

Moving towards Integrative Healthcare – A study to Evaluate the Effectiveness of the CMed Programme for Community Pharmacists

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Abstract

Introduction: CMed is a Continuing Professional Education (CPE), complementary medicine (CM) program delivered using a blended learning approach. The objective of this study was to examine the responses of pharmacists, to determine the effectiveness of the CMed programme in facilitating integrative healthcare practice. **Methods:** Three focus group (FG) discussions with 16 community pharmacists in Malaysia were conducted between February and March 2018. All FG discussions were audio-recorded and transcribed, and data was analysed inductively using thematic analysis. **Results:** There are five main findings: (a) pharmacists' strategies: the pharmacists revealed their strategies to promote IHC, (b) pharmacists' desire: sufficient complementary medicine education training and availability of evidence-based information sources would help pharmacists gain more confidence at work place, (c) CMed benefits: It provided knowledge and skill-based training for community pharmacists, (d) Blended learning: pharmacists provided suggestions to improve the blended approach of CMed and wished for continuous training, and (e) Barriers: patients' attitude and pharmacists' recognition could be the main barriers to IHC. **Conclusion:** The overall positive feedback of the programme demonstrate the effectiveness of this educational approach for community pharmacists in Malaysia. The identification of barriers and facilitators will help with the development of subsequent CMed programs to meet pharmacist's needs.

Introduction

According to the World Health Organisation, there are an estimated 100 million users of CM in Europe.¹ In the United States of America (USA), close to 33.2 million US adults and children use some form of CM.² In the Southeast Asian nations (ASEAN) region, Malaysia was reported to have the highest usage of Traditional and Complementary Medicine (T&CM),

followed by Singapore and Philippines.³ In Malaysia, complementary medicines (CM) are available as over-the-counter (OTC) products in community pharmacies. In a recent survey, community pharmacists in Malaysia agreed that they were practicing some form of integrative healthcare (IHC),⁴ where they would recommend CM products together with conventional medicines in a coordinated manner to address patient's health needs. Customers' demand are one of the motivators to

providing IHC.^{4,5} The increasing focus on disease prevention, health promotion and challenges associated with chronic disease management also facilitators of IHC specific research activities, development and implementation.⁵

The growing acceptance of CM within the community has been attributed to its convenience, perceived efficacy, safety and affordability, affected by personal, religious, and spiritual beliefs.⁶ This has been accompanied by increasing pressure for CM to be evidence-based. However, it is reported that the evidence-based practice (EBP) within the CM professions, to inform clinical decision making still remains in its infancy due to a lack of reliable, trustworthy and diverse sources of research evidence. Range of strategies to facilitate the conduct and application of CM research include increasing knowledge through investigator-driven funding, lobbying for unbiased grant review processes, integrating research training into undergraduate CM programs, and establishing methods for identifying and assessing evidence with ongoing efforts to dispel the myths about CM.⁷

Community pharmacists are frontline healthcare professionals (HCPs) and play a key role in counselling and providing information about the safe use of CM products to the public. However, lack of sufficient knowledge and information sources has hindered them from performing their job effectively.^{4,8-10} In view of the challenges faced by HCPs in delivering effective IHC, there is a need for IHC-specific research activity, development and implementation of IHC practices underpinned by a HCP educational programme.¹¹⁻¹³

In September 2017, an online Continuing Professional Education (CPE) course was developed and made available to Malaysian registered pharmacists. It

consisted of six online micro-courses covering multiple topics in CM (i.e. Introduction to CM, Vitamins, Minerals, Safety of CM and Nutritional oils). The CMEd online programme was designed to meet the needs of practicing community pharmacists in enhancing their knowledge in CM. Upon completion, participants were invited to attend a 4-hour face-to-face workshop (known as master class). The master class provided opportunities for participants to interact with a qualified CM course trainer, to receive feedback and to engage in discussion related to CM. The goal of CMEd is to provide practicing community pharmacists with knowledge and skills to counsel and confidently recommend the safe use of CM. The objective of this project was to evaluate the effectiveness of the CMEd programme in facilitating IHC, taking into account community pharmacists' responses regarding the blended methodology.

Methods

Ethical clearance for the study was obtained through Human Research Ethics Committee. Data collection took place between February and March 2018. A qualitative design was selected due to the exploratory nature of this research and its aim. The test sample was chosen from a cohort of pharmacists who registered and attended the CMEd online programme and face-to-face Master Class in Malaysia (n=168). Selection of the pharmacist sample was determined by Microsoft Excel random sample generator. These pharmacists were emailed a copy of information sheet and consent form and received a telephone call from the researcher explaining the purpose of the study and providing an opportunity for the pharmacists to ask questions. Participation was confirmed with received signed written consent. Random sampling continued until a sufficient number of participants was reached, i.e. minimum 6 in each group.

