

Health Champions

Kent Surrey and Sussex



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Table of Contents

Executive Summary.....	3
1. Introduction	4
2. Methods	6
2.1. Research Design.....	6
2.2. Data Collection:.....	6
2.3. Data analysis.....	7
3. Results	9
3.1. Pre-training evaluation [before the training and immediately after the training]:	9
3.1.1. HC Experience of the training.....	10
3.1.2. Knowledge and confidence before the training and immediately after the training	13
3.1.3. Interventions and signposting activities related to HC framework	17
3.1.4. Participants' perceptions of the value and benefit of the HC role and the future services for the pharmacy	18
3.1.5. Factors affecting confidence and knowledge levels pre-training and immediately after the training	20
3.2 Post-training evaluation [immediately after training and 3 months post-training (current)]:	23
4. Conclusion	31
5. Recommendations	32
6. References.....	33

Executive Summary

This report provides a summary of the evaluation of the Health Education England funded training for health champions (HC) working across community pharmacies in Kent, Surrey and Sussex. A total of 243 HC attended the training. The evaluation took the form of a cross sectional survey. The training was highly rated in terms of content, delivery, venue and trainers. Furthermore, the attendees perceived an increase in knowledge and confidence in delivering healthy advice and services and skills for undertaking the role. The skills including setting goals for patients, communicating health messages including difficult messages and signposting and communicating with external organisations. The perceived gain in knowledge and confidence immediately post training was statistically significant in comparison to the rated baseline knowledge and confidence ($P < 0.0001$). The perceived gain in knowledge was particularly evident in those with less than 5 years' experience and those working in independent community pharmacies ($P < 0.01$). It must be noted that at baseline 50% of HC felt they had less than 10 opportunities to deliver health messages and 88% deliver less than 10 health interventions a day. Furthermore, 66% never personally signposted patients to health organisations even though 52% were aware of patients being signposted in their pharmacy. Nevertheless, all participants clearly saw the value of the HC role for the community, the pharmacy and for their professional development and believed that they will be supported to practice the role, but 92% did not believe that their training would initiate new service delivery in their pharmacies.

The evaluation aimed to ascertain whether the immediate perceived gain in knowledge and confidence was sustained 3 months post training. To enable this, the sample for which the original responses can be matched ($n=133$) were followed. Only 35 responses were received. Despite the limited sample size, the results indicate a drop in the perceived gain in knowledge in relation to health services to levels matching baseline (pre- any training received). Although a similar drop was seen in confidence in health domains and transferable skills, this still was higher than the average rating at baseline. Main reasons quoted for the low rating are lack of practice of role due to services not being offered, lack of support to practise the role and the pressure of time and work load. This indicates that the value of training cannot be returned or sustained if it is delivered as blanket training covering all topics with no relevancy to a role or the existing needs in practice even if the training was of high quality. Furthermore, there is a need to empower HC to practise the role by managers. These are among the recommendations that this report provides for consideration when funding any future training.

1. Introduction

Optimisation of service delivery has become a key objective for the National Health Service (NHS), given the severe financial pressures currently facing the health service in England (1). The recognition of the value of community pharmacy sector in promoting public health and improving service delivery has been identified in several policy documents published by the Department of Health (DH) in England (2, 3, 4, 5). In 1986, the Nuffield committee report highlighted the role of community pharmacy as a key provider of public health (6). In addition, in 1998, the white paper 'Our Healthier Nation' has identified 22 pharmacy related public health roles (7). Whereas in 2005, the role of community pharmacy in public health was formalised through the NHS community pharmacy contractual framework, which placed '*Promotion of Healthy Lifestyles*' amongst the essential services to be provided by every community pharmacy in England (8).

The concept of Healthy Living Pharmacy (HLP) was developed by NHS Portsmouth and the Local Pharmaceutical Committee of Hampshire & Isle of Wight following the 2008 white paper 'Pharmacy in England: Building on strengths, delivering the future,' with the aim of promoting community pharmacy contribution to public health (5). The HLP concept is a tiered framework whereby community pharmacies in England are commissioned to deliver public health services based on local needs with the objective of proactively promoting healthy living and wellbeing and helping to reduce health inequalities (9). The framework is underpinned by three enablers which are: workforce development, availability of properly equipped premises and local stakeholders' engagement.

One of the specific features of a pharmacy to become HLP is the availability of at least one trained Healthy Living Pharmacy Champion (HLPC), also known as a Health Champion (HC). The HC is a member of the pharmacy team who is trained and accredited through a structured training program to help customers to adopt healthier lifestyles by providing health and wellbeing advice and signposting them to other community services to access the support they need (10). The success of the pilot in Portsmouth created a platform for the DoH to develop the HLP concept into a national framework and consequently the HLP programme was rolled out to a further twenty pathfinder sites across England (11). The evaluation of the pilot HLP model in Portsmouth showed that HLPs had improved performance in areas such as smoking cessation, weight management and alcohol awareness when compared against non-HLPs (12). This highlighted the potential of pharmacy support staff in the promotion of public health delivery when trained (10).

An evaluation of the uptake and success of HC training and implementation throughout ten boroughs in South London during 2014 showed that one month post training 83% (n=45) of the qualified HC were actively practising their new role, 87% (n= 47) admitted to an increase in their awareness of facilities to signpost patients to. A 23% increase in the confidence level of executing the duties associated with the HC and a +104.25% increase in health interventions were also observed (288 health interventions made post HC, 141 interventions pre HC). However this increase was not statistically significant ($P < 0.5$). In addition, no impact was seen on the HC pro-actively visiting local community groups after the training (13).

This report provides an evaluation of the HC training that was conducted in Kent, Sussex and Surrey (KSS) between January and April 2017. The research aimed to evaluate the training provided by determining pre-existing role perceptions and the confidence and knowledge of the trainees before training with a comparison post-training on two levels: immediately and after 3 months, more specifically with regards to changes in their practice.

2. Methods

2.1. Research Design

This was a survey study conducted in two stages among HC trainees. Stage one involved surveying the HC trainees on the day of the training, whereas stage two involved surveying the HC trainees after a minimum of three months post-training.

Data collection was done using paper-based questionnaires. The pre-training survey consisted of 30 questions in total, of different styles (Likert scale, tick box, free text, and multiple choices) (Supplementary document 1). The questionnaire covered the following areas: demographic information, satisfaction with the training provided, interventions and signposting activities within the workplace using tick box answers, perceptions about the HC role using a free text box, in addition to levels of confidence and knowledge about different public health areas pertaining to the HLP framework and skills needed for the new role, using 10-point Likert scales. Using free text box, respondents were also required to provide reasons in case of reporting confidence and knowledge level scores below 5. The HC pre-training survey aimed to collect data from the trainees before the training and immediately after the training; therefore comparative questions (i.e.: before and immediately after the training) were utilised to gauge for perceptions about the HC role, levels of confidence and knowledge about different public health areas pertaining to the HLP framework; and confidence in skills required for the new role.

The post-training survey consisted of 28 questions in total (Supplementary document 2) and aimed to collect data on the impact of the conducted HC training on the daily working activity of each trainee. Therefore, comparative questions were used from the pre-training questionnaire with respect to: knowledge and confidence levels in providing services and the role, interventions and signposting activities and future services for the pharmacy.

2.2. Data Collection:

Pre-training: a total of 243 participants from multiple and independent community pharmacies within KSS attended the training for the HC framework between January and April 2017, and were required to complete the pre-evaluation survey after finishing the training. The purpose of the survey was explained by the facilitators. Completed forms were returned to the researcher.

