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Research paper

How physician and community pharmacist perceptions of the community pharmacist role in Australian primary care influence the quality of collaborative chronic disease management

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ABSTRACT

Background Community pharmacists (CPs) have been changing their role to focus on patient-centred services to improve the quality of chronic disease management (CDM) in primary care. However, CPs have not been readily included in collaborative CDM with other primary care professionals such as physicians. There is little understanding of the CP role change and whether it affects the utilisation of CPs in primary care collaborative CDM.

Aim To explore physician and CP perceptions of the CP's role in Australian primary care and how these perceptions may influence the quality of physician/CP CDM programmes.

Methods Data were collected from physicians and CPs using semi-structured interviews. A qualitative methodology utilising thematic analysis was employed during data analysis. Qualitative methodology trustworthiness techniques, negative case analysis and member checking were utilised to substantiate the resultant themes.

Results A total of 22 physicians and 22 CPs were interviewed. Strong themes emerged regarding the participant perceptions of the CP's CDM role in primary care. The majority of interviewed physicians perceived that CPs did not have the appropriate CDM knowledge to complement physician knowledge to provide improved CDM compared with what they could provide on their own. Most of the interviewed CPs expressed a willingness and capability to undertake CDM; however, they were struggling to provide sustainable CDM in the business setting within which they function in the primary care environment.

Conclusions Role theory was selected as it provided the optimum explanation of the resultant themes. First, physician lack of confidence in the appropriateness of CP CDM knowledge causes physicians to be confused about the role CPs would undertake in a collaborative CDM that would benefit the physicians and their patients. Thus, by increasing physician awareness of CP CDM knowledge, physicians may see CPs as suitable CDM collaborators. Second, CPs are experiencing role conflict and stress in trying to change their role. Strengthening the service business model may reduce these CP role issues and allow CPs to reach their full potential in CDM and improve the quality of collaborative CDM in Australian primary care.

Keywords: chronic disease management, collaboration, community pharmacists, physicians, primary care

How this fits in with quality in primary care

What do we know?
The quality of collaborative chronic disease management (CDM) programmes has a direct influence on patient outcomes. Community pharmacist (CP) managed CDM programmes have achieved positive outcomes for their patients. However, CPs have not been included in collaborative primary care CDM, and as such have not reached their full potential in primary care collaborative CDM.

What does this paper add?
From physician and CP interviews, this research discovered previously unidentified issues relating to the CP's role in collaborative primary care CDM. Solutions are suggested which have the potential to improve the quality of collaborative CDM in primary care.

Introduction

The Australian community pharmacy profession is in the process of changing its role. The profession is moving from a role based traditionally on the selling of products to a more service-oriented health care professional role that includes chronic disease management (CDM) of diabetes, hypertension and asthma.[1] The community pharmacists' (CPs') CDM programmes include monitoring risk factors and medication compliance, and referring patients to physicians for dosage adjustment and laboratory tests, if required. They also provide advice and information about the patient's CDM.[1,2]

Utilisation of CPs to perform these activities to complement the physician's role in CDM is one strategy being implemented. It is believed that this collaboration will improve the quality of the delivery of CDM and reduce physician workload in Australian primary care.[2,3] This strategy has become more pertinent as physician workload has increased and timely patient access to physicians has decreased.[2–4]

CDM care plans involving the use of nurse practitioners and dietitians by physicians have become less viable with the shortage of nurses and dietitians to undertake these activities in primary care. CPs can fill this void because patients have easy access to them, CPs are trusted by patients and they have the skill set and clinical knowledge.[4,5]

Changing or expanding the CP's role to increase provision of patient-centred services has proved problematic.[6–9] CPs have found it difficult to provide cost-effective sustainable patient-centred services within the current community pharmacy business model and culture of community pharmacy in Australian primary care.[2,6–9] Also, physicians are largely unaware of CPs offering these new services.[4,6] Consequently, physician/CP collaborative CDM has not reached its full potential.[4,6] There has been little research studying whether the CP's role change has been successfully incorporated into primary care and whether physician perceptions of this role change affect CDM delivery. Thus this study focused on exploring physician and CP perceptions of the CP's role in Australian primary care and how these perceptions may influence the quality of physician/CP collaborative CDM in Australian primary care.