Table 1: Key themes and Sub-themes

Key theme	Sub-theme
1. Pharmacists' strategies	<ul style="list-style-type: none"> • Perceived benefits • Customer's preference • Presenting complaint, quality and safety • Product company profile • Profit margin
2. Pharmacists' desire	<ul style="list-style-type: none"> • Consumer training • Lack of CM education at undergraduate pharmacy school
3. CMed benefits	<ul style="list-style-type: none"> • Evidence-based information source • Knowledge • Skills • Confidence
4. Blended learning	<ul style="list-style-type: none"> • Job satisfaction • Online courses • Face-to-face master class
5. Barriers	<ul style="list-style-type: none"> • Continuous learning • Patient's attitude of CM use • Pharmacists' recognition • Billing and consultation fees

Face-to-face focus groups sessions were conducted in two locations – Kuala Lumpur and Penang, four months after the launch of the CMed online programme and upon completion of master class. All focus groups were audio taped and transcribed, with consent. Community pharmacist views were obtained via semi-structured focus groups undertaken by the same researcher. In accordance with a semi-structured approach, a list of topics and questions was developed by the research team (i.e. main researcher and experts in CM education) to guide the focus groups, neither the wording nor the order of the questions was pre-determined. All data remain anonymous and confidential throughout data analysis. Data analysis of the qualitative data were carried out using inductive thematic analysis.¹⁴

Results

Interviews were conducted with 16 community pharmacists in two geographical location, including six community pharmacists in Kuala Lumpur and ten community pharmacists in Penang. Ten of the participants were working in chain pharmacies and six were from independent pharmacies. Each focus group

session lasted approximately 90 minutes. From the thematic analysis, 5 key themes were identified. The results were presented in the form of quotations from the community pharmacists. The associated sub-themes are summarised and displayed in Table 1.

Theme 1: Pharmacists' strategies

Most of the participants reported they practice some form of integrative care in their daily practice. They perceived the benefits of a holistic approach with CM has a positive impact on patient health. They regarded integrative care as an opportunity to improve long-term outcomes of patient's health.

P7: I do believe that combination of the modern medicine with the conventional medicine would be a good idea in long-term effects. We believed that complementary medicine together with lifestyle will play a major role for a long-term treatment. For me actually complementary medicine can be used most of the time. It can be used to treat the root cause.

P16: From my experience, I feel that they (western medicine and complementary medicine) should go side by side. Because to me, CM does help for certain things like high cholesterol and those who catch cold or common cold very frequently. I think if you take all this CM supplement, it does help reduce the frequency.

The specific strategies used by pharmacists have been discussed in great detail. Most pharmacists have in mind how to approach customers and they have different emphasis when it comes to recommendation of CM. The factors influencing their practice include customers' preference (e.g. price and formulations), presenting complaint, quality and safety of the product, product company profile and profit margin.

P12: Basically, in my own setting, we are recommending it (complementary medicine). We will response to the customer or the patient based on his or her needs. We have three degree of approaches depends on customer needs. First of all, we will go for wholesome food, or food therapy. But if we know that this patient are not ready to change his lifestyle, then we will go for supplements but if he still reluctant...because some complement can be costly compared to western medicine, then we will go directly to the modern medicine (aka western medicine). That means they only want something that can have fast relieve on their symptoms.

P11: (When recommending complementary medicine), I am looking at the quality, safety, and efficacy rather than margin. Margin won't be the only point because for me, I would think that the efficacy and the safety is most important. This is related to the customer health and also our service. We will also emphasise on product

which is safe and effective. That would be our first choice.

P7: You see...[Company A] emphasise that their product is very good but they don't give us enough margin, so we wouldn't be able to sell it in our pharmacy. So sometimes, we are in a dilemma, whether to sell or not to sell... due to the low margin.

P9: To be honest about chronic disease, I will recommend common things like vitamin C and vitamin B. I don't have any specific brand to recommend as their quality is almost the same to me. I will go for higher margin. If I am looking for therapeutic effect, I want to see results in 2 to 3 months, I will prefer company who you have someone to back you up, someone you can refer to, like [Company A] and [Company B]. They have staff who has expertise in complementary medicine.

P13: I will probably go for like Australian brand, because I know the authority. They are stricter with the regulations of their supplements...like the GMP [Good Manufacturing Practice]. I will recommend my patient those more reputable brands first, then if let say [the patient feels that it] is too expensive then will go for local brands.

