar una plataforma para el cambio que pueda guiar un planteamiento holístico e integrado de implantación de CPS. Conceptualmente la implantación de CPS puede enmarcarse en seis niveles: clínico, provisión de servicios, farmacia comunitaria, organización profesional, gobierno y agentes implicados (Figura 1). La experiencia reciente relacionada con la implantación de servicios ha mostrado la aplicación de programas de implantación que han incluido uno o dos de estos niveles en lugar de haber utilizado un abordaje holístico. Por ello se ha desarrollado un modelo concéntrico para ilustrar la implantación de CPS dentro del planteamiento integrado y holístico necesario para apoyar el cambio. En España se ha desarrollado un programa (conSIGUE) que pretende integrar los seis niveles con el objetivo de apoyar la implantación y evaluación de un CPS, el servicio de seguimiento farmacoterapéutico.

**PALABRAS CLAVE:** Implantación. Servicios cognitivos farmacéuticos. Farmacia comunitaria. Gestión del cambio

## ABSTRACT

Community pharmacy is part of the health care system which is currently under economic pressure and facing changes in demands from consumers and government. In response, the pharmacy

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profession is becoming more patient orientated and implementing cognitive pharmaceutical services (CPS). CPS in various countries has similar objectives with different emphasis, definitions, labels and using different tools. However, they can be classified using a broad hierarchical model based on clinical decision making and the extent of change required (Box 1). The challenges faced by the profession are related the development of a new patient orientated model of pharmacy which affects health care policy, education and research, the evolution of the market, the individual and organisational approaches to change and the implementation of CPS. These issues and previous research conducted in pharmacy practice have been synthesised to provide a platform for change that can guide a holistic and integrated approach to CPS implementation. Implementation can be conceptually framed in six levels: clinical, service provision, community pharmacy, professional organisation, government and stakeholder (Figure 1). Past experience with service implementation has seen the application of programs that include one or two of these levels in practice rather than a holistic approach. A concentric model was developed to illustrate the implementation of CPS and the holistic and integrated approach required to support change. A program (conSIGUE) being conducted in Spain has attempted to integrate all six levels to support the implementation and evaluation of a medication management service (Seguimiento Farmacoterapéutico)

**KEYWORDS:** Implementation. Cognitive pharmaceutical services. Community pharmacy. Change management.

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## INTRODUCTION

Community pharmacy is part of the health care system which is currently under economic pressure and facing changes in demands from consumers and government.<sup>1,2</sup> The pharmacy profession is changing to become more patient orientated and to introduce health services in an effort to optimise the use of medications and reduce the morbidity and mortality related to therapeutic regimens.

The current challenges facing health care are made more complex by issues such as the ageing population, new technologies, transmission of communicable diseases, consumer expectations, the increasing burden of chronic conditions and increasing costs.<sup>3</sup> Additionally, health and drug related problems are often associated with the suboptimal use of medications; both prescribed and self-administered.<sup>4</sup> As governments are facing increasing demand from many competing sources, expenditure dedicated to health care is under scrutiny and there are limited funds allocated to address changing needs. Hence, new methods of health care provision are required.<sup>3</sup> Suggested solutions include the redesign of entire health care systems, the creation of multi-disciplinary teams to provide health services and the use of technology to create efficiencies in the system.<sup>5,6</sup> Additionally, community pharmacy has been recognised as an underutilised resource. To ease the burden on existing systems in some countries, the professional pharmacy organisations, government and consumers have encouraged the profession to introduce health services, or cognitive pharmaceutical services (CPS), into daily practice.<sup>7</sup>

CPS in various countries has similar objectives with different emphasis, definitions, labels and using different tools. However, they can be classified using a broad hierarchical model based on clinical decision making and the extent of change required (Box 1). For example, the provision of medicines information could be said to require less clinical decision making as compared to prescribing. Similarly, the model attempts to order the degree of change required

from the pharmacist's traditional role and practice environment to provide services. The model has limitations in its capacity to categorise product based services. For example, dose administration aids (DAA) may be considered to be enablers for adherence and thus may be part of compliance service.