Post- training: a questionnaire pack was sent to the HC trainees in July and June 2017; this provided the trainees with a minimum of 3 months after the training sessions to implement their

new role as a HC. The questionnaire pack included the post-training survey, a prepaid envelope and a covering letter with information regarding the purpose of the study, the importance of their participation, and the deadline for providing their response. During the initial training process, participants were provided with a specific number that allowed for correspondence to match pre and post-training questionnaire responses, to identify any changes. A follow-up questionnaire pack was sent in September 2017 to those who did not provide an initial response in order to maximise the response rate. Implied consent was given through completion of the questionnaires, and anonymity was ensured when pairing based on the specific number allocated for each respondent.

2.3. Data analysis

Both the data collected from the pre and post-training questionnaires were coded, based on the specific number allocated for each respondent during the training and entered into Microsoft Excel spreadsheet, and were analysed descriptively. The responses were paired and statistical significance was established via paired t-test. The weighted average of the Likert score rating for knowledge and confidence pre and post-training were calculated.

In addition, difference in participants' knowledge and confidence levels immediately after the training (from the pre-training survey) and after 3 months (from the post-training survey) for each statement was performed using the Sign test (non-parametric test). The Sign test was based on the number of positive and negative differences in responses (signs), thus testing the effect of the training on the participants' knowledge and confidence. This was applied for the comparative questions related to knowledge and confidence levels in different public health areas and skills required for the role. For example, participants were asked to rate their knowledge in smoking cessation as a public health area on a Likert scale of 1-10, with 1 being no knowledge at all and 10 being extremely knowledgeable, in both pre and post-training surveys. So for example if a respondent chose a value of 5 immediately after the training (resembling the immediate status after the training) and a value of 7 three months post-training (resembling the current status), then the difference results in a positive sign (Difference = Current – immediate). Therefore, a positive sign indicates an improvement in the participants' knowledge and confidence levels.

Health Champions Kent Surrey and Sussex

For all statistical tests, $P < 0.05$ was considered to indicate statistical significance within the reported results.

The delegated ethical approval team operating under the Kingston University Science, Engineering and Computing Faculty ethics committee granted ethical approval for the survey on 30th September 2016 (1213/045).

3. Results

3.1. Pre-training evaluation [before the training and immediately after the training]:

The pre-training evaluation was integrated as part of the training programme for HC. Therefore, a 100% (n=243) response rate was achieved. Table (1) represents a summary of the participants' demographic information and pharmacy characteristics.

	Number (n)	Percentage (%)
Gender		
Male	23	9.9
Female	206	89.1
Prefer not to say	2	0.8
Job Type		
Pharmacy technician	23	9.5
Accuracy checking technician	13	5.4
Dispensing assistant	79	32.9
Medicines counter assistant	83	34.5
Other	42	17.5
Years of experience (in current role)		
Under 5	146	61.3
6-10	41	17.2
11-20	33	13.8
21-30	14	5.8
>30	4	1.6
Working hours per week		
Less than 15 hours	11	4.7
16-30 hours	91	39.5
>30 hours	128	55.6
Pharmacy Type		
Independent	106	46.9
Small multiple	34	15
Large multiple	86	38

Table (1): Demographics of participants

3.1.1. HC Experience of the training

The vast majority of the participants were either satisfied or very satisfied with the settings of the training such as the venue location (Figure 1) and the venue facilities and refreshments (Figure 2).

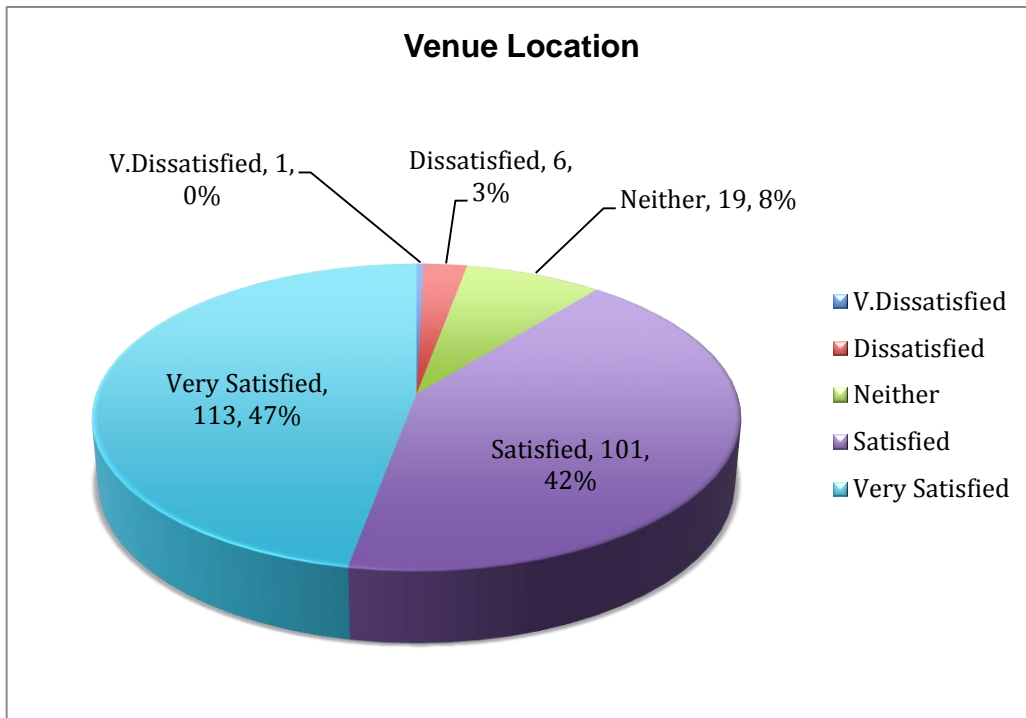


Figure (1): Participants' satisfaction with the venue location of the training

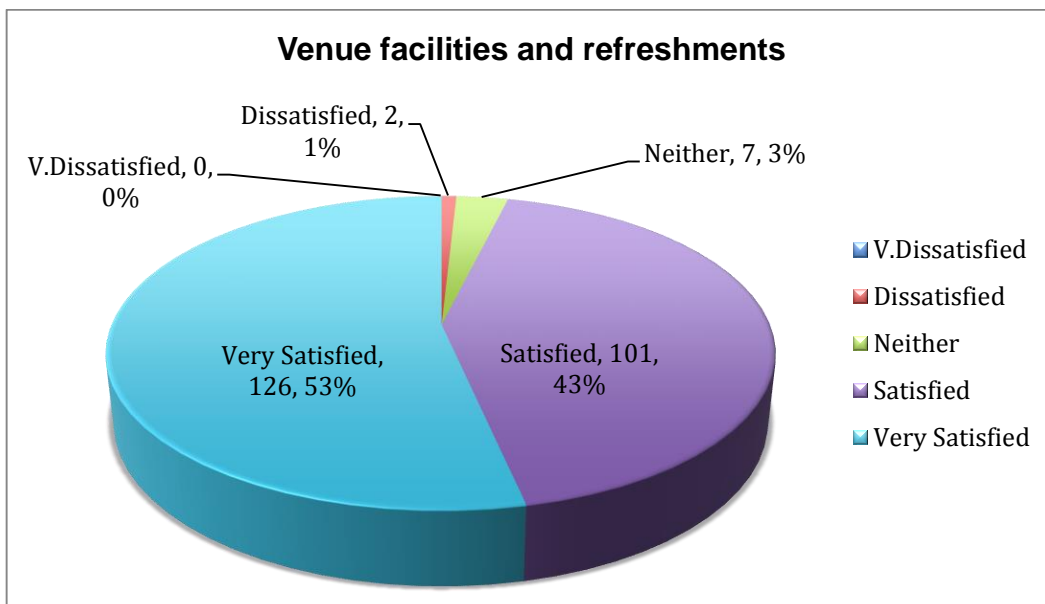


Figure (2): Participants' satisfaction with the venue facilities and refreshments.

