Interacción farmacéutico-paciente en la farmacia comunitaria, en particular, con el proceso y aplicación de SFT

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Interacción farmacéutico-paciente en la farmacia comunitaria, en particular, con el proceso y aplicación de SFT

TÍTULO EN INGLÉS

Pharmacist-patient interaction in community pharmacy using the delivery of Medication Reviews with Follow Up

Memoria presentada por Marta Sabater Galindo para obteber el Grado de Doctor

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Granada, Junio 2016

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Que **Marta Sabater Galindo** ha realizado el trabajo de investigación titulado "**Interacción farmacéutico-paciente en la farmacia comunitaria, en particular, con el proceso y aplicación de SFT"** bajo mi dirección y que la presente memoria expone fielmente los resultados obtenidos. En cumplimiento con la normativa vigente, me complace informar que el trabajo de investigación ha concluido y reúne los requisitos oportunos, por lo que se presenta para que pueda ser juzgado por el tribunal correspondiente.

Granada, 25 de Mayo de 2016

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Granada, 25 de Mayo de 2016

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El doctorando

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Fernando Martínez Martínez

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“No hay que olvidar que hasta la más larga caminata,

siempre comienza por un primer paso”

A mi hija Marta

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INDICE

ABREVIATURAS EN ESPAÑOL

UGR	Universidad de Granada
UTS	Universidad Tecnológica, Sídney
SFT	Seguimiento Farmacoterapéutico
OMS	Organización Mundial de la Salud
ONU	Organización de las Naciones Unidas
MCS	Modelo de Creencias en Salud
TLO	Teoría del Logro de Objetivos

ABREVIATIONS IN ENGLISH

HBM	Health Belief Model
TGA	Theory of Goal Attainment
SEM	Structural Equation Modelling
CFA	Confirmatory Factor Analysis
EFA	Exploratory Factor Analysis
RMSEA	Root Mean Square Error of Approximation
SRMR	Standardized Root Mean Square Residual
GFI	Goodness of Fit Index
AGFI	Adjusted Goodness of Fit Index
NFI	Normalized Fit Index
NNFI	Non-normed Fit Index
CFI	Comparative Fit Index

RFI	Relative Fit Index
IFI	Incremental Fit Index
AVE	Average Variance Extracted
IG	Intervention Group
CG	Control Group

ABSTRACT

I. Introduction

The relationship between a healthcare professional and a patient has been demonstrated to directly influence health outcomes. Similarly, a patient-centeredness approach has proven to significantly improve patient experience of the health system. The emerging trend for delivering patient-centred services in community pharmacy has led to an increased interest in the relationship between the pharmacist and the patient. Research on the pharmacist-patient relationship has been approached from different perspectives, including how the interaction impacts the quality of the relationship, patient satisfaction, health outcomes, or how patient's health behaviour is modified. However, no theoretical model for the community pharmacist-patient relationship appears to have been developed. Theoretical models of other healthcare professional-patient relationships may be a reasonable starting point for constructing such a theory.

On the other hand, the provision of professional services in community pharmacy, intended to improve health outcomes and the quality use of medicines, could also affect patients' overall perception of the pharmacist. This perception could be defined as the patient's impression or idea of the community pharmacist as a healthcare professional and it has been labelled as the "Perceived pharmacist image".

However, despite some pharmacists are already providing services, some studies show that patients' expectations of pharmacists still appear to be related to their dispensing role. Patients are still unaware what professional services a pharmacist is able to provide, are not interested in those professional services or prefer other professionals to deliver them. Therefore, it is important to understand patients´ perception and expectations of the pharmacist in order to know and meet those expectations, and to provide efficient professional services.

II. Objectives

The thesis approaches the relationship between the community pharmacist and the patient through the identification of healthcare professional-patient relationship theoretical models; as well as through the development and test of two conceptual models that explain patients´ perception and expectations of the pharmacist. Specifically, this Doctoral Thesis is structured into three research studies, which specific objectives are:

1. To identify healthcare professional-patient relationship theoretical models and individual influential factors that impact on this relationship and could be relevant to pharmacy practice.

2. To develop and test a conceptual model of the patient's perception of the image of the community pharmacist

3. To develop and test a conceptual model of patient's expectations of the role of the community pharmacist. .

Methods, results and discussion of these research studies are presented as a compilation of scientific articles.

III. Healthcare professional-patient relationships: systematic review of theoretical models from a community pharmacy perspective

Abstract:

Objective: To identify health care professional-patient relationship theoretical models and individual factors that may have an influence on this relationship and be relevant to community pharmacy practice.

Methods: Using the recommended methodology by Prisma statement, a search was undertaken in PubMed for health care professional-patient relationship theoretical models that included individual factors.

Results: Eight theoretical models met the inclusion criteria. These models were classified based on their aim, their focus on the interaction process, external factors influencing the process, and their practical applications. The most common influential modifiable factors were knowledge, needs, values, expectations, beliefs and perceptions.

Conclusion: 'The Theory of Goal Attainment' (TGA) appears to be the most useful model for community pharmacy practice. The perceptions and expectations of both patients and pharmacists could be the two most interesting modifiable factors to apply in pharmacy practice. These modifiable influential factors could be altered by specific training such as behavioural aspects.

Practice Implications: No theoretical model has been specifically developed for analysing the community pharmacist-patient relationship. TGA may be appropriate for community pharmacy practice, since it takes into consideration both, attaining patient´s health outcomes, as well as improving patient-pharmacist relationship.

IV. Patients´ expectations of the role of the community pharmacist: development and testing of a conceptual model

Abstract

Background: Community pharmacists are expanding their roles to include the provision of expanded professional pharmacy services. This role expansion is associated with a new patients´ impression of the pharmacist that could be labelled as "Perceived pharmacist image". This particular perception of the pharmacist also has led to an increased interest of the pharmacist-patient interaction. Role Theory can be used to explain the interaction between this pair of individuals, by focusing on the roles performed by each one.

Objective: To develop and test a model that relates patients´ image of the pharmacist to their expectations of pharmacist's role, and how this then influences patients´ reactions towards the pharmacist's role.

Methods: A qualitative study was undertaken and a questionnaire was created for the development of the model, based on the Role theory. The content, dimensions, validity and reliability of the questionnaire were pre-tested qualitatively and in a pilot mail survey. The reliability and validity of the proposed model were tested using Confirmatory Factor Analysis (CFA). Structural Equation Modelling (SEM) was used to explain relationships between dimensions of the final model.

Results: A final model was developed. CFA concluded that the model was valid and reliable (Goodness of Fit indices: $x^2(109) = 227.662$, $p = 0.000$, RMSEA=0.05, SRMR=0.05, GFI=1.00, NNFI=0.90, CFI=0.92). SEM indicated that "Perceived pharmacist image" was associated positively and significantly with both "Professional expectations" (the standardized path coefficient of (H) = 0.719, $p<0.05$), as well as "Courtesy expectations" (the standardized path coefficient of (H) = 0.582, $p<0.05$). At the same time, "Professional expectations" were associated positively and significantly with "Positive reactions" (the standardized path coefficient of (H) = 0.358, $p<0.05$), but negatively with "Negative reactions" (the standardized path coefficient of (H) = -0.427, $p<0.05$). "Courtesy expectations" were associated positively and significantly with "Positive reactions" (the standardized path coefficient of (H) = 0.081, $p<0.05$), as well as "Negative reactions" (the standardized path coefficient of (H) = 0.450, $p<0.05$).

Conclusions: A valid and reliable model of the patients´ image of the pharmacist related to their expectations and reactions to the pharmacist´s role was developed and tested. When the perceived image of the pharmacist is enhanced, patients´ expectations of the pharmacist are heightened; in turn, these expectations were associated with reactions of patients.

V. Modelling elderly patients´ perception of the community pharmacist image when providing professional services

Abstract

Professional pharmaceutical services may impact on patient's health behaviour as well as influence on patients´ perceptions of the pharmacist image. The Health Belief Model predicts health-related behaviours using patients' beliefs. However, health beliefs could transcend beyond predicting health behaviour and may have an impact on the patients' perceptions of the pharmacist image. This study objective was to develop and test a model that relates patients' health beliefs to patient's perception of the image of the pharmacist, and to assess if the provision of pharmacy services (Intervention group-IG) influences this perception compared to usual care (Control group-CG). A qualitative study was undertaken and a questionnaire was created for the development of the model. The content, dimensions, validity and reliability of the questionnaire were pre-tested qualitatively and in a pilot mail survey. The reliability and validity of the proposed model were tested using Confirmatory Factor Analysis (CFA). Structural Equation Modelling (SEM) was used to explain relationships between dimensions of the final model and to analyse differences between groups. As a result, a final model was developed. CFA concluded that the model was valid and reliable (Goodness of Fit indices: $x^2(80) = 125.726$, $p = 0.001$, RMSEA=0.04, SRMR=0.04, GFI=0.997, NFI=0.93, CFI=0.974). SEM indicated that "Perceived benefits" were significantly associated with "Perceived Pharmacist Image" in the whole sample. Differences were found in the IG with also "Self-efficacy" significantly influencing "Perceived pharmacist image". A model of patients' health beliefs related to their image of the pharmacist was developed and tested. When pharmacists deliver professional services, these services modify some patients' health beliefs that in turn influence public perception of the pharmacist.

VI. Perception of the polymedicated elderly patient about the community pharmacist's role. [Percepción del paciente mayor polimedicado sobre el rol del farmacéutico comunitario]

Abstract

Introduction: Currently, almost the 80 percent of the health expenditure in Spain corresponds to people over 65 years old. This population has become polypharmacy as a result of their multiple diseases. Community pharmacists, due to their proximity and accessibility, are one of the health agents who could improve the quality use of medicines and help to control this expense. However, pharmacists are still known by their dispenser role.

Materials and methods: An exploratory method was used based on the qualitative research. The Role Theory and Health Belief Model were used as theoretical frameworks. Semi-structured interviews were conducted as a means to get information.

Results: Polypharmacy elderly patients tend to associate the role of the healthcare professional with their general practitioner and community nurse, giving less priority to the function of the pharmacist. Patients still identify the role of the pharmacists with the supplying of drugs and healthcare products, i.e., with their dispenser role. However, patients highlight the great accessibility and trust that they have towards these professionals.

Conclusion: The polypharmacy elderly patients expect from the pharmacist in Spain a good treatment as well as a dispenser role. This might be due to the low expectations that they have about the pharmacist providing professional pharmacy services. They should extend their current role and also provide professional services in order to modify patients´ perception of the pharmacist.

CAPITULO 1

INTRODUCCION Y JUSTIFICACION

1.1. Situación actual

En los últimos años, debido al aumento de la calidad y esperanza de vida, se está produciendo un envejecimiento progresivo de la población mundial.[1] Según la Organización Mundial de la Salud (OMS), el número de personas mayores de 60 años será el doble que el actual para el año 2050, lo que requerirá de numerosos cambios en la sociedad y en las políticas sanitarias.[2] Además, este colectivo genera la mayor parte del gasto sanitario debido a las altas tasas de polifarmacia y gastos sanitarios añadidos (ingresos, urgencias médicas, etc.).[3] Desde la OMS y la Organización de las Naciones Unidas (ONU) se reclama abordar este problema utilizando diferentes medidas en las que participen distintos agentes de salud.[2]

Los farmacéuticos comunitarios, siendo los agentes sanitarios más accesibles, deben contribuir a mejorar la salud de la población y disminuir este gasto a través del uso óptimo y racional de los medicamentos.[4-7] Organizaciones como la OMS o la Federación Internacional Farmacéutica (FIP) promueven desde hace años que el farmacéutico tenga una acción más centrada en el paciente, más allá de la venta del medicamento.[8] Por ello, en los últimos años, algunos gobiernos o instituciones ya están fomentando que el farmacéutico comunitario tome mayores responsabilidades en la salud del paciente.[5, 9-11]

La farmacia comunitaria, se encuentra dentro del sector servicios o sector terciario, el cual se caracteriza por un alto grado de interacción persona-persona. Además, se pueden distinguir entre dos tipos de servicios: servicios puros, donde no hay intercambio de un bien tangible (como por ejemplo una consulta médica o un servicio de consultoría); o servicios mixtos, donde además del componente intangible, se realiza un intercambio de un elemento material (como por ejemplo la venta de un medicamento en una farmacia).[12]

La farmacia comunitaria, hasta hace unos años, se caracterizaba únicamente por la prestación de servicios mixtos, como es la dispensación de medicamentos acompañada del consejo farmacéutico. Sin embargo, desde los años 90, con el desarrollo de la Atención Farmacéutica,[13-15] y siguiendo las directrices de organismos internacionales como la OMS o FIP,[7] el farmacéutico ha expandido su rol de dispensador de medicamentos para prestar

también servicios profesionales (servicio puro);[16] lo que conlleva una mayor interacción con los pacientes.[9, 10, 17-20]

De este modo, el farmacéutico, a través de las intervenciones farmacéuticas podría ayudar a modificar el comportamiento de los pacientes, mejorando así los efectos sobre su salud y reduciendo el coste sanitario.[10, 16, 21-25] El paciente ideal para recibir este tipo de intervenciones sería el paciente mayor, ya que, además de los problemas de salud propios, los cambios fisiológicos que se producen en el envejecimiento contribuyen a la aparición de problemas de seguridad y de efectividad de la farmacoterapia.

Como se ha mencionado anteriormente, la provisión de servicios profesionales farmacéuticos mejora los procesos y resultados de salud de los pacientes.[21, 22, 26, 27] Sin embargo, no solo mejorarían los resultados clínicos, sino que también favorecerían los resultados humanísticos como son el conocimiento o la satisfacción.[28-31] El grado de satisfacción que puede alcanzar una persona depende del cumplimiento de las expectativas de los pacientes; de lo que piensan que van a recibir frente a la percepción de lo que han recibido.[29] Algunos estudios afirman que la satisfacción de los pacientes con el farmacéutico es alta; sin embargo, esto podría ser debido a que sus expectativas respecto a este profesional son bajas.[29, 32] Los pacientes todavía tendrían unas expectativas del farmacéutico como un dispensador de medicamentos,[33, 34] desconociendo el nuevo rol del farmacéutico como proveedor de servicios profesionales, no interesándole este nuevo rol o prefiriendo a otros profesionales sanitarios como proveedores del servicio.[35-37] Por lo tanto, es importante entender las expectativas de los pacientes para proveer de una manera eficiente los servicios profesionales.[33, 38]

La provisión de servicios profesionales farmacéuticos, además de impactar en los resultados de salud de los pacientes, también estaría provocando la aparición de nuevas percepciones del paciente sobre el farmacéutico que serían interesantes de evaluar.[28, 33, 39-42] Esta percepción podría ser definida como “aquella impresión o idea global del farmacéutico comunitario como profesional de la salud” y para este estudio se ha denominado “Imagen percibida del farmacéutico”. Esta percepción estaría influenciada tanto por factores

inherentes al profesional, como son su apariencia personal y vestimenta (bata) o su conocimiento y competencia percibidas; como por factores externos, como por ejemplo el ambiente en el punto de venta.[43-47]

Hasta el momento, en farmacia, se ha estudiado cuál es la percepción y las preferencias del paciente con respecto a los servicios y sus beneficios.[37, 48-52] Sin embargo, no se ha profundizado sobre la percepción que tiene el paciente de la imagen profesional del farmacéutico como proveedor de servicios profesionales sanitarios y cuánto pueden llegar a influir los factores anteriormente descritos. Conocer esta percepción y los factores que influyen en ella, resultaría crucial para desarrollar estrategias y acciones que mejorasen la visión que tiene el público en general del farmacéutico.

La interacción entre un profesional sanitario y un paciente se ha demostrado que puede influenciar directamente sobre los resultados de salud de los pacientes.[53-55] Por lo tanto, una atención centrada en el paciente sería un elemento clave para una atención sanitaria de calidad.[23, 56-59] En farmacia comunitaria, debido a la expansión del rol del farmacéutico, también se ha despertado un desarrollo e interés en mejorar la relación farmacéutico-paciente.[9, 10, 60-62] Esta relación farmacéutico-paciente se ha estudiado desde distintos puntos de vista, por ejemplo, cómo esta relación influye sobre la satisfacción del consumidor, sobre los resultados en salud o sobre a los comportamientos de los pacientes.[22, 27, 29, 31, 59, 61, 63-67] Sin embargo, hasta el momento, no se ha desarrollado ningún modelo teórico de relación farmacéutico comunitario-paciente que aporte una estructura a seguir e incorpore las fases de desarrollo de la relación a las intervenciones entre farmacéuticos y pacientes.[68] Para abordar esta problemática y desarrollar una teoría que pudiera ser aplicada en farmacia práctica, se podrían utilizar como referencia algunos modelos teóricos ya existentes de relación de otros profesionales de la salud con el paciente. Estos modelos ayudarían a desarrollar habilidades interpersonales y comportamientos sociales entre el farmacéutico y el paciente y mejoraría la provisión de servicios profesionales. Igualmente, sería de relevancia estudiar en estos modelos, aquellos factores que afectan a la calidad de la relación para que, de este modo, se obtengan mejores resultados de salud de los pacientes. Sobre todo, serían de interés aquellos que son

modificables por algún tipo de intervención, ya que permitiría llevar a cabo acciones frente a ellos.

1.2. Marcos teóricos

Otra problemática que con la que se encuentra la farmacia práctica hoy en día, es que el paciente todavía percibe y espera un rol dispensador del farmacéutico comunitario. Para abordar este problema y explicar la perspectiva del paciente sobre el farmacéutico y cómo mejorarla, El Modelo de Creencias en salud (MCS) y la Teoría de Rol serían unos buenos marcos teóricos donde desarrollar este trabajo de investigación.[69] La utilización de estas dos teorías ayudaría a que se reconozca al farmacéutico también como un proveedor de servicios profesionales.

El Modelo de Creencias en salud (MCS), fue desarrollado en los años 50 en EE.UU. para explicar la falta de participación pública en los programas de detección precoz y prevención de enfermedades. Posteriormente, el modelo fue adaptado para explicar y predecir comportamientos relacionados con la salud de los pacientes, como por ejemplo la adherencia del paciente a su tratamiento o a hábitos saludables. Este modelo, relaciona una teoría de toma de decisiones con el comportamiento del paciente, usando las creencias de salud de los pacientes como son los beneficios, las barreras o las señales para realizar una determinada acción relacionada con su salud.[70-75]

El MCS está constituido por una serie de dimensiones que predicen cambios de comportamientos de salud del individuo como son: (1) Severidad percibida (percepción individual de la severidad de una determinada enfermedad o sus consecuencias); (2) Susceptibilidad percibida (percepción individual del riesgo de padecer una determinada enfermedad); (3) Beneficios y Barreras (consecuencias positivas y negativas de realizar una acción); (4) Autoeficacia (percepción individual de poder realizar una acción de una manera exitosa); (5) Señales para la acción (estímulos externos o internos que empujan al individuo a realizar una acción).[71-73]

En el campo de la farmacia comunitaria, este modelo se ha utilizado para evaluar las asociaciones entre las creencias de salud de los pacientes y sus comportamientos de prevención de la salud.[65, 76, 77] Igualmente, el MCS también se ha usado en farmacia, para evaluar cómo las creencias de salud de los pacientes influyen en su percepción sobre los beneficios de la atención farmacéutica y su disposición a continuar usando un servicio de diabetes.[78, 79]

Los servicios profesionales impactan sobre ciertos determinantes de comportamiento, como son las creencias en salud, para modificar comportamientos y mejorar así la salud.[25] Al mismo tiempo, estos servicios, también podrían modificar la percepción del farmacéutico. Por lo tanto, en este contexto de provisión de servicios profesionales, el MCS sería un marco teórico útil para evaluar cómo las creencias de salud de los pacientes impactan sobre su percepción de la imagen profesional del farmacéutico.

La teoría del Rol es una perspectiva sociológica, que tiene su origen en una metáfora del teatro, y que explica la interacción entre individuos focalizándose en los roles que interpreta cada uno.[80, 81] Según Biddle,[81] esta teoría se podría explicar desde 5 perspectivas distintas: (1) funcionalismo, el cual define el rol como una posición estática dentro de la sociedad; (2) interaccionismo simbólico, que afirma que los roles son creados durante la interacción social; (3) estructuralismo, el cual se centra en el papel de la sociedad, y no del individuo, en la definición de los roles; (4) organizacional, que examina como se desarrollan los roles dentro de una organización; y (5) cognitiva, la cual establece una relación entre las expectativas y los comportamientos de un individuo. La perspectiva cognitiva afirma que un rol es generado por un conjunto de expectativas que la sociedad impone a un individuo que ocupa una determinada posición social.[80, 82] Es decir, que existirían ciertas normas sociales para cada rol, por las cuales se esperarían o exigirían ciertas actitudes, comportamientos y conocimientos de ese individuo.[12, 33, 67, 80, 81, 83, 84] Además, cada rol de cada individuo generaría diferentes reacciones en el otro individuo, las cuales ayudarían a confirmar o validar ese rol.[12, 80]

La teoría del rol consiste en una serie de dimensiones como son: (1) "rol" (comportamiento característico asociado a una determinada posición social); (2) "expectativas" (normas, preferencias u opiniones de una determinada posición social, por ejemplo, hasta el momento es esperado un rol dispensador del farmacéutico pero no un rol proveedor de servicios); y (3) "reacciones al comportamiento" (aquellas consecuencias positivas o negativas de un determinado comportamiento; por ejemplo, cuando los farmacéuticos proveen un servicio profesional, el paciente podría reaccionar positivamente aceptando este servicio y volviendo a la farmacia).[12, 81]

La teoría del Rol ha sido utilizada anteriormente en farmacia para evaluar el conocimiento de los pacientes sobre el rol del farmacéutico, o valorar las opiniones y preferencias de los pacientes sobre este rol.[33, 67, 83] Sin embargo, nunca se ha llegado a analizar un modelo conceptual basado en esta teoría.[80] Si los farmacéuticos comunitarios han de asumir un rol de mayor responsabilidad en el manejo de la medicación y la salud del paciente, es importante conocer las expectativas de los pacientes respecto a este profesional y cómo mejorarlas.

La teoría del rol explica que un rol se genera por el conjunto de expectativas que la sociedad espera e impone a una determinada posición social. Por lo tanto, esta teoría sería un buen marco teórico para desarrollar un modelo conceptual que permita entender las expectativas del paciente sobre el farmacéutico cuando se proveen servicios profesionales. Puede que de este modo se mejoren las expectativas del paciente, que hasta el momento solo espera un rol dispensador del farmacéutico, y así el paciente lo reconozca como un profesional capaz también de proveer servicios profesionales.

1.3. Estudio conSIGUE Impacto y Seguimiento Farmacoterapéutico (SFT)

El estudio *conSIGUE Impacto* se llevó a cabo en España entre los años 2010 y 2013 con el objetivo de evaluar el impacto clínico, económico y humanístico de un servicio profesional farmacéutico (el servicio de Seguimiento Farmacoterapéutico -SFT),[85] en pacientes mayores (más de 64 años) polimedicados (5 o más medicamentos) en el ámbito de la farmacia comunitaria.

Este estudio "pretende solucionar aquellos problemas asociados al uso de los medicamentos desde el ámbito de la farmacia comunitaria, contribuyendo a conseguir un sistema de salud coste-efectivo y a mejorar la calidad de vida de los pacientes".[86]

Este programa está liderado por el Consejo General de Farmacéuticos y la Universidad de Granada y cuenta con la colaboración de los Colegios de Farmacéuticos de Guipúzcoa, Granada, Tenerife y Las Palmas, junto con la Sociedad Española de Farmacia Comunitaria (SEFAC), la Fundación Pharmaceutical Care, Universidades nacionales e internacionales y el patrocinio de Laboratorios Cinfa.