<b>Box 1: Hierarchical Model of Cognitive pharmaceutical services</b>	
<b>1.</b>	<b>Medicines Information<sup>8</sup></b>
<b>2.</b>	<b>Compliance, Adherence and/or Concordance<sup>9</sup></b>
<b>3.</b>	<b>Disease Screening<sup>10</sup></b>
<b>4.</b>	<b>Disease Prevention<sup>11</sup></b>
<b>5.</b>	<b>Clinical Intervention or identification and resolving Drug Related Problems<sup>12</sup></b>
<b>6.</b>	<b>Medication Use Reviews<sup>13</sup></b>
<b>7.</b>	<b>Medication management/medication therapy management<sup>14-16</sup></b>
	<b>a. Home Medication Reviews</b>
	<b>b. Residential Care Home Medication Reviews</b>
	<b>c. Medication reviews with continuance follow up</b>
<b>8.</b>	<b>Disease State Management for Chronic Conditions<sup>17</sup></b>
<b>9.</b>	<b>Participation in therapeutic decisions with Medical Practitioners<sup>18,19</sup></b>
	<b>a. In Clinical setting</b>
	<b>b. In the pharmacy</b>
<b>10.</b>	<b>Prescribing<sup>20</sup></b>
	<b>a. Supplementary</b>
	<b>b. Dependent</b>

## CHALLENGES OF CHANGE IN PHARMACY

Within the profession, change is politically supported. It is supported by international and national professional pharmacy associations through the development of the community pharmacist's role. Patients recognise the benefits of CPS, as illustrated by their insistence in receiving patient information. CPS provision aids government achieves a quality use of medicines and their cost reduction agenda. Community pharmacists have been able to decrease health care expenditure and decrease morbidity rates by preventing drug related problems through the provision of CPS.<sup>13</sup> The benefit of a change in pharmacy has been acknowledged through the adoption of initiatives by governments and more recently by the health insurance companies and pharmaceutical companies.<sup>21,22</sup> These initiatives have been largely based on providing remuneration for CPS to stimulate service provision. There is a clear growing trend to remunerate CPS in countries such as United Kingdom, United States of America, Australia, Belgium, Switzerland and Portugal, demonstrating that government policy has provided support a patient orientated model of pharmacy.<sup>7,23,21,24,25</sup>

The integration of CPS into the daily practice of a community pharmacy produces a dilemma resulting from the nature of its operating environment. In practice, the community pharmacy operating environment is not exclusively health care or patient focused; the retail context of community pharmacy presents a unique challenge.<sup>26-28</sup> It merges the commercial necessity to run a financially viable and accountable business with the need to configure operations to meet appropriate standards of professional conduct and competence.<sup>29</sup> Economic, regulatory and organizational frameworks influence the role of community pharmacists through setting standards and commercial limitations of pharmacies as a health care retailer.<sup>28</sup> Change for community pharmacy implicates interaction with external stakeholders (e.g. government bodies, consumers, universities, pharmaceutical industry and influencing parties).

### HEALTH CARE POLICY IMPLICATIONS

In relation to community pharmacy, national governments have used two key strategies to manage health policy and expenditure, regardless of country or prevailing political party.<sup>30</sup> These policies control health care costs through the reduction in medication mark-ups, margins and reference pricing as well as the flow on effects from the increased use of generics.<sup>31</sup> Secondly, following WHO policy initiatives, national governments have begun integrating quality use (QUM) and/or rational use of medicines (RUM) principles into their health agendas.<sup>3</sup> The QUM and RUM policies directly and indirectly support the new patient orientated model.<sup>3,7,32</sup> Some governments recognise CPS provision as a cost effective medication management tool, which increases quality of life and reduces morbidity and mortality in targeted high cost and other patient populations such as poly-pharmacy residential care and geriatric ambulatory patients.<sup>14</sup> Government policy also encourages chronic disease management particularly through the increased use of multi disciplinary teams.<sup>5,33</sup>

All health care services can be classified through a spectrum: prevention, early detection, diagnosis and assessment, treatment, rehabilitation and palliation.<sup>28</sup> In moving through this spectrum to identify new opportunities for community pharmacy, a balance must be struck between expanding the role of pharmacists and crossing traditional role boundaries, although these boundaries are increasingly being questioned. Professional collaboration within the health care system is ideal but the increased sense of competition and working outside the pre-existing definitions of professional roles have caused tension between pharmacists and other groups, such as physicians. In an attempt to overcome these issues, professional associations are pursuing collaborative agreements at a political level and individual pharmacists are working with their local health care partners.<sup>19,34</sup>