The same was also reflected with the content of the training, where 97% of the trainees were either very satisfied (n=140, 59%) or satisfied (n= 92, 38%) (Figure 3)

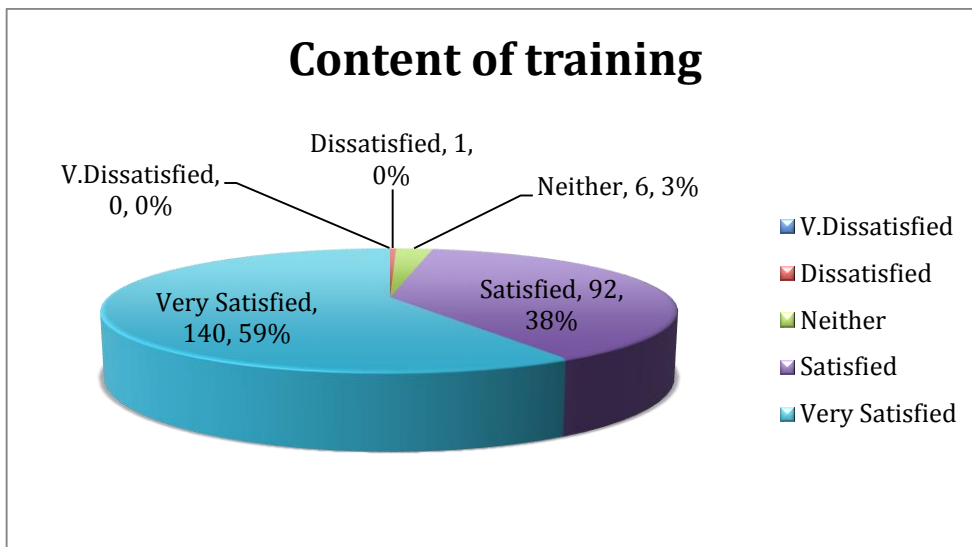


Figure (3): Satisfaction of the trainees with the content of the training

168 (70%) participants were very satisfied and 67 (28%) were satisfied with the delivery of the training (Figure 4). In addition, 78% were very satisfied and 22% were satisfied with the trainers (Figure 5).

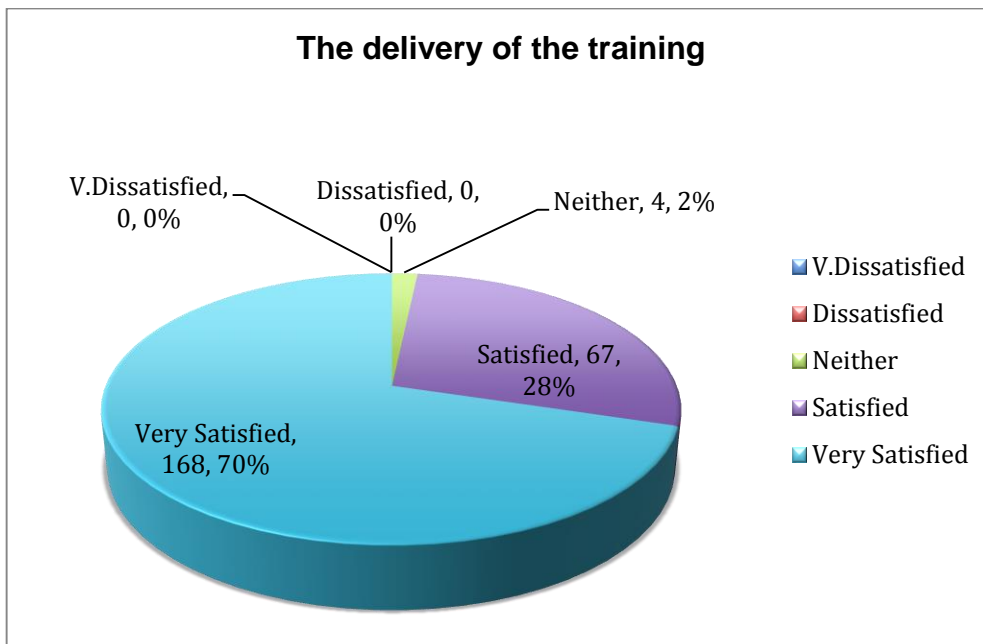


Figure (4): Satisfaction of the trainees with the delivery of the training

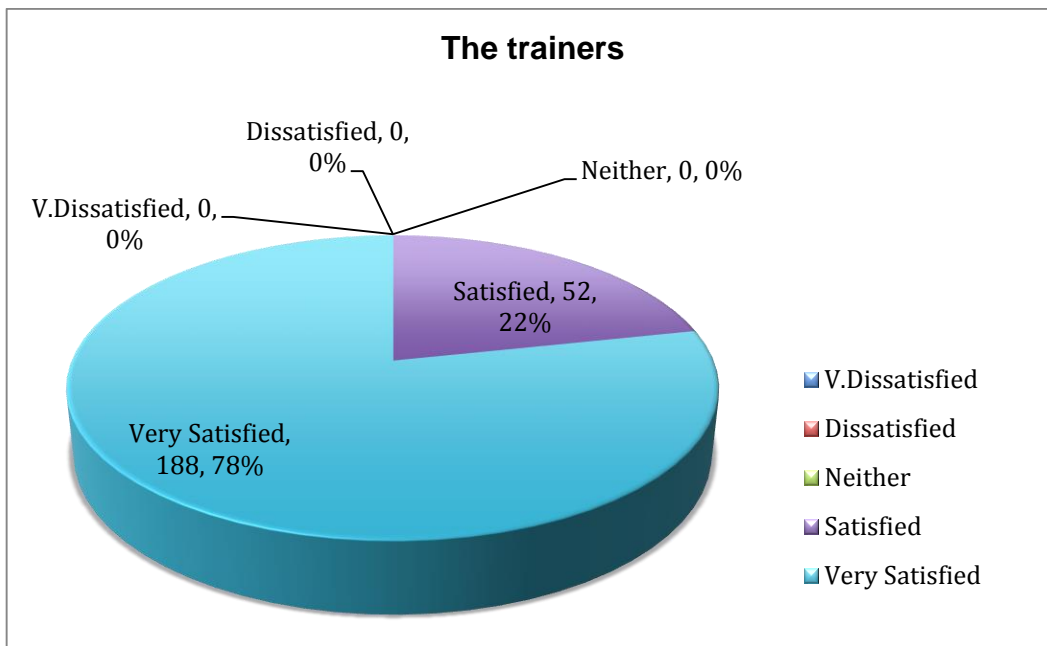


Figure (5): Satisfaction of the trainees with the content of the training

The overall training experience was positively perceived by the majority of the attendees as 40% were satisfied and 58% were very satisfied with the overall experience of the day, as shown in figure (6) below:

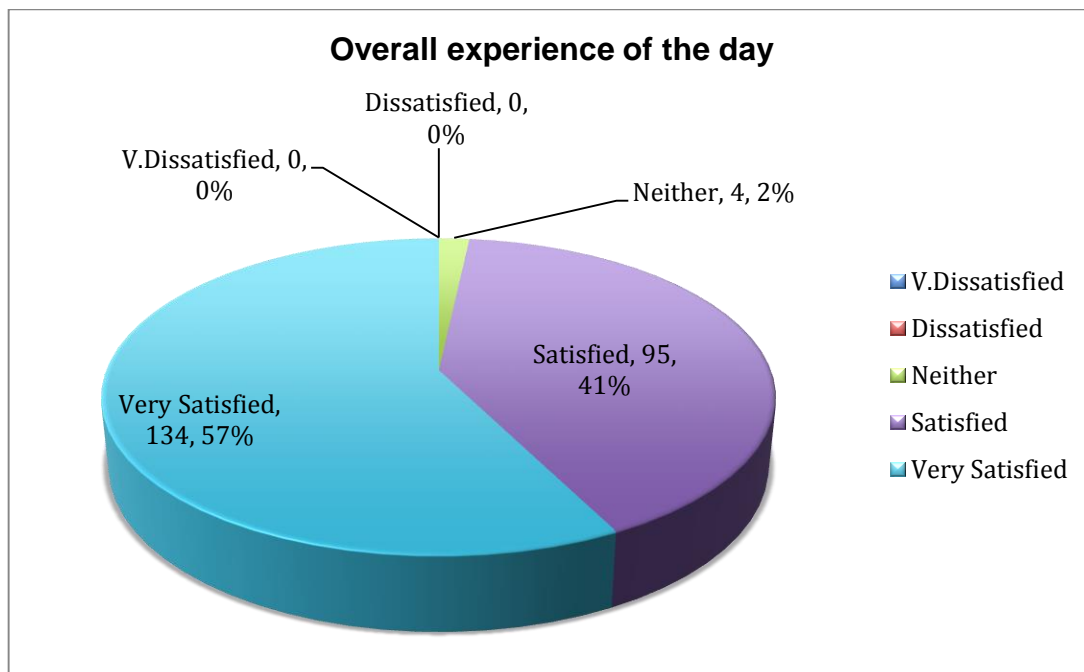


Figure (6): Satisfaction of the trainees with the overall experience of the day

Additionally, respondents were required to rate their satisfaction with three statements related to the sessions conducted, learning outcomes and applicability of the training content to daily practice. In this regard, the majority strongly agreed/agreed with the following statements: ***“I will be able to apply the skills I have learnt into my daily practice”***, ***“Learning outcomes were achieved”*** and ***“Sessions were enjoyable”***. Responses are presented in figure 7 below.

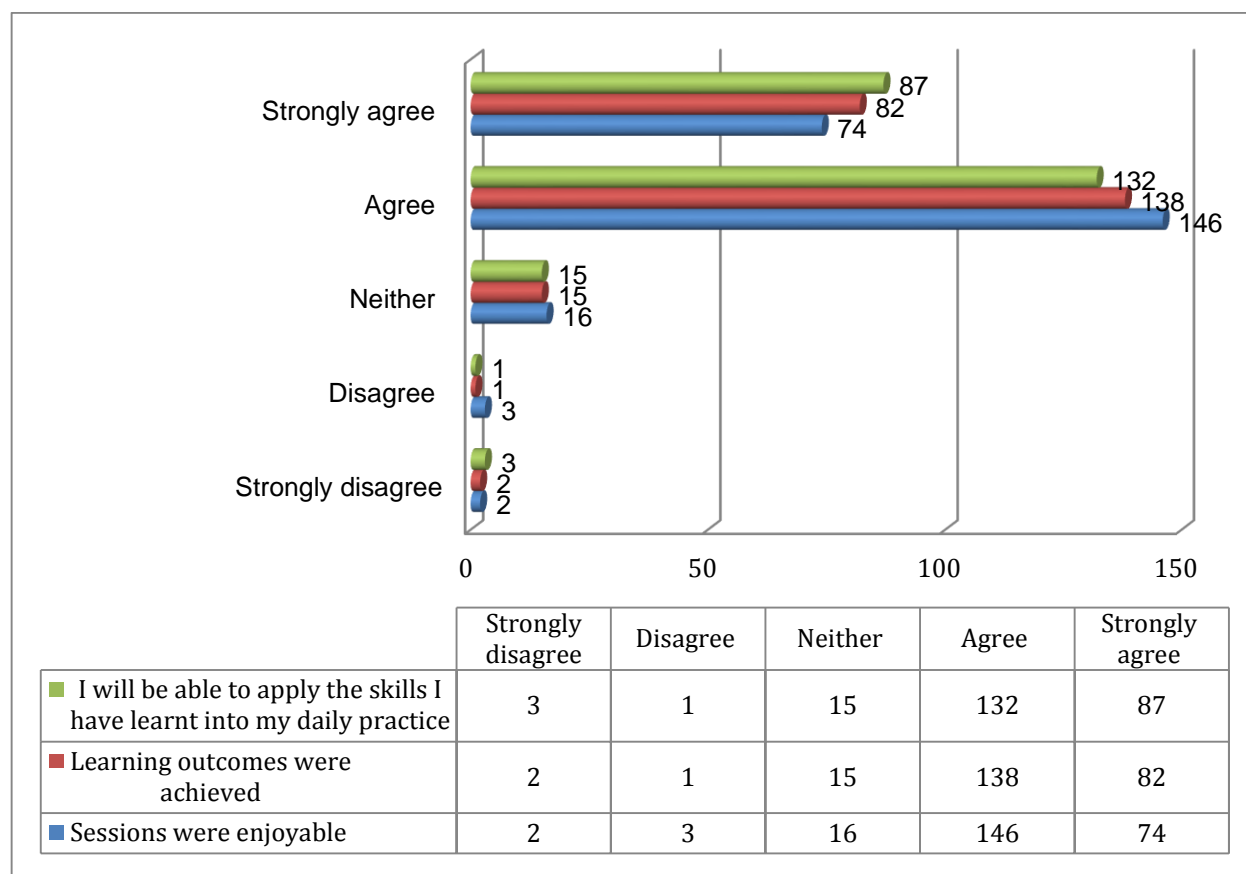


Figure 7: Satisfaction with the sessions, learning outcomes and applicability of the HC training.

3.1.2. Knowledge and confidence before the training and immediately after the training

Participants were required to rate their levels of confidence and knowledge with respect to 12 public health areas pertaining to the HLP framework on a 10-point Likert scale. Improvement in levels of self-rated knowledge after receiving the training was noticed in all the 12 health domains investigated. This was statistically significant ($P = 0.000005$). However, this perceived improvement was most prominent in healthy living advice [pre (6.08) to post (7.92)], and least prominent with flu vaccination [pre (6.1) to post (6.64)]. Results are summarised in table (2) and figure (8).

	Weighted Likert Score Average		
	Before training	After training	Difference (After-Before)
Healthy Living Advice	6.08	7.92	1.84
Other Sexual Health Services	4.89	6.52	1.63
Weight Management	5.91	7.46	1.55
Smoking Cessation	5.85	7.39	1.54
Alcohol Misuse	5.43	6.92	1.49
Chlamydia Screening	5.08	6.5	1.42
Dementia	5.51	6.43	0.92
Oral Health	5.6	6.5	0.9
Minor Ailments	6.41	7.06	0.65
BP checks	6.57	7.22	0.65
EHC	6.19	6.76	0.57
Flu vaccinations	6.1	6.64	0.54

Table (2): Weighted average scores and perceived difference in knowledge before training and immediately after the training.