El estudio *conSIGUE Impacto* es un ensayo controlado aleatorizado por conglomerados en el que participaron 1403 pacientes polimedicados mayores (715 pacientes en el grupo control y 688 en el grupo intervención), 178 farmacias (99 en el grupo intervención) y 250 farmacéuticos de 4 provincias (Granada, Guipúzcoa, Las Palmas y Santa Cruz de Tenerife). Los pacientes del grupo intervención recibieron el servicio de SFT durante 6 meses.

El SFT ha sido definido, a través de un Documento de Consenso sobre Atención Farmacéutica, como:

"la práctica profesional en la que el farmacéutico se responsabiliza de las necesidades del paciente relacionadas con los medicamentos. Esto se realiza mediante la detección, prevención y resolución de problemas relacionados con la medicación (PRM). Este servicio implica un compromiso, y debe proveerse de forma continuada, sistematizada y documentada, en colaboración con el propio paciente y con los demás profesionales del sistema de salud, con el fin de alcanzar resultados concretos que mejoren la calidad de vida del paciente." [Panel de Expertos Ministerio de Sanidad y Consumo 2001]

El SFT se centra principalmente en detectar, prevenir y resolver Problemas Relacionados con la Medicación (PRM) y en los resultados clínicos.[85] Se ha demostrado que se trata de una intervención efectiva, ya que permite optimizar las prescripciones de los medicamentos, los resultados clínicos,[87, 88] y mejorar la calidad de vida de los pacientes mayores polimedicados, y también parece que podría ser costo-efectiva.[89] Es un servicio profesional farmacéutico, comparable a otros servicios profesionales que se proveen en otros países como son "Medication Therapy Management" (USA), y "Home Medicines Review" (AUSTRALIA).[11, 90]

En 1999, el Grupo de Investigación en Atención Farmacéutica de la Universidad de Granada desarrolló una metodología (Panel de Consenso, 1999): el Método Dáder de Seguimiento Farmacoterapéutico, que fue actualizada en 2007.[85] Este método permite sistematizar el SFT para que así el farmacéutico pueda seguir unas pautas claras y sencillas para llevar a cabo este servicio. Esto incluye el diseño de un plan de actuación con el paciente para favorecer la continuidad del SFT en el tiempo.[85]

Como resultado de la prestación del servicio de SFT, el estudio *conSIGUE Impacto* mostró una reducción del 56% en los problemas de salud no controlados, en un 49% los pacientes que refirieron haber acudido a urgencias y en un 55% los hospitalizados. También se obtuvo una mejora de la calidad de vida en 6,6 puntos de media (ajustado).[86, 89]

El siguiente paso de este estudio seria conseguir la implantación de este servicio en las farmacias. Pero, para poner en práctica el SFT en la farmacia, como cualquier otra estrategia empresarial, es necesario conocer las preferencias y opiniones de los pacientes/clientes para satisfacer así sus necesidades.[91] Además, saber lo que piensa el paciente del farmacéutico permitiría mejorar el desarrollo de las intervenciones farmacéuticas y expandir el rol del farmacéutico como proveedor de servicios profesionales.[10, 40]

CAPITULO 2

OBJETIVOS

2.1. Objetivos específicos

Esta tesis doctoral aborda la relación farmacéutico comunitario-paciente a través de la identificación de modelos teóricos de relación profesional de la salud-paciente, y del desarrollo de modelos conceptuales que explican la percepción y las expectativas de los pacientes sobre el farmacéutico. Concretamente, la presente tesis doctoral se estructura en tres trabajos de investigación cuyos objetivos específicos fueron los siguientes:

Objetivo 1: Identificar modelos teóricos de relación profesional-paciente y aquellos factores individuales que podrían influir sobre esta relación y tener relevancia para la farmacia práctica.

Objetivo 2: Desarrollar un modelo conceptual sobre la percepción del paciente de la imagen del farmacéutico.

Objetivo 3: Desarrollar un modelo conceptual de las expectativas del paciente del rol del farmacéutico.

Para responder a los objetivos descritos, la presente Tesis Doctoral utilizo la muestra de sujetos del estudio conSIGUE.

Los métodos, resultados y discusión de los estudios de investigación que conforman esta tesis doctoral son presentados en formato de artículo científico.

- El primer artículo ha sido publicado en la revista 'Patient education and Counselling' y corresponde a una revisión sistemática de modelos teóricos de relación profesional sanitario-paciente que podrían ser relevantes para la farmacia comunitaria. La referencia actual del artículo es la siguiente:

  Sabater-Galindo M, Fernandez-Llimos F, Sabater-Hernández D, Martínez-Martínez F, Benrimoj SI. Healthcare professional-patient relationships: Systematic review of theoretical models from a community pharmacy perspective. Patient Educ Couns. 2016; 99 (3): 339-347. Patient Education and Counselling. 2014 Impact Factor: 2.199;

Ranking: 6/95 in Social Science, Interdisciplinary (SSCI) (Quartile 1). 2014 Journal Citation Reports® (Thomson Reuters, 2015)

- El Segundo trabajo ha sido aceptado en la revista 'Research in Social and Administrative Pharmacy" y corresponde al desarrollo y prueba de un modelo conceptual que relaciona la imagen percibida del farmacéutico comunitario con las expectativas y reacciones del paciente. La referencia actual del artículo es la siguiente:

  Sabater-Galindo M, Ruiz de Maya S, Benrimoj SI, Gastelurrutia MA, Martínez-Martínez F, Sabater-Hernández, D. Patients´ expectations of the role of the community pharmacist: development and testing of a conceptual model. Res Soc Adm Pharm. Epub 2016 Apr 20. Research in Social and Administrative Pharmacy. 2014 Impact Factor: 1.438. Ranking: 66/147 in Social Science, Interdisciplinary (SSCI) (Quartile 2). 2014 Journal Citation Reports® (Thomson Reuters, 2015)
- El tercer artículo ha sido aceptado en la revista 'Psychology, Health and Medicine' y resume el desarrollo y prueba de un modelo conceptual de relación entre las creencias en salud de los pacientes y la imagen percibida del farmacéutico comunitario. La referencia actual del artículo es la siguiente:

  Modelling elderly patients´ perception of the community pharmacist image when providing professional services. Sabater-Galindo M, Sabater-Hernández D, Ruiz de Maya S, Gastelurrutia MA, Martínez-Martínez F, Benrimoj SI. Psy Health Med. Forthcoming 2016. Psychology, Health and Medicine. 2014 Impact Factor: 1.255. Ranking: 88/147 in Social Science, Interdisciplinary (SSCI) (Quartile 3). 2014 Journal Citation Reports® (Thomson Reuters, 2015)
- El cuarto artículo fue publicado en la revista 'Pharmaceutical Care' y resume los principales resultados del estudio cualitativo llevado a cabo para el desarrollo de los modelos conceptuales. La referencia actual del artículo es la siguiente:

  Sabater M, Feletto E, Martínez-Martínez F, Gil MI, Gastelurrutia MA, Benrimoj SI. Percepción del paciente mayor polimedicado sobre el rol del farmacéutico comunitario. Pharm Care Esp. 2011; 13(6): 271-279.

Además de los mencionados artículos científicos, los resultados de esta tesis doctoral han sido difundidos en numerosos congresos de ámbito nacional e internacional. En el apéndice IV se puede encontrar el resumen enviado a tales congresos:

X Simposio de Resultados del Programa Dáder de Seguimiento Farmacoterapéutico; 13-15 de mayo de 2010; Gerona, España.

- Sabater-Galindo M, Feletto E, Faus MJ, Gastelurrutia MA, Benrimoj SI. Teorías de cambio de comportamiento en los farmacéuticos y los pacientes y sus aplicaciones [Comunicación Oral]. Ars Pharm 2010. 51 (supl 1):78

28ª Edición Infarma, Congreso y Salón Europeo de Farmacia, Medicamentos y Parafarmacia. 20-22 de marzo de 2012; Madrid, España.

- Sabater-Galindo M, Feletto E, Martinez-Martinez F, Gil Garcia MI, Gastelurrutia MA, Benrimoj SI. Infarma 2012. Percepción del paciente mayor polimedicado sobre el rol del farmacéutico comunitario Madrid [Comunicación Oral]. Schironia 2012. Número especial (Infarma Madrid 2012-marzo): 26.

XVIII Congreso Nacional Farmacéutico. 24-26 Octubre 2012; Santander, España.

- Sabater-Galindo M, Garcia Cárdenas V, Saez-Benito L, Varas R, Martínez-Martínez F, Gastelurrutia MA, Benrimoj SI. Estudio cualitiativo de la percepción del paciente mayor polimedicado sobre su salud y el rol del farmacéutico comunitario: programa conSIGUE [Comunicación Póster].

V Congreso Nacional de Farmacéuticos Comunitarios, SEFAC. 13-17 Noviembre de 2012; Barcelona, España.

- Sabater-Galindo M, Garcia Cárdenas V, Saez-Benito L, Varas R, Martínez-Martínez F, Gastelurrutia MA, Benrimoj SI. Elaboración y pilotaje de un cuestionario para medir la percepción del paciente mayor polimedicado sobre su salud y sobre el rol del farmacéutico comunitario: Programa conSIGUE" [Comunicación Póster]. Farmacéuticos Comunitarios 2012. 4 (Supl 1):109.

74th International Pharmaceutical Federation (FIP) Congress of Pharmacy and Pharmaceutical Sciences. 31st August-4th September 2014. Bangkok, Thailand.

- Sabater-Galindo M, Sabater-Hernández D, Ruiz de Maya S, Gastelurrutia MA, Martínez-Martínez F, Benrimoj SI. Testing and validating a model of patients perception of the pharmacist' image [Oral Communication].

CAPITULO 3

Artículo 1. M. Sabater-Galindo, F. Fernandez-Llimos, D. Sabater-Hernández, F. Martínez-Martínez, S.I. Benrimoj. Healthcare professional-patient relationships: Systematic review of theoretical models from a community pharmacy perspective. Patient Educ Couns. 2016; 99 (3): 339-347

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Review article

Healthcare professional-patient relationships: Systematic review of theoretical models from a community pharmacy perspective

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ABSTRACT

Objective: To identify health care professional-patient relationship theoretical models and individual factors that may have an influence on this relationship and be relevant to community pharmacy practice.
Methods: Using the recommended methodology by Prisma Statement, a search was undertaken in PubMed for health care professional-patient relationship theoretical models that included individual factors.
Results: Eight theoretical models met the inclusion criteria. These models were classified based on their aim, their focus on the interaction process, external factors influencing the process, and their practical applications. The most common influential modifiable factors were knowledge, needs, values, expectations, beliefs and perceptions.
Conclusion: 'The Theory of Goal Attainment' (TGA) appears to be the most useful model for community pharmacy practice. The perceptions and expectations of both patients and pharmacists could be the two most interesting modifiable factors to apply in pharmacy practice. These modifiable influential factors could be altered by specific training such as behavioral aspects.
Practice Implications: No theoretical model has been specifically developed for analyzing the community pharmacist–patient relationship. TGA may be appropriate for community pharmacy practice, since it takes into consideration both, attaining patients health outcomes, as well as improving patient–pharmacist relationship.

Contents

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1. Introduction

The relationship between a healthcare professional and a patient has been demonstrated to directly influence health outcomes [1–3]. Similarly, a patient-centered approach has been proven to significantly improve patient experience of the health system [4–6]. The behaviour of a professional has significant impact on the patients' well-being as well as on health care quality and outcomes [7].

The emerging trend for delivering patient-centered services in community pharmacy has led to an increased interest in the relationship between the community pharmacist and the patient [8,9]. Research on the pharmacist–patient relationship has been approached from different perspectives, including how the interaction impacts the quality of the relationship, patient satisfaction, health outcomes, or how health behaviour is modified [10–20]. However, no theoretical model for the community pharmacist–patient relationship appears to have been developed. Theoretical models other healthcare professional-patient relationships may be a reasonable starting point for constructing such a theory, with these models being used to also identify potential influential factors of the relationship that could be tested in pharmacy practice [8]. These influential factors could be hypothesized to exist at an individual level (e.g. healthcare professional, patient) or at a higher level of organization such as the health system and community [21–23]. Individual factors such as knowledge, needs, objectives, expectations, perceptions or prior experiences might determine the relationships established between the professional and the patient [22,24]. Those modifiable influential factors are of special interest as they could be adjusted to achieve a higher quality relationship, and consequently, have positive impacts on patients' health outcomes. Thus, the objective of this systematic review was to identify health care professional-patient relationship theoretical models and secondly to identify individual factors that may influence this relationship and be relevant in the community pharmacy practice setting.

2. Methods

A systematic review of the literature on theoretical models that included individual factors affecting the quality of the health care professional-patient relationship was undertaken using the recommendations made by Prisma Statement [25]. For the purpose of the review, a theoretical model was considered as a "tool to structure thinking and action about how the connections, linkages, perceptions or behaviours are modified within the relationship" [26].

2.1. Search strategy

A literature search was conducted in December 2013 in PubMed, without any language or time restrictions. The following broad search strategy was used: ("Models, Psychological"[MH] AND "Professional-Patient Relations"[MH] AND "Attitude to Health"[MH]).

Articles were included if they presented a theoretical model which included factors affecting the quality of the health care professional-patient relationship. First, titles and abstracts of the studies were screened, excluding records if they did not have an abstract, or if they were clearly outside the scope of the review (i.e. they did not present a theoretical model aimed at addressing the relationship between a health care professional and a patient). Secondly, the full-text of potentially relevant articles from step 1 were analysed in depth, using the following exclusion criteria: (1) a theoretical model was not presented; (2) the model presented did not address the relationship between a healthcare professional and a patient; (3) the model was specifically aimed at achieving health behaviour change or treatment decision making; and (4) the article was in another language than English, Spanish, Portuguese, French, Italian or German. References from the included articles and reviews that were within scope were checked to identify other models not found using the previous search strategy.

2.2. Data extraction

Using an ad-hoc data extraction table, the following information was obtained for each model: name, reference and theoretical basis of the model; type of professional involved in the relationship; aim of the model as described by the authors; focus of the model with a brief description of the aspects of the relationships; use and practical applicability of the model; and factors affecting the relationship. Factors were defined as "those individual characteristics that could have an influence on the quality of the relationship" and were labelled as "Influential factors". Influential factors were subsequently classified by involvement of healthcare professional, patient or both, and if they were modifiable (capable of being modified by an intervention) or non-modifiable (incapable of being modified by an intervention). Data were collegially extracted by two members of the research team, and the extraction tables were thoroughly discussed among all the research team.

2.3. Data analysis and synthesis

After extraction, data was synthesized following a thematic analysis. Studies were systematically appraised while extraction tables were adapted to the new themes emerging.

Data in the extraction tables was then synthesized and themes were grouped by theoretical basis, aim of the model, focus of the model, and applicability. Influential factors, both modifiable and non-modifiable, were in turn grouped as professional-related and patient-related.

3. Results

The database search identified 613 potential articles, and an additional article found after appraising bibliographic references in the potential articles. In the screening process 399 articles were considered not relevant and were excluded, resulting in 215 full articles remaining for a full text analysis. A total of 206 were excluded in the eligibility process due to the following criteria: (1)

a theoretical model was not included ($n = 60$); (2) the theoretical model was not a professional-patient relationship model ($n = 129$); (3) the theoretical model was a health behaviour change model ($n = 54$); (4) the theoretical model was a treatment decision making model ($n = 20$); or (5) for language ($n = 3$) (Korean, Dutch and Swedish). Finally, 9 articles, comprising 8 theoretical models were included in the analysis (Fig. 1). The following themes emerged from the analysis of the theoretical models: The nature of the interaction; Association with health outcomes; Factors influencing the process; Guiding the process of the relationship.

3.1. Description of theoretical models

A total of 8 theoretical models were identified and analysed: Peplau's Interpersonal Relations Model (PIRM) [27–30]; 'Theory of the Nursing Process Discipline' (TNPD) [31,32]; 'The Theory of Goal Attainment' (TGA) [22,33]; 'The Intersystem Patient Care Model' (IPCM) [33,34]; 'The Model of the Interaction Phase of Symptom Management in a Client-nurse Relationship' (MIPSM) [27]; 'The Generic Model of Psychotherapy' (GMP) [21,23]; 'Information-exchange Model of Medical Consultation' (IEMMC) [35,36]; and 'The Three-Dimensional Puzzle Model of Culturally Congruent Care' (TDPMCCC) [37–39] (Table 1).

The theoretical models can be classified into two groups based on their aim (Table 1). In the first group, the PIRM [27–30], the IPCM [33,34], the GMP [21,23], and the IEMMC [35,36], are focused on describing the healthcare-patient relationship as an interactive care process and assessing how it is associated with health outcomes. The PIRM explains the nurse–patient relationship by means of a sequential four-phase process: 'orientation', during which the nurse becomes acquainted with the patient as a person; 'identification', during which the patient's and nurse's thoughts, stereotypes and beliefs are observed and identified; 'exploitation', where the work to meet patient's outcomes should be done by the patient and the nurse; and 'resolution', when patient's outcomes are obtained and the relationship is finished [28]. The IPCM also consists of an interactive phase process between individuals or "intra-systems". Each "intra-system" carries out three functions through three different components (detector, selector and effector). These functions consist of processing the information received (detector), analysing this information according to the individual's values and preferences (selector), and carrying out an action (effector). When two individuals interact, they exchange information, negotiate desired outcomes based on their values, and plan their behaviours or actions to identify a care plan, thus making the exchange a "cooperative inter-system" [33,34]. The GMP structures the process of psychotherapy carried out between the psychologist and the patient. This model explains how variables of the inputs (the antecedents of the process), the process, and the outputs (consequences of the process) are related among themselves and also how they affect the professional-patient interaction and patient's health outcomes [21]. The IEMMC

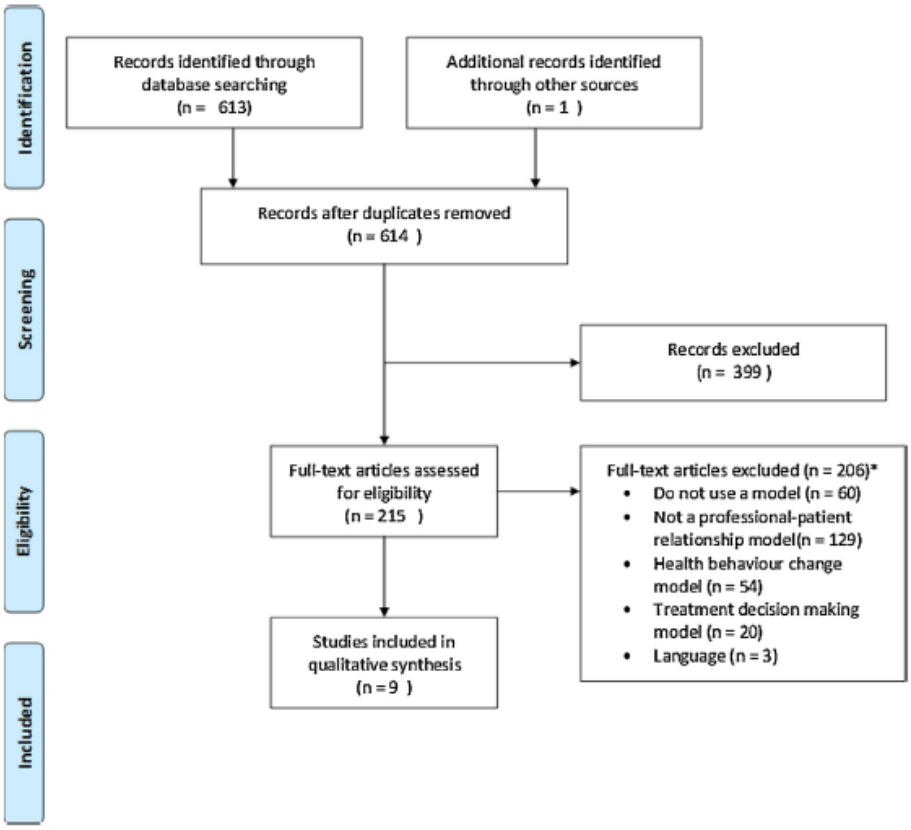

Fig. 1. Flow chart of the screened assessed for eligibility and excluded articles. Adapted from the PRISMA 2009 flow diagram presented in Strauss and Thomas [23]. *Articles could be excluded for more than one reason. Name and Ref. theoretical basis type of professional aim focus of the model applicability.

Table 1
Analysis of relationship theoretical models.

Name and Ref.	Theoretical basis	Type of Professional	Aim	Focus of the model	Applicability
Peplau's interpersonal relations model Peplau (1952) (PIRM) [25–28]	Influenced by Harry Stack Sullivan's Interpersonal Theory	Nurse	To describe the care process that occur within the nurse–patient relationship through several overlapping phases	It studies "connections, linkages, bonds or patterns that develop and are identifiable within the relationship"	To guide, develop, achieve and understand a nurse–patient relationship and obtain the resolution of health problems
Theory of the Nursing Process Discipline (TNPD) Orlando (1961) [29,30]	NA	Nurse	To investigate what happen during the nurse–patient interaction and to determine the outcome of the interaction	It focuses the three elements that are present in the interaction when the delivery of care: the patient's behaviour, the nurse's reaction, and the nursing action undertaken to benefit the patient	To understand and guide the interaction between the nurse and the patient to meet patients' needs
The Theory of Goal Attainment (TGA) King (1981) [20,31]	Derived from the conceptual Framework of Interpersonal Systems of King	Nurse	To describe the nature of nurse–client interactions providing basic knowledge to agree and engage in mutual goal- setting and achieving positive health outcomes	It focused on how perceptions or ideas of objects, persons and events influence behaviour, social interaction and health; with an open systems framework as the basis of goal attainment	To enhance interpersonal relationship, improving social behaviours and consequently, attaining health goals
The Intersystem Patient Care Model (IPCM) Artinian (1983) [31,32]	Based on the Intrasystem-Intersystem Model; Khun (1974)	Nurse	To "depict the interactive process which takes place between the patient and the nurse" as they collaborate to develop a plan of care and on the initial understandings which both bring to the interaction	It identifies "how, meanings and behaviours are modified through the interactive process as the plan of care is developed and negotiated" to accomplish both their goals, which may not be the same. "When two intra-systems interact, the focus is on how information is transferred between the intra-systems through communication"	To develop a plan of care that is mutually acceptable and accomplish goals
The model of the interaction phase of symptom management in a client–nurse relationship (MIPSM) Haworth (1999) [25]	Influenced by concepts of nurse theorists such as Orlando, Peplau, and Watson	Nurse	To describe an interaction based on how a nurse participates in the way the client explains the symptom experience and the eventual symptom management outcome	It focuses on the variables that impact the encounter to facilitate the achievement of desired outcomes in symptom management, accurate diagnosis, symptom relief, and agreement on a course of action	To establish shared goals and meaning of effective symptoms and chronic patient management
The generic model of psychotherapy (GMP) Orlinsky and Howard (1986) [19,21]	Originally conceptualized by Orlinsky and Howard (1978)	Psychotherapist	Try to relate the process aspects of the therapeutic interaction to health outcome	It focuses on the influence of variables determining the psychotherapeutic interaction and tries to combine all variables that are of potential importance for the psychotherapeutic interaction	To organise research results and help clinicians to understand the influence of variables determining the therapeutic process and so get immediate and long-term outcomes
Information-exchange model of medical consultation (IEMMC) Frederikson (1992) [33,34]	Based on concepts of Pendleton (1983); Balint (1968); and Engel (1977)	Doctor	"To define the structure and outline the essential features of the doctor-patient relationship as a process of mutual information exchange"	It focuses on information exchange at the level of relationship and "outlines the input-process- outcome structure with the process component being represented as a recursive procedure driven by the information-exchange"	To develop the doctor-patient relationship through an improved information exchange process and interpersonal skills development
The Three-Dimensional Puzzle Model of Culturally Congruent Care (TDPMCCC) Schim, Doorenbos, Benkert and Miller (2007) [35–37]	Originally conceptualized by Schim and Miller (1999) Revised by Schim, Doorenbos, Miller and Benkert (2003); Doorenbos and Schim (2004); Doorenbos, Schim, Benkert and Borse (2005)	Healthcare provider	"To understand and provide effective care within the complexities of cultural and racial diversity" when the provider and the client interact	It describes both provider and client-level elements that must be considered in order to begin to capture the complexities of culturally-congruent health care. "It also synthesizes existing concepts and processes for cultural competency and congruence in health care in an innovative three-dimensional arrangement that includes three distinct levels"	"Can guide intervention for social workers, mental health professionals, nurses, and other health care workers caring for a diverse population of patients, families, and communities to get culturally congruent care"

suggests that doctor–patient relationship consists in an information exchange process that implies processing, analyzing, and selecting the information received by individuals. This model not only focuses on the flow of information but is also extended to the social and affective elements as it includes the transmission of feelings, expectations, fears, desires or attitudes. This information exchange process consists of five phases: 'Initiation of the process'; 'Information exchange', which includes problem identification, inquiry, and physical examination; 'Diagnosis'; 'Treatment option'; and 'Termination' [35].