### EDUCATION AND RESEARCH

In the area of education, the introduction of CPS has stimulated universities to various levels of action. Initially, curriculums were revised for undergraduate and postgraduate courses to educate students in these areas and a concurrent development of pharmacy practice

research began.<sup>35,36</sup> The more sophisticated changes such as joint teaching with other professions to provide the foundation for future collaborative working environments have not yet been developed sufficiently in most countries.<sup>37</sup> It could be suggested that the growth of pharmacy practice research has given academic opinion leaders the ability to influence changes in professional practice and emphasised evidence based change. Research and teaching has been stimulated through the appointment of professors and academic staff dedicated to pharmacy practice.<sup>38,39</sup> In many countries, this was followed by the creation of the discipline of pharmacy practice or/and departments with similar objectives and varied titles.<sup>38</sup> Pharmacy practice has tended to be the overall arching discipline incorporating clinical, administrative and social pharmacy, behavioral studies, pharmaco-epidemiology, health economics, marketing and management. The rate and pace of adoption of this educational and research change has varied between and within countries. It could be said that the American and Anglo Saxon university models have changed more rapidly while some European universities have been slower. In Europe, the Bologna declaration has stimulated debate and resulted in some changes.<sup>40,41</sup> However within countries there are examples where the change has been rapidly adopted. The negative impact of the slower adoption of educational change is evidenced when pharmacists enter the workforce unprepared to provide CPS.

## DEVELOPMENT OF THE MARKET

The pace of change created by government policy, professional organisations and universities has challenged community pharmacies and pharmacists to evolve and maintain their relevance in the market.<sup>26,42</sup> Community pharmacies changing to a patient orientated model requires management and structural changes to the business.<sup>26,27,42,43</sup> At the same time community pharmacy viability has been put at risk because of the reduced profit margin in their traditional core business – dispensing medication and the perception that the return on investment of services is low.<sup>26,42,44</sup> Some pharmacies have moved toward creating a position in the market based on providing CPS while an alternative market segment is focused on convenience and deep discounting in product provision.<sup>28,44,45</sup> Currently, the pharmacy market is differentiating into these two broad segments. The principles of market differentiation suggest that all organisations in an industry cannot provide identical services, eliminating the competition in the market.<sup>46</sup> In the “so called” liberalised markets of the United Kingdom, Canada, Iceland, Norway and United States, corporatized pharmacies are more common with few independently owned community pharmacies.<sup>7</sup> Larger, supermarket style pharmacies with a product/retailing orientation are prevalent. Other countries with a regulated market, such as Australia, Spain, France and Italy, are dominated by smaller, independent pharmacies.<sup>40</sup> In some of these markets, the opportunity for the emerging, service orientated model of pharmacy is being closely pursued to compete with the product/retail model.<sup>44</sup>

## ADDRESSING CHANGE

Change in community pharmacy has traditionally been addressed in two ways. Firstly, an individual practitioner’s point of view has been taken using change theories and strategies

largely focused on their behavioural change.<sup>47,48</sup> Secondly, recent research has focused on the organisational level analysis in addition to the individual perspective.<sup>49,50</sup> Some of this research has used management theories to analyse service integration in practice and promote CPS implementation and sustainability.<sup>42,45</sup> Furthermore an innovative Australian study focused on building capacity in community pharmacy used the framework of organisational flexibility (OF) to research CPS implementation.<sup>27,44</sup> OF is a key business objective to improve viability in a changing environment.<sup>51</sup> The concept originally referred to the capacity of organisations to proactively and successfully adapt in a dynamic environment.<sup>52</sup> Volberda defined OF as “the degree to which an organisation has a variety of managerial capabilities and the speed at which they can be activated, to increase the control capacity of management and improve the controllability of the organisation”.<sup>53</sup> Feletto et al applied OF to community pharmacies using a pre-existing scale to measure the type of flexibility in organisations.<sup>54</sup> The study illustrated the benefit of applying management frameworks to community pharmacy, identified capacity building and strategic decision making by pharmacy owners as critical factors to enable and sustain implementation of CPS.<sup>54</sup>