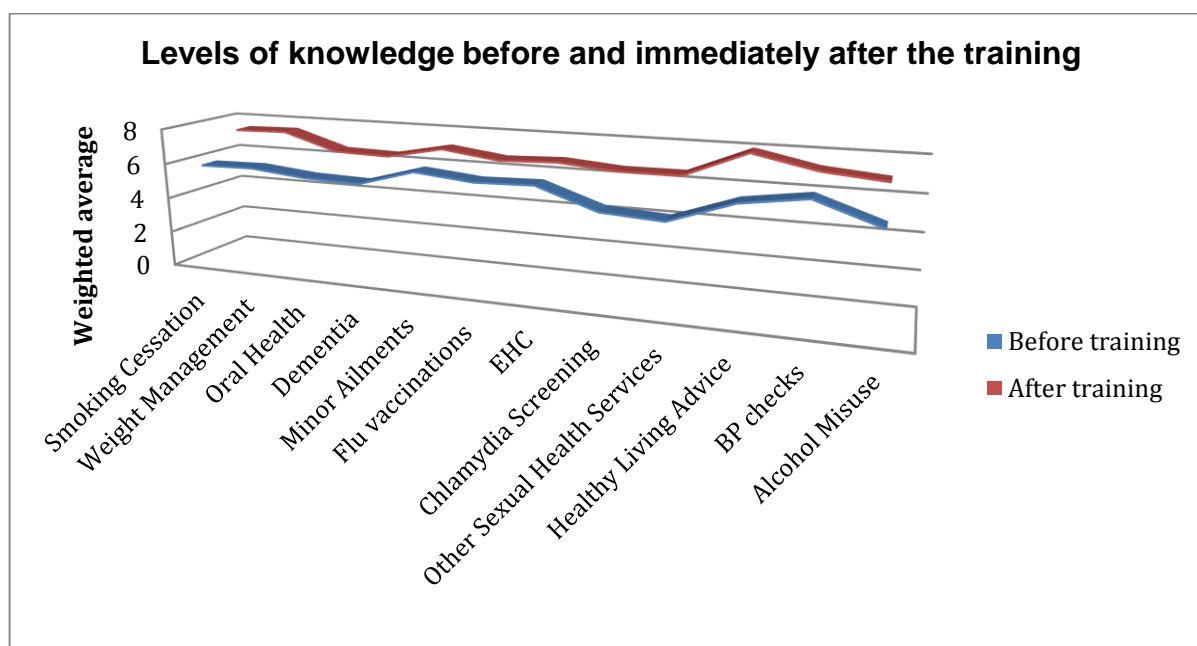


Figure (8): Difference in levels of perceived knowledge before the training and immediately after the training.

Similarly, for confidence levels, there was an improvement in the perceived attendees' confidence in all the proposed areas which was also statistically significant ($P=0.000000002$), but the improvement level differed across the different public health areas. So confidence levels increased most in healthy living advice [pre (6.41) to post (7.94)] and least improvement in confidence levels was noticed with BP checks [pre (6.43) to post (7.29)]. Results are summarised in table (3) and figure (9) below.

	Weighted Likert Score Average		
	Before training	Immediately after training	Difference (After-Before)
Healthy Living Advice	6.41	7.94	1.53
Weight Management	5.88	7.39	1.51
Smoking Cessation	5.93	7.3	1.37
Alcohol Misuse	5.66	6.94	1.28
Other Sexual Health Services	5.38	6.58	1.2
Chlamydia Screening	5.51	6.63	1.12
Oral Health	5.53	6.64	1.11
Dementia	5.47	6.49	1.02
Minor Ailments	6.25	7.26	1.01
Flu vaccinations	6.02	6.93	0.91
EHC	6	6.9	0.9
BP checks	6.43	7.29	0.86

Table (3): Weighted average confidence scores of the trainees before and immediately after the training.

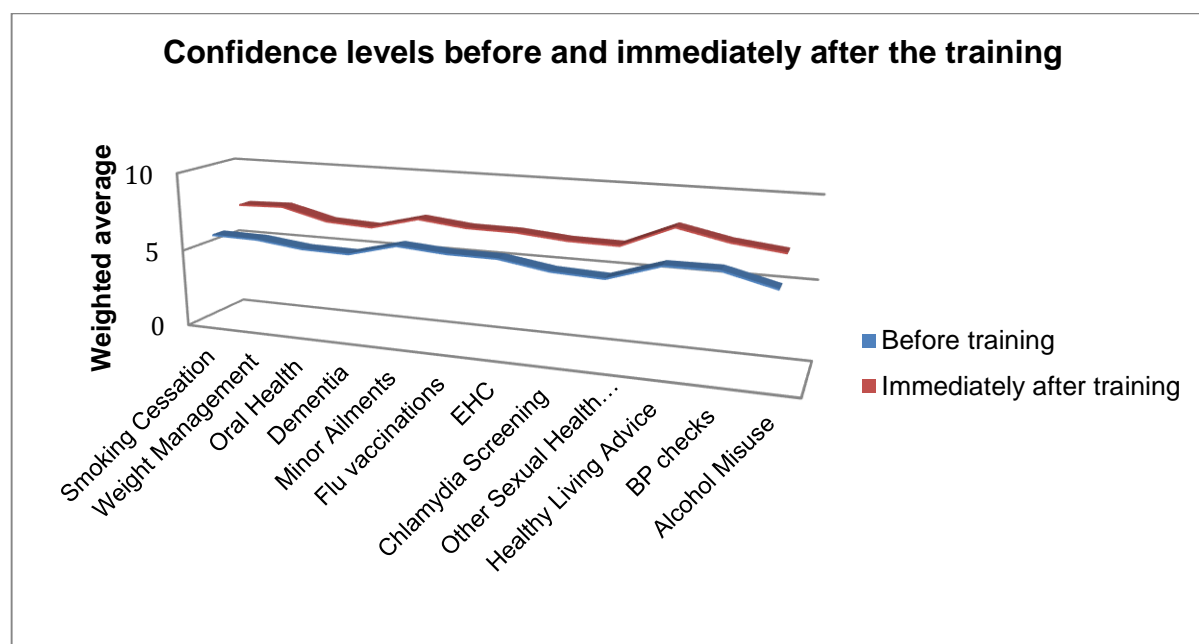


Figure (9): Perceived confidence levels of the trainees before and immediately after the training.

Interestingly, there was a trend in the increase in both: knowledge and confidence levels among the attendees. It was noticed that both knowledge and confidence levels increased mostly for areas such as healthy living advice and weight management, as highlighted by the difference in the mean scores. On the other hand, improvement in both levels was least with the following three areas: BP checks, EHC and flu vaccinations (Tables 2 and 3).

The training also resulted in perceived improvement in confidence in the different skills pertaining to the new role among the attendees. These included setting goals for patients, approaching external organisations, and approaching patients about their health needs. The

perceived improvement was also statistically significant ($p=0.00000006$). Results are presented below in table (4) and figure (10).

	Weighted Likert Score Average		
	Before training	Immediately after training	Difference (After - Before)
Approaching external organisations	5.75	7.77	2.02
Setting goals	5.79	7.78	1.99
Approaching patients about their health needs	5.82	7.79	1.97
Supporting patient self-management	5.87	7.83	1.96
Communicating key health messages	5.85	7.8	1.95
Communicating difficult messages	5.6	7.55	1.95
Signposting patients	6.28	8.19	1.91
Identifying own personal development needs	6.44	8.12	1.68
Communicating with other members of pharmacy team	7.23	8.34	1.11

Table (4): Weighted average confidence scores of the trainees before and immediately after the training in different skills.