The community pharmacists further suggested that consumer training should be provided, this can be in the form of leaflet or roadshow. This could increase consumer awareness and product knowledge. Pharmacists role could be more focused on providing customers with further detailed information about CM products.

P3: Public...and I mean let them know briefly (about product knowledge)...so that when they

come to us, they won't be so blank and don't even know what to take. If they already has knowledge, we will explain more in detail to them. If [Company A] can do something like for public that will be better for us [pharmacists].

P5: But I also agree that maybe educate the public. Maybe [Company A] can do more instead of just testimonials, maybe they can do leaflets for customers, customer could take away and read...and maybe consider in multi-languages.

Theme 2: Pharmacists' desire

Despite the practice of integrative care, most pharmacists are not satisfied with their current knowledge on CM. They reflected on their undergraduate pharmacy programme, where there were a lack of CM training.

P4: It's (the CMed programme) very helpful cause probably some of the things that might not be really learn from university time was learnt in this programme.

This has shaken their confidence in provision of integrative healthcare. A pharmacist commented that the level of education received is not comprehensive as a Traditional Chinese Medicines practitioner. Again, sufficient level of training at undergraduate level would help to gain more confidence on this area.

P11: I think a barrier will be the confidence level. I mean how effective are the complementary medicine and whether there would be any others interaction in the systems. I mean we were not taught to use a complementary medicine in combination like...Chinese sensei.

They are actually trained to...from diagnosis to treatment. Everything.

The desire to obtain CM education was expressed by most pharmacists. The area of specific interest varied between pharmacists. In general, pharmacists have general knowledge about CM but want greater detailed information to enable them to provide better healthcare advice to their customers. The areas of interest reported include pharmacology of CM, drug-drug interaction, recommended daily intake and therapeutic dosage. The evidence-based information of CM would have strengthening their confidence.

P10: I am using a lot of complementary medicine during my routine practice. So maybe sometime I would doubt about the efficacy of such practice. Sometimes because some of the patient may not hit the effect after using this. So it is good to have such training which I can exposed to the evidence-based type of the info. So I can be more confident in using these complementary medicine.

Theme 3: CMed's benefits

During the discussion, pharmacists expressed views on the perceived benefits of the CMed programme. The reported benefits include knowledge, skills and confidence gained to provide better quality of patient care. The programme also served as a revision course for some pharmacists.

P16: The whole thing is informative and we learned something. Ya...is like maybe before you attend this module or this class, we don't know actually omega 3, we can actually go for higher

dose and its safe for few months even that sort of stuff. We are more knowledgeable in this case.

P4: After going through this course, the CME course, I find that some of the things I was (initially) not so clear, and eventually I got to know better.

P3: At first, I thought I won't have time to go through everything, but when I started the course, I find that it is actually quite interesting. Certain thing maybe we know but certain thing that we don't know is actually good to refresh memory.

P14: To me, the master class actually...the trainer actually tells us how to approach customer to ask, to find out the symptoms and all. I think this is very good, and also we practice this throughout the days but the only things that I was only looking for is follow-up. So maybe from now on I will try to prompt those customers to come back for follow-up. So, in a way it helps increase sales in another way better management of customer.

quite difficult in the setting...but I think we can try, we can try to get the customer.

The CME programme is a good platform for concise and compact information with good references for pharmacists. The references provided are handy, especially the notes in pdf format. Pharmacists commented that the references serve as a good guide for their daily practice and can also be used as training material for their staff:

P2: It's [the pdf notes] like concise version kind of thing. You can refer if you want, you download, you can keep it in your mobile phone, computers or anything.

P3: I like the pdf print out. Maybe I was hoping that I can print it out and use them to train my staff. Because when we are not on duty, maybe the staff can assist the customer in recommending certain vitamins or minerals or any supplements.

P13: I think is very interesting to have this some small details because I think this information really can help the customer...for the customer experience.

One pharmacist who had applied the knowledge learnt in the CME programme into practice reported a greater sense of job satisfaction:

P13: Ya. I think we get more information to counsel the customer for example like small...small little information, I think it does really help us and we get some job satisfaction also. Today I help a some person to become healthier because I just tell her to rinse her mouth after taking the chewable vitamin C and one thing is the follow-up with the patient, it's

Theme 4: Blended learning

Online course

The design of the CME programme (online course and face-to-face master class) has been discussed. Pharmacists perceived likes and dislikes of the programme have been recorded. The pharmacists revealed that the online course is user friendly and mobile-friendly. A few pharmacists also mentioned the benefit of an online course as it allowed them to repeat

the learning as many times as they like. However, some pharmacists did experience technical issues, concerning the access of the online course and the long loading time of the videos on the first day of the launch, which were resolved a day after.