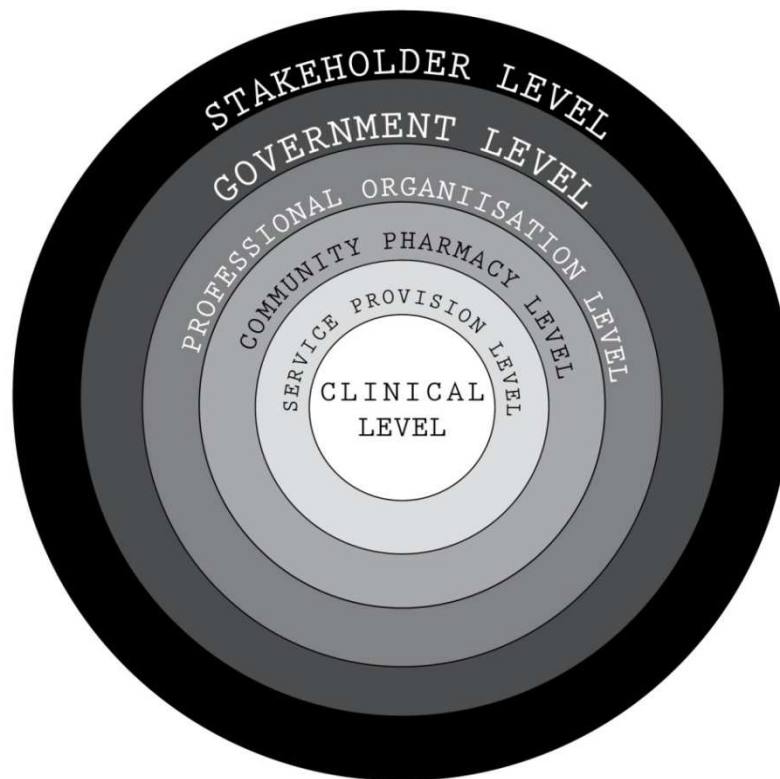
## IMPLEMENTATION

Service implementation is complex and represents an area in which community pharmacy has had limited past experience. Pharmacists have expressed the need for more assistance in guiding the implementation of services.<sup>27,28</sup> Evidence has shown that CPS provision can result in a viable pharmacy practice, nonetheless the perception by pharmacy owners that this viability cannot be sustained in the long term has hindered service implementation.<sup>27,42,44</sup> There is an existing reliance on dispensing medications as the key source of income supports the product orientated model. The challenges in optimising viability through CPS provision include payment for services to reduce community pharmacy reliance to product supply and validating any cost to patients and/or third party payers.<sup>42</sup> There has been criticism of the lack of implementation even when payment has been available for service provision. Much of this lack of implementation has been attributed to practitioners. However, an alternative hypothesis may be that there has not been a profession-wide, holistic integrated approach specific to pharmacists who wish to adopt CPS.<sup>42</sup> The holistic integrated approach would incorporate all significant factors and aid in capacity building of pharmacy owners and pharmacy practitioners.<sup>27,55</sup>

Therefore the objective of this article is to provide a platform for change that can guide this holistic and integrated approach to service implementation in the profession.

## HOLISTIC AND INTEGRATED MODEL

The issues outlined above, combined with evidence from pharmacy practice research identified six key levels of change encapsulated in a holistic approach to implementation of services in community pharmacy (Figure 1). This approach is based on an analysis of historical developments, practice experience and evidence based research.

**Figure 1:** Holistic approach to service implementation

### CLINICAL LEVEL

The initial response by professional organisations and universities to CPS was to develop initiatives to improve the clinical competencies of community pharmacist.<sup>35,36</sup> Clinical practice is the foundation of pharmacy practice and is supported through continued development of pharmacists' clinical skills and competencies.<sup>35</sup> The focus of clinical practice is to improve patients' health outcomes, optimise pharmacist-patient relationship and increase collaboration with other health care professionals.<sup>56</sup> The first reaction by universities and professional organisations to change was to offer clinical modules modeled on medical courses and mainly concentrating on disease states and medications. Later development included the addition of case studies in these programs to have a greater emphasis on practical application.<sup>36</sup> During this phase, research began to focus on interventions leading to behavioural changes that impact on patient consultations and on change to the attitude and perceptions of individual pharmacists.<sup>47</sup> Although it made logical sense to increase the clinical competency of individual pharmacists and increase patient contact it became evident that CPS implementation would not be sustainable without additional enablers. In some countries, proactive practitioners commenced providing services but these were inconsistent. Much of the research at this time began to identify barriers with payment for services identified as a major issue.<sup>57-59</sup>