In contrast, a second group of models such as the TNPD [31], the TGA [22,33], the MIPSM [27], and the TDPMCCC [37–39], are aimed at describing the nature of the interaction between the healthcare professional and the patient and its association with the efficacy of health care. The TNPD is aimed at exploring what happens within the nurse–patient interaction and identifying and meeting patients' needs. This model describes an interaction process of five phases: the 'observation' and the 'assessment', in which patients' perceptions, thoughts and feelings are identified; the 'validation', in which patients' perceptions are checked; the 'delivery of the nurses' actions'; and the 'verification' during which confirmation is sought as to whether the patients' needs have been met [31]. The TGA considers the nurse–patient interaction as the medium to accomplish mutually set health goals. King presented this model for nursing as "three dynamic interacting systems": the individual level, called 'personal systems'; the level of two individuals or groups of individuals, called 'interpersonal systems'; and the level of the society or 'social system'. Despite the ostensible focus on "three dynamic interacting systems", this model is primarily focused on the interpersonal systems which the nurse and the patient interact within, share information, and make dealings to accomplish goals. The TGA emphasizes the importance of the interaction in setting mutual goals to achieve health outcomes [22,33]. In contrast to the general approach to the interaction of the TGA, the MIPSM concentrates on how the collaborative relationship between patient and nurse achieves symptom management in order to eliminate or reduce the symptom experience, at the same time as managing patients' emotions [27]. The TDPMCCC was explained based on three interacting levels: "the provider level"; "the client level" and "the outcome or culturally-congruent care level" (the effective care based on cultural and racial diversity). The 'TDPMCCC' describes how effective culturally-congruent care could occur when the provider and client levels interact [38].

Based on their focus, theoretical models could also be grouped into two categories: internal parts of the interaction process, or external factors influencing the process. The PIRM [27–30], the TNPD [31], the TGA [22,33], the IPCM [33,34], and the IEMMC [35,36], focuses on the connections, linkages, information exchanges, perceptions and patterns or behaviours that might appear or be modified within the relationship between individuals. However, the MIPSM [27], the GMP [21,23], and the TDPMCCC [37–39], are focused on the factors and conceptual elements that affect the interaction, such as culture, personal attributes, communication, self-relatedness, and preferred modes of social behaviours.

Practical applications of the healthcare professional-patient relationship models also can be used to differentiate the two groups of models. Some are useful for assessing the achievement of health outcomes, while others are more focused on guiding the process of the professional-patient relationship. For the IPCM, the outcomes are the mutually agreed goals between the two "intersystems" [33,34]. The GMP studies how the variables of the interaction can influence on patient's health outcomes [21,23]. In the MIPSM, the interaction between nurse and patient is driven by a symptom management process in order to reduce the burden of the symptoms, thereby increasing client satisfaction [27]. Other models could support healthcare professionals to guide the development of the relationship during health care interventions (such as the PIRM [27–30], the TNPD [31], the TDPMCCC [37–39], and the IEMMC [35,36]). The PIRM presents an exhaustive description of the four-phase interaction process, and the TDPMCCC is useful to guide the professional-patient interaction in a multicultural environment. The IEMMC provides a guide to develop interpersonal skills in the interaction and so impact on satisfaction, compliance, reduction of concern, health understanding, and perceptions of the healthcare professionals. The TNPD adds the validation phase that assist the professional to identify and check patients' needs and so patients will feel more helped and satisfied. The TGA, [22,33] embraces both of the previous categories, in providing some directives on how to improve social behaviours to engage in a healthcare professional-patient relationship, and also developing a mutual plan of care to accomplish health goals.

Some of these theoretical models are based or influenced by previous theoretical frameworks, such as the IEMMC that is based on the input-process-outcome structure of Pendleton [40], and the personal, social, and psychological attributes of both doctor and patient of Balint and Engel [41,42]; or the MIPSM that is influenced by nurse theorists such as Orlando, Peplau, and Watson, who provided significant guidance in identifying values [31,43–45]. However, other models like the TNPD were grounded on Orlando's

Table 2
Factors Extracted from Theoretical Models.

	Type of individual	Modifiable	No modifiable
FACTORS	Both	Role preparation*, participation and cooperation*, needs, goals, education*, expectations, preference and values, beliefs, preconceived ideas, motivations*, perceptions*, self, growth and development*, learning*, personal space, behaviour*, mutuality*, stress coping*, self-relatedness*, capacity for self-expression*, communication style*, preferred modes of interpersonal behaviour*	Prior health care encounters, age, gender, socioeconomic status, sex, life situation (parental status . . .), race, cultural and ethnic values, language, sexual orientation, ideology, generation, previous life experiences, environment
	HEALTH CARE PROFESSIONAL	Therapeutic communication skills*, caring, holistic and client-centric perspective*, type of training*, expertise professional knowledge and understanding*, ethnocentric or medico-centric attitudes*, power, professional status,cultural awareness*, cultural competence*, cultural sensitivity*, trust, social and spiritual support*	
	PATIENT	Health beliefs*, symptom meaning, knowledge of health status*, suitability for the treatment, health status*, pain*, emotional state*, adaptation to current life situation	Diagnosis, cognitive status, family

Note: * Modifiable factors by specific professional training.

own research based on 2000 nurse–patient encounters but not on any theoretical basis [31].

3.2. Characteristics of influential factors

Individual influential factors extracted from all the models are presented in Table 3. The most common individual modifiable factors whether attributed to the healthcare professional, the patient, or both of them, were knowledge, needs, values, expectations, beliefs and perceptions. Most modifiable factors could be altered through specific training (e.g. knowledge, motivation, role preparation, health beliefs, patient-centric perspective or communication) (Table 2). Non-modifiable factors more often mentioned in the models were previous healthcare experiences and encounters; socio-demographic factors such as age, gender, or socioeconomic status; and cultural diversity factors such as ethnicity or race (Table 3). Non-modifiable factors for the healthcare professional were not found.

The GMP suggests that patients who are more cooperative and willing to participate can more readily absorb healthcare experiences and thus are likely to benefit more from them. Similarly, those patients, who are participative, committed or have empathy towards the professional achieve better outcomes [21]. Other models, such as the IPCM and the IEMMC, used the widest possible definition of information and suggest that the more explicit and open the talk between healthcare professional and patient, the better communication between them and the more effective the process [33,35,36]. The PIRM and the TGA specify that in an interpersonal relationship, expectations and perceptions of one person influence process and outcomes [22,27–30,34]. Additionally, social class, gender, ethnicity, and other social differences and goals, needs, values of nurse and client could also have an effect on the relationship [22]. The MIPSM identifies some

Table 3
Individual factors extracted from each theoretical model.

MODEL (Name and Ref.)	Factors					
	Modifiable			Non-modifiable		
	Both	Health care professional	Patient	Both	Health care professional	Patient
Peplau's interpersonal relations model Peplau (1952) [25–28]	Values, beliefs, expectations	Preconceived ideas		Culture, race, age, social class, gender, ethnicity, past experiences		
Theory of the Nursing Process Discipline, Orlando (1961) [29,30]	Behaviour, perceptions, thoughts, feelings			Environment		
The Theory of Goal Attainment King (1981) [20,31]	(Knowledge, needs, goals, expectations, perceptions, self, growth and development, role, learning, personal space, behaviour, communication, role, stress coping)*			Past experiences		
The Intersystem Patient Care Model Artinian (1983) [31,32]	Preference and values	Professional knowledge, expectations for the patient	Knowledge of health status	Social, cultural and ethnic values, previous life experiences		Family
The model of the interaction phase of symptom management in a client–nurse relationship Haworth (1999) [25]	Personal attributes (education, knowledge, values, expectations, communication style,), role, mutuality*, trust*	Nurse attributes (therapeutic communication skills, interpersonal competence, a caring, holistic and client-centric perspective, power), ethnocentric or medico centric, attitudes*	Personal attributes (health beliefs), client attributes (health status, pain, emotional state, symptom meaning, capacity for self-expression)	Personal attributes (age, gender, culture, socioeconomic status, primary language), prior health care encounters		Client attributes (cognitive status)
The generic model of psychoterapy Orlinsky and Howard (1986) [19,21]	Personal style, (role preparation, participation, interpersonal behaviour, self-relatedness)*	Type of training, professional status and expertise, expert understanding	Preferred modes of interpersonal behaviour, adaptation to current situation, (Suitability for the treatment)*	Age, sex, life situation (parental status . . .), cultural beliefs, socioeconomic status		Diagnosis, family
Information-exchange model of medical consultation Frederikson (1992) [33,34]	Motivations, goals, needs, expectations	Medical information	Personal information			
The Three-Dimensional Puzzle Model of Culturally Congruent Care Schim et al. (2007) [35–37]	Communication*	(Cultural awareness,cultural competence, cultural sensitivity, trust, social and spiritual support) *	Health, illness, caring, spirituality, education, participation, values, beliefs and behaviours, personal space	Generation, language, race, ethnicity	Cultural diversity*	Family

*Explained factors in theoretical models.

barriers that might occur during the interaction, most being related to communication, such as lack of a common language, unstated assumptions, confused presentation, and limitations of the receiver's capacity. Pain, anxiety, and low self-esteem also could affect the interaction [27].

Several influential factors (for example, perception, cultural competence or self-relatedness) were explained in depth in some of the models, such as the TGA [22,34], the MIPSM [27], the GMP [21,23], and the TDPMCCC [37–39]. Cultural competence was explained as "the ability of an individual to demonstrate certain behaviours in practice, including learning about the cultures represented in the community, adapting care to meet client needs, and documenting assessment and adaptations" [38]. Perception was defined as "each person's representation of reality" [22].

Some theoretical models approached influential factors, not only at individual level but also at higher levels of organization, examples being the TGA [22], the MIPSM [27], and the GMP [21]. These models included factors of the community or the organization such as basic social institutions, other contracting parties in the professional network (referral sources and supervisors), patients' social network factors (insurer and employer), the session time (duration), the setting, the treatment length, or the payment of a fee.

4. Discussion and conclusions

4.1. Discussion

This systematic review found that theoretical models approach the professional-patient relationship from different perspectives and applications. Two main approaches appeared: theoretical models that approach the relationship describing a process to achieve better health outcomes, and models that focus on describing the interaction between the healthcare professional and the patient. Both approaches could be useful for community pharmacists as all models have the final aim of achieving better health outcomes. [21,46] However, they do have different implications. When professional service developers are planning a service, they could integrate a process approach into their conceptual thinking through the description and incorporation of each of the phases of each service. This would provide a structure to follow with specific health outcomes in mind, [47] and would allow a flexible, need-driven, participative processes, rather than rigid, prescriptive ones. Alternatively, an improved healthcare professional-patient interaction approach could be utilized to understand the relationship deeply and develop interpersonal skills. This approach would facilitate achieving a quality relationship initially, and in improving health outcomes as a result.

None of the models were specifically created to explain the pharmacist–patient interaction. However, the literature suggests that pharmacists should make efforts to develop a relationship with the patient and intensify communication and attitudes while providing pharmacy services. [9,48]. Considering the importance of practical applicability to community pharmacy practice, the most useful theoretical model for this setting appears to be 'The Theory of Goal Attainment'. [22,33] The rational of this judgment is based on the following considerations: this model assists in accomplishing the goals of a care plan at the same time as guiding the development of the relationship between the professional and the patient; It provides a basis for agreeing and engaging in mutual goal-setting, and so achieving positive health outcomes; this model also explains how perceptions or ideas of objects, persons and events influence social behaviours, social interaction and health to enhance interpersonal relationships. Some of these theoretical models have been applied although not in the pharmacy practice setting. Frey *et al.* summarized the practice and research carried out using the TGA [49], and the IEMMC was applied in a study where a patient education leaflet was used to assess how it influenced the performance of the patient and the doctor–patient interaction [50].

Previous reviews approached the healthcare professional-patient relationship differently. Shattell approached the interaction between nurses and patients focusing only on how one theoretical framework, the Goffman's model, could be used to understand the nurse–patient communication [51]. Constand *et al.* identified how three of the components of the patient-centered care models/frameworks are described across the literature [52]. In this review, the authors included a pharmacy-specific model which is not included in the present study [53]. In actuality, this model should not be considered a complete theoretical model, but rather the result of a qualitative study aiming to identify the opinions of pharmacists towards how HIV-infected patients should be provided care. Sondell and Soderfeldt carried out a review of healthcare professional-patient communication models, assessed within the dental area, and established the differences between medical and dental communication [54].

Factors influential to the professional-patient relationship were characterized in this study. One of the most interesting modifiable factors that could be applied to pharmacy practice is the patient's perception and expectations. It is reported that patients still consider the pharmacist to be a drug dispenser or provider and their expectations seem to be limited to the provision of medicines and some advice [55,56]. A change in professional practice (particularly behaviour) towards more service provision might be considered to be good strategy to start enhancing the professional image of the community pharmacist and modifying patients' perception of pharmacists. Other studies that consider individuals' factors affecting the quality of the healthcare professional-patient relationship have not been included in this review as they do not apply a theoretical model perspective, for example, those that address how perception or participative behaviours are affecting the quality of the relationship [9,10].

Most modifiable factors could be altered by specific training for the healthcare professional and/or the patient (for example, health beliefs, knowledge or participation and cooperation). Community pharmacists would need to be trained in a holistic manner to include behavioural knowledge in addition to clinical and disease management knowledge. The community pharmacist's role is shifting from dispensing to also delivering professional services that attempt to change patients' health behaviours, for example, to improve adherence, among others [46,57]. Providing each patient with education and the resources needed to help them attain their goals, be self-efficacious and gain independence is key [22]. Patients could also be trained in behavioral aspects that would help them to identify cues that trigger the adoption of positive behaviours. Pharmacists might help them to identify how to change through the use of self-monitoring, goal setting and problem solving.

It should be mentioned that some factors were interpreted as providing a common denomination, as the meaning of the factor was the same but they were referred to differently. For instance, in the IEMMC, the authors talked about 'medical information' referring to 'scientific knowledge' ("The doctor has at his or her disposal a specialized body of knowledge pertaining to disease, dysfunction, and care of the sick. This medical information is largely scientific knowledge") [35]. In addition, some factors could not be specified as being professional or patient factors, as in the TGA [22]. And some factors could not be classified due to the lack of explanation (for example, interpersonal competence, personal frame of reference, personal style, self-esteem, time orientation, and explanatory models).

Future studies could how also look at how factors relating to higher levels of organization might affect the healthcare professional-patient relationship. It is worth to note that, although non-modifiable factors are not amenable to be modified, professional's cultural competence may limit their potential negative influence.

Limitations: searching the literature only using Pubmed could be considered a limitation for the study. However, the theme of this review is a cross-sectional subject in the biomedical field, of which Pubmed has a good coverage. This can be demonstrated by the low number of articles (just one) identified in the manual search. Excluding articles due to language should always be considered a limitation in a systematic review; however, the present systematic review accepted articles in six languages and only three articles were excluded due to language limitations.

4.2. Conclusion

Eight health care professional-patient relationship theoretical models were identified. None of theoretical models found in this review were specifically created for the pharmacy practice context. However, the most useful model for practical application in community pharmacy practice appears to be 'The Theory of Goal Attainment'. This model could be used to provide a guide of how to improve the process of the pharmacist–patient relationship when pharmacists provides services, but would also support in the development of a mutual plan of care to accomplish patients' health goals. The two most interesting modifiable influential factors to apply in pharmacy practice could be 'perceptions' and 'expectations'. Those modifiable influential factors that could be altered by specific training may also be most interesting for community pharmacy application.

4.3. Practice implications

The development of patient-centered services in community pharmacy has led to an increased interest in the relationship between the pharmacist and the patient. However, no theoretical model has been developed for analyzing the community pharmacist–patient relationship. Theoretical models of other healthcare professional-patient relationships may be a reasonable starting point for constructing such a model for the community pharmacist–patient relationship. It could be argued that the most useful theoretical models for pharmacy practice would be those that explain the management of the relationship with patients while helping to achieve their health goals. These models would enable pharmacists to understand how interactions begin, develop and finish, and would assist them to develop interpersonal skills, improve the quality of the relationships, and support patients to attain optimal health outcomes. TGA may be appropriate for community pharmacy practice, since it takes into consideration both, attaining patients' health outcomes, as well as improving patient–pharmacist relationship.

Conflicts of interest

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CAPITULO 4

Artículo 2. M. Sabater-Galindo, S. Ruiz de Maya, S.I. Benrimoj, M.A. Gastelurrutia, F. Martínez-Martínez, D. Sabater-Hernández. Patients´ expectations of the role of the community pharmacist: development and testing of a conceptual model. Res Soc Adm Pharm. Epub 2016 Apr 20.

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Proposed Model

Patients' expectations of the role of the community pharmacist: Development and testing of a conceptual model

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Abstract

Background: The roles of community pharmacists are evolving to include provision of expanded professional pharmacy services, thus leading to an increased interest in pharmacist–patient interactions. Role theory can be used to explain the interaction between this pair of individuals, by focusing on the roles performed by each one.

Objective: To develop and test a model that relates patients' image of the pharmacist to their expectations of pharmacist's role, and how this then influences patients' reactions toward the pharmacist's role.

Methods: A qualitative study was undertaken, and a questionnaire was created for the development of the model, based on role theory. The content, dimensions, validity and reliability of the questionnaire were pre-tested qualitatively and in a pilot mail survey. The reliability and validity of the proposed model were tested using confirmatory factor analysis (CFA). Structural equation modelling (SEM) was used to explain relationships between dimensions of the final model.

Results: A final model was developed. CFA concluded that the model was valid and reliable (Goodness of Fit indices: $\chi^2(109) = 227.662$, $P = 0.000$, RMSEA = 0.05, SRMR = 0.05, GFI = 1.00, NNFI = 0.90, CFI = 0.92). SEM indicated that "perceived pharmacist image" was associated positively and significantly with both "professional expectations" (the standardized path coefficient of (H) = 0.719, $P < 0.05$), as well as "courtesy expectations" (the standardized path coefficient of (H) = 0.582, $P < 0.05$). At the same time, "professional expectations" were associated positively and significantly with "positive reactions" (the standardized path coefficient of (H) = 0.358, $P < 0.05$), but negatively with "Negative reactions" (the standardized path coefficient of (H) = −0.427, $P < 0.05$). "Courtesy expectations" were associated positively and significantly with "positive reactions" (the standardized path coefficient of (H) = 0.081,

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$P < 0.05$), as well as "negative reactions" (the standardized path coefficient of (H) = 0.450, $P < 0.05$). *Conclusions:* A valid and reliable model of patients' image of the pharmacist related to their expectations and reactions to the pharmacist's role was developed and tested. When the perceived image of the pharmacist is enhanced, patients' expectations of the pharmacist are heightened; in turn, these expectations were associated with reactions of patients.

Keywords: Patients; Community pharmacy service; Community pharmacist image; Structural equation modelling

Introduction

Over the last three decades, community pharmacists have expanded their roles beyond dispensing.[1–5] This role expansion has led to an increased interest in a patient-centered approach and presumed enhancements the pharmacist–patient interaction.[6,7]

Role theory explains the interaction between individuals, focusing on the roles performed by each one.[8,9] According to the cognitive perspective of this theory, a role is generated by a set of expectations that society places on an individual occupying a determined position in a social system.[8,10] There are some social norms in relation to each role that include specific knowledge requirements, attitudes and behaviors that are expected of that individual.[7–9,11–14] Moreover, the role of one individual generates differing reactions in the 'other' individual, which in turn assist in confirming or validating the latter role.[8,14] Role theory consists of a set of dimensions: a "role" (characteristic behavior associated to a particular social position); "expectations" (norms, preferences and beliefs; for example, it is expected that a pharmacist would have a dispensing role but not a service provider role); and "reactions to behavior" (positive and negative consequences from a determined behavior; for example, when the pharmacist delivers professional services, patients could have a positive reaction accepting this service and return to the pharmacy).[9,14]

The expansion of the role of the pharmacist as a service provider may be resulting in changing patient perceptions of the community pharmacist.[15–19] This could be considered as the overall patients' impression of the community pharmacist as a health care professional, and for this study it has been labeled as the "perceived pharmacist image." It can be influenced by different factors inherent to the professional, such as their personal appearance and attire, but also by some external factors such as the retail environment.[20–24] On the other hand, some studies show that patients' expectations of pharmacists still appear to be related to their dispensing role.[11,25] It is known from previous studies that patients' satisfaction with pharmacists' interaction is high; however, this can be due to patients' level of expectations of the pharmacist.[26,27] Patients are still unaware what expanded professional services a pharmacist is able to provide, are not interested in those expanded professional services, or prefer other professionals to deliver them.[2,28,29] Therefore, it is important to understand patients' expectations of the pharmacist in order to know and meet those expectations, and to provide efficient expanded professional services.[11,30] As expanded pharmacy services might modify patients' perception of the image of the pharmacist, that professional image could in turn influence patients' expectations and reactions to pharmacists' roles.

A literature review was performed to assess how role theory had been used in the pharmacy context showing that observations and surveys were carried out. However, no conceptual model using role theory was developed.[8] Role theory has been previously used in pharmacy to assess patients' beliefs of the pharmacist's role,[7,11] or their knowledge of the role of the pharmacist.[12] Role theory could provide a useful theoretical framework to test how patients' perceptions of the professional image of the pharmacist influence their expectations of the pharmacist's role and, in turn their reactions to the emerging role of the community pharmacist.

This study was aimed at developing and testing a conceptual model of how patients' perceived image of the pharmacist influences their expectations of the pharmacist's role, and how this then influences patients' reactions with respect to that role. Moreover, as a secondary objective, this study assessed whether these expectations and reactions were modified when expanded professional pharmacy services were provided versus usual care.