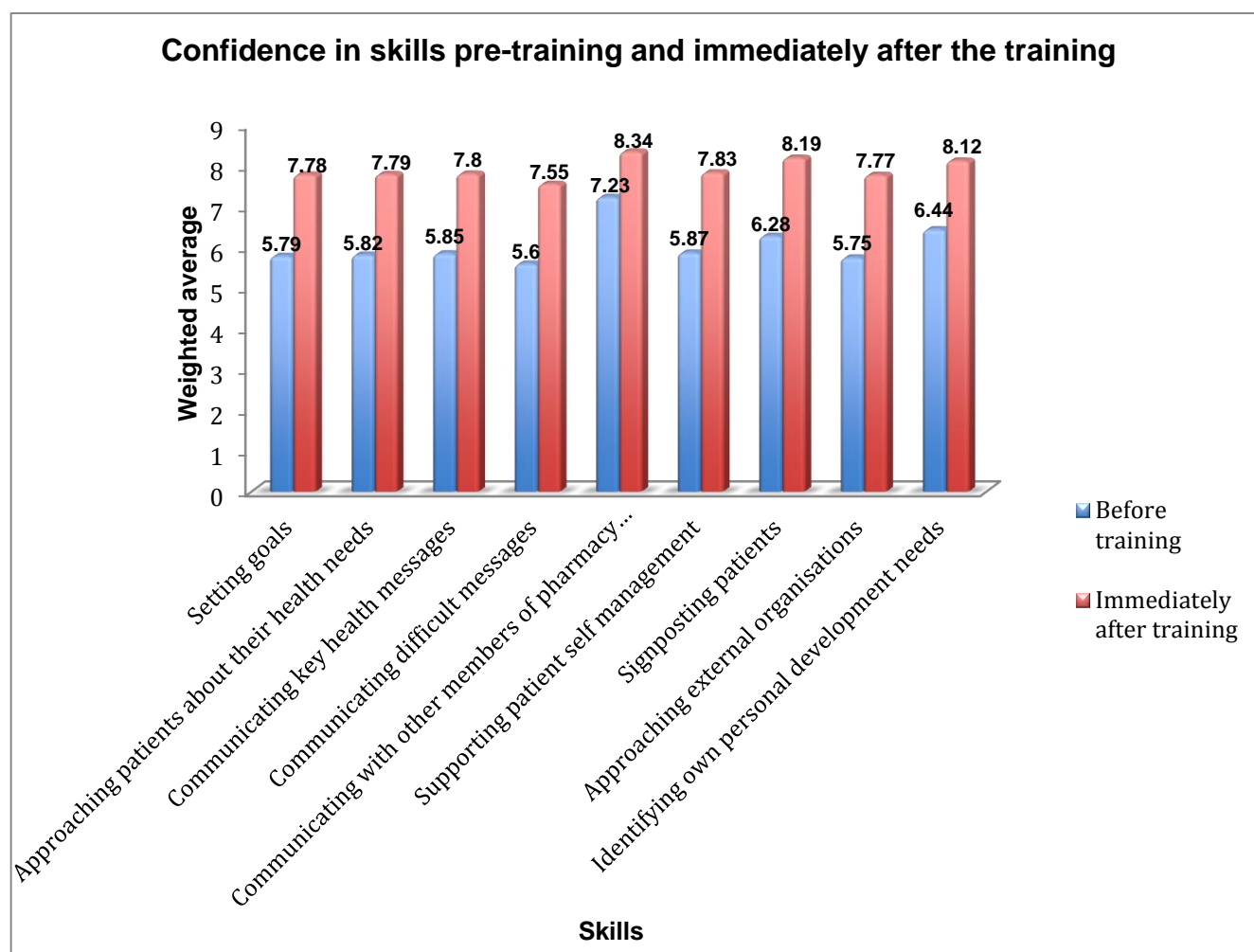


Figure (10): Perceived confidence scores and levels before and immediately after the training in different skills.

3.1.3. Interventions and signposting activities related to HC framework

Half of the trainees reported to have less than 10 opportunities to promote public health in their workplace, whereas, 38% reported to have between 10 to 20 opportunities. A minority of respondents reported to have more than 20 opportunities for promoting public health at their workplace (Figure 11). Respondents were also asked to choose from a numerical range the approximate number of public health interventions they do in a normal working day. In this regard, most of them (88%) reported to make less than 10 interventions and only 27 participants (12%) reported to do approximately between 10-20 interventions per day. None of the trainees reported to make more than 20 public health interventions at their workplace (Figure 12).

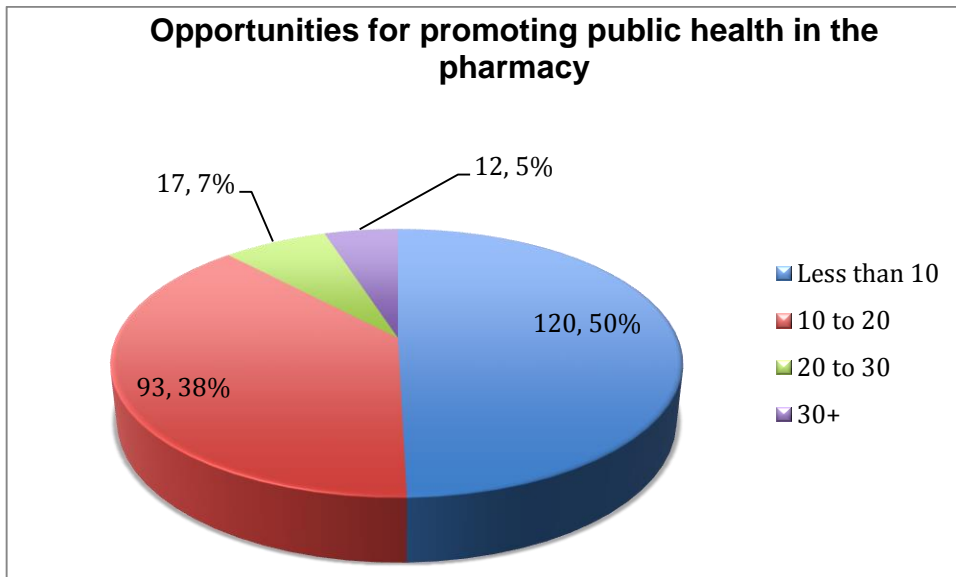


Figure (11): Opportunities for promoting public health in the respondents' workplace.

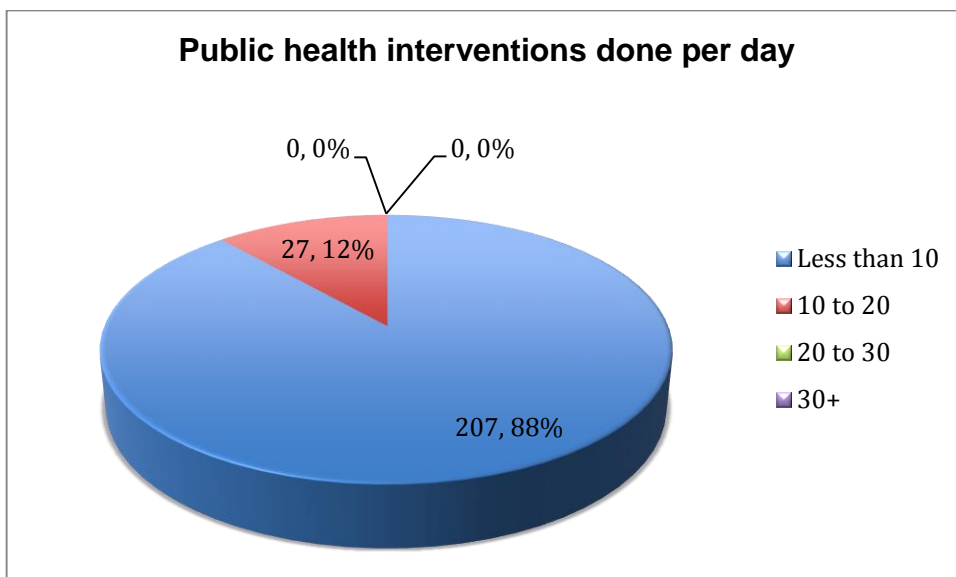


Figure (12): Number of public health interventions done per day by participants.

Responses were mixed when participants were asked whether they signpost patients to public health organisations or not. Results from the pre-training survey showed that 52% (n=121) of participants reported to signpost patients to public health organisations and services (Figure 13). In addition, more than two third of participants (66%) didn't have any personal contact with any public health organisation, and only a third (30%, n=75) reported to have personally contacted or visited 1-3 organisations (Figure 14).