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## **SERVICE PROVISION LEVEL**

In 1990 Hepler and Strand, with the publishing of the conceptual paper on Pharmaceutical Care had an impact on the profession worldwide. However, the concept had to be translated to service provision at the community level.<sup>2</sup> Following, research based on evaluation of the impact of CPS produced with a major objective of defining specific services, classification systems, and methodologies, evaluating the clinical, economic and humanistic impact and generating data to negotiate service payments.<sup>13,15,17</sup> Services and educational programs were designed for medication management and reviews, chronic disease states, such as asthma and diabetes. Studies provided clear and useful guidelines for the application of the clinical knowledge to practice through service provision frameworks. The implementation of services was slower than anticipated and sparked further research to uncover the barriers to service implementation.<sup>60-62</sup> The major barriers cited, reinforcing previous findings, were the time involved and lack of remuneration for service delivery.<sup>60-62</sup> Research into facilitators of practice change began to undertaken. At the professional organisation level it was thought that if payment was provided, and coupled with clinical competence, implementation would be inevitable. In hindsight this level overlooked the context of the environment in which the service was being undertaken, that a pharmacy is a business needing to maintain its viability.

## **COMMUNITY PHARMACY LEVEL**

The limited implementation in practice then stimulated work which considered community pharmacies as individual organisations with competing objectives of providing health care and maintaining their viability.<sup>26,28,42</sup> Research was conducted to identify the facilitators of implementation to understand how services could be more effectively adopted.<sup>63</sup> This research identified new barriers and facilitators which helped to better understand and target activities to promote the uptake of services.<sup>60,61,63</sup> Factors were identified that included specific management skills such as delegating and leading, managing staff, internal communication, pharmacy layout, enhancing external stakeholder relationship, managing consumer expectation and marketing.<sup>60,61,63</sup> An important concept was the growing acceptance of professional organisations that payment for service delivery was essential but not the sole critical factor for implementation.<sup>42,61,64</sup> Sustainable delivery of services would require fundamental changes to daily professional and business practices and practice change needed to integrate the business and health care elements of community pharmacy.<sup>42,65</sup>

## **PROFESSIONAL ORGANISATION LEVEL**

Implementing business and professional aspects requires change in community pharmacies and support from professional pharmacy organisations.<sup>27,61</sup> Professional organisations can be divided into two types, those that represent the professional role of pharmacists and those that represent their business requirements. In some countries there are organisations that merge these two interests, but these are generally dominated by pharmacy owners. In some cases this could be the cause of the limited integration of professional and business issues. These organisations often compete to provide support services required by pharmacists in practice,



which consequently results in a delay in the provision of the necessary support.<sup>27,28</sup> Professional organisations need significant changes to organisational policies, resources and internal infrastructure. The existing product-based focus and subsequent product based remuneration currently supported by the professional organisations needs to be shifted to further support CPS provision and a patient orientated model.<sup>32,44,55</sup> Alongside the change required at the community pharmacy level, it is essential that professional organisations adapt their support systems to address the needs of practicing pharmacists. This implies a change in the traditional role of professional organisations from their normal activities to include setting professional standards, lobbying with stakeholders, negotiating payment for services and the introduction of adequate support systems for pharmacists and pharmacy. This would require significant internal reorganisation and restructuring which has not occurred in many organisations to date.<sup>7,32,66</sup>

Practice based research has begun to incorporate the role of the profession and their respective associations in providing support through infrastructure, policy or resources in planning for sustainable CPS delivery. Clear strategic initiatives from the profession need to be mapped through more extensive empirical research. Few studies have focused on providing concrete directions for professional organisations. On the positive side, where remuneration for services has existed for more than ten years there is evidence of internal restructuring of professional organisations.<sup>67</sup> Sustainable changes to a patient focused model integrating CPS requires the support from professional organisations.<sup>60,61,65</sup> Without this support it could be assumed that service implementation will continue to lag. The incorporation of the concept of a patient orientated model into the strategic direction of professional organisations is a necessary pillar for ensuring the success of CPS implementation.