Table 1
Evolution of number of items of the instrument

Dimensions of role theory	Qualitative instrument	First draft questionnaire (*n* items)	Final version of the questionnaire (*n* items)	Measurement model (*n* items)
Expectations				
Norms, preferences and beliefs associated with a particular position	Professional expectations (related to the professional role of the pharmacist by the patient)	24	16	3
	Courtesy expectations (related to how patients would like to be treated)	12	8	3
Reaction to behavior				
Consequences from a determined behavior	Positive reactions	6	4	4
	Negatives reactions	6	4	4
	New dimension "perceived pharmacist image"	7	5	3

Methods

Development of the model

Based on role theory,[8,13,14] a qualitative study was carried out in a community pharmacy setting in Spain to operationalize those dimensions, and so develop a quantitative questionnaire that could be applied in further stages of this research.[31–33] Semi-structured interviews were used and conducted over a 2-month period (September–November 2011) continuing until no new content in relation to identified themes and no additional themes emerged, indicating data saturation.[34] The themes of the pharmacist's role covered were: "patients' expectations" and "patients' reactions." Nineteen elderly poly-medicated (five or more drugs) patients older than 64 years old, from eight sampled community pharmacies of two regions of Spain (Murcia and Gipuzkoa) were interviewed. The interviews were digitally recorded, with consent from the participants, and transcribed verbatim. NVIVO software was used to facilitate the analysis of all transcripts ($n = 19$).[35] Some themes, which emerged from this work, were that patients expected to receive the medication without waiting, and a more proactive behavior of the pharmacist (such as the pharmacist to provide more information and advice about the treatment).[33] Ethical approval of the study protocol was granted by the University of Granada's Human Research Ethical Committee.

As a result of the qualitative analysis, a new dimension labeled "perceived pharmacist image," was identified. This dimension was independent of role theory (Table 1). Role theory dimensions "expectations" and "reaction to behavior" were further disaggregated (Table 1). As no conceptual model, using Role Theory,[8] had been created previously; a first draft of a questionnaire was developed based on the qualitative study and the literature of Role theory (Table 1).[8,13,14] This draft consisted of 48 items grouped into the role theory dimensions and 7 items for the new dimension "perceived pharmacist image" (Tables 1 and 2).[36,37] A seven-point, Likert-type scale, ranging from 1 (strongly disagree) to 7 (strongly agree), was used to rate each item. Three experts in the area were invited to review the instrument and to identify and confirm the dimensions. A pre-test was carried out with 5 patients to assess face validity of the instrument.[36,37]

A pilot questionnaire of a random sample of 100 patients (response rate = 71%) from pharmacies participating in the program "conSIGUE" in the Spanish provinces of Murcia and Gipuzkoa was carried out to investigate the content and construct validity.[38] Exploratory factor analysis was applied with maximum likelihood extraction method and varimax rotation. The results of the exploratory factor analysis of the pilot indicated good consistency and reliability (with eigenvalues greater than one and item loadings greater than 0.5), and allowed reducing items (Tables 1 and 2).[38] The final questionnaire consisted of 16 items for "professional expectations," 8 items for "courtesy expectations," 4 items for "positive reactions," 4 items for "negative reactions" and 5

Table 2
Evolution of the instrument and changes in the number of items (the questionnaire was tested and validated in Spanish language. An English version is provided as a translation of the original version)

Dimensions of role theory	Qualitative instrument	First draft questionnaire (*n* items)	Final version of the questionnaire (*n* items)	Measurement model (*n* items)
Expectations	Professional expectations	1. The pharmacist is the person in charge of explaining information regarding my medicine. 2. My pharmacist should always be available to talk about my medication. 3. If I don't understand something about my medication, the pharmacist should explain it to me. 4. The pharmacist should ensure that I have understood everything regarding my medication. 5. The pharmacist should provide me with my medication as quickly as possible. 6. The pharmacist should have my medication available to my request. 7. When I go to the pharmacy I would like for the pharmacist to ask/enquire on how my medication is going. 8. I expect the pharmacist to resolve any doubts that I have regarding my treatment. 9. I expect my pharmacist to follow up on how my treatment and drugs are working. 10. I expect my pharmacist to tell me about the possible adverse effects of my drugs. 11. I would like that my pharmacist tell me how best I should take my medication.	1. The pharmacist is the person in charge of explaining information regarding my medicine. 2. The pharmacist should ensure that I have understood everything regarding my medication. 3. The pharmacist should provide me with my medication as quickly as possible. 4. The pharmacist should have my medication available to my request. 5. I expect the pharmacist to resolve any doubts that I have regarding my treatment. 6. I expect my pharmacist to follow up on how my treatment and drugs are working. 7. I expect my pharmacist to tell me about the possible adverse effects of my drugs. 8. I would like that my pharmacist tell me how best I should take my medication. 9. If I do not understand something about my illness the pharmacist should be able to explain it to me. 10. My pharmacist should assure himself that I have understood everything about my illness. 11. The pharmacist is the person in charge of following my illness.	1. I expect the pharmacist to resolve any doubts that I have regarding my treatment. 2. I expect my pharmacist to tell me about the possible adverse effects of my drugs. 3. I would like my pharmacist to continue to follow my health problems.

	12. I would like my pharmacist to explain the possible side effects of my medication.	12. The pharmacist should show interest in how my health is.	
	13. My pharmacist should always be available to talk about my health problems.	13. When I go to the pharmacy I hope that the pharmacist shows interest in my health.	
	14. If I do not understand something about my illness the pharmacist should be able to explain it to me.	14. I expect the pharmacist to help me improve my quality of life.	
	15. My pharmacist should assure himself that I have understood everything about my illness.	15. I would expect that my pharmacist would tell me that they would like to help improve my health.	
	16. The pharmacist is the person in charge of following my illness.	16. I would like my pharmacist to continue to follow my health problems.	
	17. The pharmacist should know what drugs aren't appropriate for my illness.		
	18. The pharmacist should show interest in how my health is.		
	19. When I go to the pharmacy I hope that the pharmacist shows interest in my health.		
	20. I expect the pharmacist to resolve any possible doubts that I may have regarding my illness.		
	21. I expect the pharmacist to help me improve my quality of life.		
	22. I would like my pharmacist to be more involved in my health.		
	23. I would expect that my pharmacist would tell me that they would like to help improve my health.		
	24. I would like my pharmacist to continue to follow my health problems.		
Courtesy expectations	1. The pharmacist must treat me with kindness.	1. The pharmacist should greet me when I arrive to the pharmacy.	1. I expect the pharmacist to greet me when I arrive to the pharmacy.

(continued)

Table 2 (*continued*)

Dimensions of role theory	Qualitative instrument	First draft questionnaire (*n* items)	Final version of the questionnaire (*n* items)	Measurement model (*n* items)
		2. The pharmacist should greet me when I arrive to the pharmacy. 3. The pharmacist should know me by name. 4. The pharmacist should ask me how I am when I arrive to the pharmacy. 5. The pharmacist should know my family. 6. The pharmacist should spend as much time as needed for my consultations. 7. I expect the pharmacist to treat me with kindness. 8. I expect the pharmacist to ask me about my family. 9. I expect the pharmacist to greet me when I arrive to the pharmacy. 10. I expect the pharmacist to know me by name. 11. I expect the pharmacist to ask me how I am. 12. I expect the pharmacist to spend the time required for my consultation.	2. The pharmacist should know me by name. 3. The pharmacist should ask me how I am when I arrive to the pharmacy. 4. The pharmacist should spend as much time as needed for my consultations. 5. I expect the pharmacist to greet me when I arrive to the pharmacy. 6. I expect the pharmacist to know me by name. 7. I expect the pharmacist to ask me how I am. 8. I expect the pharmacist to spend the time required for my consultation.	2. I expect the pharmacist to know me by name. 3. I expect the pharmacist to ask me how I am.
Reaction to behavior	Positive reactions	1. I will always go back to the same pharmacy because they are quick in dispensing me. 2. I will always go back to the same pharmacy because they always have my drugs available and I don't have to return. 3. I will always go back to the same pharmacy because they treat me kindly. 4. I will always go back to the same pharmacy because they give me advice on how to take my medication.	1. I will always go back to the same pharmacy because they treat me kindly. 2. I will always go back to the same pharmacy because they give me advice on how to take my medication. 3. I will always go back to the same pharmacy because they can follow up on how my medication is working on me. 4. I will always go back to the same pharmacy because they show concern about my health.	1. I will always go back to the same pharmacy because they treat me kindly. 2. I will always go back to the same pharmacy because they give me advice on how to take my medication. 3. I will always go back to the same pharmacy because they can follow up on how my medication is working on me. 4. I will always go back to the same pharmacy because they show concern about my health.

	5. I will always go back to the same pharmacy because they can follow up on how my medication is working on me. 6. I will always go back to the same pharmacy because they show concern about my health.		
Negative reactions	1. I will complain if in my pharmacy they don't assist me quickly. 2. I will complain if in my pharmacy they don't have my medication available and I then have to return. 3. I will complain if in my pharmacy if they don't treat me kindly. 4. I will complain in my pharmacy if they don't give me advice on how I should take my medication. 5. I will complain in my pharmacy if they do not offer to follow up the effects of my medication. 6. I will complain in my pharmacy if they do not show interest in my health.	1. I will complain if in my pharmacy they don't assist me quickly. 2. I will complain if in my pharmacy they don't have my medication available and I then have to return. 3. I will complain if in my pharmacy if they don't treat me kindly. 4. I will complain in my pharmacy if they don't give me advice on how I should take my medication.	1. I will complain if in my pharmacy they don't assist me quickly. 2. I will complain if in my pharmacy they don't have my medication available and I then have to return. 3. I will complain if in my pharmacy if they don't treat me kindly. 4. I will complain in my pharmacy if they don't give me advice on how I should take my medication.
New dimension "perceived pharmacist image"	1. I see my pharmacist as much of a health professional as my doctor. 2. I see my pharmacist as much of a professional as a nurse. 3. I see my pharmacist as a friend. 4. I am of the opinion that a pharmacist is an expert in medicines. 5. I am of the opinion that the pharmacist is the person who should manage my medication. 6. If I had a question regarding my health which wasn't in need of a prescription	1. I see my pharmacist as much of a health professional as my doctor. 2. I see my pharmacist as much of a professional as a nurse. 3. I see my pharmacist as a friend. 4. I am of the opinion that a pharmacist is an expert in medicines. 5. I am of the opinion that the pharmacist is the person who should manage my medication.	1. I see my pharmacist as much of a health professional as my doctor. 2. I am of the opinion that a pharmacist is an expert in medicines. 3. I am of the opinion that the pharmacist is the person who should manage my medication.

(*continued*)

Table 2 (continued)

Dimensions of role theory	Qualitative instrument	First draft questionnaire (*n* items)	Final version of the questionnaire (*n* items)	Measurement model (*n* items)
		from my doctor, I would trust my pharmacists advice.		
		7. If I had a question regarding my health which would require a prescription from my doctor, I would trust my pharmacist advice.		

items for "perceived pharmacist image" (Tables 1 and 2). Each item was rated using a seven-point Likert-type scale, ranging from 1 (strongly disagree) to 7 (strongly agree). This questionnaire was delivered to patients through 114 pharmacies (both intervention and control pharmacies), 5–6 months after the intervention started, in three of the four provinces (Granada, Las Palmas and Tenerife) participating in the conSIGUE program. The potential target for this research was a sample of 878 elderly (over 64 years old) polypharmacy (using 5 or more medicines) patients. A covering letter explaining the relevance of the research and requesting a response from the patients was included.

The conSIGUE study was a cluster randomized trial with an objective to evaluate the clinical, economic and humanistic impact of a Spanish expanded professional pharmacy service, Medication Review with Follow Up.[39,40] Moullin et al defined a professional pharmacy service as "an action or set of actions undertaken in or organized by a pharmacy, delivered by a pharmacist or other health practitioner, who applies their specialized health knowledge personally or via an intermediary, with a patient/client, population or other health professional, to optimize the process of care, with the aim to improve health outcomes and the value of health care."[41] Medication Review with Follow up mainly focuses on detecting, preventing and resolving drug related problems and the clinical outcomes.[39] This service has been defined as "professional practice, in which the pharmacist is responsible for patient medication needs." This is carried out by means of detection, prevention and solution of drug related problems (DRP) and implies a continuous, systemized and documented commitment on behalf of the pharmacist, in collaboration with the patient and other health care professionals, with the objective of reaching concrete results that improve the patient's quality of life.[42] Medication Review with Follow Up is another example of expanded professional service that is delivered around the world, such as Medication Therapy Management and Home Medication Review.[3,39,43]

Testing the model

Data analysis

A structural equation modeling (SEM) approach was used to explain the proposed model (Fig. 1).[44,45] This is a useful technique to confirm

Fig. 1. Proposed model predicting expectations and reactions of the patient.

theories through the analysis and test of the relationships among multiple latent variables or constructs. As part of SEM, the first stage involves the development of a valid measurement model through Confirmatory Factor Analysis (CFA) to verify the fit of the observed variables to each latent variable. Then, as a second stage the relationships between the observed variables (items in the questionnaire) and the set of latent variables (dimensions) related the structural model are established: "professional expectations," "courtesy expectations," "positive reactions," "negative reactions" and "perceived pharmacist image."[44,45]

CFA was used to test the reliability and validity of the measurement model.[44,46] This analysis confirms that a set of observed variables (items of the questionnaire) represent a construct or dimension and tests the significance of a proposed measurement model.[45] The overall model fit was assessed using 9 goodness of fit indices: χ^2 (chi-squared), Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual (SRMR), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Normalized Fit Index (NFI), Non-normed Fit Index (NNFI), Comparative Fit Index (CFI), and Incremental Fit Index (IFI). Based on those indices, the model was respecified (some modifications were made to assess the fit of each variable and its items individually) to improve results.[45] Composite reliability (ρ), Cronbach's alpha (α) and Average Variance Extracted (AVE) were calculated to evaluate the reliability of the observed variables and the latent variable.[45,47] Moreover, based on the procedures suggested by Fornell and Larcker (1981), convergent and discriminant validity were calculated to assess that scales were valid to measure the concepts included in the model.[48]

Given an acceptable measurement model, the structural model can be specified.[44,49] The second stage of SEM was performed to examine the hypothesized relationships proposed in the theoretical model.[44,45] Variance (R^2) was used to explain the relative contribution of each independent latent variable to the dependent latent variables.[44]

To assess if "Perceived pharmacist image" influenced the Role dimensions when pharmacists provided services versus usual care (intervention vs. control group), the structural model was further estimated using data exclusively from each group of patients. A term identifying whether a patient was in the intervention and control group was included to compare the relationships between the observed variables on the latent variables in the intervention and control group. As a second analysis, the scores for the "perceived pharmacist image" and role dimensions between the control and the intervention group were also compared using t-test.

The statistical R package Lavaan was used to perform CFA, SEM and differences between groups; and SPSS Version 19.0 (SPSS Inc. Chicago, IL, USA) was used to calculate descriptive statistics of the sample. A P-value < 0.05 was considered statistically significant.

Results

Data from 405 patients (from 74 pharmacies; 242 patients in control pharmacies and 163 patients in intervention pharmacies) were included in this analysis. The sample consisted of 60.2% women and a mean age of 74.7 (SD: 6.3).

Testing the model

Based on the factor loadings and modification indices results of the CFA, 18 items from the two "expectations" dimensions and 2 items from the "perceived pharmacist image" were deleted to respecify the initial model (Tables 1 and 2). The Goodness of Fit indices of the respecified model indicated that this measurement model fitted the sample data and was valid (Table 3a). The composite reliability (ρ), AVE and α value confirmed that the model was reliable (Table 3b). The scales showed acceptable convergent and discriminant validity (Table 4).

After performing SEM, as evidenced by the Goodness of Fit measurement, the model fitted

Table 3
Validity and reliability of the model

a. Validity (fit indices for measurement and structural model)

	Recommended value	Measurement model	Structural model
Absolute fit indices			
χ^2		227.662	267.327
df		109	112
P-value		0	0
RMSEA	≤0.1	0.05	0.06
SRMR	≤0.05	0.05	0.06
GFI	≥0.9	1.00	0.99
AGFI	≥0.8	0.99	0.99
Incremental fit indices			
NFI	≥0.9	0.88	0.86
NNFI	≥0.9	0.9	0.87
CFI	≥0.9	0.92	0.89
IFI	≥0.9	0.92	0.89

b. Internal consistency and reliability of the dimensions

Variable	ρ	AVE	α
Professional expectations	0.73	0.47	0.72
Manner expectations	0.8	0.58	0.79
Positive reactions	0.81	0.51	0.8
Negative reactions	0.79	0.48	0.78
Perceived pharmacist image	0.74	0.49	0.71

Goodness of fit indices: χ^2(chi-squared), Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual (SRMR), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Normalized Fit Index (NFI), Non-normed Fit Index (NNFI), Comparative Fit Index (CFI), Relative Fit Index (RFI), and Incremental Fit Index (IFI).

Recommended values: ρ (>0.7), AVE (>0.5), α (>0.7).

the data well (Table 3a). Therefore, the results confirmed the proposed model (Fig. 2).

"Perceived pharmacist image" positively and significantly influenced both "professional expectations" (the standardized path coefficient of (H) = 0.719), $P < 0.05$ as well as "Courtesy expectations" (the standardized path coefficient of (H) = 0.582), $P < 0.05$ (Fig. 2). At the same time, "Professional expectations" positively and significantly influenced "positive reactions" (the standardized path coefficient of (H) = 0.358, $P < 0.05$), but negatively influenced "negative reactions" (the standardized path coefficient of (H) = −0.427, $P < 0.05$). "Courtesy expectations," positively and significantly influenced "positive reactions" (the standardized path coefficient of (H) = 0.081, $P < 0.05$) as well as "negative reactions" (the standardized path coefficient of (H) = 0.450, $P < 0.05$) (Fig. 2).

In this model, "perceived pharmacist image" explained 78% of the variance of "professional expectations" and 38% of "vourtesy

Table 4
Phi matrix of latent constructs (standard errors)

	Professional expectations	Manner expectations	Positive reactions	Negative reactions	Perceived pharmacist image
Professional expectations	1				
Manner expectations	0.724 (0.050)	1			
Positive reactions	0.811 (0.047)	0.618 (0.053)	1		
Negative reactions	0.019 (0.059)	0.161 (0.052)	−0.148 (0.060)	1	
Perceived pharmacist image	0.751 (0.069)	0.469 (0.058)	0.689 (0.059)	−0.184 (0.068)	1

Fig. 2. Model predicting patients' expectations and reactions. → indicates: Statistically significant at $P < 0.05$.

expectations" (Fig. 2). Simultaneously, "professional expectations" and "courtesy expectations" explained 68% of the variance of "positive reactions" and 7% of the variance of "negative reactions" (Fig. 2).

No differences were found between the intervention and control groups when analyzing relationships tested in the model. However, a *t*-test showed that "professional expectations" [6.27 (SD: 1.03) vs 5.97 (SD: 0.99); $P < 0.01$], "positive reactions" [6.66 (SD: 0.68) vs 6.47 (SD: 0.65); $P < 0.05$] and "perceived pharmacist image" [6.51 (SD: 0.81) vs 6.26 (SD: 0.90); $P < 0.05$] reached higher values for the intervention group.

Discussion

An initial conceptual model of the relationship between the perceived professional image of the pharmacist, patients' expectations of the role of the pharmacist and patients' reactions to the role of the pharmacist has been developed and tested. This model is valid and reliable. It should be mentioned that the internal reliability of the variables of the model was relatively high, with Cronbach's alphas above 0.71. This result confirms the strength of the model. It could be applied in the pharmacy practice context to assess how the professional image of the pharmacist influences patients' expectations of the pharmacist, and how these, in turn affect patients' reactions to the mentioned professional. This model also will permit understanding of the perspectives and priorities of patients.

When the model was tested using SEM, it fit the simple data, confirming the initial proposed model (Fig. 1). Therefore, a positive professional image of the pharmacist will be associated with an enhanced patient expectation of the community pharmacist, which would induce a greater positive association with patients' reactions to pharmacists' behavior. No conceptual model using role theory has been developed previously; however, another study has created a similar model.[6] This different model showed that patient-perceived pharmacist expertise was an important determinant of patient satisfaction and relationship commitment with the pharmacist, which confirm and strengthen the model proffered here.

Among the different associations, two pathways can be highlighted. The first, "perceived pharmacist image" affects "professional expectations" of the community pharmacist and these expectations, in turn, influence "positive reactions" positively and "negative reactions" inversely. The more positive the professional image of the pharmacist, the better patients' expectations of the profession and in turn, the greater positive reactions and more limited the negative reactions of the patient. It is known from previous studies that patients' satisfaction with pharmacists' interventions is high; however, this can be due to patients' professional expectations of the pharmacist being low.[26,27] Patients still attribute a dispensing role to pharmacists and do not necessarily attribute the role of a service provider to them.[2] If the professional image of the pharmacist is improved, patients will have greater professional expectations of the pharmacist, and in turn, greater positive reactions to the community pharmacist. Therefore, patients' overall perception of the pharmacist will improve. In the second pathway, the "Perceived pharmacist image" is associated with "courtesy expectations" and these, in turn, influence "positive reactions" and "negative reactions" positively. When the professional image of the pharmacist is enhanced, the level of "courtesy" displayed by the pharmacist to the patient is likely to have an impact on patients' reactions (both positive and negative). That is, patients might have higher expectations about how they think they should be treated and if those expectations are not met, a more negative reaction could result.

In this model, "perceived pharmacist image" has more effect in explaining "professional expectations" than "courtesy expectations." Thus, strategies to improve the professional image of the pharmacist will have the result that patients' professional expectations of the pharmacist are

heightened more than courtesy expectations. It is suggested that patients' expectations of how they should be treated are so high that it is difficult to improve patients' reactions when the professional image of the pharmacist is enhanced.

No significant differences were observed between the two groups of the study when analyzing relationships tested in the model. "Perceived pharmacist image" affects both control and intervention groups in the same way and with the same intensity; that is, the perceived image of the pharmacist generates the same associations with patients' expectations and reactions in the two groups. However, the bivariate analysis confirms that the provision of expanded professional services significantly improved the "perceived pharmacist image," "professional expectations" and "positive reactions." It is hoped that patients begin to distinguish between the image of a drug dispenser and a service provider role of the pharmacist. When the pharmacist acts in the service provider role, patients' professional expectations of the pharmacist are increased and generate higher positive reactions on patients. In order to improve the image of the pharmacist, it will be necessary for pharmacists to market and explain their expanded role and what their professional services offerings consist of.[50,51]

Limitations

Some of the questionnaires were not fully completed. Consequently, the sample had to be reduced to perform the analysis. In addition, the model was tested in a particular sample of polypharmacy elderly patients within the conSIGUE program in Spain. It is possible that other sample groups, such as patients under 65-years old, non-polypharmacy patients or patients from other countries or cultures be affected in different ways. Therefore, future work should test this model using different sample groups.

Conclusion

A conceptual model of the relationship between the professional image of the pharmacist and firstly, patients' expectations of the role of the pharmacist and, secondly, their reactions to the pharmacist's role, was developed and tested. The model was confirmed to be valid and reliable. The data and the model suggest that when perceived image of the pharmacist is enhanced, patients' professional expectations are heightened; in turn, these expectations influence "positive reactions" positively and "negative reactions" inversely. As well as this, the perceived image of the pharmacist is associated with "courtesy expectations" and these then also influence "positive reactions" and "negative reactions." Additionally, when expanded professional services are provided, the perceived image of the pharmacist is enhanced, generating higher patients' professional expectations and positive reactions from patients.

Based on the evidence provided in this paper, consideration should be given to developing strategies to broaden the focus and objectives of pharmacy practice to enhance patients' perceived professional image of the pharmacist. This then will have a positive effect on patients' expectations of the role of the pharmacist and their reactions to the pharmacist's role.

