



This is a peer-reviewed, final published version of the following document and is licensed under Creative Commons: Attribution-Noncommercial-No Derivative Works 4.0 license:

Thomas, Trudy, Passfield, Louis, Coulton, Simon and Crone, Diane ORCID logoORCID: <https://orcid.org/0000-0002-8798-2929> (2016) Effectiveness of a tailored training programme in behaviour change counselling for community pharmacists: A pilot study. *Patient Education and Counseling*, 99 (1). pp. 132-138. doi:10.1016/j.pec.2015.08.004

Official URL: <http://dx.doi.org/10.1016/j.pec.2015.08.004>

DOI: <http://dx.doi.org/10.1016/j.pec.2015.08.004>

EPrint URI: <https://eprints.glos.ac.uk/id/eprint/3062>

Disclaimer

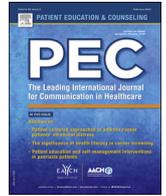
The University of Gloucestershire has obtained warranties from all depositors as to their title in the material deposited and as to their right to deposit such material.

The University of Gloucestershire makes no representation or warranties of commercial utility, title, or fitness for a particular purpose or any other warranty, express or implied in respect of any material deposited.

The University of Gloucestershire makes no representation that the use of the materials will not infringe any patent, copyright, trademark or other property or proprietary rights.

The University of Gloucestershire accepts no liability for any infringement of intellectual property rights in any material deposited but will remove such material from public view pending investigation in the event of an allegation of any such infringement.

PLEASE SCROLL DOWN FOR TEXT.



Healthcare education

Effectiveness of a tailored training programme in behaviour change counselling for community pharmacists: A pilot study

Trudy Thomas^{a,*}, Louis Passfield^b, Simon Coulton^c, Diane Crone^d^a Medway School of Pharmacy, Universities of Kent and Greenwich, Chatham Maritime ME4 4TB, UK^b Endurance Research Group, University of Kent, Chatham Maritime ME4 4AG, UK^c Centre for Health Service Studies, University of Kent, Canterbury CT2 7NZ, UK^d Faculty of Applied Sciences, University of Gloucestershire, Oxstalls Campus, Oxstalls Lane, Gloucester GL2 9HW, UK

ARTICLE INFO

Article history:

Received 31 March 2015

Received in revised form 3 August 2015

Accepted 4 August 2015

Keywords:

Behaviour change
Counselling
Pharmacists

ABSTRACT

Objective: To undertake a pilot study assessing effectiveness of a tailored training programme in behaviour change counselling (BCC) for community pharmacists on, their competence and confidence in delivering behaviour change consultations, skill retention over time and impact on practice.

Methods: Community pharmacists ($N=87$) attending Primary Care Trust training were given study information and invited to take part. Baseline BCC competence of consenting pharmacists ($n=17$) was assessed using the Behaviour Change Counselling Index (BECCI). Following BCC training, competence was reassessed at 1, 3 and 6 months. Friedman's test was used to compare median BECCI item scores at baseline and after 6 months. Structured interviews were conducted to assess pharmacists' confidence in BCC consultations after training.

Results: Baseline BECCI scores of 0–2 demonstrated pharmacists had not reached competence threshold. Six months after training, BECCI scores improved significantly from baseline ($p < 0.05$). Competence in delivering BCC (scores of 3–4) was achieved at 3 months, but lost at 6 months for some items. After training, pharmacists felt confident in delivering BCC.

Conclusion: Training pharmacists enabled them to deliver BCC competently and confidently.

Practice implications: BCC aligns with pharmacist-patient consultations. It took 3 months to achieve competence. Ongoing support may be needed to maintain competence long-term.

© 2015 Elsevier Ireland Ltd. All rights reserved.

1. Introduction

Motivational interviewing (MI) is an intervention used widely in health care, where behaviour change and patient motivation are issues. It is defined as a 'directive client centred counselling style for eliciting behaviour change by helping clients to explore and resolve ambivalence' [1]. A systematic review and meta-analysis [2] showed MI outperformed traditional advice-giving in approximately 80% of psychologist/physician based studies, with no harms. The lengthy timeframe of an MI session (typically 50–60 min), was seen to limit its use in primary care, leading to the development of a 'brief' MI framework [3], now known as behaviour change counselling (BCC). BCC describes a communication style based around four elements, (i) expression of empathy, (ii) development of discrepancy between current behaviour and

the individual's wider goals, (iii) 'rolling' with resistance, rather than opposing it, (iv) support for the client's confidence in their ability to change. BCC can be delivered in 5–15 min [3].