## GOVERNMENT LEVEL

Professional organisations and individual pharmacists appear to perceive an unwillingness of national governments to provide remuneration for CPS. The main role of government is seen by pharmacists as being solely associated with cost reduction initiatives and reduction of product margins. However, evidence suggests otherwise. A number of governments have instigated reforms to the health care systems which directly benefit pharmacy and support CPS provision.<sup>7,32,66</sup> However, Government's objective is to ensure appropriate use of taxpayer funds.<sup>30,22</sup> They require value to be proven before allocating funds to CPS provision payments. In many counties the prerequisite for approving CPS remuneration has been rigorous scientific research findings illustrating the cost effectiveness of pharmacists' clinical interventions.<sup>22</sup> These finding alone are not always sufficient, CPS must be placed in the existing government agenda.<sup>68,69</sup> In some cases third parties, such as consumers, have pressured governments to remunerate CPS relating to the provision of medication information. However, research on the impact of government policy on CPS is sparse.

Past experience has suggested that payment for services alone is not sufficient to support sustainable CPS provision.<sup>42</sup> Government can play a wider role in sustainability that goes

beyond facilitating a service payment. This includes resource and intellectual support for community pharmacy. Some governments have sponsored initiatives that provide quality and accreditation frameworks for pharmacy with associated incentives.<sup>21,23,41,70</sup> There have been financial incentives provided to encourage infrastructure changes and the implementation of quality assurance systems.<sup>66</sup>

The recognition of community pharmacy as an integral part of the health care system and pharmacists as members of the primary health care teams is of great importance to the implementation process. There is now the need to cement the role of community pharmacy and pharmacists in multi disciplinary disease management teams through government policy. Governments do have a role not only in providing financial support for CPS but including community pharmacy in health policy. When governments do not act through their own initiatives then there should be a desire by pharmacy organisations to lobby.

### STAKEHOLDER LEVEL

The final and overarching level is the stakeholder level. This level includes representatives external to the profession, such as patients, their organisations, and bodies of other health care professional groups such as physicians and nurses.<sup>71-73</sup> The literature only provides a limited analysis on the impact of these bodies on the implementation process and focuses primarily on two areas: (1) the use of pharmacies by consumers and/or their level of satisfaction with a given service and (2) collaborative efforts between pharmacists and the other health care professionals as part of a collective primary health care team, specifically physicians.<sup>74,34,75</sup>

The effect of CPS provision to external stakeholders can be illustrated using medication management reviews (MMR) with their effect on physicians and patients.<sup>19,74,34</sup> A key outcome of MMR is an adjustment in the patient's medication therapy. Without this adjustment the review can be said to have limited application. The degree of collaboration between the physician and the pharmacist directly influences the success or failure of the MMR. This collaboration can be influenced by the interaction between physicians and pharmacists at four levels: a national (professional organisation) level, a regional (state or provincial) level, a local health care team level (with a group of health care professionals) and an individual level in regards to a specific patient. Issues at any of these levels can affect the outcome of MMRs.

In many countries there is open criticism by physicians regarding the provision of CPS. Generally, physicians consider pharmacists as lacking the competency to provide CPS. They also believe that CPS encroach on the physician's professional role and are reluctant to share confidential clinical information about their patients. Community pharmacies are seen as focused on retailing rather than health care, thus motivated by improving their bottom line rather than the patient's health. If left unaddressed, these issues can impede any CPS implementation program. A collaborative relationship with local physicians has been identified as a key facilitator MMR services.<sup>42,61,76</sup>

In contrast to the opinions held by physicians, patients who have been provided CPS have high rates of satisfaction but paradoxically consumer representative organisations are critical of the consistency of pharmacy performance.<sup>8,77-79</sup> Generally, pharmacy users are unaware of CPS and their benefits, thus there is little demand being generated. As part of the retail environment, community pharmacists are highly sensitive to consumer demand and expectations and suffer financially if they do not respond to user needs. They are accustomed to focus on improving waiting time and pricing to meet user demands but in regards to CPS provision they are less proactive.<sup>80</sup> Future CPS implementation programs should include consumer awareness and internal marketing to promote the service. Overall, the importance of external stakeholders should not be underestimated as they provide a valuable external stimulus.