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CAPITULO 5

Artículo 3. Modelling elderly patients´ perception of the community pharmacist image when providing professional services. M. Sabater-Galindo, D. Sabater-Hernández, S. Ruiz de Maya, M.A. Gastelurrutia, F. Martínez-Martínez, S.I. Benrimoj. Psy Health Med. [Forthcoming 2016]

18-May-2016

Dear Ms. Sabater Galindo,

Re. PHM-2015-09-0650.R1 Modelling elderly patients´ perception of the community pharmacist image when providing professional services

Thank you for submitting the above manuscript, word count 1500, to be considered for the journal.

The paper has been sent out for review by independent referees and I am pleased to inform you that it has been accepted for publication and will shortly be sent for onward processing, after which we aim to publish your manuscript in 6-10 months.

Please do ensure that once you receive a copyright form from the publishers it is signed and returned immediately, as failure to do so will delay publication of your article.

Thank you again for your interest in the journal and fine contribution.

Sincerely,
Professor Lorraine Sherr
Editor

ABSTRACT

Professional pharmaceutical services may impact on patient's health behaviour as well as influence on patients´ perceptions of the pharmacist image. The Health Belief Model predicts health-related behaviours using patients' beliefs. However, health beliefs could transcend beyond predicting health behaviour and may have an impact on the patients' perceptions of the pharmacist image. This study objective was to develop and test a model that relates patients' health beliefs to patient's perception of the image of the pharmacist, and to assess if the provision of pharmacy services (Intervention group-IG) influences this perception compared to usual care (Control group-CG). A qualitative study was undertaken and a questionnaire was created for the development of the model. The content, dimensions, validity and reliability of the questionnaire were pre-tested qualitatively and in a pilot mail survey. The reliability and validity of the proposed model were tested using Confirmatory Factor Analysis (CFA). Structural Equation Modelling (SEM) was used to explain relationships between dimensions of the final model and to analyse differences between groups. As a result, a final model was developed. CFA concluded that the model was valid and reliable (Goodness of Fit indices: $x^2(80) = 125.726$, $p = 0.001$, RMSEA=0.04, SRMR=0.04, GFI=0.997, NFI=0.93, CFI=0.974). SEM indicated that "Perceived benefits" were significantly associated with "Perceived Pharmacist Image" in the whole sample.

Differences were found in the IG with also “Self-efficacy” significantly influencing “Perceived pharmacist image”. A model of patients’ health beliefs related to their image of the pharmacist was developed and tested. When pharmacists deliver professional services, these services modify some patients’ health beliefs that in turn influence public perception of the pharmacist.

Keywords:

- Perception;
- Patients;
- Community pharmacy service;
- Health beliefs;
- Community pharmacist Image;
- Structural Equation Modelling.

INTRODUCTION

The Health Belief Model (HBM) explains and predicts individuals' health behaviours using patients' beliefs. (Becker & Maiman, 1975; Becker, Maiman, Kirscht, Haefner, & Drachman, 1977; Brown, Ottney, & Nguyen, 2011; Carpenter, 2010; Jones, Smith, & Llewellyn, 2014; Rosenstock, 1974; Rosenstock, Strecher, & Becker, 1988; Rosenstock, Strecher, & Becker, 1994) Pharmacy interventions target certain behavioural determinants, such as patients' health beliefs (HBs), to modify their behaviours and so improve health. (Green & Kreuter, 2005; Machado, Bajcar, Guzzo, & Einarson, 2007; Moullin, Sabater-Hernandez, Fernandez-Llimos, & Benrimoj, 2013; Niquille & Bugnon, 2010; Pande, Hiller, Nkansah, & Bero, 2013; Ryan et al., 2014) On the other hand, pharmacy services may modify patients' perception of the pharmacist, (Al-Arifi, 2012; Stewart et al., 2008; Tarn, Paterniti, Wenger, Williams, & Chewning, 2012; Tinelli et al., 2007; Tinelli, Ryan, & Bond, 2009) which can be defined as the patient's impression of the pharmacist as a health care professional (i.e., "Perceived pharmacist image" -PPI). Drawing on these two arguments, patients' HBs may influence not only the behaviours of individuals but also their perception of the pharmacist.

OBJECTIVES

The aim of this study was to develop and test a model that relates patients' HBs to their perceptions of the professional image of the pharmacist. As a secondary objective, this model was used to assess whether pharmacy services modify this perception compared to usual care.

METHODS

Development of the Model

The HBM was used as the theoretical framework to guide this study. Based on the HBM dimensions (table 1), a qualitative study was undertaken in a pharmacy setting to operationalize those dimensions, and so develop a quantitative questionnaire that could be applied in further stages of this research. (Minichiello, Aroni, & Hays, 2008; Sabater-Galindo et al., 2011; Taylor, 1998) Nineteen elderly (older than 64 years old), polypharmacy patients (using 5 or more drugs) from 8 pharmacies in Spain were interviewed over a 2-month period until data saturation was reached.(Bowen, 2008) Interviews were digitally recorded and transcribed verbatim. NVIVO© software was used to analyse the data.(Research., 2002) As a result of the analysis, a new dimension (i.e., PPI) was identified, one HBM dimension was divided and another one was eliminated (Table 1). A first draft of the questionnaire was developed

consisted of 35 items grouped into five HBM dimensions and 7 items for "PPI" (Table 1 and Supplementary File).[de Vaus, 1995; Fowler, 2009]

Each item was measured using a seven-point Likert-type scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Three experts were invited to review the questionnaire and to identify and confirm the dimensions. The face validity of the questionnaire was assessed in a pre-test with 5 patients.[de Vaus, 1995; Fowler, 2009] To investigate the content and construct validity, the questionnaire was applied to a random sample of 100 elderly, polypharmacy patients (response rate = 71%). The Exploratory Factor Analysis (EFA) and Cronbach α indicated good consistency and reliability of the questionnaire, [Pett et al., 2003] and informed a reduction in the number of items (Table 1 and Supplementary File).

Testing the model

The final questionnaire was delivered to 114 pharmacies participating in the conSIGUE study, 5-6 months after the pharmacist intervention commenced. The potential target for this research was a sample of 878 patients.

The conSIGUE study was a cluster randomized trial that evaluate the clinical, economic and humanistic impact of a Medication Review with Follow-up service in elderly polypharmacy patients. [Martinez-Martinez et al., 2014; Sabater Hernández, Silva Castro, & Faus Dáder, 2007]

Data analysis

Structural equation modelling (SEM) was used to explain the proposed model (Figure 1b).[Hair, Black, Anderson, & Tatham, 2006; Schumacker & Lomax, 1996] Previous to SEM, a Confirmatory Factor Analysis (CFA) had to be performed to develop a valid measurement model that verified the 'fit' of the observed variables (items of the questionnaire) to each latent variable (dimensions). [Harrington, 2008; Schumacker & Lomax, 1996] Ten 'goodness-of-fit' indices proposed by Hair et al were used to assess the validity of the model; [Hair et al., 2006] and composite reliability (ρ), Cronbach's Alpha (α) and average variance extracted (AVE) were calculated to evaluate the reliability.[Hair et al., 2006; Peterson & Kim, 2013]

Given an acceptable measurement model, the structural model can be specified. [Kline, 2011; Schumacker & Lomax, 1996] The relationships between the set of latent variables were established

through SEM, [Hair et al., 2006; Schumacker & Lomax, 1996] and model estimates were derived from maximum likelihood. [Hair et al., 2006; Schumacker & Lomax, 1996] Variance (R^2) explained the relative contribution of each independent latent variable to the dependent latent variables. [Schumacker & Lomax, 1996]

To address the second objective of the study, a term/code identifying whether a patient was in the intervention (IG) or control group (CG) was included to compare the relationships between the observed variables and the latent variables in the two groups. As a secondary analysis, the scores for "PPI" between the two groups were also compared using t- test.

The statistical package R (lavaan module) was used to perform CFA, SEM and multi-group analysis and SPSS Version 19.0 (SPSS Inc. Chicago, IL, USA) was used to calculate t tests. A p value < 0.05 was considered statistically significant.

RESULTS

Data from 350 patients (from 73 pharmacies; 202 patients in control pharmacies and 148 patients in intervention pharmacies) were included in this analysis. The sample consisted of 61.4% women and a mean age of 74.8 (SD: 6.3).

Testing the model

Based on the results of the CFA, 1 HBM dimension, and some items of the questionnaire had to be deleted to respecify the initial model (Table 1 and Supplementary File). The Goodness of Fit indices indicated that this measurement model was valid and fitted the sample data (Table 2a). The composite reliability (ρ), AVE and α value confirmed the reliability of all variables (Table 2b).

After performing SEM, the proposed model (Figure 1b) was amended to a more complex structural model (Figure 2). The model fitted the data well, as evidenced by the goodness of fit measurement (Table 2a). In this model, "PPI" was only explained with 8% of variance by one HB dimension (i.e., "Perceived benefits"). Interestingly, this dimension was associated with the dimension "Self-efficacy".

Differences between Intervention and Control groups

According to Schumacker & Lomax, "PPI" was significantly different between groups, as "Self-efficacy" also was influencing "PPI" in the IG (Figure 3a, 3b, and Table 3). Additionally, the scores for "PPI" were significantly higher in the IG [6.46 (SD: 0.7) vs. 6.23 (SD: 0.9); $p<0.05$].

DISCUSSION

An initial model of the relationship between patients' HBs and the pharmacist's professional image has been suggested and tested empirically. Results indicate that it is a valid and reliable model, despite the low variance. This low variance probably reflects the large number of factors that can affect "PPI", being patients' HBs one of those factors. Since the model fits the sample data, it can be confirmed that some patients' HBs go beyond the ability to predict behaviour and are associated with "PPI". It appears that if a particular action is perceived as beneficial by the patient, then it will influence the patient's perception of the pharmacist. Pharmacists should focus on promoting the "Perceived benefits" of services to attract more patients for such services. (Nau et al., 2000)

Our model also indicates that when patients perceived benefits for their health; it induces a positive influence on "Self-efficacy". These associations could be a result of services, as pharmacy interventions are aimed to target patients' belief to improve health outcomes. (Green & Kreuter, 2005) Developers of services should consider including behavioural aspects in service protocols and methodologies used to deliver professional services as they may lead to a significant change in patient's behaviours. (Katch & Mead, 2010) It may also be useful for University education to include training in this topic.(Adams et al., 2015; Chen, Plake, Yehle, & Kiersma, 2011; Westberg, Bumgardner, Brown, & Frueh, 2010)

The results of this study also suggested that, when professional services are provided, they modify patients´ "Self-efficacy" that in turn improves "PPI" versus usual care. Therefore, those services focused on patient education would be the most influential on "PPI". This is consistent with other studies, in which pharmacists providing services were more likely to

fulfil patients' expectations.[Kassam, 2010; Sabater-Galindo, Epub 2016] Thus, this conceptual model might be used to assess how different services impact on PPI through patients' HBs.

Limitations

The model has been tested in a particular sample of polypharmacy elderly patients within the conSIGUE study in Spain. It is possible that the HBs and "PPI" of other sample groups may be affected in different ways.

CONCLUSION

A valid and reliable model of the relationship between patients' HBs and "PPI" was developed and tested empirically. Thus, some patients' HBs could not only predict behaviour but also be associated with "PPI".

This model also explains that the provision of professional services modifies some patients´ HBs, which in turn improves public perception of the pharmacist. Consideration should be given to broaden the focus and objectives of professional services to enhance patients' HBs.

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Tables & Figures:

Table 1: Evolution of the instrument and changes in the number of items

		Qualitative instrument	First Draft of the questionnaire	Final Version of the questionnaire	Measurement model
Health belief Dimension	**Definition**		**(n items)**	**(n items)**	**(n items)**
Perceived benefits of and barriers to health management	Positive and negative perceived consequences of health management	Perceived benefits of health management	7	5	3
		Perceived barriers to health management	7	4	Eliminated
Self-efficacy of medication management	Individual's belief in the ability to self-manage medication	Self-efficacy of medication management	7	4	3
Perceived threat of illness by an individual	Individual's belief of the severity of his/her illness	Perceived threat of illness by an individual	7	4	4
Perceived susceptibility and seriousness of illness by an individual	Perceived risk of his/her illness by an individual	Perceived susceptibility and seriousness by an individual	6	4	2
Cues to action	Factors that encourage an individual towards positive health management	Cues to action	Eliminated	Eliminated	Eliminated
		New concept "Perceived pharmacist image"	7	5	3

Table 2: Validity and reliability of the model

2a: Validity (Fit indices for measurement and structural model)

Absolute fit indices	Recommended value (35, 37)	Measurement model	Structural model
x2		122.726	141.59
df		80	84
p-value		0.001	0
RMSEA	≤0.1	0.04	0.044
SRMR	≤ 0.05	0.04	0.045
GFI	≥0.9	0.997	0.997
AGFI	≥0.8	0.995	0.995
Incremental fit indices			
NFI	≥0.9	0.932	0.924
NNFI	≥0.9	0.966	0.959
CFI	≥0.9	0.974	0.967
RFI	≥0.9	0.911	0.905
IFI	≥0.9	0.974	0.968

Goodness-of-fit indices:
x^2(chi-squared), Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual (SRMR), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Normalized Fit Index (NFI), Non-normed Fit Index (NNFI), Comparative Fit Index (CFI), Relative Fit Index (RFI), and Incremental Fit Index (IFI)

2b: Internal consistency and reliability of the HBM dimensions and Perceived pharmacist image.

Variable	**ρ**	**AVE**	**α**
Perceived Threat	0.83	0.56	0.831
Perceived Susceptibility	0.72	0.56	0.715
Perceived Benefits	0.77	0.52	0.751
Self-efficacy	0.77	0.53	0.765
Perceived pharmacist image	0.75	0.5	0.691

Recommended values:
ρ (>0.7), AVE (>0.5), α (>0.7)

Table 3: Model Fit Statistics for Multi-group Analysis comparing control and intervention group

	df	x^2	*Δdf*	Δx^2	*p(d)*
Model 1: all parameters fixed	203	329.94			
Model 2: all parameters freed	197	317.71	6	14.058	0.028
Model 3: PercBenef to Self-eff; Self-eff to PharmImage	201	322.79	2	8.103	0.018
Model 4: PercBenef to Self-eff	202	324.85	1	5.995	0.014
Model 5: Self-eff to PharmImage	202	327.55	1	2.725	0.097

Note. Δ represents changes; *p(d)* represents probability of difference

Self-effec= Self-efficacy

PercBenef= Perceived benefits

PharmImage= Perceived pharmacist image by the patient

Figure 1a: Health Belief Model

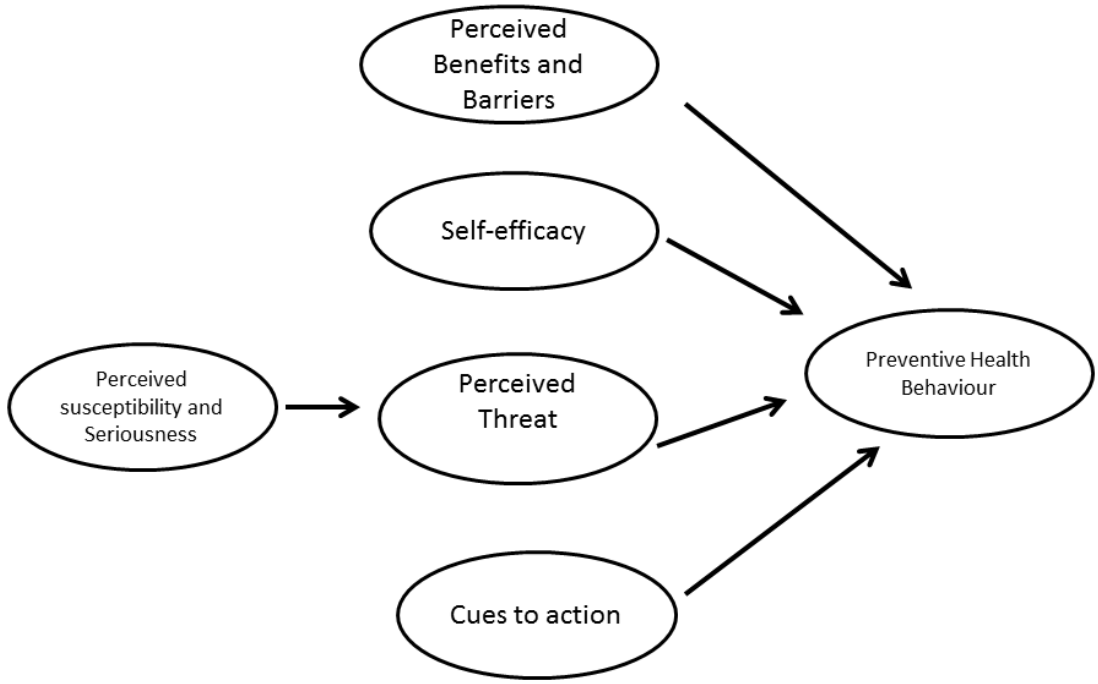


Figure 1b: Proposed model predicting Perceived pharmacist image

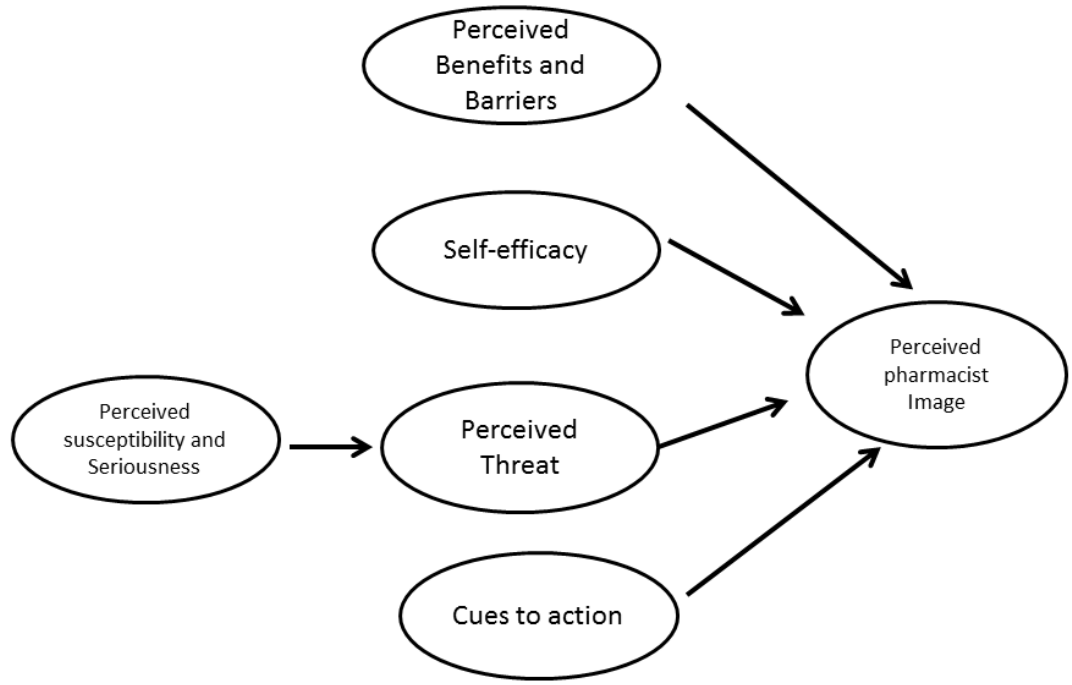
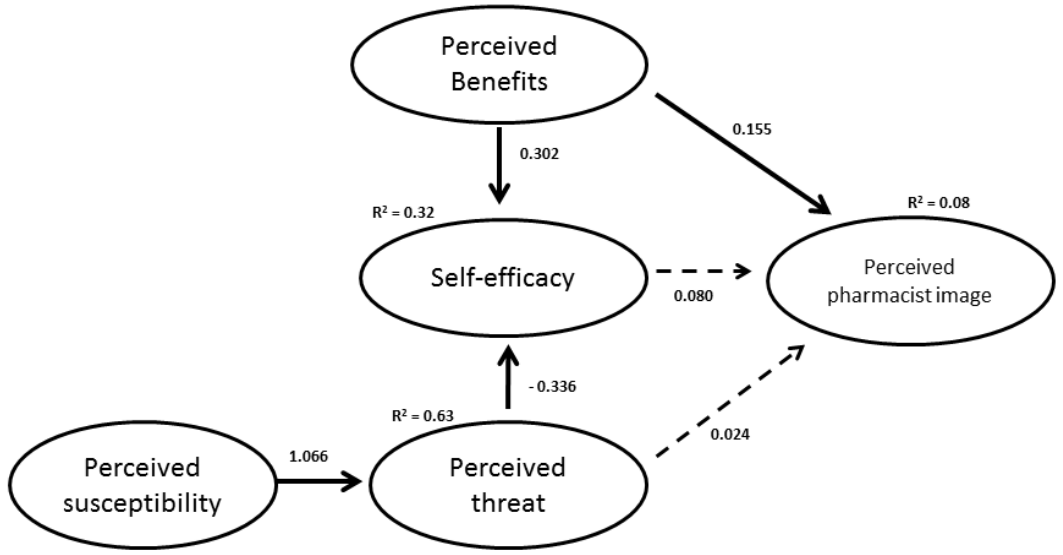


Figure 2: Model predicting Perceived Pharmacist image



Note:

Statistically significant at p< 0.05

Non-significant

Figure 3a: Reduced model predicting Perceived Pharmacist image in control group

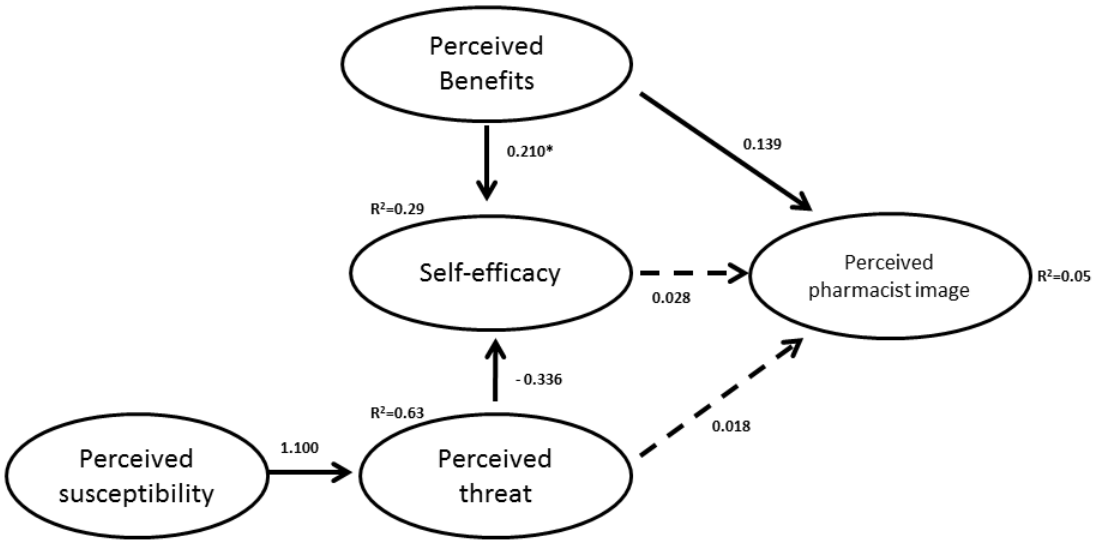
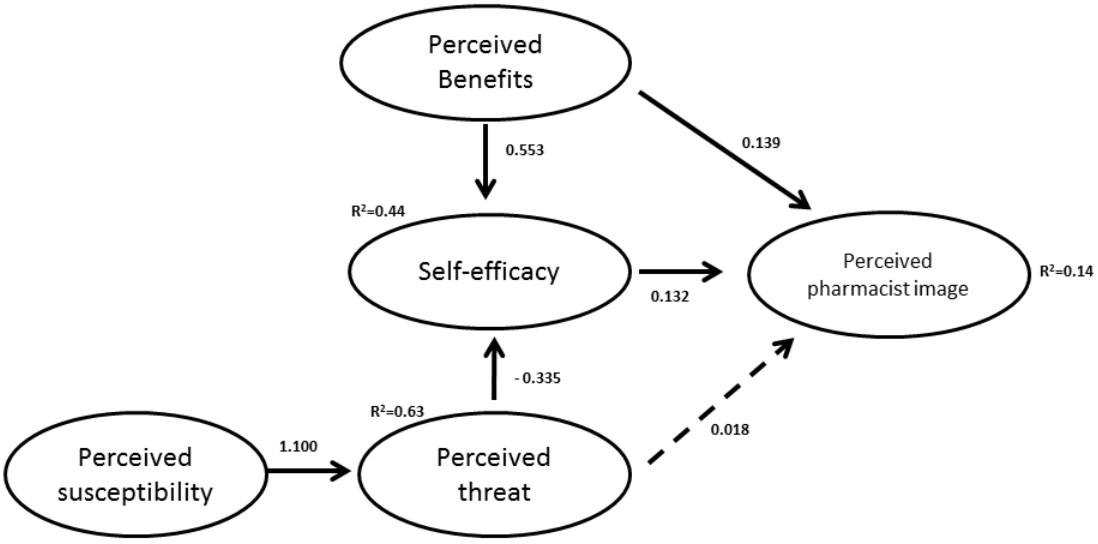