Community pharmacists regularly deliver public health services, such as smoking cessation, services to drug misusers, sexual health services, weight management and 'heart-health checks' [4,5,6]. Many of these initiatives involve the pharmacist in one-to-one consultations, with a behaviour change focus. The advent of the medicines optimisation agenda presents opportunities for pharmacists to address medicines adherence, for example with the delivery of NHS medicines use reviews (MURs), but it also offers pharmacists further public health involvement [7]. Delivering this agenda requires change to the traditional advice-giving role of the pharmacist and a move towards a more patient-led consultation style. Pharmacists' consultation skills have been shown to require development [8,9] particularly in creating a patient-centred consultation [8,10,11]. Evidence suggests pharmacists lack confidence in achieving positive outcomes from counselling [12] and that they are most comfortable with public health interventions involving provision of a medicine rather than advice [13,14]. This

* Corresponding author at: Medway School of Pharmacy, Anson Building, Central Avenue, Chatham maritime, Kent ME4 4TB, UK.
E-mail address: t.thomas@kent.ac.uk (T. Thomas).

may in part be related to time constraints, which are repeatedly cited as the main barrier to pharmacy consultation and counselling-based services [4,5,15,16]. Consultation models introduced into pharmacy must be mindful of the significant time pressures which exist in the community pharmacy where the norm is that the pharmacy is managed by just one pharmacist [12] and thus BCC offers a credible framework. The BCC approach has been tested in many domains of healthcare, but there is currently little evidence of its use in pharmacy, although studies have tested the feasibility of pharmacists incorporating MI techniques into consultations [17] and adopting an MI approach with substance misusers [18]. This current work represents the first pharmacy-based study to use BCC as a basis for intervention delivery. The study is novel in determining competence of the pharmacists in BCC at baseline and in assessing the competency of the pharmacists to provide BCC over time. The work was part of a larger project, in which the trained pharmacists provided BCC to people with mild to moderate depression to increase physical activity.

The aim of this pilot study was to assess effectiveness of a tailored training programme in BCC for community pharmacists on their competence and confidence in delivering behaviour change consultations, skill retention over time and impact on practice.

2. Methods

2.1. Ethical approval

Ethical approval was obtained from Medway School of Pharmacy Ethics Committee and the Kent and Medway NHS Research Ethics Committee in July 2009 (reference number 10/H1101/34).

2.2. Pharmacist recruitment

This pilot study was carried out in two areas of England involving two cohorts of pharmacists, October 2009–April 2010 and October 2012–April 2013.

All community pharmacists ($N=272$) in five collaborating Primary Care Trusts (PCTs) (cohort one: Medway, Lewisham, City and Hackney and cohort two: North and North East Lincoln) were invited, via letter, to either attend an information evening focused on the management of depression, (cohort one) or for cohort two, view a recording of the depression training. Study information was provided to all pharmacists ($N=87$) in both cohorts who received training.

Eligibility criteria were employed to select study participants from those receiving training. Requirements were: work at least two days per week in the same pharmacy, permission from the pharmacy owner to participate, have a designated pharmacy consultation room, be able to attend a BCC training day and willing to undertake pre- and post-training activities. Pharmacist participants also had to be willing to undergo periodic BCC skill assessment following training. Seventeen pharmacists (11 cohort one, 6 cohort two) met the criteria and consented to take part.

2.3. Competence assessment

Competence in BCC can be assessed using the Behaviour Change Counselling Index (BECCI) [19]. The BECCI scores healthcare professionals on 11 items which equate to 11 components of the BCC consultation. Each item is scored using a scale of 0 ('action not carried out at all in the consultation'), 1 ('action carried out minimally'), 2 ('action carried out to some extent'), 3 ('action carried out a good deal'), 4 ('action carried out to a great extent'). Scoring is conducted by someone with a good knowledge of BCC and the checklist and has undertaken preparatory training [20]. The practitioner is deemed competent in BCC if they score 3s or 4s

across all BECCI items applicable to the particular consultation [20]. A 12th BECCI item, not included in the overall scoring, assesses the proportion of time the practitioner talks in the consultation compared to the patient. The practitioner is scored as talking 'more than half the time', 'about half the time' or 'less than half the time'.

2.4. Simulated consultations

Four consultation scenarios (A–D), based on different 'patients' with mild to moderate depression, were devised by the lead researcher in conjunction with an advisory group consisting of three expert patients (mental health service users), a GP, a pharmacist and an MI-trained consultant nurse, all specialists in mental health. The scenarios were designed to enable all 11 BECCI items to be assessed. An actor was recruited to play the role of each patient. Scenario training for actors was carried out by the researcher to ensure consistency.

2.5. Baseline competence assessment

Simulated consultation A was used to assess competence in BCC at baseline, prior to training. The actor arranged to visit each of the 17 pharmacist participants at a mutually convenient time. Simulated consultations took place in the pharmacy and were video recorded and subsequently scored independently by two members of the research team, using the BECCI. Scores were negotiated where assessor scores differed, or by awarding a mean score if agreement could not be reached.