### **USING THE HOLISTIC AND INTEGRATED APPROACH IN PRACTICE: CONSIGUE PROGRAM**

Past experience with service implementation has seen the application of programs that include one or two of levels described above rather than a holistic approach. A program (conSIGUE) being conducted in Spain has attempted to integrate all six levels to support the implementation and evaluation of a medication management service (Seguimiento Farmacoterapéutico). The overall aim of conSIGUE is to evaluate the clinical, economic and humanistic impact of the provision SFT in the community pharmacy in the elderly poly-pharmacy population.

The program began with a series of consultations with professional organisations and stakeholders to ensure that the program objectives were aligned to the key government objectives in Spain. As in many other countries, the Spanish elderly poly-pharmacy population is a group placing high demand on the health care system because of their complex medication regimens and co morbidities.<sup>81</sup> The Spanish government considers this group as a priority in their strategic health plans for the future.<sup>82</sup> The government and, the major pharmacy professional association, such as the Consejo General de Colegios Oficiales de Farmacéuticos (CGCOF), have supported the delivery of medication related services through community pharmacies.<sup>83</sup> To plan the changing role of pharmacy, a group of leading politicians, professional pharmacy associations and non-university and university research groups came together and in January 2008 produced a consensus outlining their commitment to providing three key CPS through community pharmacies. One of these services is Seguimiento Farmacoterapéutico (SFT), a medication management service.<sup>84</sup>

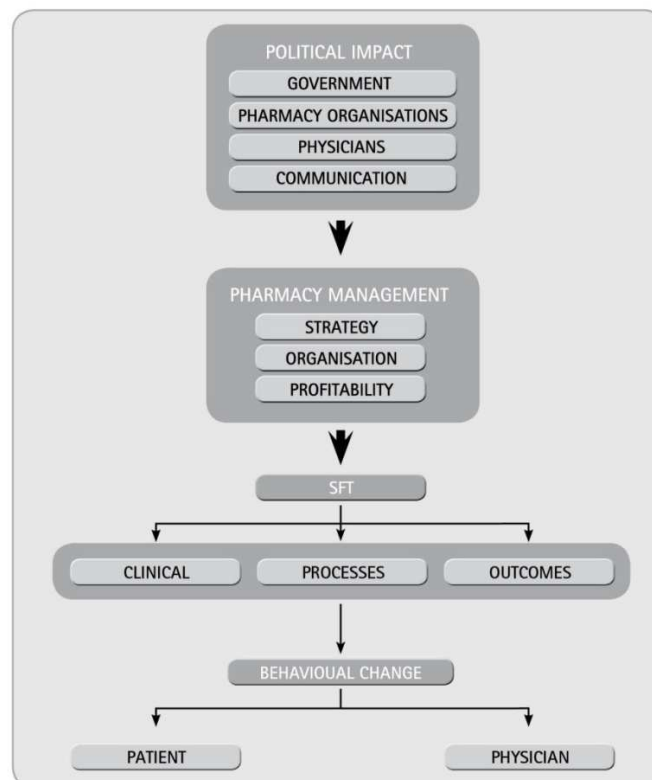
A holistic program has been designed to gain support from stakeholders, professional organisations and to set up the service effectively in the pharmacies. Led by the University of Granada, conSIGUE has obtained support from the Government, CGCOF, medical organisations and other Spanish universities for the implementation of SFT in Spanish community pharmacies. The program is being conducted in selected provinces across the country and supported by the local pharmacy organisations. In addition to their collaboration, the program aims to stimulate structural and strategic change in these organisations to

incorporate CPS provision in the long term.

Together with the Consejo and local organisations, the autonomous communities (provincial government) in participating provinces have been contacted to encourage their cooperation. Government financial and structural support is essential to the success of the program in the long term. Medical organisations have also been approached at national and provincial levels to explain SFT and the benefits of this service to the medical profession and patients to encourage collaboration. Additionally, local health care team and individual collaboration with physicians is occurring, with meetings being held by individual pharmacists participating in the program. A national advisory committee to guide the program has been created, as well as advisory committees in each participating provinces, which include representatives from consumer groups, physician associations, political groups, universities and pharmacy associations.

The program consists of training for participating pharmacists that cover the six levels and critically on-site support throughout the program. The training program has been designed in four parts and is provided to pharmacists over a series of days by a group of experts (Figure 2).