Method

Qualitative thematic analysis was employed because the focus of this study was to investigate the complex social process of roles in primary care regarding physicians and CPs in delivery of CDM.[10–14] Thematic analysis directs the researcher to group similar phrases and sentiments together by oscillating between data collection and analysis to code the data.[15] As coding occurred, themes emerged from the interview data, which were then revised further when compared with new data.[11–16] Similar themes were grouped together until data saturation was reached. Recruitment of participants continued until data analysis reached saturation, that is, the point at which no new information was emerging from the data and the main themes were fully developed.[11–16] The whole process was facilitated by the use of NVivo 7, a software package that facilitates storage and retrieval of data during the constant comparative coding process.[10,16]

Semi-structured interviews were chosen to collect data from physicians and CPs. An interview guide was developed that aimed to keep the interview on topic while giving the interviewees latitude to articulate their own thoughts on the topic. All interviews took place at the workplace of the participants during 2010, and were digitally audio-recorded, with hand-written notes also taken. The notes and recordings were then transcribed after the interviews. The interviews were all conducted by a single researcher (AR), who had experience in semi-structured interviews and focus group interviewing from previous studies.

To test the trustworthiness of the emerging themes, negative case analysis and member checking were performed. Negative case analysis enhances trustworthiness of the emergent themes by ensuring that diverse cases are considered and investigated.[17] In this study, the negative case analysis interviewees were recruited purposively by the interviewer being made aware, during previous interviews, of physicians and CPs who were using each others' skill set and knowledge in a more trusted complementary collaborative manner. These interviewee data facilitated the emergence of a more comprehensive picture of physician/CP collaboration. These physicians and CPs were included in the final study participant numbers.

Member checking was undertaken once the themes were saturated. It involved asking three previously interviewed participants and three newly recruited ones about the research findings (predominantly, whether the categories identified from the thematic analysis resonated with them).[15]

Professional participants were recruited from practices located in a range of low, medium and high socioeconomic status (L, M and HSES) suburbs across Perth. SES was identified using the Australian Bureau of Statistics Socio-Economic Index For Areas (SEIFA). SEIFA uses census information and measures of social and economic conditions to determine the socioeconomic status of a particular postcode area.[18]

Results

In total, 22 physicians and 22 CPs participated in the study. These included four physicians and four CPs who were the negative case analysis participants for the study. Seven physicians and four CPs declined to be interviewed, citing an inability to make the (average) 32-minute time commitment (Table 1).

Strong themes emerging from the data collection and analysis are discussed below.

Physicians' perception of the CP role

All of the interviewed physicians perceived that the CPs' role was more heavily weighted towards that of a retailer/shopkeeper than a healthcare professional:

> Well, they make a lot [more] money out of retailing than they do out of prescribed medication. So they're actually businessmen. So murky waters, if you're a pharmacist, that's what you do.
>
> Physician 3 M MSES (28 years of experience)

> It is what kills the ability for pharmacists to say that they're health professionals, because they are making a profit based on everything sold. So many of them are running a business, and that's very evident from what's on their shelves. And from the fact that they're equally prepared to push a hangover cure as they are to talk about something that's got a lot more evidence behind it.
>
> Physician 6 F MSES (22 years of experience)

Most physicians generally exhibited a lack of awareness of any new clinical CDM knowledge among CPs, and thus expressed a lack of confidence in CPs' CDM capabilities, which reduced the likelihood of collaborative CDM:

> There's also, how much training a pharmacist thinks they're going to acquire so they can handle this [CDM].
>
> Physician 6 F MSES (22 years of experience)

> Look, I've just got concerns. They'd have to be adequately educated as such to a certain standard obviously.
>
> Physician 17 F MSES (19 years of experience)

The CPs' perception of their role

The findings of this study indicated that most CPs interviewed were having difficulties associated with generating revenue from a more service-based business model, rather than from product sales:

> Yeah, look, I'm certainly of the belief that pharmacists don't work very well with the service model. They don't and it's not an easy model either. To generate money from services, you actually have to perceive that you can provide it and perception is a very difficult issue there.

Table 1 Professional participant sample characteristics

Participants	Males	Female	Practice location			Age (years)	Years of experience
			LSES	MSES	HSES		
Physicians ($n = 22$)	13 (59%)	9 (41%)	1 (5%)	9 (40%)	12 (55%)	38–50	11–28
Community pharmacists ($n = 22$)	10 (45%)	12 (56%)	1 (5%)	10 (45%)	11 (50%)	25–60	2–40

> Pharmacists have all grown up with product-based commerce, so if you can't sell a product to make your remuneration then I think they have a lot of difficulty with it.
>
> CP 3 M HSES (23 years of experience)

Interviewed CPs implied that this uncertainty around service provision had culminated in the delivery of services at varying levels of quality by different CPs. This was most notable in CP discussions regarding whether or not to charge a fee for services such as blood pressure and blood glucose monitoring:

> We provide a service. We would love to be paid for the service provided, you know... But the only way we can continue to provide such a service is to sell product and our margins are getting cut and cut and cut... The fact [is] that pharmacy is small business, and there's no funding for that extra, so it comes out of profit.
>
> CP 16 F MSES (4 years of experience)