2.6. The training programme

The training was designed and delivered by the lead researcher and the consultant nurse trainer, both of whom have experience in developing training programmes for post-graduate healthcare practitioners. There was input from the advisory group who reviewed materials and training scenarios. Both cohorts of the training followed the same format. The training consisted of four phases:

(i) Phase 1: Pre-workshop materials

Distance learning materials included signs and symptoms of depression, assessment of depression symptoms severity, referral criteria, recommending physical activity, local resources. A brief introduction to BCC was also included, being a new concept for the pharmacists.

(ii) Phase 2: The training day

Sessions throughout the day covered the ethos behind BCC and BCC techniques, including rolling with resistance, importance and confidence scales and goal setting. This part of the training also recapped the importance of existing consultation skills and highlighted where new skills and a different approach to counselling were needed. Other sessions included; managing the consultation—introductions, gaining permission and time management; ending the consultation and follow-up visits. The training was interactive, with practice sessions and role-play throughout.

(iii) Phase 3: Post workshop reading and tasks

Following the workshop, pharmacist participants were required to undertake more detailed reading on BCC and consultation skills.

(iv) Phase 4: Completion of post-training competence assessment, feedback and reflection as detailed in Section 2.7.

2.7. Post-training competence assessment

Each pharmacist undertook a further three different simulated scenarios (scenarios B–D, respectively) 1, 3 and 6 months after

training. Scenarios were video-recorded and scored as described in Section 2.5 above. After completion of each scenario, pharmacists were notified of their scores and given personalised feedback by the lead researcher. To assist skill development, pharmacists were encouraged to view their individual scenario recording on the project web-based repository. All participants gave permission for other members of their cohort to access their videos to assist learning. There were also sample videos of the consultant nurse undertaking aspects of the consultation where feedback indicated pharmacists needed support.

2.8. Pharmacists' confidence following training

A structured interview schedule was developed in conjunction with the advisory group which included a section designed to determine pharmacists' confidence in delivering BCC following training. Questions explored: the effect (if any) of the training programme on practice; whether pharmacists were using elements of the BCC in current practice and if so, how; personal assessment of confidence in delivery of a BCC-based service before training and following the full training and competence assessment process. All interviews were conducted by the main researcher in the participant's pharmacy after the 6 month competence assessment. Written consent was obtained and interviews were audio-recorded, transcribed independently, and checked for accuracy by the researcher.

2.9. Outcome measures

BECCI scores for all 11 items for all pharmacists were recorded at all timeframes and median scores and ranges were calculated. The time taken for each scenario to be conducted by each pharmacist was extracted from the video recording and the percentage time spent talking by each pharmacist was used to calculate BECCI item 12.

2.10. Data analysis

Comparison of the demographic data found that the two cohorts of pharmacists were similar in terms of age, gender, and working environment, therefore data from the 2 cohorts were combined. All data analyses were conducted using a dedicated Statistical Package for the Social Sciences (SPSS v21, IBM, 2012). Data were checked for distributional assumptions, using Q–Q plots and the Kolmogorov test statistic. These tests indicated that the data were not normally distributed and thus non-parametric testing was adopted for the remainder of the analyses. The median BECCI scores at each time interval (baseline, 1, 3 and 6 months after training) for items 1–11 were calculated to examine patterns in BECCI scores over time. Raw scores for all 11 BECCI items for all pharmacists at each time interval were compared using a Friedman's test. Wilcoxon signed-rank tests were used to assess within-group changes in BECCI scores between baseline and 6-months. Statistical significance was assumed where $p < 0.05$. BECCI item 12 was analysed with descriptive statistics using Microsoft Excel (Microsoft, 2007).

The interview data were analysed using content analysis that was guided by the framework of the structured interview schedule. Key themes emerged from the data and example quotes from each theme were selected to illustrate identified issues.

3. Results

Seventeen pharmacists consented and took part in the pilot study. This represents 19.5% of those given study information and 6% of all pharmacists invited to take part. Of the 17, there were no drop-outs

and none were lost to follow-up at any point. Demographic details of participants are shown in Table 1.

The mean simulated consultation time across all 4 scenarios for all pharmacists was 9 min and 48 s (range 3 min 42 s–19 min 36 s).

The median BECCI scores and ranges for all 11 BECCI items at each time interval are shown in Table 2, together with statistical significance of median score compared to baseline.

BECCI scores at baseline were in the range 0 ('action not carried out at all') to 2 ('action carried out to some extent'). At baseline, no items were scored as 3 ('action carried out a good deal') or 4 ('action carried out to a great extent') for any pharmacist. The highest score of 2, was found most frequently for the action: 'acknowledges the challenges involved in behaviour change' (item 8). Lowest scores were found for the actions 'summarising' (item 7) and 'exchanging ideas about behaviour change' (11) and 'sensitive to talking about other issues' (2).

BECCI scores one month after training were significantly higher than baseline, for all items except item 8. The median scores indicated pharmacists were not competent across all items (i.e. less than 3). After training a median score of 3 was achieved in items 5 and 6, although at least one pharmacist attained the maximum score. Of the possible 187 item scores across the 17 pharmacists, 64 (43%) were recorded as 3 or 4, indicative of competence in individual aspects of BCC one month after training.