Figure 3b: Reduced model predicting Perceived Pharmacist image in intervention group



$X^2(201)= 322.079$; p=0.000

CFI= 0.931; RMSEA= 0.059; SRMR= 0.093

Statistically significant at p< 0.05

Non-significant

	Supplementary online material: Evolution of the instrument and changes in the number of items (The questionnaire was tested and validated in Spanish. An English version is provided as a translation of the original version)			
	Qualitative instrument	**First Draft of the questionnaire**	**Final version of the questionnaire**	**Measurement model**
Health belief Dimension		**(n items)**	**(n items)**	**(n items)**
Perceived benefits of and barriers to health management	Perceived benefits of health management	Taking greater control of my health will allow me to take fewer medicines	Taking greater control of my health will allow me to take fewer medicines	Taking greater control of my health will allow me to take fewer medicines
		Taking greater control of my health will allow me to meet with my friends and family more often		
		Taking greater control of my medication will help me to have a better quality of life	Taking greater control of my medication will help me to have a better quality of life	Taking greater control of my medication will help me to have a better quality of life
		Taking greater control of my health will allow me to do other activities such as walking, dancing, etc.	Taking greater control of my health will allow me to do other activities such as walking, dancing, etc.	
		Taking greater control of my health will allow me to avoid illness	Taking greater control of my health will allow me to avoid illness	
		Taking greater control of my health will help me to reduce my hospital visits		
		Taking greater control of my health will help the well-being of my family	Taking greater control of my health will help me to reduce my hospital visits	Taking greater control of my health will help me to reduce my hospital visits

	Supplementary online material: Evolution of the instrument and changes in the number of items (The questionnaire was tested and validated in Spanish. An English version is provided as a translation of the original version)			
	Qualitative instrument	**First Draft of the questionnaire**	**Final version of the questionnaire**	**Measurement model**
Health belief Dimension		**(n items)**	**(n items)**	**(n items)**
Perceived benefits of and barriers to health management	Perceived barriers to health management	Taking greater control of my health will not do me any good because of my age Taking greater control of my health will take time away from other things I want to do Taking greater control of my health will not allow me to live as I want I cannot take more control of my health because I do not know how to If I take greater control of my health I will be more anxious Taking greater control of my health will not allow me to eat what I want My family will not approve of me taking more control of my health	Taking greater control of my health will not do me any good because of my age Taking greater control of my health will not allow me to live as I want If I take greater control of my health I will be more anxious My family will not approve of me taking more control of my health	Eliminated

	Supplementary online material: Evolution of the instrument and changes in the number of items (The questionnaire was tested and validated in Spanish. An English version is provided as a translation of the original version)			
	Qualitative instrument	**First Draft of the questionnaire**	**Final version of the questionnaire**	**Measurement model**
Health belief Dimension		**(n items)**	**(n items)**	**(n items)**
Self-efficacy of medication management	Self-efficacy of medication management	I am able to take my medications as the doctor prescribes without any trouble I am able to understand the information I receive about my medications I have doubts about how to take my medications My family or my caregiver helps me to take my medicines properly I use tricks to remember when to take my medications I use a pillbox to take my medication better I understand everything in the information leaflet for my medications	I am able to take my medications as the doctor prescribes me without any trouble I am able to understand the information I receive about my medications My family or my caregiver helps me to take my medicines properly I understand everything in the information leaflet for my medications	I am able to take my medications as the doctor prescribes me without any trouble I am able to understand the information I receive about my medications I understand everything in the information leaflet for my medications

	Supplementary online material: Evolution of the instrument and changes in the number of items (The questionnaire was tested and validated in Spanish. An English version is provided as a translation of the original version)			
	Qualitative instrument	**First Draft of the questionnaire**	**Final version of the questionnaire**	**Measurement model**
Health belief Dimension		**(n items)**	**(n items)**	**(n items)**
Perceived threat of illness by an individual	Perceived threat of illness by an individual	My illness doesn't let me carry out activities such as walking, dancing, etc. I am more likely to get sick than other people My illness adversely affects my daily life My illness doesn't let me meet with my family and friends My illness doesn't allow me to perform my daily activities Because of my illness, I need to take various medicines daily to feel good If my health deteriorates, it will have a big impact on my life	My illness doesn't let me carry out activities such as walking, dancing, etc. My illness adversely affects my daily life My illness doesn't let me meet with my family and friends My illness doesn't allow me to perform my daily activities	My illness doesn't let me carry out activities such as walking, dancing, etc. My illness adversely affects my daily life My illness doesn't let me meet with my family and friends My illness doesn't allow me to perform my daily activities

	Supplementary online material: Evolution of the instrument and changes in the number of items (The questionnaire was tested and validated in Spanish. An English version is provided as a translation of the original version)			
	Qualitative instrument	**First Draft of the questionnaire**	**Final version of the questionnaire**	**Measurement model**
Health belief Dimension		**(n items)**	**(n items)**	**(n items)**
Seriousness of illness and Perceived susceptibility by an individual	Seriousness of illness and Perceived susceptibility by an individual	I think that I get sick easily because of my age It is very probable that my health will get worse My health may get worse if I don't carry out my activities like walking, etc My health may get worse if I don't take my medications every day. I get sick easily if I don't take care of my health My health may get worse if I don't change my lifestyle	I think that I get sick easily because of my age It is very probable that my health will get worse I get sick easily if I don't take care of my health My health may get worse if I don't change my lifestyle	I think that I get sick easily because of my age It is very probable that my health get worse

	Supplementary online material: Evolution of the instrument and changes in the number of items (The questionnaire was tested and validated in Spanish. An English version is provided as a translation of the original version)			
	Qualitative instrument	**First Draft of the questionnaire**	**Final version of the questionnaire**	**Measurement model**
Health belief Dimension		**(n items)**	**(n items)**	**(n items)**
Cues to action	Cues to action	Eliminated	Eliminated	Eliminated
	New concept "Perceived pharmacist image"	I see my pharmacist as a healthcare professional like my doctor I see my pharmacist as a health care professional like my nurse I see my pharmacist as a friend I believe that the pharmacist is an expert on medication I believe that the pharmacist is the best person to manage my medication If I had a question about my health that does not require a doctor's prescription, I would trust the advice of the pharmacist If I had a question about my health that requires a doctor's prescription, I would trust the advice of the pharmacist	I see my pharmacist as health care professional as my doctor I see my pharmacist as health care professional as my nurse I see my pharmacist as a friend I believe that the pharmacist is an expert on medication I believe that the pharmacist is the best person to manage my medication	I see my pharmacist as health care professional as my doctor I believe that the pharmacist is an expert on medication I believe that the pharmacist is the best person to manage my medication

CAPITULO 6

Artículo 4. M. Sabater, E. Feletto, F. Martínez-Martínez, M.I. Gil, M.A. Gastelurrutia, S.I. Benrimoj. Percepción del paciente mayor polimedicado sobre el rol del farmacéutico comunitario. Pharm Care Esp. 2011; 13(6): 271-279

Pharmaceutical CARE

Pharm Care Esp. 2011; 13(6): 271-279

ORIGINALES

Percepción del paciente mayor polimedicado sobre el rol del farmacéutico comunitario

Perception of the polymedicated elderly patient about the community pharmacist's role

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ABREVIATURAS:
SFT: seguimiento farmacoterapéutico.

RESUMEN

Introducción: Actualmente casi un 80% del gasto sanitario español corresponde a las personas mayores de 65 años que, debido a su pluripatología, se convierten en pacientes polimedicados. El farmacéutico comunitario es uno de los agentes de salud que puede ayudar a controlar este gasto y mejorar la calidad del uso de los medicamentos debido a su cercanía y accesibilidad, aunque actualmente sólo se le reconozca un rol dispensador de medicamentos.

Objetivos: Explorar la percepción que tiene el paciente mayor polimedicado sobre el rol del farmacéutico.

Material y métodos: Se utilizó un método exploratorio basado en la investigación cualitativa, usando como medio de obtención de información la entrevista semiestructurada y como marcos teóricos la Teoría del Rol complementada con la Teoría de las Creencias en Salud.

Resultados: Los pacientes mayores polimedicados identifican con el rol de profesional sanitario principalmente a su médico de cabecera y al personal de enfermería, relegando al farmacéutico a funciones de índole menor y, sobre todo, con un rol dispensador de medicamentos y productos sanitarios, aunque resaltan la gran accesibilidad y la confianza que tienen con este profesional.

Conclusión: Los pacientes mayores polimedicados en España esperan del farmacéutico un buen trato y un rol dispensador. Esto puede deberse a la baja expectativa que se tiene del farmacéutico para realizar servicios profesionales distintos de los clásicos (dispensación). Los farmacéuticos deberían empezar a cambiar su rol actual implantando servicios para que la percepción del paciente cambie.

Palabras clave: Teoría del Rol, Teoría de las Creencias en Salud, farmacéutico comunitario, rol dispensador.

ABSTRACT

Introduction: Nowadays, almost 80 percent of the health expenditure in Spain corresponds to people over 65 years of age as a result of their multiple pathology, have become polymedicated patients. Community pharmacists are community health workers who can help to control this expense and improve the quality of use of the medications due to the proximity and approachability although nowadays they are only known in their role as the medication dispenser.

Materials and methods: An exploratory method was used, based on the qualitative research and semi-structured interviews were conducted as a means to get information, combining both the Role Theory and Health Belief Model as theoretical frameworks.

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Pharm Care Esp. 2011; 13(6): 271-279

Results: Polymedicated elderly patients tend to associate the role of health care professionals with their general practitioners and community nurses, giving less priority to the function of the pharmacists. Pharmacists are often relegated to a minor role and particularly to the supplying of drugs and healthcare products, that is, their dispensary role. However, patients are likely to highlight the great accessibility and trust they have towards these professionals.

Conclusion: The polymedicated elderly patients expect from the pharmacist in Spain is a good rapport with their patients, besides a dispensary role. This could be a consequence of the low expectations that they have of the pharmacists concerning the services they provide. Pharmacists are assumed not to offer other services different to the classical services (dispensing). They should start changing their current role by introducing new services in order to change the perception that patients have about them.

Keywords: Role Theory, Health Belief Model, community pharmacy, dispensing role.

Introducción

En España, en enero de 2009, el colectivo de pensionistas suponía el 16,6% de los pacientes asegurados por el Sistema Nacional de Salud. Este colectivo, con altas tasas de polifarmacia, en esa misma fecha contribuía al 77,1% del gasto en medicamentos y productos sanitarios[1], a la vez que originaba otros gastos sanitarios añadidos (ingresos hospitalarios, urgencias médicas, etc.). Las autoridades sanitarias tratan de abordar este problema utilizando diferentes medidas en las que participen diferentes agentes de salud[2,3].

Los pacientes mayores tienen una serie de características especiales[4,5]; son individuos que presentan un elevado número de enfermedades y condiciones de salud crónicas, por lo que muchos son pacientes polimedicados. Por otro lado, el farmacéutico es el profesional sanitario con mayor accesibilidad para el paciente, y las farmacias el *outlet* de salud más visitado[6,7]. Además, cuando se pregunta a los pacientes por su grado de satisfacción con las farmacias, en general afirman que éste es muy alto[8-10]. Sin embargo, este alto grado de satisfacción con las farmacias se refiere a los servicios clásicos[11] o al trato recibido[12], y no a los servicios cognitivos o innovadores, como el seguimiento farmacoterapéutico (SFT), ya que los pacientes españoles hasta ahora no los conocían[13], probablemente por su escasa implantación[14]. Los pacientes ven todavía al farmacéutico casi exclusivamente como un dispensador de medicamentos, productos sanitarios y fórmulas magistrales[6,15].

Para investigar la opinión del paciente mayor polimedicado se han utilizado dos teorías como marcos teóricos. La Teoría del Rol *(Role Theory)* estudia los distintos roles que se espera que realicen los diferentes colectivos. Se basa en una metáfora del teatro, y afirma que un rol es un conjunto de normas y expectativas que deben ser aprendidos y que la sociedad impone a un determinado colectivo. Cada persona aprende el comportamiento adecuado a la posición que ocupa en la sociedad, y así es definida por el rol que realiza (médico, farmacéutico, etc.)[15-19]. Por tanto, se le exige y se espera de él una serie de características que se presuponen de ese rol; por ejemplo, la accesibilidad al farmacéutico o que el consejo de un farmacéutico debe ser siempre gratuito. La interacción farmacéutico-paciente (actores) es, en realidad, un guión, y las variaciones de este guión dependerán de las expectativas de los actores y del contexto. Se estructura en tres dimensiones:

1. Normas subjetivas, es decir, las normas que impone la sociedad a un determinado colectivo. Ejemplo: accesibilidad para el farmacéutico.
2. Expectativas: lo que se espera del comportamiento y obligaciones de un determinado colectivo. Ejemplo: la expectativa del paciente de considerar al farmacéutico como distribuidor de medicamentos.
3. Reacciones al comportamiento: las consecuencias de un determinado comportamiento. Ejemplo: al paciente le gusta que su farmacéutico le conozca por su nombre.

Otro enfoque interesante consiste en complementar las ideas de la Teoría del Rol con las de la Teoría de las Creencias en Salud *(Health Belief Model)*[20-24], ya que ayuda a los actores a clarificar sus roles dentro de la relación en un entorno de salud. Se basa en la idea de que, si un paciente cree que un determinado comporta-

miento suyo, o por extensión del proveedor del servicio, mejora su percepción sobre su salud, es más probable que el paciente realice dicho comportamiento o lo reclame al proveedor de dicho servicio. Aunque la Teoría de las Creencias en Salud tiene varias dimensiones, en lo que afecta a los aspectos que se tratan en este artículo se han utilizado solamente algunas de ellas:

- Amenaza percibida: creencia individual de la severidad de una enfermedad. Ejemplo: si el paciente piensa que tener diabetes mellitus es grave.
- Susceptibilidad percibida: riesgo percibido por un individuo; si el paciente siente que enseguida se pone enfermo, será más probable que adopte medidas más saludables o preventivas. Ejemplo: vacunarse de la gripe.
- Autoeficacia: creencia individual sobre la habilidad de hacer algo. Ejemplo: si el paciente cree que sabe manejar bien su salud y sus medicamentos.

Hoy se asume que el rol del farmacéutico comunitario debe cambiar y, por tanto, las expectativas de los pacientes se irán modificando a medida que perciban los beneficios de los nuevos servicios farmacéuticos, cuando éstos sean ofrecidos de una manera generalizada. Parece interesante explorar la situación de los pacientes ante el profesional farmacéutico hoy en día, antes de que dichos cambios tengan lugar.

Por ello, este trabajo se plantea como objetivo explorar en la actualidad tanto la percepción del paciente mayor sobre el rol del profesional sanitario en general (y más concretamente sobre el rol del farmacéutico comunitario y de la oficina de farmacia), como sobre sus creencias de salud.

Método

Se ha utilizado un método exploratorio[25-27] basado en la investigación cualitativa, usando como medio de obtención de información la entrevista semiestructurada, ya que es un proceso de interacción dinámico entre dos personas: el entrevistador y el entrevistado. Además, aporta información en profundidad y es relativamente fácil de organizar. Para ello, en primer lugar se elaboró una guía para la entrevista (anexo) basada en las dos teorías.

Para la elaboración de la guía se realizó una búsqueda bibliográfica a través de IPA, PubMed, PsycINFO y Embase, desde 1985 hasta la actualidad.

Se llevó a cabo un pilotaje de 4 entrevistas para realizar, finalmente, un total de 12 entrevistas en dos farmacias rurales (FA y FB) de la Región de Murcia a pacientes mayores de 65 años polimedicados.

La selección de los pacientes se realizó mediante la técnica de selección intencionada, y ninguno de los pacientes a los que se invitó a participar declinó dicha invitación. Todas las entrevistas se grabaron en una cinta magnetofónica y fueron posteriormente transcritas de forma íntegra por el investigador durante las semanas siguientes. El texto se fue analizando mediante un análisis comparativo constante, y finalmente se realizó un análisis de contenido de los datos[25-27].

Resultados

Las entrevistas se llevaron a cabo en las dos farmacias y tuvieron una duración media ± desviación estándar de 15,4 ± 4,57 minutos.

Información sobre la muestra y Teoría de las Creencias en Salud

Los participantes (8 mujeres y 4 hombres) tenían una media de edad de 73,5 años (rango: 65-85).

Amenaza percibida y susceptibilidad percibida

Los participantes opinan que, para su edad, su estado de salud es «bueno», aunque algunos consideran que es tan sólo «regular». Además, creen que no se ponen enfermos más de lo que se puede considerar como habitual o normal a su edad. Son conscientes de su situación de personas mayores, es decir, conocedores de que pueden tener más problemas de salud que una persona joven, y no piensan que esto sea algo fuera de lo normal para este grupo de población.

> *«No, hombre, me constipo como todo el mundo, y doler algo, como a todo el mundo me duele algo.»* (FB 25)

Autoeficacia

En algunos casos, se consideran capaces tanto de manejar los diferentes síntomas de sus enfermedades como su medicación; otros opinan que sí necesitan ayuda,

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ya sea para gestionar las distintas tomas de los medicamentos, sobre todo en los casos en que existe una verdadera polifarmacia, o para la administración de fármacos complejos.

«Mi hija me ayuda a ponerme las gotas.» (FB 21)

Se manifiesta que deben tener un papel activo ante la enfermedad y el tratamiento correspondiente. De hecho, se afirma que siguen normas de prevención y práctica de hábitos de vida saludable, como caminar u otro tipo de ejercicio, y cuando identifican un nuevo problema acuden al médico.

«Yo creo que de momento estoy haciendo lo correcto, porque me meto en la piscina y estoy una hora y pico moviéndome, nadando, haciendo ejercicio. Luego por la noche me salgo a andar.» (FA 15)

También afirman que, conscientes de su pertenencia al grupo de personas mayores, como ya se ha comentado, tienen una mayor sensibilidad ante ciertos síntomas, hasta el punto que consideran que están más alerta que los pertenecientes a otros grupos etarios, como los jóvenes. Así, se afirma que cuando tienen una enfermedad crónica, colaboran más con el médico y están más pendientes de la aparición de los nuevos síntomas que vayan surgiendo, de manera que ante cualquier nuevo problema buscan ayuda y consejo en profesionales que les puedan orientar.

«Sí, por supuesto, yo, si tengo alguna duda, tomo la iniciativa de acudir a la persona que sepa orientarme para decirme qué tengo que hacer, no soy de esas que dice "ah, tal", y más en estos años; cuando eres joven lo afrontas todo, pero en estos años te tienes que cuidar.» (FA 15)

Además reconocen que, aun siendo conscientes de su edad y de la mayor pluripatología que ésta conlleva, en algunos casos no hacen lo que deben, aun sabiendo que deberían hacerlo.

«No debería comer tanto.» (FA 11)
«Tendría que ponerme las medias de compresión para las varices.» (FA 11)

Teoría del Rol

También afirman que el profesional sanitario al que más acuden es, sin duda alguna, su médico de familia. Los entrevistados confirman que, salvo los problemas muy sencillos que son capaces de gestionar con facilidad, como un simple resfriado, el resto de problemas de salud los comentan con su médico de familia.

«Voy al médico, sí, sí... si tengo cualquier problema. Hombre, si sólo estoy algo resfriada, me tomo una Couldina y si se me quita, pues no voy, pero si es un problema que no puede solucionarse con una simple pastilla, pues voy, pido cita y voy al médico aunque no sea mi día.» (FA 15)

Aseguran asimismo que existen otros profesionales de la salud a los que también acuden, como los enfermeros, los médicos especialistas y los farmacéuticos. A la farmacia suelen acudir para resolver problemas de salud menores, como resfriados, dolores leves, etc., o para llevarse los medicamentos, comprar productos sanitarios y de parafarmacia.

«Tengo yo más confianza en la farmacia para cualquier cosa así, leve, que en el practicante, por ejemplo.» (FA 15)

Es decir, los participantes afirman que sí aprecian un cierto componente sanitario en el farmacéutico, aunque manifiestan que tiene unas peculiaridades que lo diferencian del resto. En este sentido, se afirma que al farmacéutico se le considera más como un amigo, como alguien tan cercano que forma parte de la familia, o incluso, simplemente, como un vecino. Por ello, se considera que el grado de confianza es incluso superior al que se tiene con el médico.

«No es que no lo vea, yo sí, el que es profesional es un profesional, pero es que yo lo veo más como un amigo.» (FB 22)
«Pues yo, no es por quitarle prestigio a los otros, me entiendes, es que tengo más contacto con el farmacéutico que con otros profesionales, porque yo voy al médico y ya está, pero el farmacéutico... luego... Pepe, que nos hemos criado juntos, es algo como si fuera de tu familia, yo estoy encantada.» (FA 15)

Normas subjetivas y expectativas del profesional sanitario

Los participantes opinan que lo que esperan del profesional sanitario es que tenga una alta disponibilidad en las visitas al médico de familia, que les prescriban lo que necesitan y que los deriven al especialista en caso de necesidad. Se recuerda que, en general, se relaciona

la idea de profesional sanitario con el médico de familia. También se valora mucho el buen trato con el paciente, aspecto que llega a considerarse casi tan importante como la profesionalidad del médico.

«Que te atiendan bien, que te escuchen, que veamos que se interesan por lo que estás diciendo.» (FB 25)

Reacciones al comportamiento del profesional sanitario

Asimismo, aseguran estar contentos con el trato que reciben de su profesional sanitario (médico de familia) al sentir que su salud está controlada, que se preocupa por ellos y tiene buen trato personal. Afirman también que el médico se implica tanto en su salud que no necesitan nada más. Sin embargo, hay quien reclama una mayor atención por parte del médico.