As a result of this situation, the majority of interviewed CPs reported experiencing some degree of frustration at trying to change their current role and business models from a retail base to a more health care professional service-orientated model. Some, particularly the younger CPs, were becoming disillusioned with continually having to justify that they were health care professionals:

> I'd say pharmacy could be just done so much better. I know the new breed of pharmacist coming through is just getting better and better all the time. Better in knowledge, and just better in their dedication to the customers and their professionalism. I think as well, I guess their willingness to start new things. But at times, I feel like you're just all the time pushing, and that's, to be honest, that's something I'm struggling with at the moment. I've been out for three years, you know, where do I go? Do I start just getting comfortable? I don't know.
>
> CP 8 M MSES (4 years of experience)

Non-evidence-based products and the CP role

Physicians' discomfort about the CP shopkeeper stereotype was strongest when it came to the sale of non-evidence-based products:

> We had a situation where they had a naturopath who was coming in and doing consultations. And they had an iridologist who came in and gave consultations. And that was, I mean I understand that it's a, you know, it's a marketing tool. It's a way of selling more products. But it does muddy the water... And it's pretty damaging to people's, to a professional's reputation if they're seen taking advantage of maybe poorly educated people's sort of concepts and feeding off that and selling them stuff they don't need.
>
> Physician 15 M HSES (23 years of experience)

The majority of the interviewed CPs explained that, with these products, it was important to give consumers an informed choice. As such, they reported providing a comprehensive service by giving advice to consumers on the usefulness and side effects of the products, as well as information on any drug interactions with mainstream medicines. Supplying such product advice was seen by most CPs as part of their role as health care professionals, and an important advantage to their involvement in selling these products:

> I think what we've got to say is, 'Here's the evidence', and we present it to the person. We give them the other options too. The consumer will make the choice... But what we are, the advantage we're giving is that we're also there to say 'Look, you can't take your St John's wort while you're on those antidepressants.' 'You better watch that Gingko because you're on warfarin, Mrs Jones.' You know, 'Watch out with the liquorice with your blood pressure.' And so yes, certainly we do make sales.
>
> CP 19 M MSES (28 years of experience)

Some of the CPs commented that if they did not consider the product to be useful they would not recommend or sell it:

> I don't sell them. If I think it's something I feel strongly about and I think they're going to do themselves more harm, or it's inappropriate, or they want to do this when clearly they should be going to the doctor's, I'm quite prepared to say and I don't sell it.
>
> CP 20 F MSES (24 years of experience)

Discussion

In summary, the themes which emerged showed that physicians perceived that the CP's role in primary care was predominantly as a retailer and shopkeeper, a traditional culturally accepted role. Because physicians were bound by this perception they did not perceive that the CP role or training had evolved to expand into an appropriate collaborative CDM facilitator. This was at odds with the new role that CPs and their professional associations are trying to negotiate for CPs. CPs have been expanding their training and skill set to be able to offer patient-based health care services in primary care, such as CDM. In doing so, CPs are trying to define and clarify a new role for themselves, repositioning the CP as a health care professional in primary health care. However, contributing to the CPs' difficulty in negotiating a new role is the problem of supporting the role change while still operating a business model that revolves around the sale of product.

When studying all the themes and how they relate to each other, the theory that best described and explained the generation of these themes was role theory. The definition, clarification and negotiation of roles are aspects of role theory. When roles are created, they give social cues and set a framework whereby the behaviours of individuals performing the roles might be predicted.[19,20] However, the labelling of roles can also lead to stereotypical assumptions being made about individuals and their roles which may not be accurate.[21,22]

Role theory has been discussed in health care research relating to the roles of physicians and nurses.[23] However, only scant investigation of CPs regarding their role in primary care has been undertaken. This study suggested that the issues relating to role are a very important aspect of physician/CP CDM collaboration.

Utilising role theory, it is apparent that CPs have been assigned a specifically bounded role in contemporary primary care by other primary care professionals, such as physicians.[24] The interviewed physicians described being very cautious about collaborating with CPs because the role they perceived for CPs was the traditional stereotypical one of a retailer. The interviewed physicians were concerned that CPs may sell products to patients that the physician did not support or believe were needed for the patient's health or that would be beneficial for CDM.

The physician view of CPs as retailers/shopkeepers has been discussed previously in the literature,[7,24,25] although only in the context of CP reprofessionalisation in medication management and CP prescription writing.[7,24] Similarly, the physician–CP relationship has been researched regarding collaboration with regard to medication management, not CDM.[26,27] The perceived retailer role has not been investigated for its influence on the delivery of collaborative CDM. It was apparent that the predominant retailing issue that kept physicians from believing that CPs could perform a health care professional role in collaborative CDM was specifically the CP's sale of non-evidence-based products, such as natural products for hangovers and weight loss.