Three months after training, there was a significant increase in all BECCI item scores compared to baseline, with median scores of 3 or 4 achieved in all items. Items with low (below 3) median scores included: 'being sensitive to talking about other matters'; 'summarising'; 'showing respect for patient choice' and 'exchanging ideas'. At three months, of the possible 187 scores across the 17 pharmacists, 131 (70%) demonstrated the attainment of competence.

Six months after training, there was a significant increase in BECCI scores compared to baseline in all items. Median scores were 3 or more indicating competence in all items except for 1 and 2. At 6 months, of the possible 187 scores across the 17 pharmacists, 140 (75%) were scored as 3 or 4.

3.1. BECCI item 12

At baseline, all except one pharmacist talked 'more than half the time'. One month after training, the majority of pharmacists ($n = 15$) talked 'about half the time', one pharmacist was still talking 'more than half the time' and one was talking 'less than half the time'. At both three and six months all 17 pharmacists talked 'less than half the time'.

Table 1
Demographic details of participating pharmacists.

Characteristic	Cohort 1 $n = 11$	Cohort 2 $n = 6$
Gender male (%)	8 (73)	4 (67)
Median age (IQR)	35.5 (23)	35 (22.5)
Location (%)		
Medway	4 (36)	0
City and Hackney	4 (36)	0
Lewisham	3 (27)	0
Lincoln	0	6 (100)
Pharmacy type, n (%)		
Multiple (>6 pharmacies)	4 (36)	5 (83)
Independent (≤ 5 pharmacies)	7 (64)	1 (17)
Pharmacist's role, n (%)		
Owner	3 (27)	0 (0)
Employee	8 (73)	6 (100)

Table 2

Median scores (range) for each item at baseline and 1, 3 and 6 months after training, with an indication of statistical significance of BECCI scores at each time interval compared to baseline.

	BECCI Item	Median BECCI score (range) before and after training			
		Baseline	1 Month	3 Months	6 Months
1	Patient invited to talk	1 (0–1)	2 (0–4) ^c	3 (1–4) ^c	2.25 (1–4) ^c
2	Sensitivity to other issues	0 (0–2)	1 (0–3) ^b	3 (0–4) ^c	2 (0–4) ^c
3	Current behaviour talk	1 (0–1)	2 (1–4) ^c	3 (1–4) ^c	4 (2–4) ^c
4	Encourages change talk	1 (0–2)	2 (1–4) ^c	3 (1–3) ^c	4 (2–4) ^c
5	Asks questions	1 (0–2)	3 (2–4) ^c	3 (1–4) ^c	4 (2–4) ^c
6	Empathetic listening	1 (0–2)	3 (1–4) ^c	3 (1–4) ^c	4 (2–4) ^c
7	Summarises	1 (0–1)	2 (0–4) ^c	4 (0–4) ^c	4 (1–4) ^c
8	Acknowledges challenges	2 (1–2)	2 (1–4)	3 (1–4) ^c	3 (1–4) ^c
9	Information provision	1 (0–2)	2 (1–4) ^a	3 (1–4) ^c	3 (1–4) ^c
10	Respect for choice	1 (0–2)	2 (1–4) ^c	4 (0–4) ^c	4 (0–4) ^c
11	Exchange of ideas	0 (0–1)	2 (1–4) ^c	3 (0–4) ^c	4 (1–4) ^c

^a BECCI scores compared to baseline $p=0.002$.

^b BECCI scores compared to baseline $p=0.05$.

^c BECCI scores compared to baseline $p\leq 0.001$.

3.2. Pharmacists' confidence following training

From the analysis of the interview data, pharmacists reported positive feelings towards the training and BCC. There was recognition that BCC was very different from previous approaches to behaviour change they had been exposed to/used in the past and that training had not always been easy. Some participants believed BCC should be taught to pharmacists as part of undergraduate training. The BCC training made a significant and positive change to their practice, resulting in a more patient-focused consultation. Pharmacists recognised their BCC skills were transferable into other behaviour change contexts, including smoking cessation, weight management, substance misuse and MURs. All participants felt ready to undertake a BCC-based service as a result of training. However they realised they had experienced fluctuations in confidence over the duration of the study and were still nervous of 'doing it for real'.

Table 3

Interview topics and sample quotes.