Normas subjetivas y expectativas del farmacéutico

En cuanto a la farmacia, esperan que les dispensen el medicamento prescrito por el médico con rapidez y amabilidad (buen trato con el paciente), incluso aunque no puedan pagarlo en ese momento, y que no tengan que volver a por él. Sin embargo, también se reclama que se establezca una relación más profesional con el farmacéutico y una actitud más proactiva ofreciendo información y consejo sobre su medicación.

«El farmacéutico debería entrevistarse con uno e interesarse por cómo estás, tener una relación más profesional, porque confianza ya hay mucha.» (FA 13)
«Una buena visita sería que me atiendan bien, que me escuchen, que sepan responderme a las preguntas, y una mala que no te hagan caso, que te digan (en la farmacia): *"léete el prospecto", también no tener el medicamento...»* (FB 25)

Reacciones al comportamiento del farmacéutico

Se afirma que, en general, existe una relación de confianza, incluso mayor que con el médico de familia, les gusta el trato personal que tienen con la farmacia, aunque algunos no distinguen entre farmacéutico y auxiliar de farmacia y sólo ven el papel de la farmacia como dispensadora. La mayoría afirma que en su farmacia no pueden hacer más por ellos, y que no ven la necesidad de que el farmacéutico se implique más en su salud, aunque a otros sí les gustaría que se interesasen más por ellos y su salud.

«No vendría de más que te explicaran de vez en cuando.» (FA 11)
«Con el farmacéutico tengo yo más confianza que ir a un... porque vengo, hablo con vosotras, os pregunto, os digo me duele esto, lo otro, me decís pues toma esto.» (FA 15)

Información sobre la farmacia y servicios cognitivos

Los participantes usan la farmacia principalmente para comprar medicamentos; alguno también para comprar productos sanitarios (compresas, pañales) o de parafarmacia (cremas, etc.), y para utilizar algunos de los servicios clásicos de la farmacia, como tomarse la presión, pesarse o hacerse análisis rápidos (tipo Rapid Control®) y consultar al farmacéutico.
Los participantes afirman «ser fieles» a su farmacia, ya que suelen ir siempre a la misma y, además, desde hace años.

«De toda la vida, mis abuelos venían cuando sus abuelos... Somos casi familia.» (FB 23)

Los participantes desconocen la existencia de los nuevos servicios cognitivos que la farmacia puede realizar, como el SFT. Cuando se les explica en qué consiste el SFT, algunos afirman que les gusta la idea de recibir ese tipo de servicios, ya que como el farmacéutico es el especialista del medicamento, esto les permite recibir una mejor atención y tener una mayor información sobre su tratamiento y, por tanto, un mayor control de su salud; incluso algunos opinan que el lugar idóneo para recibirlos es la farmacia, ya que se trata del lugar más accesible y rápido. Sin embargo, otros afirman que sus necesidades relacionadas con la farmacia ya las tienen cubiertas con los actuales servicios, y que para otras cosas prefieren acudir al médico.

«Yo lo veo bien porque el médico me las manda, pero él no sabe si me va a caer más bien o más mal. Y ustedes saben más de lo que se escribe.» (FA 12)
«Me parece muy bien porque además es más práctico en la farmacia, porque para el médico tienes que pedir cita y en la farmacia llegas y, aunque tengas que esperar un poco, enseguida te atienden. Lo mismo lo podéis hacer el médico y el farmacéutico (ambos) porque estáis preparados para eso.» (FA 13)

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Discusión

Para estudiar la percepción del paciente mayor polimedicado sobre el rol actual del farmacéutico comunitario, se han utilizado dos marcos teóricos: la Teoría del Rol y la Teoría de las Creencias en Salud. La Teoría de las Creencias en Salud permite entender el estado de salud del paciente, lo que complementa a la Teoría del Rol para explorar la perspectiva del paciente sobre otros profesionales de la salud. Las dimensiones de estas teorías permiten obtener información sobre lo que en realidad piensa y espera el paciente mayor polimedicado sobre los aspectos relacionados con su salud y con los profesionales sanitarios proveedores de los cuidados, fundamentalmente médicos, enfermeros y farmacéuticos. Estas teorías han permitido explorar las opiniones de los pacientes mayores polimedicados sobre el papel que desempeña el farmacéutico en su salud y su posible interés sobre posibles nuevos roles que pudiera desempeñar este profesional. Por tanto, se trata de dos teorías muy apropiadas para este tipo de estudio.

Los pacientes consideran al médico y al personal de enfermería como los verdaderos profesionales sanitarios, relegando al farmacéutico a funciones de índole menor, aunque resaltan la gran accesibilidad y la confianza que tienen con este profesional.

En general, opinan que tienen un buen estado de salud para su edad y son bastante activos frente a su enfermedad. Además, se consideran autoeficaces a la hora de manejar su medicación y su enfermedad, aunque también aseguran que a veces necesitan ayuda para ello; esto implica que, en realidad, necesitarían una persona que les supervisara su medicación y su enfermedad, que podría ser el farmacéutico dada su gran accesibilidad y su elevado grado de confianza.

Los pacientes identifican principalmente al profesional sanitario con el médico de cabecera, del que destacan principalmente su rol prescriptor de medicamentos, y del que esperan una alta disponibilidad y un buen trato personal. Para cualquier duda o problema suelen acudir a él en primer lugar[28].

Acuden a la farmacia a «comprar» medicamentos y productos de parafarmacia, así como a tratarse de síntomas menores, percibiendo sobre todo el rol dispensador o proveedor de medicamentos y productos sanitarios del farmacéutico. Esto puede deberse a la baja expectativa que se tiene del farmacéutico para realizar servicios profesionales distintos a los servicios clásicos[9]. Ello reviste tanta importancia para los pacientes que afirman incluso que, si en la farmacia no está el medicamento, el farmacéutico no está cumpliendo con el rol que se espera de él. Perciben al farmacéutico tan sólo con un ligero perfil sanitario, pero no lo identifican como un posible supervisor a la hora de tratar su afección crónica, ni esperan que les pueda enfocar o modificar su tratamiento. Es decir, los participantes conocen los servicios clásicos de la farmacia centrados en la dispensación de medicamentos y productos sanitarios; sin embargo, desconocen la existencia de los nuevos servicios cognitivos que la farmacia puede realizar. Cuando se les explica en qué consiste el SFT, a la mayoría de los pacientes les gustaría recibir este tipo de servicio ya que piensan que facilitaría un mejor control de su salud.

Por otro lado, los pacientes destacan la accesibilidad, el buen trato que reciben en la farmacia y la relación de confianza y familiaridad. Todas ellas son características muy importantes que es preciso mantener. Si, tal como plantean todas las organizaciones internacionales[29], la farmacia debe cambiar hacia la provisión de servicios, mantener la accesibilidad y la confianza se presentan como dos buenos factores para facilitar su implantación. Sin embargo, dada la escasa implantación de servicios actualmente en España[14], es normal que la percepción de los pacientes sobre el rol de los farmacéuticos esté centrada en aspectos distributivos y no en profesionales-clínicos. Además, la falta de realización de estos servicios conlleva que la población desconozca su existencia y su posible provisión en la farmacia[13]. Según la Teoría del Rol, se puede afirmar que el farmacéutico y el paciente no están «leyendo el mismo guión»[15]. Esto implica que se debe aprovechar esta situación de confianza para cambiar del rol «dispensador de medicamentos» al rol «cuidador del paciente», y así tener una relación más profesional, que también es lo que se demanda por parte del paciente hoy en día.

Se está trabajando mucho para tratar de cambiar el actual rol del farmacéutico desde una actividad orientada al producto, es decir, desde un rol exclusivamen-

te dispensador a otro basado en la implantación de servicios profesionales (rol clínico-asistencial)[15,19]. Este cambio resulta muy complejo y debe abordarse desde una perspectiva holística[19], en la que debe incluirse a las facultades de farmacia (proporcionando a los estudiantes habilidades para aumentar las expectativas de los roles expandidos), la estructura social de la farmacia (con cambios legislativos que permitan al farmacéutico aumentar su rol) y, sobre todo, el cambio en la percepción de los otros actores, los pacientes, dentro de la interacción farmacéutico-paciente. Esto se puede conseguir, por ejemplo, con determinadas actuaciones en la farmacia, como diseñar un buen plan de *marketing* para ofertar el servicio y obtener una mayor información sobre los beneficios del SFT, para que aumente su demanda, realizando campañas de educación, etc.[11,15,18].

Conclusión

La percepción de los pacientes sobre el rol actual del farmacéutico es que se trata de una persona accesible y cercana, aunque sólo se espera de él un rol dispensador con un escaso componente sanitario. Esto puede deberse a la baja expectativa que se tiene del farmacéutico para realizar servicios profesionales distintos a los servicios clásicos (dispensación), ya que la actual actividad que desarrollan las farmacias está basada en la distribución de medicamentos y la venta de productos de parafarmacia.

Los farmacéuticos deberían empezar a cambiar su rol actual implantando servicios que ayuden a modificar la percepción del paciente.

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Anexo. Guión de la entrevista

Información sobre el paciente y su farmacia

¿Cómo estás ahora mismo?

¿Desde cuándo vienes a esta farmacia?

¿Para qué sueles ir a una farmacia?

¿La utilizas para algo más que para recoger tus medicamentos?

¿De qué sueles hablar con tu farmacéutico?

Percepción de su salud

¿Qué problemas de salud tienes actualmente?

¿Qué gravedad piensas que revisten?

¿Sientes que enseguida te pones enfermo? ¿Por qué?

¿Cómo te va el tratamiento que estás tomando?

¿Sabes manejar bien tus medicamentos? ¿Y tu enfermedad? ¿Cómo lo haces?

Rol del profesional sanitario

¿A qué profesionales sanitarios sueles ver más a menudo? ¿Con qué frecuencia?

En caso de que sólo hablen del médico, se les pregunta:

¿Con qué frecuencia vas al médico? Si te pasa algo entre visita y visita, ¿qué haces?

¿Qué esperas de tu profesional sanitario?

Por favor, describe una «buena» visita a tu profesional sanitario o un «buen» profesional sanitario. Por favor, describe una «mala» visita a tu profesional sanitario o un «mal» profesional sanitario.

¿Crees que tu profesional sanitario podría hacer algo más por tu salud?

¿Qué pensarías si se implicara más en tu salud?

Rol del farmacéutico

¿Cómo te pueden ayudar otros profesionales sanitarios?

¿Por qué no ves al farmacéutico como profesional sanitario?

Describe lo que esperas de un farmacéutico cuando visitas una farmacia.

Por favor, describe una «buena» visita a la farmacia o un «buen» farmacéutico.

Por favor, describe una «mala» visita a la farmacia o un «mal» farmacéutico.

¿Crees que el farmacéutico podría hacer algo más por tu salud?

¿Qué pensarías si se implicara más en tu salud?

Percepción de los servicios

¿Conoces los servicios farmacéuticos?

¿Has tenido experiencia en alguno de ellos?

En caso de que desconozcan los servicios, se les explica de la siguiente manera: «Imagínate un paciente, Juan, que toma 11 medicamentos porque es diabético, tiene el colesterol y la presión altos y no se acuerda bien de cómo se los tiene que tomar todos. Entonces él va a su farmacia y le pide a su farmacéutico que le haga un seguimiento de su medicación para ver si todo va bien y aprender a tomársela correctamente. El farmacéutico estudia todos sus medicamentos y ve que está tomando dos para la presión que hacen que le pueda subir el azúcar, por lo que se lo dice al paciente y también habla con su médico para comentarle el caso. Así, el médico le suprime ese medicamento, y desde entonces Juan tiene el azúcar y la presión mucho más controlados».

¿Qué te parece este tipo de servicio?

¿Cómo crees que pueden ayudarte los servicios farmacéuticos?

CAPITULO 7

DISCUSION

Los resultados de cada uno de los estudios que conforman esta tesis doctoral han sido específicamente discutidos en los artículos presentados con anterioridad. En este apartado se presenta una reflexión final de la doctoranda sobre la aplicabilidad de este trabajo y las posibles líneas de investigación a desarrollar en el futuro.

7.1 Reflexión final

Según nuestro conocimiento, es la primera vez que se ha investigado sobre marcos teóricos que se puedan utilizar en el contexto de la farmacia práctica para mejorar la relación farmacéutico-paciente. De los 8 modelos teóricos de relación profesional sanitario-paciente que se encontraron en nuestra revisión sistemática, ninguno había sido desarrollado específicamente para guiar la interacción farmacéutico-paciente, a pesar de las sugerencias de que el farmacéutico se debe esforzar en desarrollar la relación con el paciente. [62, 92] Esto pone en evidencia la necesidad de desarrollar un modelo teórico que ayude al farmacéutico en la provisión de servicios profesionales.

Todos los modelos teóricos tenían como fin último mejorar los resultados en salud, sin embargo, los modelos abordaban la relación profesional-paciente desde dos puntos de vista distintos. Unos modelos describían la relación como un proceso, con distintas fases para llegar a conseguir como objetivo final mejores resultados en salud. Esto podría ser utilizado a la hora de desarrollar servicios profesionales para tener una estructura a seguir e incorporar cada una de las fases de desarrollo de la relación al diseño del servicio. El otro tipo de modelos se focalizaban en describir lo que ocurre en la interacción entre el profesional y el paciente, es decir, qué comportamientos o pensamientos se modifican durante esta interacción. Estos modelos ayudarían a entender la relación a un mayor nivel de profundidad y a desarrollar habilidades interpersonales, lo que facilitaría mejorar la calidad de la relación y por tanto también los resultados en salud.

Este estudio sugiere la “Teoría de Logro de Objetivos” (TLO) como base teórica sobre la que construir un modelo de relación farmacéutico-paciente. Este modelo describe la relación profesional-paciente enfatizando la importancia de esta interacción a la hora de acordar y conseguir objetivos mutuos de salud. Por lo tanto, este modelo podría utilizarse en farmacia

práctica como guía, cuando el farmacéutico provee servicios, para mejorar la relación con el paciente, a la vez que desarrollan un plan mutuo de cuidado que permita conseguir los objetivos de salud de los pacientes.

También conviene resaltar, que la mayoría de los factores individuales que se encontraron en los modelos teóricos y que podían influir en la relación eran factores modificables. Además, la mayoría de estos factores modificables, a su vez, podían ser alterados por una formación específica tanto para el profesional como para el paciente (por ejemplo, las creencias de salud, el conocimiento, la participación en la relación, etc.). Sobre todo, sería de interés, que los farmacéuticos aprendieran a modificar las creencias de salud de los pacientes. Esto permitiría que los farmacéuticos supieran cómo influir en los comportamientos de salud de los pacientes y que de este modo se mejorasen sus resultados en salud (ya que algunos de los servicios profesionales ya desarrollados intentan modificar los comportamientos de los pacientes como son los comportamientos de adherencia, etc.). [6, 24] Esta formación permitiría optimizar y mejorar la provisión de los servicios profesionales. Por otro lado, también sería clave darle educación de este tipo al paciente para ayudarle a ser más auto-eficaces y que aprendieran a adoptar comportamientos más saludables por sí mismos. [82] Además, consiguiendo mejores resultados en salud, también mejoraría la relación farmacéutico-paciente.

Otros factores modificables que podrían influir en la relación profesional-paciente y ser de interés para la farmacia práctica, serían la percepción y las expectativas. Por un lado, los farmacéuticos todavía perciben barreras para proveer servicios profesionales. [93-96] Por otro lado, los pacientes todavía consideran al farmacéutico como un "dispensador o proveedor" de medicamentos y sus expectativas se limitan a la provisión de medicamentos y consejo farmacéutico. [9, 32] Por lo tanto, para ayudar al desarrollo de la farmacia práctica, futuros estudios deberían centrarse en modificar y mejorar la percepción y expectativas tanto de los farmacéuticos como de los pacientes.

En este sentido, la presente tesis doctoral ha desarrollado y probado dos herramientas útiles para evaluar la percepción y las expectativas de los pacientes sobre el farmacéutico:

(1) La primera herramienta consiste en un modelo conceptual que evalúa la percepción del paciente sobre la imagen del farmacéutico. De este trabajo se derivan 3 mensajes/ideas fundamentales:

- Se trata de un modelo válido y fiable. Esto sugiere que algunas creencias de salud de los pacientes podrían estar asociadas con la imagen que tienen los pacientes del farmacéutico. Como se ha mencionado anteriormente, esto resalta la importancia de formar al farmacéutico en cambio de comportamiento tanto en la universidad como en los cursos de posgrado, [18, 97-99] ya que esto ayudaría no solo a modificar las creencias en salud y los comportamientos de los pacientes mejorando así sus resultados en salud, [100] sino que también permitiría mejorar la imagen del farmacéutico.

- En este modelo, de todas las creencias de salud de los pacientes que podrían estar asociadas a la imagen del farmacéutico, cabe destacar, que únicamente los "beneficios percibidos" estarían asociados a esta imagen. Además, estos beneficios también estarían asociados a su vez con la "autoeficacia" del paciente. Por lo tanto, los farmacéuticos deberían promocionar los "beneficios" de los servicios para, de este modo, atraer a un mayor número de pacientes, [78] y así mejorar tanto su autoeficacia como su percepción del farmacéutico.

- Conviene resaltar que cuando los farmacéuticos proveen servicios profesionales, estos servicios influyen también en la autoeficacia del paciente que a su vez mejora la imagen del farmacéutico. Por lo tanto aquellos servicios que enseñen a los pacientes a ser más autosuficientes a la hora de controlar su enfermedad o su tratamiento, serán los que más influyan sobre la percepción del paciente sobre el farmacéutico.

(2) La segunda herramienta consiste en un modelo conceptual que evalúa las expectativas del paciente sobre el rol del farmacéutico. De este trabajo se derivan 3 mensajes/ideas fundamentales:

- Este modelo también es válido y fiable, por lo tanto, este estudio aporta una herramienta útil para evaluar cómo la imagen del farmacéutico influye sobre las expectativas y

reacciones de los pacientes sobre este profesional. Además, cabe destacar que hasta el momento nunca se había utilizado la "Teoría del Rol" en farmacia para desarrollar un modelo conceptual.

- De las distintas asociaciones que se han visto en este modelo, se puede subrayar que si la imagen del farmacéutico mejora, las expectativas de los pacientes aumentan a nivel profesional, lo que originará a su vez unas mayores reacciones positivas en los pacientes, como por ejemplo mayores niveles de satisfacción o de fidelidad. De este modo, la profesión debería centrarse en desarrollar estrategias que mejoren la imagen del farmacéutico para que así también aumenten las expectativas que tiene el paciente sobre este profesional.

- Además, cuando el farmacéutico provee servicios profesionales, la imagen del farmacéutico, las expectativas profesionales y las reacciones positivas aumentan. Por lo tanto, se podría sugerir que cuando se proveen servicios profesionales, los pacientes esperan más del farmacéutico comunitario a nivel profesional, y empiezan a distinguir entre el rol dispensador de medicamentos y el de proveedor de servicios profesionales. Además esto, provocaría mayores niveles de satisfacción o fidelidad del paciente.

Como se ha demostrado, cuando el farmacéutico provee servicios profesionales, tanto la imagen del paciente del farmacéutico como sus expectativas mejoran. Consecuentemente, se podría afirmar que los servicios profesionales podrían ser una de las estrategias que debería impulsar la profesión para mejorar la percepción y las expectativas de los pacientes sobre el farmacéutico. Para ello, es imprescindible dar a conocer y promocionar los servicios profesionales entre la población. [101, 102]

7.2 Futuras líneas de investigación

Debido a la expansión del rol del farmacéutico para también proveer servicios profesionales, ha crecido el interés por desarrollar la relación entre el farmacéutico y el paciente. Además, parece ser que el paciente todavía percibe y espera solo un rol dispensador. Por lo tanto para poder expandir e instaurar este nuevo rol, futuros estudios deberían:

(1) Desarrollar y testear un modelo de relación farmacéutico-paciente.

Sería de utilidad para la farmacia práctica desarrollar y testear un modelo que permita a los farmacéuticos mejorar la relación con el paciente durante la provisión de servicios profesionales. Para ello, el modelo debe ayudar al farmacéutico a entender la interacción como un proceso que empieza, se desarrolla y termina; a la vez que a desarrollar sus habilidades interpersonales y a colaborar junto con los pacientes para obtener sus resultados de salud. El TLO podría ser un buen punto de partida para este fin, por lo que el siguiente paso podría ser probar este modelo.

(2) Modificar la percepción y las expectativas del paciente sobre el farmacéutico.

En este estudio se evaluó como el SFT podría modificar la percepción y las expectativas de los pacientes sobre el farmacéutico. Pero distintos servicios podrían modificar de manera diferente esta percepción y expectativas. Por lo tanto, utilizando las dos herramientas desarrolladas en este estudio, se podrían evaluar cómo otros servicios profesionales podrían modificar la percepción y las expectativas de los pacientes. De este modo, se podría averiguar cuáles son sus prioridades y preferencias a la hora de recibir servicios profesionales y así ayudar a expandir el rol de proveedor de servicios.

CAPITULO 8

CONCLUSIONES

8.1 Conclusions (English)

- Eight health care professional-patient relationship theoretical models were identified. None of them included the pharmacist as the healthcare professional.
- 'The Theory of Goal Attainment' (TGA) appears to be the most useful model for community pharmacy practice since it takes into consideration both, attaining patients health goals, as well as improving patient–pharmacist relationship.
- The two most interesting modifiable influential factors to apply in pharmacy practice could be 'perceptions' and 'expectations' as the pharmacist and the patient still perceive and expect a dispensing role of the pharmacist.
- A valid and reliable conceptual model of patient´s perception of the image of the pharmacist has been developed and tested. It could be suggested that some patients´ health beliefs, in addition to predict health-related behaviours, could be associated with patients´ perception of the pharmacist.
- Moreover, when professional services are provided, the image of the pharmacist improves compared to usual care. Pharmacists should be trained in modifying patients´ health beliefs when providing services since it also could improve patients´ image of the pharmacist.
- A valid and reliable conceptual model of patient's expectations of the role of the pharmacist had been developed and tested.
- The image of the pharmacist was associated with patients´ expectations of the pharmacist, which in turn were associated with patients´ reactions.
- When the pharmacist provides professional services, the public's perception of the pharmacist improves, generating higher patients´ professional expectations and positive reactions. The profession should focus on developing strategies that enhance the image of the pharmacist since it will improve patients´ expectations of this professional.

8.2 Conclusiones (Español)

- Se identificaron 8 modelos teóricos de relación profesional de la salud-paciente, aunque ninguno de ellos incluía al farmacéutico como profesional de la salud.
- La "Teoría del Logro de Objetivos" (TLO) parece ser el modelo teórico más útil para aplicar en la farmacia práctica ya que permitiría obtener los objetivos de salud del paciente al mismo tiempo que desarrollar la relación entre el farmacéutico y el paciente.
- La "percepción" y las "expectativas" podrían ser los factores modificables más interesantes para la farmacia práctica ya que tanto el profesional como el paciente todavía perciben y esperan un rol dispensador del farmacéutico.
- Se creó y testeó un modelo conceptual válido y fiable de la percepción del paciente sobre la imagen del farmacéutico. Esto podría sugerir que algunas creencias de salud de los pacientes, además de predecir comportamientos de salud, podrían estar asociadas a la percepción del paciente sobre el farmacéutico.
- Además, cuando se proveen servicios profesionales, la imagen del farmacéutico mejora en comparación con la atención habitual. Los farmacéuticos deberían de recibir formación sobre cómo modificar las creencias de salud de los pacientes durante la provisión de los servicios, para que de este modo, mejore la imagen del paciente sobre el farmacéutico.
- Un modelo conceptual de las expectativas del paciente sobre el rol del farmacéutico fue desarrollado y testeado.
- En este modelo, la imagen del farmacéutico estaría asociada con las expectativas de los pacientes sobre el farmacéutico, que a su vez influirían sobre las reacciones de los pacientes.
- Además, cuando el farmacéutico provee servicios profesionales, la imagen del farmacéutico mejora y genera mayores expectativas profesionales del paciente sobre el farmacéutico y mayores reacciones positivas del paciente. La profesión debería centrarse en desarrollar estrategias que mejoren la imagen del farmacéutico para que de este modo aumenten también las expectativas que tiene el paciente sobre este profesional.