For the video, some pharmacists suggested to have subtitles due to foreign accent.

P8: I agree to add the subtitle because of the Australian slang...some have to replay and really focus. With subtitle, we can multi-tasking...

The lack of assessment and immediate feedback of the assessment after each topic training was critiqued by a few pharmacists. They suggested a bite size content followed by a small quiz and feedback would be better for the training purposes.

P14: In my opinion, for each topic, having a small assessment is actually better than an overall assessment at the end because it will enhance our memory when we have the small assessment in between. When we reached the end, we mixed up all the information. I feel very confused.

P13: I think for me, I will prefer less topic but more detail...maybe can include something like beauty, skin care information. There's a lot of people looking for that and I realized it is increasing in numbers.

The suggestion also included an online forum for pharmacists to extend their learning afterwards:

P8: I think the idea (a forum) is very good because when we learnt something, we want to go and practice and when we face some issues, then we can put at the forum and discuss. Maybe [Company A] representative can help to answer.

Pharmacists queried the availability of future training sessions. They commented that more topics should be provided in the next CME course. Suggested content to be included were beauty products, drug-drug interactions, manufacturing process, dosage and safety profile.

P12: I hope there is even next upcoming programme for this CME because I think that there is still a lot of things that we need to touch up. Because during this few modules, I think we only touch very minimal items, minimum herbs. I think it is not sufficient for us as a community pharmacist.

P14: This is very important, their safety profile so...as we know in the market there are a lot of things not registered with the KKM (regulator in Malaysia) and all. Then we should be very cautious. We should inform the customer because I found actually a lot of customer still purchase those things online.

Face-to-face master class

The case studies sparked pharmacists' interest and they liked the experienced speaker and face-to-face approach which gave them the opportunity to ask questions and get clarification.

P6: The speaker is quite experience and also share a lot of good real examples, not only based on the booklet provided. He also share us the experience that he actually come across these kind of customers and also normally what he would suggest to them. Not only on the medicine, also on the lifestyle, how to change, what should they practice for and recommendations. I think quite...ya we actually learned quite a lot of points in practice.

P5: I like how the speaker taught us how to apply...like when we sell a supplement and he was teaching us to apply it to...I mean how they can change the (patients') lifestyle by coming back to monitor their blood pressure so in a way he was teaching us how to retain our customer.

P2: If you do online, you don't know who to ask, or who to refer, if there is any doubt, you want to know more...but if you are in a master class, you can really speak in person or you can just go like in front of everyone and ask the instructor directly or the facilitators to know more depth about a particular ingredient or a particular vitamins.

There were many suggestions on the design of the master class, revolving around the time and scope of content. Most pharmacists perceived the master class was too short. The suggestion of master class was at least half a day, ranging from 5-8 hours.

P2: Yeah...time constraint was there because there have a lot of information to tell us but just that they were given only...I think less than a few hours. A half day training will be better because...if it is half day, at least we can still, you know...can complete our job (refer to pharmacy job) and training in a day.

P11: I think maybe can consider 8 hours. That means have the morning session together with the afternoon session...maybe the morning section more on theory, and the afternoon session might be more practical...with case studies.

Pharmacists commented that more case studies should be included, and real case scenarios are preferred. Some pharmacists also suggested the addition of case studies for special populations (i.e. children, pregnant women and breastfeeding women), role play session, group discussion and presentation.

P15: I find that a lot of case studies are on adult and elderly. What about those kids and those below 6 years old? Because I think parents prefer either complementary medicine or herbs. Can cover more on kids and also pregnancy and breastfeeding. I think pregnancy and breastfeeding is always like lack of information and these things

P12: So the case study is very good but it is to me, it is only touch and go. I will prefer real case and how actually being carried out by a professional, naturopath or pharmacists in the real case rather than our discussion.

P10: So discussion is a good thing actually. Sometimes, I would say not sometimes, even a case, maybe the mentor can do role play...then because the information stated there may not be complete...so we may ask some questions...like probing...like probing during the real event.

P8: So I suggest maybe in future, we can have longer time and then we can have small group...and after the small group discuss, we can have presentation. Then maybe the mentor will say...in this scenario you see that there is some missed information then you should... when you want to give CM.