Category	Sample quotes
Feelings towards training	<i>It was intense . . . I think what might have helped was just to have another practice day with each other with different scenarios [Pharmacist 4] the more the study day went on and we practiced with each other and you watch other people you could see where they were moving away from BCC. It gave me loads of ideas . . . I went away buzzing [Pharmacist 7]</i>
Feelings towards BCC approach	<i>'We had to unlearn a lot of things, you're very prescriptive in how you manage as a pharmacist and you have to step outside of it to really look at it from the outside' [Pharmacist 5] It gave you the right tools [Pharmacist 4] We were thinking along a different way, which was the first thing we had to . . . we really had to come out of pharmacist mode. [Pharmacist 9] It is a very different approach. We saw that right from the beginning . . . it's take off the pharmacist hat and do something different. We should have learned these skills as undergraduates . . . as part of the curriculum [Pharmacist 7]</i>
Effect of training on practice	<i>It didn't come naturally to me as a person and especially as a pharmacist it just didn't but you use it in practice and It's a transferable skill, into smoking, weight management and even MURs [Pharmacist 10] The general skill of the way that you interact with patients has changed. I've noticed a big difference, which has been really useful and I think the patients . . . you can tell that they know . . . they really like it [Pharmacist 3] we've been using it in the pharmacy outside of depression and exercise, just generally in our regular consultations . . . in smoking. To even just get the easy flow of information, allowing the patient to do more of the talking [Pharmacist 8]</i>
Confidence to deliver behaviour change interventions prior to training	<i>After (the baseline) we all got nervous thinking oh no. What have we got ourselves into here? Because none of us could talk like that . . . we realised we didn't know what to say to help people change [Pharmacist 1] Well the first time was probably a little bit stressful because I hadn't done anything like this before and I didn't know what was expected of me [Pharmacist 7] I'm doing behaviour change all the time, but it often didn't work and I kept going, because I didn't have any other tools, until now [Pharmacist 9]</i>
Confidence to deliver following training and assessment process	<i>it's a sort of up and down experience; the odd dip where I think oh dear, this isn't going as well as I was thinking it was. I feel quite confident right now [Pharmacist 1] It's been great, but really up and down. One minute thinking I'm really good at this and then the next time, I'm really rubbish' [Pharmacist 3] I'm still learning, you don't stop learning, even though you're ready to start doing the project . . . [Pharmacist 11] I definitely feel confident and relaxed and ready; that my skills are ready to see patients [Pharmacist 2]</i>

Example quotes illustrating these points are shown in [Table 3](#).

4. Discussion and conclusion

4.1. Discussion

The main findings of this pilot study were that 6 months after undertaking a training programme in BCC, pharmacists achieved BECCI scores giving a strong indication of competence in BCC delivery. In interviews the pharmacists suggested their practice had changed following training and that they felt confident in delivering a BCC-based intervention. This is the first study to show that pharmacists can be trained in BCC and that BCC has potential to be used as a basis for pharmacy-led behaviour change consultations. The work also has also resulted in the development of a template for training in BCC and an accompanying method for assessing competence.

At baseline, pharmacists did not include many elements of BCC into consultation with a simulated patient, with no pharmacist achieving competence in any BECCI item. This finding was supported by interview data suggesting a lack of confidence in behaviour change skills at this stage. However, following training, pharmacists quickly assimilated the techniques associated with BCC and there was an increase in confidence overall, with pharmacists practising the skills in their everyday pharmacy practice. There was a tendency for pharmacists to display less stability in their competence for BECCI items 1 and 2, which related to the consultation introduction. Whilst initially pharmacists tended to dominate the consultation, three months after training, the majority of pharmacists were talking 'less than half the time' in the consultation, a desirable feature of trained BCC practitioners [19]. Many pharmacist participants identified this greater patient focus as a striking change in their practice following training.

4.1.1. Pharmacists' skills prior to training

The baseline scores suggested that pharmacists incorporate some specific BCC elements into their consultations, but only minimally. No pharmacist was scored as competent (3 or 4) in any BECCI item at baseline, which was surprising given that BCC elements cover more generic consultation skills, such as, summarising and exchanging information. The inability of pharmacists to involve patients in their consultations and the dominance of one-way advice giving in pharmacist-led consultations has been recognised [8,10,11,13]. Smith found that the majority (79%) of questions asked by community pharmacists were closed questions, with 62% of consultations containing no open questions and that, whilst pharmacists were attentive to patients' requests, the majority of the advice given was product orientated [13].

The choice of a patient group with mild to moderate depression for the simulations, may mean baseline observations were particularly challenging and do not provide a true reflection of the consultation skills of pharmacists more generally. Pharmacists working with this patient group may encounter more communication difficulties than others [21]. Bungay et al. showed that face-to-face consultations with people with depression took, on average, 45 min and the authors concluded that pharmacists should anticipate that people with depression may have intense needs [22]. The high incidence of depression in the obese population, particularly women, suggests that many people accessing community pharmacy-based weight management services may have co-morbid depression thus the simulation adopted here is a realistic reflection of the type of patients with whom pharmacists work [23,24].