**Figure 2:** conSIGUE – Holistic training program



Part 1 outlines the Spanish political environment that has resulted in the acceptance of SFT

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as a service to be provided through community pharmacy and the support from various professional organizations and political bodies. The purpose of this part is to contextualize the need for change as well as acknowledge the support for SFT provision. In this way, it outlines the place of SFT within the national health policy and the support of physician representative organisations.

Part 2 guides pharmacists through the strategic options available and highlights how SFT integrates into pharmacy business models. The facilitators and organisational needs of pharmacies when implementing services found in previous research are discussed. Pharmacists are provided with practical action plans to address each issue applicable to their pharmacy. The return on investment of SFT provision is also outlined and pharmacists are provided with a guide for its calculation.

Part 3 addresses the process of SFT provision based on the Dader method<sup>85</sup> and the clinical knowledge required by pharmacists to evaluate the health problems of poly pharmacy in elderly patients. The emphasis is placed on teaching the pharmacist the essential elements of the process and giving them an overview of the relevant clinical issues they require so they can apply it to their patients. The emphasis is not placed solely on theoretical aspects of the process and clinical pharmacy. It includes its practical application using case example that pharmacists work through. The SFT service is described in detail.

Part 4 focuses improving the communication and collaboration between community pharmacists, patients and physicians during the process of SFT. Firstly, this looks at the pharmacist-patient interaction and the behaviour change required by both to improve SFT outcomes. The acceptance of pharmacist-led interventions by physicians has proven difficult in the past because of the overlap in professional roles. It is widely acknowledged that collaboration between physicians and community pharmacists can be improved to facilitate the provision of SFT. Therefore, conSIGUE includes a pharmacist-physician intervention aimed at improving their collaboration.

Research has suggested that pharmacist training needs to be supported by individualised assistance over time to encourage CPS implementation and sustainability.<sup>27,86</sup> The role of a “formador colegial” was developed as part of the program to provide ongoing support to participating pharmacists. The “formador colegial” carries out a number of visits to the pharmacies to assess their progress with SFT and aid them with any problems they may be facing. This addresses the needs of pharmacists related to a number of levels in the holistic approach such as collaboration with physicians, patient related issues and clinical knowledge. The “formador colegial” performs the role of change agent to support the platform presented in Figure 1 and the overall holistic approach.

## CONCLUSION

A concentric model was developed to illustrate the evolution and implementation of CPS and the holistic and integrated approach required to support change. Community pharmacy

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and pharmacists cannot change without support from the professional, government and stakeholder levels. Pharmacy decision makers need to align policy changes and strategic thinking with practical applications. There is a need for professional organisation to restructure their own internal management systems and support to provide sophisticated programs enabling community pharmacists to provide CPS. The lack of support in this area may result in the prevalence of product orientated model, which is more retail focused and currently more developed than the patient orientated model.

The foundation for change begins by having a workforce that has the theoretical understanding, competency and the skills to practically apply their comprehensive knowledge. At the same time, pharmacists need to build their business and management skills to ensure that they can operate financial viable businesses. This will enhance CPS sustainability and will benefit the patients and society. The responsibility for initiating this change lies in the leadership and intellectual role of the universities. The universities have to accept their responsibility of being change agents for the profession through a greater relevance of the degrees for the profession. University research leadership will ensure that the profession take evidence based decisions and that they can be active partners in determining the future of pharmacy. The establishments of departments of pharmacy practice, with research capability, are necessary. If universities fail to act then the profession will be required to look outside faculties of pharmacy for this research.

Once the foundations are set the responsibility then predominantly transfers to the profession where it needs to create a practice and business environment where the patient orientated model can prosper. This change can commence through the reorganising and restructuring of professional organisations to promote CPS and reduce the dependent of product based structures. The organisational change should include a review of its internal political processes staffing competencies and structures. Without a change in the professional organisations there is a high probability that the product based community pharmacy model will increase its influence. Retailing and dispensing of products will be the major activity and business of community pharmacy leading to a possible further exclusion of pharmacist from the primary health care teams and an inability to serve the primary health care needs of the population.

External stakeholders such as governments, health care providers and patients have recognised that medications and CPS are an essential element of the health system. If pharmacists are medication experts and community pharmacy is the model for delivering medications and services to optimise their use, a change in the way the current model operates is required. The rate and depth of change for the profession is primarily an internal decision and challenge. It is through programs such as conSIGUE that the holistic and integrated approach can be tested and refined.

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