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APENDICES

APENDICE I. Carta de invitación al farmacéutico

Granada, 20 de noviembre de 2012

Invitación a participar en el proyecto:

PERCEPCIÓN DEL PACIENTE MAYOR POLIMEDICADO SOBRE EL ROL DEL FARMACÉUTICO COMUNITARIO.

Estimado compañero,

Ya han transcurrido varios meses desde que se inició el proyecto **conSIGUE**. Gracias a tu participación de forma activa en la investigación, se va a analizar el impacto humanístico, clínico y económico del servicio profesional SFT.
Uno de los objetivos del proyecto **conSIGUE** es determinar el cambio en la percepción del paciente mayor polimedicado sobre el rol del farmacéutico tras la prestación del servicio de SFT, en cualquier farmacia en la que se tome la decisión de ofrecer y prestar dicho servicio.

Para ello, es fundamental solicitar **tu colaboración**, permitiendo a tus pacientes que respondan a este cuestionario con la máxima veracidad. El tratamiento estadístico de las respuestas garantiza la absoluta confidencialidad y anonimato de las mismas.

Mediante este escrito quisiera pedirte tu colaboración en un trabajo de investigación que estamos realizando el Grupo de Investigación en Atención Farmacéutica de la Universidad de Granada, y cuyos resultados se incorporarán a la Tesis Doctoral que lleva por título: "*Interacción farmacéutico-paciente en la farmacia comunitaria, en particular, con el proceso y aplicación de SFT"*.

Agradeciéndote de antemano tu colaboración, recibe un saludo.

Fdo: Marta Sabater Galindo
Farmacéutico colegiado nº2491

APENDICE II. Carta de invitación al paciente

Estamos muy interesados en ofrecer un mejor servicio a los usuarios de la farmacia. En este contexto nos gustaría conocer su opinión sobre sus farmacéuticos y sobre su farmacia. Este cuestionario anónimo forma parte del proyecto de investigación: "Percepción del paciente mayor polimedicado sobre el rol del farmacéutico". Los datos que se obtengan sólo serán utilizados para fines estadísticos y en ningún caso serán cedidos a terceras personas para su utilización y/o difusión.

Sus respuestas son confidenciales y no van a tener ninguna influencia sobre los servicios que usted recibe. Por ello, le solicitamos que complete el siguiente cuestionario y que lo entregue al farmacéutico.

Por favor indique en qué grado está usted de acuerdo con cada una de las afirmaciones mencionadas abajo. DIBUJE UNA CRUZ alrededor del número que mejor describe su respuesta.

Su opinión nos ayudará a mejorar nuestros servicios.

Muchas gracias por su colaboración. Si se le plantea alguna duda o tiene alguna pregunta relacionada con la cumplimentación del cuestionario no dude en ponerse en contacto conmigo:

Marta Sabater

APENDICE III. Cuestionario para el paciente

A RELLENAR POR EL FARMACÉUTICO

Provincia nº	Farmacia nº
Formador nº	Farmacéutico nº
Paciente nº	Cuestionario nº

INFORMACIÓN SOBRE USTED

Edad _____ Sexo Hombre ☐ Mujer ☐

marque con un "X" donde corresponda

Por favor, marque una X sólo en una de las afirmaciones

Habitualmente voy a la farmacia una vez al mes	☐
Habitualmente voy a la farmacia dos veces al mes	☐
Habitualmente voy a la farmacia tres veces al mes	☐
Habitualmente voy a la farmacia cuatro o más veces al mes	☐

POR FAVOR, marque una cruz X en el casillero correspondiente

A continuación le pedimos que muestre su grado de conformidad con relación a las siguientes afirmaciones, puntuándolas del 1 al 7 marcando con una cruz X. (1= totalmente en desacuerdo, 7= totalmente de acuerdo

	Totalmente en desacuerdo ⇩						Totalmente de acuerdo ⇩
1. Llevar un mayor control de mi salud me permitirá ponerme menos veces enfermo	1	2	3	4	5	6	7
2. Llevar un mayor control de mi salud no me servirá de nada debido a mi edad	1	2	3	4	5	6	7
3. Soy capaz de tomarme los medicamentos como me prescribe el médico sin problemas	1	2	3	4	5	6	7
4. Llevar un mayor control de mi salud me permitirá realizar otras actividades como andar, bailar, etc	1	2	3	4	5	6	7
5. Entiendo toda la información que vienen en los prospectos de los medicamentos	1	2	3	4	5	6	7
6. Mi enfermedad me afecta negativamente a mi vida diaria	1	2	3	4	5	6	7
7. Mi enfermedad me impide quedar con amigos, familia	1	2	3	4	5	6	7
8. Si no llevo un control de mi salud enfermaré	1	2	3	4	5	6	7
9. Llevar un mayor control de mi salud hará que viva más preocupado	1	2	3	4	5	6	7
10. Mi familia no aprobará que lleve un mayor control de mi salud	1	2	3	4	5	6	7
11. Debo cambiar mi estilo de vida o mi estado de salud empeorará	1	2	3	4	5	6	7
12. Creo que, para mi edad, enseguida me pongo enfermo	1	2	3	4	5	6	7
13. Mi enfermedad me impide realizar mis actividades cotidianas	1	2	3	4	5	6	7
14. Llevar un mayor control de mi salud no me permitirá vivir como quiero	1	2	3	4	5	6	7
15. Mi familia o mi cuidador me ayudan a tomarme correctamente mis medicinas	1	2	3	4	5	6	7
16. Llevar un mayor control de mi salud me permitirá tomar menos medicamentos	1	2	3	4	5	6	7
17. Llevar un mayor control de mi salud me permitirá ir menos veces al hospital	1	2	3	4	5	6	7
18. Soy capaz de entender la información que recibo sobre mi medicación	1	2	3	4	5	6	7
19. Mi enfermedad me impide realizar actividades como andar, bailar, nadar, etc	1	2	3	4	5	6	7
20. Llevar un mayor control de mi salud me ayudará a tener más calidad de vida	1	2	3	4	5	6	7
21. La probabilidad de que mi estado de salud empeore es alta	1	2	3	4	5	6	7

POR FAVOR, marque una cruz X en el casillero correspondiente

A continuación le pedimos que muestre su grado de conformidad con relación a las siguientes afirmaciones, puntuándolas del 1 al 7 marcando con una cruz X. (1= totalmente en desacuerdo, 7= totalmente de acuerdo

	Totalmente en desacuerdo						Totalmente de acuerdo
1. Espero que el farmacéutico me ayude a mejorar mi calidad de vida	1	2	3	4	5	6	7
2. Me gustaría que mi farmacéutico me dijera que quiere ayudarme a como tomar mejor mis medicamentos	1	2	3	4	5	6	7
3. Volveré siempre a la misma farmacia porque se interesan por mi salud	1	2	3	4	5	6	7
4. Me gustaría que mi farmacéutico me hiciera un seguimiento para ver cómo me va mi medicación	1	2	3	4	5	6	7
5. El farmacéutico es la persona encargada de hacerme un seguimiento de mi enfermedad	1	2	3	4	5	6	7
6. Volveré siempre a la misma farmacia porque me dan consejos sobre cómo tomar mis medicamentos	1	2	3	4	5	6	7
7. Me gustaría que el farmacéutico me dijera que quiere ayudarme a mejorar mi estado de salud	1	2	3	4	5	6	7
8. El farmacéutico se debe asegurar de que he entendido todo acerca de mi medicación	1	2	3	4	5	6	7
9. El farmacéutico debe de destinarme el tiempo necesario para mis consultas	1	2	3	4	5	6	7
10. Cuando vengo a la farmacia espero que el farmacéutico se interese por cómo estoy de salud	1	2	3	4	5	6	7
11. El farmacéutico debe dispensarme los medicamentos con rapidez	1	2	3	4	5	6	7
12. Espero que el farmacéutico me pregunte por cómo estoy	1	2	3	4	5	6	7
13. Protestaré en mi farmacia porque no tienen mis medicamentos cuando voy y tengo que volver	1	2	3	4	5	6	7
14. Espero que el farmacéutico me conozca por mi nombre	1	2	3	4	5	6	7
15. Protestaré en mi farmacia porque no me atienden con rapidez	1	2	3	4	5	6	7
16. Mi farmacéutico se debe de asegurar de que he entendido todo acerca de mi enfermedad	1	2	3	4	5	6	7
17. Volveré siempre a la misma farmacia porque me pueden hacer seguimiento de cómo me van mis medicamentos	1	2	3	4	5	6	7
18. El farmacéutico debe de conocerme por mi nombre	1	2	3	4	5	6	7
19. Volveré siempre a la misma farmacia porque me tratan con amabilidad	1	2	3	4	5	6	7
20. El farmacéutico es la persona encargada de explicarme toda la información con respecto al medicamento	1	2	3	4	5	6	7
21. Protestaré en mi farmacia porque no me dan consejos sobre cómo tomar mis medicamentos	1	2	3	4	5	6	7
22. Espero que el farmacéutico me pueda hacer un seguimiento de mis problemas de salud	1	2	3	4	5	6	7
23. El farmacéutico debe de mostrar interés de cómo me encuentro de salud	1	2	3	4	5	6	7
24. Espero que el farmacéutico me dedique el tiempo necesario para mis consultas	1	2	3	4	5	6	7
25. Espero que el farmacéutico me salude cuando llego a la farmacia	1	2	3	4	5	6	7
26. Si no entiendo algo sobre mi enfermedad, el farmacéutico debe de explicármelo	1	2	3	4	5	6	7
27. Protestaré en mi farmacia porque no me tratan con amabilidad	1	2	3	4	5	6	7
28. Espero que mi farmacéutico me hable de los posibles efectos adversos de mi medicación	1	2	3	4	5	6	7
29. El farmacéutico debe de preguntarme por cómo estoy cuando llego a la farmacia	1	2	3	4	5	6	7
30. El farmacéutico me debe de saludar cuando llego a la farmacia	1	2	3	4	5	6	7
31. El farmacéutico debe tener mis medicamentos disponibles para entregármelos en ese momento	1	2	3	4	5	6	7
32. Espero que el farmacéutico me resuelva las posibles dudas que tenga con respecto a mi tratamiento	1	2	3	4	5	6	7

	Totalmente en desacuerdo						Totalmente de acuerdo
1. Veo a mi farmacéutico tan profesional sanitario como mi enfermero	1	2	3	4	5	6	7
2. Veo a mi farmacéutico como un amigo	1	2	3	4	5	6	7
3. Opino que el farmacéutico es la persona indicada en gestionar mi medicación	1	2	3	4	5	6	7
4. Opino que el farmacéutico es el experto en medicamentos	1	2	3	4	5	6	7
5. Veo a mi farmacéutico tan profesional sanitario como mi médico de cabecera	1	2	3	4	5	6	7

"Por favor, entregue este cuestionario a su farmacéutico".
"Muchas gracias por rellenar este cuestionario, su opinión nos ayudará a mejorar nuestros servicios"

APENDICE IV. Comunicaciones a congresos

Sabater-Galindo M, Feletto E, Faus MJ, Gastelurrutia MA, Benrimoj SI. Teorías de cambio de comportamiento en los farmacéuticos y los pacientes y sus aplicaciones [Comunicación Oral]. Ars Pharm 2010. 51 (supl 1):78.

Sabater-Galindo M, Feletto E, Martinez-Martinez F, Gil Garcia MI, Gastelurrutia MA, Benrimoj SI. Infarma 2012. Percepción del paciente mayor polimedicado sobre el rol del farmacéutico comunitario Madrid [Comunicación Oral]. Schironia 2012. Número especial (Infarma Madrid 2012-marzo): 26.

Sabater-Galindo M, Garcia Cárdenas V, Saez-Benito L , Varas R, Martínez-Martínez F, Gastelurrutia MA, Benrimoj SI. Estudio cualitiativo de la percepción del paciente mayor polimedicado sobre su salud y el rol del farmacéutico comunitario: programa conSIGUE [Comunicación Póster].

ESTUDIO CUALITATIVO DE LA PERCEPCION DEL PACIENTE MAYOR POLIMEDICADO SOBRE EL ROL DEL FARMACÉUTICO COMUNITARIO: programa conSIGUE

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1. Introducción

El farmacéutico comunitario es uno de los agentes de salud que pueden mejorar la calidad del uso de los medicamentos y ayudar a controlar el gasto sanitario español debido a su cercanía y accesibilidad (hoy en día, casi un 80% del gasto sanitario español corresponde a la población mayor de 65 años). Actualmente, se considera que el paciente solo reconoce un rol dispensador de medicamentos del farmacéutico. Los marcos teóricos "Teoría de la Creencia de la salud" y "Teoría del Rol" podrían ser utilizados para averiguar la percepción del paciente mayor polimedicado sobre su salud y sobre el rol del farmacéutico comunitario.

2. Material y métodos

Se utilizó un **método exploratorio basado en la investigación cualitativa** usando como medio de obtención de información la entrevista semiestructurada ya que es un proceso de interacción dinámico entre dos personas: el entrevistador y el entrevistado y aporta información en profundidad. Para ello, se elaboró previamente una guía para la entrevista (a través de una búsqueda bibliográfica en IPA, Pubmed, PsycINFO y Embase, desde 1985 hasta la actualidad) basada en los **dos marcos teóricos, la Teoría del Rol complementada con la Teoría de Creencia de Salud**. Para posteriormente, basarse en este trabajo para llevar a cabo un estudio cuantitativo y medir el cambio de percepción del paciente mayor polimedicado sobre el rol del farmacéutico.

La teoría de la creencia en salud, permite entender el estado de salud del paciente, lo que complementa a la teoría del rol para explorar la perspectiva del paciente sobre otros profesionales de la salud

Se llevó a cabo un pilotaje de 4 entrevistas para realizar, finalmente, un total de 24 entrevistas en dos farmacias rurales de la Región de Murcia y en 6 farmacias de Guipúzcoa, antes de que los pacientes hubieran recibido seguimiento farmacoterapéutico, y otras 6 entrevistas después de que los pacientes hubieran recibido seguimiento farmacoterapéutico.

PILOTO
4 entrevistas semiestructuradas (2 farmacias de la Región de Murcia)

ESTUDIO PRINCIPAL
20 entrevistas semiestructuradas (2 farmacias de la Región de Murcia y 6 farmacias de Guipuzcoa)

DISEÑO HERRAMIENTA CUANTITATIVA
cuestionario para medir cambio percepción del paciente mayor polimedicado sobre su estado de salud y el rol del farmacéutico comunitario

3. Resultados

Los participantes (12 mujeres y 10 hombres) tenían una media de edad de 74,8 años (rango: 65 – 88 años).

La utilización de las teorías Creencia de Salud y Teoría del Rol han permitido explorar las opiniones de los pacientes mayores polimedicados sobre el papel que juega el farmacéutico en su salud y si podrían estar interesados en posibles nuevos roles del farmacéutico.

Los pacientes mayores polimedicados opinan que, para su edad, **su estado de salud es "bueno"**, en algunos casos, opinan que **sí necesitan ayuda**, ya sea para gestionar las distintas tomas de los medicamentos, sobre todo en aquellos casos en que existe una verdadera polifarmacia, como en la administración de fármacos complejos. Y se afirma que cuando tienen una **enfermedad crónica colaboran más** con el médico y están más pendientes de la aparición de los nuevos síntomas que vayan surgiendo, de manera que ante cualquier nuevo problema buscan ayuda y consejo en profesionales que les puedan orientar.

Los pacientes mayores polimedicados, identifican con el rol de profesional sanitario principalmente a su médico de cabecera y a los enfermeros, relegando al farmacéutico a funciones de índole menor y sobre todo con **un rol dispensador de medicamentos** y productos sanitarios, aunque resaltan la **gran accesibilidad y la confianza** que tienen con farmacéuticos. Los participantes **desconocen la existencia de los nuevos servicios cognitivos** que la farmacia puede realizar, como es el SFT. Cuando se les explica en qué consiste el SFT, algunos afirman que les gusta la idea de recibir ese tipo de servicios ya que como el farmacéutico es el especialista del medicamento, esto les permitiría recibir una mejor atención al paciente y tener una mayor información sobre su tratamiento y por tanto un mayor control de su salud.

En futuros trabajos, se analizará el contenido de las entrevistas una vez que el farmacéutico ha realizado SFT, para averiguar si la percepción del paciente sobre su salud y sobre el rol del farmacéutico se ha modificado.

Creencia de salud

Teoría del Rol

4. Conclusiones

Los pacientes mayores polimedicados en España, esperan del farmacéutico un buen trato con el paciente y un rol dispensador, desconociendo el perfil sanitario de este profesional y los posibles servicios a recibir

5. Bibliografía

Sabater-Galindo M, Garcia Cárdenas V, Saez-Benito L, Varas R, Martínez-Martínez F, Gastelurrutia MA, Benrimoj SI. Elaboración y pilotaje de un cuestionario para medir la percepción del paciente mayor polimedicado sobre su salud y sobre el rol del farmacéutico comunitario: Programa conSIGUE" [Comunicación Póster]. Farmacéuticos Comunitarios 2012. 4 (Supl 1):109.

ELABORACIÓN Y PILOTAJE DE UN CUESTIONARIO PARA MEDIR LA PERCEPCION DEL PACIENTE MAYOR POLIMEDICADO SOBRE SU SALUD Y SOBRE EL ROL DEL FARMACÉUTICO COMUNITARIO: PROGRAMA conSIGUE

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1. Introducción y objetivos

La farmacia comunitaria está en pleno proceso de transformación, evolucionando de un rol dispensador de medicamentos a un rol centrado en el paciente y en los servicios. El farmacéutico comunitario es uno de los agentes de salud que pueden mejorar la calidad del uso de los medicamentos y ayudar a controlar el gasto sanitario español debido a su cercanía y accesibilidad. Actualmente, se considera que el paciente solo reconoce un rol dispensador de medicamentos del farmacéutico. Los marcos teóricos "Teoría de la Creencia de la salud" y "Teoría del Rol" podrían ser utilizados para averiguar la percepción del paciente mayor polimedicado sobre su salud y sobre el rol del farmacéutico comunitario.

Objetivos: Elaborar y pilotar una escala de medida del cambio de la percepción del paciente mayor polimedicado sobre su salud y sobre el rol del farmacéutico comunitario, cuando el farmacéutico realiza seguimiento farmacoterapéutico

2. Material y métodos

Para la elaboración del cuestionario, se realizó en una primera fase, una revisión bibliográfica a través de IPA, Pubmed, PsycINFO y Embase, desde 1985 hasta la actualidad, seguida de un estudio cualitativo mediante entrevistas semiestructuradas, utilizando como marcos teóricos "la Teoría de la Creencia de la salud" y "la Teoría del Rol.

Una vez diseñada la herramienta cuantitativa, se llevo acabo un pilotaje, para el cual, se envió el cuestionario a 150 pacientes mayores de 65 años y polimedicados de farmacias del grupo intervención del programa conSIGUE en Guipúzcoa y a 50 pacientes mayores de 65 años y polimedicados de 4 farmacias control de la Región de Murcia. Se obtuvo una respuesta de 67 pacientes (37 intervención y 30 control).

Para el análisis se utilizó un análisis factorial exploratorio (AF), por el método de "Análisis de Componentes Principales" aplicando una rotación Varimax a cada una de las dimensiones de las dos teorías, así como a una tercera dimensión relacionada con la percepción del paciente identificada tras el estudio cualitativo.

3. Resultados y Discusión

En realidad, todas las dimensiones analizadas, explican una varianza mayor al 50%, excepto el dominio "Barreras para el control de la salud", que explica una varianza mayor al 40%.

En todos los casos, se obtuvo una alta consistencia interna con un α de Cronbach mayor al 0,7, salvo en los dominios "Susceptibilidad percibida" y "Autoeficacia".

Los resultados obtenidos, permiten confirmar que el cuestionario será útil para averiguar la percepción del paciente mayor polimedicado desde el punto de vista de la "Teoría de la Creencia de la Salud" y la "Teoría del Rol".

Constructos	factores	Items	α cronbach	autovalores	varianza acumulada
TEORIA CREENCIA SALUD	Amenaza percibida	n=6	0,823	3,298	54,974
	Susceptibilidad percibida	n=4	0,67	2,032	50,797
	Beneficios control salud	n=8	0,909	4,97	62,121
	Barreras control salud	n=5	0,731	2,425	48,497
	Autoeficacia	n=3	0,673	1,816	60,528
TEORIA ROL	Normas sobre medicamentos	n=6	0,86	3,567	59,446
	Normas sobre prob. Salud	n=6	0'815	3,26	54,341
	Normas sobre trato del farma	n=6	0,839	3,343	55,722
	Expectativas medicamentos	n=6	0,848	3,457	57,62
	Expectativas prob. Salud	n=6	0,846	3,474	57,897
	Expectativas trato del farma	n=5	0,814	3,189	53,143
	Reacciones positivas	n=4	0,753	2,428	60,695
	Reacciones negativas	n=6	0'902	4,068	67,801
PERCEPCIÓN	Percepcion paciente	n=5	0,746	2,846	56,928

4. Conclusiones

Los factores obtenidos explican un alto porcentaje de la varianza de los 3 constructos estudiados y tienen en general una alta consistencia interna . Esto confirma la utilidad de las teorías "Creencia de la Salud" Y "Teoría del rol" para estudiar la modificación de la percepción del paciente mayor polimedicado sobre su salud y sobre el rol del farmacéutico cuando este realiza SFT y por tanto, es muy útil para la elaboración de un cuestionario que analice estos asuntos.

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TESTING AND VALIDATING OF A MODEL OF PATIENT PERCEPTION OF THE PHARMACISTS' IMAGE

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BACKGROUND: Patients' health beliefs affect patient behaviour. As professional services are introduced a question arises as to what impact do they have on patient's health beliefs and the pharmacists' image? AIM: The aim of this study was to validate a model of the image of pharmacist who provided services. METHOD: Health Belief Model(1–4) and Role Theory(5–7) were used to develop the model and the concept "pharmacist image" was defined. Face validity of a questionnaire was assessed and the dimensions validity and reliability tested in a pilot survey. The main study used a sample of elderly patients to whom a medication review with follow up was being delivered. The proposed model was assessed through a measurement and a structural regression model. The reliability and validity of the measurement model were tested using confirmatory factor analysis (CFA), and the structural regression model was explained by structural equation modelling (SEM). RESULTS: The CFA concluded that the measurement model is valid and reliable. The Goodness of fit indexes indicated that model fitted the sample data (x^2 (80) = 125.726, p = .001, RMSEA=0.04, SRMR=0.04, GFI=0.997, AGFI=0.995, NFI=0.93, NNFI= 0.966, CFI=0.974, RFI= 0.911, IFI=0.974). The SEM highlighted that the "Perceived benefits to control health" are positively and significantly associated to "Pharmacist Image" (the standardized path coefficient of (H) =0.149, p< 0.05) and the model explains 8% of the variance. CONCLUSIONS: This study demonstrated that patients' health beliefs are changed when the pharmacist delivers professional services. Although the explained variance of the model is low it appears that when the pharmacist modifies patient's health belief about "benefits to control health", the pharmacist image improves.

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