4.1.2. Competence over time

The study results suggest that pharmacists are confident and competent in BCC following training. Whilst this has not been shown previously, it reinforces other work which showed they could adopt MI techniques [17,18]. Ball et al. [25] report that health professionals find MI intuitively appealing, with the skills consistent with their work mode (reflective, and collaborative with clients and empathetic in approach). Whilst the present study found a significant increase in most scores one month after training in BCC, fewer than half the BECCI scores were above 3, indicating the pharmacists were not competent in all BECCI elements but that competence was developing. The overall proportion of BECCI scores demonstrating competence continued to increase with time. From the comments in the interviews it appeared that the pharmacists needed time to reflect on their practice. Their ability to use elements of the counselling in other areas of their practice, such as MURs, was highlighted as important in facilitating gradual skill development. Gradual development of competence in MI has been endorsed by Miller and Rollnick [26]

who stress that learning MI is not easy and that structured post-training support is required if skills are to be developed and maintained long-term [26,27]. This training and consolidation period represents a significant time investment for both pharmacists and pharmacy businesses [28].

The introductory elements of the consultation (items 1 and 2) seemed particularly problematic. Pharmacists' scores were low in these items initially and whilst there was significant increase in these scores and competence was achieved 3 months after training, this had been lost by 6 months. Greenhill et al. [8] also found that pharmacists were weaker in skills relating to initiating the consultation. Other work has also shown that pharmacists did not establish the reason or purpose for the patient visiting the pharmacy, nor did they outline an agenda [29]. Future BCC training programmes for pharmacists should consider extra focus on these aspects.

Traditionally pharmacists are advice givers. One-way didactic consultations have been identified as a feature of pharmacists' consultations [8,10,11,13]. Pharmacists in this study at baseline tended to dominate the consultation, however three months after training, the majority of pharmacists were talking 'less than half the time' in the consultation, a feature of trained BCC practitioners. The interviews revealed that the pharmacists identified the patient-led consultation where they spoke less and listened more, as the most challenging and striking change in their practice following training in BCC. There was comment that undertaking BCC meant not thinking like a pharmacist and went against their traditional training.

4.1.3. Contribution to research literature

This is the first study to show that pharmacists can be trained to deliver a BCC-based intervention. The training offers a template for training pharmacists in BCC, which could be adapted to other behaviour change interventions. The competency assessment offers a robust method to ensure competence in the skills required to deliver an intervention.

This study is of relevance to those researching in MI and BCC because it demonstrates successful use of BCC in a different group of professionals. It also adds evidence on the use of the BECCI in determining competence as part of the training programme.

4.1.4. Study limitations

The sample of pharmacists in this pilot study was small and is unlikely to be representative of the pharmacy workforce in the UK. The proportion of males in this study was higher than on the General Pharmaceutical Council register in 2011 (71% compared with 40%) [30]. Patient gender has an effect on the information that pharmacists give during consultations, so it may be assumed that pharmacist gender could also influence counselling style [31]. In 2011, 39% of pharmacies were owned by independents [32], so the sample here had a slightly higher proportion of independent pharmacists (47%). This may reflect the greater autonomy of independent pharmacies to sign up to studies such as this, although only 3 of the sample of 11 independents described themselves as the owner of the pharmacy.

This study involved a small sample of highly motivated individuals not necessarily typical of the whole community pharmacist workforce. The recruitment rate from those invited to participate was low (19.5%) and represented a very small proportion (6%) of the number of community pharmacists in all the PCTs. The motivation of those who consented to take part was demonstrated in their willingness to undergo time-intensive training accompanied by repeated assessment lasting six months. However, Rollnick et al. [1] suggest that healthcare interventions based on MI should start with motivated individuals, to ensure full engagement and long-term commitment.

4.2. Conclusion

Community pharmacists do not demonstrate BCC skills, but can be trained to use BCC, an effective way of supporting patients with behaviour change. The training programme developed was effective in ensuring competence and confidence, although on-going training/support may be required to maintain skills longer-term.

4.3. Practice implications

Pharmacists in this pilot study believed BCC skills were adaptable to other areas of their practice. Pharmacists valued the training programme, feeling it enhanced confidence. Baseline scores in this study show that whilst pharmacists do use some BCC skills during consultations, they could benefit from BCC training which develops patient-centred consultation skills. Loss of competence in some areas over time suggests that reinforcement of skills may be needed. A longer study may show whether pharmacists lose competence in other items and the effect of on-going support and/or training. BCC is well aligned to the time available in community pharmacy for behaviour change-based services. Whilst the current study focused on increasing physical activity with people with mild to moderate depression, training and assessment could be adapted to change of other behaviours and evaluated in future work with other client groups and using other healthcare professionals. The pilot study shows the BECCI offers a method for BCC competence assessment, which could be adapted to assure competence for ongoing BCC-based pharmacy services. The results suggest pharmacists can be trained to counsel specifically on physical activity. Many studies have shown that healthcare professionals (usually nurses and GPs) can be trained to counsel patients on physical activity [33–35], but there is no specific literature that involves pharmacists. Studies have shown [22,36–38], the need for specific communication skills training to enable pharmacists to support people with mental health issues. The results of this current study provide detail on the possible communication skills required.