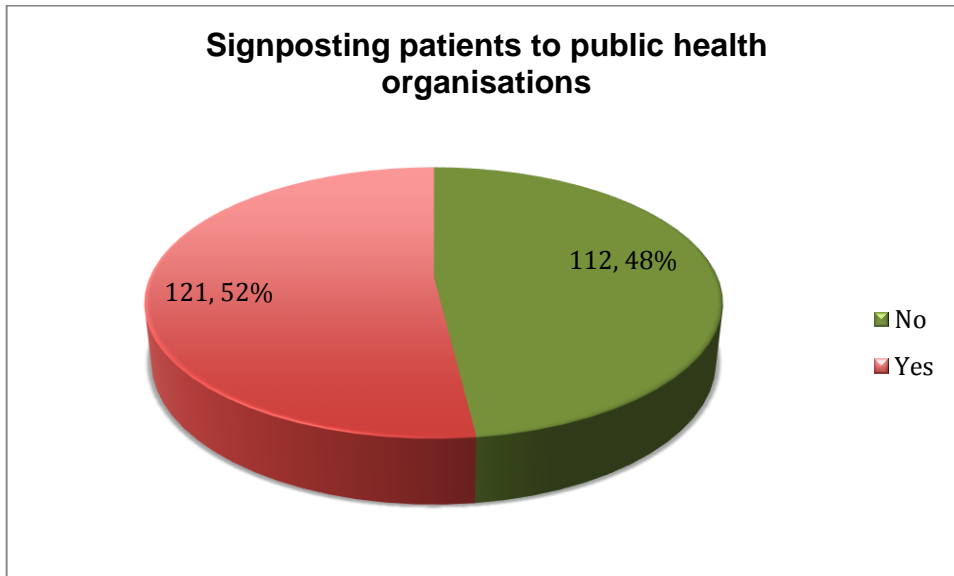


Figure (13): Signposting activity among the participants.

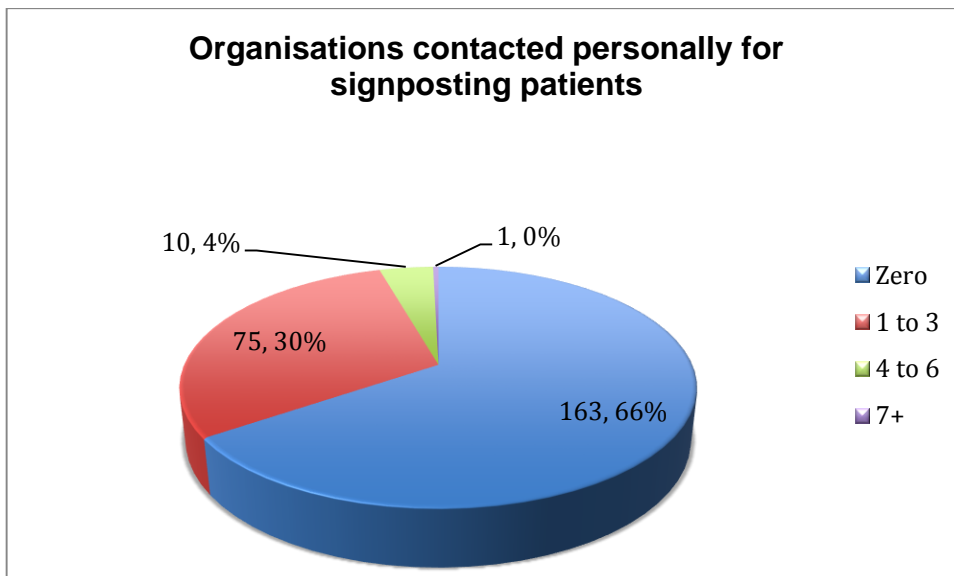


Figure (14): Number of organisation the trainees personally contact to signpost patients.

3.1.4. Participants' perceptions of the value and benefit of the HC role and the future services for the pharmacy

Participants were asked to rate five statements in relation to the benefits of the HC role. In this regard, most participants were found to positively perceive the role of HC since the majority either agreed/strongly agreed with the below statements (shown in figure 15) regarding the benefits of being a HC whether to their local community, personal development or career prospects. In addition, most respondents perceived to have positive support from the pharmacy team at their workplace to implement their new role, since most of them either agreed (50%, n=117) or strongly agreed (30%, n=70) with the fifth statement: '**My role as a HC will be positively supported by my pharmacy team**' as shown in figure 15 below.

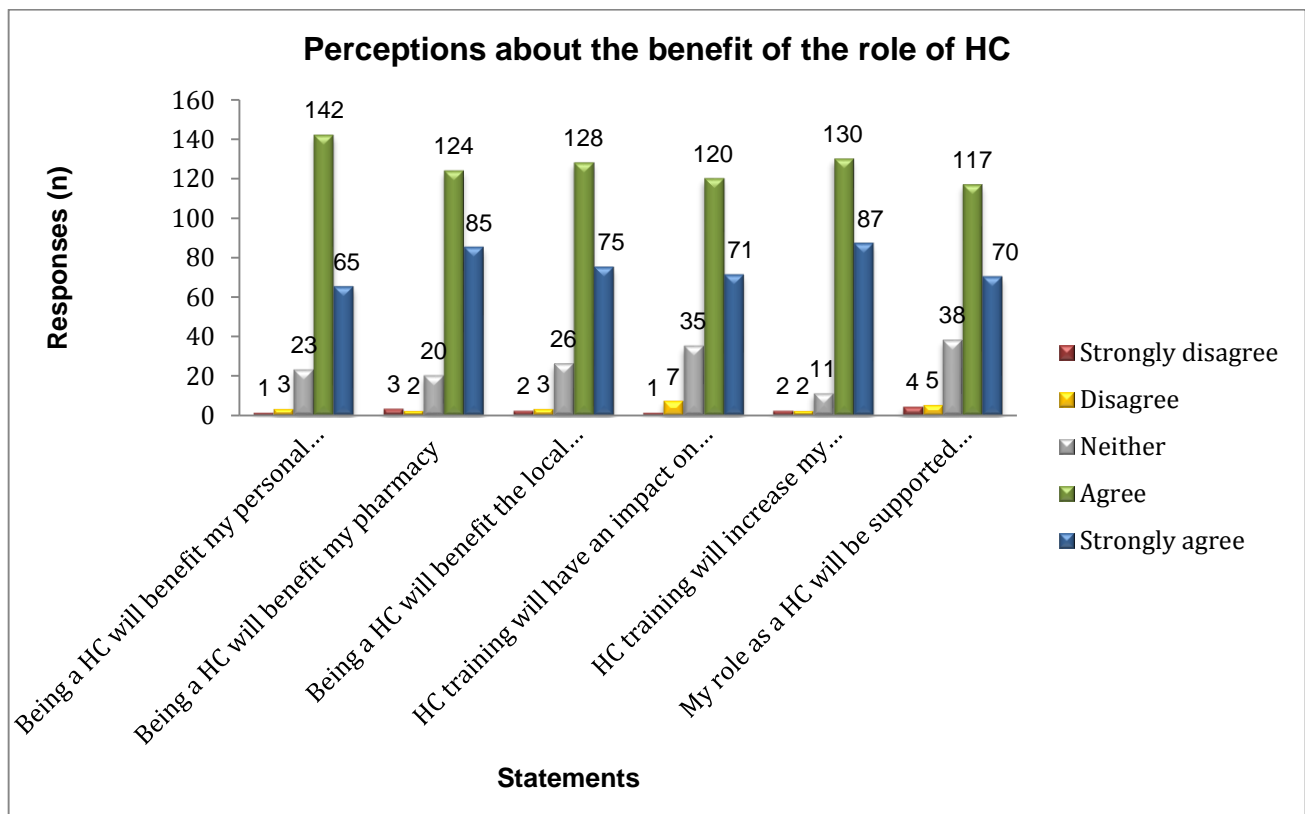


Figure (15): Perceptions of the benefit of the HC role among the trainees.

As for the future services of the participating pharmacies, the trainees were asked if they know about any future plans in their workplace related to initiating any new pharmacy services after their HC training. The vast majority (92%) had no ideas about any new plans for services related to promoting public health (figure 16), which might be related to the fact that the majority of the pharmacies (82%, n=174) were not registered as a HLP. More than half of the trainees (52%) expected to allocate less than 20% of their working hours to the new role, followed by a third (31%) who wanted to allocate between 20-40% of their time to the new role. Allocation of more than 40% of time was reported by a minority of the trainees (Figure 17).