Sale of these products was the main source of physician confusion over the changing CP role. The present study suggests that CPs who are involved in collaborative CDM need to differentiate themselves from the traditional retail practices of community pharmacy, and explicitly articulate the role they will undertake in a well-defined CDM programme.

In undertaking CDM in primary care, CPs are now attempting to take on a new role that physicians have no previous perceptions or experiences of CPs performing. Consequently, with little previous behaviour or positive experiences of CPs undertaking CDM to relate to, the physicians were seemingly reticent to engage CPs in this role. Thus this reluctance to engage is probably driven by a lack of definition of the CP's CDM role. Interestingly, the CP's role as a medication expert has been defined both in the hospital environment and in the culturally defined, generally accepted social context of the primary care environment.[28,29] Hence physicians appear to identify this CP role far more readily, suggesting that the CPs' role change can be accepted.

Community pharmacy professional bodies do not appear to have addressed the need to change the traditional view of the CP role by taking into account the sociological issues raised by role theory. These bodies need to include strategies that directly engage physicians and their professional bodies regarding the services CPs can provide and the benefits of having CPs involved in CDM. Having physicians and CPs actively working together in training programmes to deliver collaborative CDM in which they solve practice-based problems together could give physicians practical insight into the CP skill set and role, thereby engendering greater trust in their capabilities. This type of interprofessional learning has been utilised in other collaborative medication management programmes, such as home medication reviews, to try to engage physicians,[30] and has been suggested as a future tool to improve physician and CP collaboration.[31]

This study's findings indicate that a lack of role clarity and definition is one of the major reasons why collaborative CDM has failed to reach its potential, predominantly because of physicians' beliefs about the traditional role of CPs. Indications are that it will require more than increased CP knowledge and CDM skill set to improve physician/CP CDM collaboration. More comprehensive strategies are seemingly required to change deep-seated physician beliefs about the CP role to include the new attributes of CPs being healthcare service providers.

This study also identified an internal community pharmacy barrier to collaborative CDM. The findings of the present study suggest that to change their role from retailer to health care professional, CPs must push against their own traditional role perceptions and business model that suits this role. A number of studies have described difficulties and slowness surrounding the undertaking of patient-centred services by CPs.[4,9,32] This slowness may originate from CPs experiencing role confusion and strain. According to the CP interviewees, they struggled to reconcile the two roles of healthcare professional and retailer which were competing for their time, resources and generation of revenue.

This study's observation of CP role conflict has important ramifications for the future pharmacy workforce. It has been identified in pharmacy workforce studies that there is a challenge to retain experienced CPs in the workforce because of a lack of job

satisfaction.[33,34] Thus business strategies and education that incorporate and define CP roles and responsibilities in a more service-oriented model are likely to be crucial to address CPs' role conflict/strain issues and improve CP job satisfaction.

Limitations of this study

There are limitations to this study that arise from the sample from which data were collected, thus affecting the generalisability of the result. The sample lacked inclusion of specific groups of physicians and CPs, such as those working in socio-economically deprived or rural areas. Thus it may not be representative of areas where CPs and physicians have different experiences. Therefore when discussing the study results, vigilance is required when seeking to generalise and make assertions beyond the kinds of areas studied.[35] The knowledge derived from this research is limited to the substantive field of physician/CP collaborative CDM in the Australian metropolitan primary care environment.

The thematic analysis method also has limitations. These included issues such as a single researcher (AR), a pharmacist, conducting the data collection and analysis, which may have biased data collection and analysis. Thus emerging themes could have been misrepresented or overlooked, affecting the trustworthiness of the results. Strategies to minimise these limitations were negative case analysis and member checking. These were crucial in demonstrating that the findings of the study were trustworthy and reduced researcher bias. The interviews of negative case physicians and CPs gave a greater depth to the themes that had emerged. The member checking outcomes demonstrated that the resultant themes about physician/CP CDM collaboration in Australian primary care resonated with professional participants.

Conclusion

This study showed that the role of the CP in primary care, particularly relating to collaborative CDM beyond medication management, has not been formalised and as a result has led to physician confusion regarding the CP collaborative CDM role. Furthermore, the internal changes being undertaken in the community pharmacy profession have caused role strain and conflict amongst CPs. Thus the findings suggest that CPs need to negotiate and formalise a role for themselves in collaborative CDM both within the profession and external to the profession in the primary care environment, in order to improve the quality of primary care collaborative CDM.

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CONFLICTS OF INTEREST

None.

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