Role of funding source

This work was funded in part by a Hugh Linstead Award from the Pharmacy Practice Research Trust and by the University of Kent. The funders had no involvement in the design or conduct of the study.

Conflict of interest

The work formed part of the PhD of the lead author. There are no conflicts of interest.

Acknowledgements

The authors wish to thank the pharmacists, trainers, Tom Phillips and Stuart Gill-Banham and members of the study advisory group who generously gave their time. Also to Professor Janet Krska from Medway School of Pharmacy, for help with the writing of this paper.

We confirm all personal identifiers have been removed so the persons described are not identifiable and cannot be identified through the details of the story.

References

- [1] S. Rollnick, W.R. Miller, C.C. Butler, Appendix B: a topical bibliography of research on motivational interviewing, in: S. Rollnick, W.R. Miller, C.C. Butler (Eds.), *Motivational Interviewing in Health Care*, Guildford Press, New York, 2008, pp. 183–204.
- [2] S. Rubak, A. Sandbæk, T. Lauritzen, B. Christensen, Motivational interviewing: a systematic review and meta-analysis, *Br. J. Gen. Pract.* (2005) 3005–3012.
- [3] S. Rollnick, N. Heather, Negotiating behaviour change in medical setting: the development of brief motivational interviewing, *J. Ment. Health* 1 (1992) 25–37.
- [4] C. Anderson, A. Blenkinsopp, M. Armstrong, The contribution of community pharmacy to improving the public's health: report 1: evidence from peer reviewed literature 1990–2001, London: Pharm. HealthLink R. Pharm. Soc. Great Br. (2003).
- [5] C. Anderson, A. Blenkinsopp, M. Armstrong, The contribution of community pharmacy to improving the public's health: evidence from peer reviewed literature (2004 update), London: Pharm. HealthLink R. Pharm. Soc. Great Br. (2004).
- [6] D. Brown, J. Portlock, P. Rutter, Review of services provided by pharmacies that promote healthy living, *Int. J. Clin. Pharm.* 34 (2012) 399–409.
- [7] O. Lelley, J. Nicholls, Support is key to medicines optimisation, *Pharm. J.* 289 (2012) 363.
- [8] N. Greenhill, C. Anderson, A. Avery, A. Pilnick, Analysis of pharmacist–patient communications using the Calgary–Cambridge guide, *Patient Educ. Couns.* 83 (2011) 423–431.
- [9] A. Latif, K. Pollock, H.F. Boardman, The contribution of the Medicines Use Review (MUR) consultation to counseling practice in community pharmacies, *Patient Educ. Couns.* 83 (2011) 336–344.
- [10] B. Sleath, Pharmacist–patient relationships: authoritarian, participatory, or default? *Patient Educ. Couns.* 28 (1996) 253–263.
- [11] P. Skoglund, D. Isacson, K.I. Kjellgren, Analgesic medication–communication at pharmacies, *Patient Educ. Couns.* 51 (2003) 155–161.
- [12] H.B. Dastani, C.M. Brown, D.C. O'Donnell, Combating the obesity epidemic: community pharmacists' counselling on obesity management, *Ann. Pharmacother.* 38 (2004) 1800–1804.
- [13] F. Smith, Community pharmacists and health promotion: a study of consultations between pharmacists and clients, *Health Promot. Int.* 7 (1992) 249–255.
- [14] A. Blenkinsopp, C. Anderson, M. Armstrong, Community pharmacy's contribution to improving the public's health: the case of weight management, *Int. J. Pharm. Pract.* 16 (2008) 123–125.
- [15] M. Webb, Weight management interventions by community pharmacy: a rapid review of the evidence, *Natl. Public Health Serv. Wales* (2009).
- [16] E. Tyler, Smoking cessation interventions by community pharmacy: a rapid review of the evidence, *Natl. Public Health Serv. Wales* (2009).
- [17] L. Söderlund, P. Nilsen, Feasibility of using motivational interviewing in a Swedish pharmacy setting, *Int. J. Pharm. Pract.* 17 (2009) 143–149.
- [18] M. Jaffray, C. Matheson, C.M. Bond, A.J. Lee, D.J. McLernoc, A. Johnston, L. Skea, B. Davidson, Does training in motivational interviewing for community pharmacists improve outcomes for methadone patients? A cluster randomised controlled trial, *Int. J. Pharm. Pract.* 22 (2014) 4–12, doi:<http://dx.doi.org/10.1111/ijpp.12049>.
- [19] C. Lane, M. Huws-Thomas, K. Hood, S. Rollnick, K. Edwards, M. Robling, Measuring adaptations of motivational interviewing: the development and validation of the behaviour change counselling index. (BECCI), *Patient Educ. Couns.* 56 (2005) 166–173.
- [20] University of Wales College of Medicine, The behaviour change counselling index. A manual for coding behaviour change counselling, 2002. Available from: <http://www.alcohollearningcentre.org.uk/Topics/Browse/BriefAdvice/SIPS/BriefAdviceTrainingandTools/?parent=4449&child=4567>, 2002 (accessed 29.03.15).
- [21] S. Leikens, T. Smits, G. Laekeman, V. Foulon, Pharmaceutical care for people with depression: Belgian pharmacists' attitudes and perceived barriers, *Int. J. Clin. Pharm.* 34 (2012) 452–459.
- [22] K.M. Bungay, D.A. Adler, W.H. Rogers, C. McCoy, M. Kaszuba, S. Supran, Y. Pei, D. J. Cynn, I.B. Wilson, Description of a clinical pharmacist intervention administered to primary care patients with depression, *Gen. Hosp. Pharm.* 26 (2004) 210–218.
- [23] E. Atlantis, M. Baker, Obesity effects on depression: systematic review of epidemiological studies, *Int. J. Obes.* 32 (2008) 881–891.
- [24] M. Kivimaki, D.A. Lawlor, A. Singh-Manoux, G.D. Batty, J.E. Ferrie, M.J. Shipley, H. Nabbli, S. Sabia, M.G. Marmot, A. Jokela, Common mental disorder and obesity: insight from four repeat measures over 19 years: prospective Whitehall II cohort study, *Br. Med. J.* 339 (2009) b3765, doi:<http://dx.doi.org/10.1136/bmj.b3765>.
- [25] S.A. Ball, K. Bachrach, J. DeCarlo, C. Farentionos, M. Keen, T. McSherry, D. Polcin, N. Snead, R. Sockriter, P. Wrigley, L. Zammarelli, K. Carroll, Characteristics of community clinicians trained to provide manual guided therapy for substance abusers, *J. Subst. Abuse Treat.* 23 (2002) 309–318.
- [26] W.R. Miller, S. Rollnick, Ten things that motivational interviewing is not, *Behav. Cogn. Psychother.* 37 (2009) 129–140.
- [27] S.T. Walters, S.A. Matson, J.S. Baer, D.M. Ziedonis, Effectiveness of workshop training for psychosocial addiction treatments: a systematic review, *J. Subst. Abuse Treat.* 29 (2005) 283–293.
- [28] C.C. Butler, S.A. Simpson, K. Hood, D. Cohen, T. Pickles, C. Spanou, et al., Training practitioners to deliver opportunistic multiple behaviour change counselling in primary care: a cluster randomised trial, *Br. Med. J.* 346 (2013) f1191.
- [29] K. Greenwood, A. Howe, R. Holland, The use of consultations skills assessment tools in pharmacist–patient consultation, *Int. J. Pharm. Pract.* 14 (2006) 277–282.