Pharmacists enjoyed the training and wished for continuous training to be provided. These include periodical training sessions with advancing levels and a support systems like mentor, online chat room, and mobile apps.

P6: Continuous training is better. I hope they can have this (CMEd Masterclass) continuously...may be every 2-3 months...not only for one time, but continuous so that we can gain more knowledge.

P7: This kind of thing (CMEd online course) can go by level. Of course, at a higher level, maybe we can get a mentor to guide us on certain things, but we have to fulfil part of the basic requirements.

Theme 5: Barriers to integrative healthcare

The discussion also revealed the perceived barriers of integrative healthcare. This is partly due to patient attitudes.

P8: In Malaysia, I think maybe we had an appointment review, because we ask them to come back on certain time, mostly they will feel, I am improved, then I won't see [the pharmacist] anymore or basically they will tell you that they

are too busy to come back. They totally forget about that, they just thought that basically I just take this CM at this dose forever, although you already tell them that, it is only for short-term.

P7: They (Customers) want a quick fix. Some of my customer, they even want one dose that can cure the thing, complementary medicine or even the modern medicine. I don't think able to make it. And some of the complementary medicine takes weeks to months to show effects. They (refer to patients) don't have such patience. So, they want the quick fix. That's why we go for painkiller to reduce the symptoms, more of symptomatic...and this is one of the barriers that I find.

Pharmacists wanted to be seen as an expert in CM and be able to charge professional consultation fees. When consultation fees are implemented, profit margin are less important.

P8: I would say that if plus the pharmacists' recognition as the CM consultant, I say that there should be a charge. Yah...just talking to customer and review everything actually it takes a lot of time. Now you need a private consultation room...then I feel that charging a nominal fee is quite acceptable.

P7: We don't really have to bother about the margin if we charge our patients the consultation.

Discussion

Integrative medicine brings together both mainstream medicine and alternative healing systems in a way that supports patient wellbeing. The benefits of combining both the biomedicine and holistic and natural

healing modalities in an individualised, patient-centred approach should be to enhance and optimise patient health outcomes.¹⁵ It is evident that community pharmacists in Malaysia have some foundational beliefs and philosophical underpinnings of IHC and this understanding is important for successful integration. However, to provide a quality service to meet patient needs and demand in this area, understanding of the core components of IHC is necessary.⁵

Pharmacy graduates may not have adequate knowledge of CM, due to a lack of undergraduate CM education^{4,16} and pharmacists generally rate their knowledge relating to CM as inadequate and lack confidence answering patient enquiries¹⁷. However, trends are changing in pharmacy education. Evidence-based CM and Traditional, Complementary and Alternative medicines (TCAM) are proposed components of pharmacy curriculum. Some Australian pharmacy courses have already developed and introduced evidence-based CM as their core course.^{17,18} In addition to gaining knowledge, pharmacists should learn about how to find and evaluate information sources.

The CMEd programme met its aim and was associated with improvement in knowledge, skill, job satisfaction and quality of patient care. The web-based programme was well-adapted to pharmacists' busy work schedule but the technical aspects need to be reviewed to enable a seamless learning experience. Pharmacists liked the face-to-face master class and wanted a longer sessions with more case studies. They also would have appreciated the opportunity to ask questions after the training, for example in an online discussion forum. This study also highlighted the need to optimise the learning during master class with more compact activities and varied case study discussion. The subsequent training proposed by community pharmacists should continue to build on established competencies and expand the variety

of herbs and supplements discussed with greater details on product information.

Finally, the study touched on the topic of professional dispensing fees. Lack of remuneration is a commonly expressed barrier preventing the delivery of clinical care services, however, research also suggest that the presence of a remuneration scheme is insufficient to ensure uptake in practice.¹⁹ Pharmacists remuneration programme was identified across Canada, the United State, Europe, Australia and New Zealand, with a range of different services. In Malaysia, practicing front-line pharmacists should be invited to discuss the feasibility of implementing professional dispensing fees and process should be pilot-tested to identify and resolve administrative issues identified in the previous studies.

Limitations

Qualitative research has its limitations due to its poor generalisability. However, this study is meant to study a specific phenomenon in a certain population, thus generalisability is not an expected attribute.²⁰

Conclusion

The results of this study suggest that the blended learning approach can be effectively employed in CPE course to promote pharmacists' learning. Overall, community pharmacists are satisfied with the CMEd programme. The programme improved pharmacists' knowledge, skills, confidence and quality of patient care. The positive results of the programme demonstrate the effectiveness of this educational approach for community pharmacists in Malaysia. The identification of barriers and facilitators will help with the development of the subsequent CPE programme.

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