- [30] K. Hassell, CPWS. Briefing paper: RPSGB Register Analysis. Available from: <http://www.pharmacyregulation.org/sites/default/files/Analysis%20of%20GPhC%20Pharmacist%20Register%202011.pdf>, 2011 (accessed 29.03.15).
- [31] J.C. Schommer, J.B. Wiederholt, The association of prescription status, patients age, patient gender and patient question asking behaviour with the content pharmacist–patient communication, *Pharm. Res.* 14 (1997) 145–151.
- [32] NHS Information Centre, General Pharmaceutical Services England/ community pharmacy service Wales, 2011.
- [33] C.L. Albright, S. Cohen, L. Gibbons, S. Miller, B. Marcus, J. Sallis, K. Imai, J. Jernick, D.G. Simons-Morton, Incorporating physical activity advice into primary care: physician-delivered advice with the activity counselling trial, *Am. J. Prev. Med.* 18 (2000) 225–234.
- [34] C.R. Elly, N. Kerse, B. Arroll, E. Robinson, Effectiveness of counseling patients on physical activity in general practice: cluster randomised controlled trial, *Br. Med. J.* 326 (2003) 793–800.
- [35] J.A. Peterson, Get moving! Physical activity counseling in primary care, *J. Am. Acad. Nurse Pract.* 19 (2007) 349–357.
- [36] M. Rubio-Valera, A. Serrano-Blanco, P. Travé, M.T. Peñarrubia-Maria, M. Ruiz, M. March Pujol, Community pharmacist intervention on depressed primary care (PRODEFAR study): randomised controlled trial protocol, *BMC Public Health* 9 (2009) 284–292.
- [37] K.L. Capoccia, D.M. Boudreau, D.K. Blough, A.J. Ellsworth, D.R. Clark, N.G. Stevens, W.J. Katon, S.D. Sullivan, Randomized trial of pharmacist interventions to improve depression care and outcomes in primary care, *Am. J. Health Syst. Pharm.* 61 (2004) 364–372.
- [38] K.A. Al-Jumah, N.A. Quereshi, Impact of pharmacist interventions on patients' adherence to antidepressants and patient-reported outcomes: a systematic review, *Patient Preference Adherence* 6 (2012) 87–100.