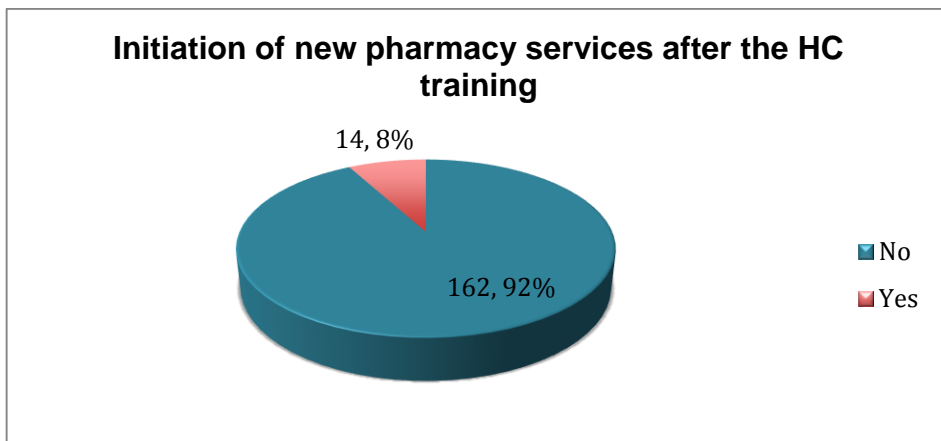


Figure (16): Respondent’s perceptions about initiating new pharmacy services relating to healthy living.

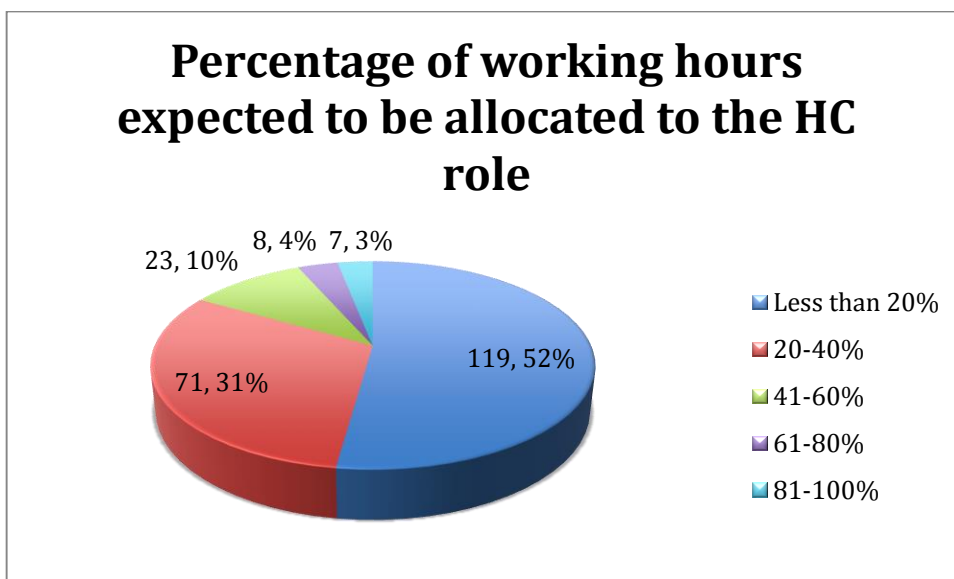


Figure (17): Expected time to be allocated to the new HC role.

3.1.5. Factors affecting confidence and knowledge levels pre-training and immediately after the training

Further analysis was done to test whether experience or pharmacy type would affect improvement in knowledge and confidence levels in different public health areas, in addition to confidence in skills pre-training and immediately after the training.

Experience

With respect to knowledge levels, it was found that respondents who have been in the position for less than 5 years had significant improvement ($p < 0.001$) in knowledge in different public health areas with exception of BP check compared to those who have been in the position for longer (Table 5). This was similar with confidence levels, since the improvement was also significant ($p = 0.0027$) among individuals who have been in their role for less than 5 years compared to those who have been in the role for more than 5 years, in the different public health areas with the exception of oral health (Table 5).

	Difference in Knowledge (After- Before)		Difference in Confidence (After- Before)	
	<5 yrs.	>5 yrs.	<5 yrs.	>5 yrs.
Smoking Cessation	1.73	1.33	1.39	1.38
Weight Management	1.6	1.49	1.55	1.45
Oral Health	1.08	0.72	1.09	1.16
Dementia	0.99	0.76	1	1.09
Minor Ailments	0.84	0.46	1.08	0.88
Flu vaccinations	0.64	0.52	0.99	0.81
EHC	0.69	0.52	1	0.72
Chlamydia Screening	1.5	1.33	1.25	0.93
Other Sexual Health Services	1.68	1.61	1.32	1.05
Healthy Living Advice	1.92	1.8	1.7	1.31
BP checks	0.66	0.71	0.97	0.69
Alcohol Misuse	1.59	1.35	1.47	1.01
	T test	0.000442	T Test	0.002785

Table (5): Difference in weighted average scores of perceived knowledge and confidence according to experience.

As for confidence in skills required for the HC role, the improvement in confidence was significant ($p < 0.001$) in individuals who have been in the position for less than 5 years compared to those with more than 5 years of experience in their current position (Table 6).

	Difference in confidence (After –Before)	
	<5 yrs.	>5 yrs.
Setting goals	2.07	1.92
Approaching pts about their health needs	2.13	1.73
Communicating key health messages	2.11	1.77
Communicating difficult messages	2.04	1.83
Communicating with other members of pharmacy team	1.27	0.9
Supporting patient self-management	2.14	1.77
Signposting patients	2.16	1.55
Approaching external organisations	2.13	1.9
Identifying own personal development needs	1.86	1.42
	T test	0.0000678

Table (6): Difference in weighted average scores of perceived confidence in different skills according to experience.

Pharmacy type

The improvement in knowledge levels among employees of independent pharmacies was significant ($p=0.0019$) compared to those employed by multiple chain pharmacies. However, the case was different with confidence levels, as there was no significant difference in the

improvement in confidence levels between employees in independent pharmacies compared to multiple chains ($p=0.17$) (Table 7).

	Difference in Knowledge (After- Before)		Difference in Confidence (After- Before)	
	Multiple	Independent	Multiple	Independent
Smoking Cessation	1.5	1.62	1.33	1.36
Weight Management	1.42	1.64	1.48	1.44
Oral Health	0.72	1.19	1.07	1.15
Dementia	0.75	1.08	1.05	0.99
Minor Ailments	0.6	0.73	1.12	0.9
Flu vaccinations	0.39	0.67	1.13	0.71
EHC	0.43	0.72	1.07	0.77
Chlamydia Screening	1.47	1.39	1.07	1.15
Other Sexual Health Services	1.68	1.64	1.23	1.15
Healthy Living Advice	1.84	1.87	1.57	1.49
BP checks	0.54	0.78	0.87	0.79
Alcohol Misuse	1.41	1.66	1.16	1.38
	T test	0.001974	T test	0.179868

Table (7): Difference in weighted average scores of perceived knowledge and confidence according to pharmacy type.

As for confidence levels with respect to different skills required for the HC role, there was significant improvement ($p= 0.02$) among individuals working in independent pharmacies compared to those working in multiple pharmacies (Table 8).

	Difference in Confidence (After -Before)	
	Multiple	Independent
Setting goals	1.98	2.02
Approaching pts about their health needs	1.85	2.15
Communicating key health messages	1.8	2.19
Communicating difficult messages	1.91	2.04
Communicating with other members of pharmacy team	0.97	1.27
Supporting patient self-management	1.88	2.18
Signposting patients	1.69	2.25
Approaching external organisations	2.07	2
Identifying own personal development needs	1.72	1.64
	T test	0.020779

Table (8): Difference in weighted average scores of perceived confidence in different skills according to pharmacy type.

3.2 Post-training evaluation [immediately after training and 3 months post-training (current)]:

Of the 133 questionnaires posted for the post-training evaluation, 35 were fully completed and returned, yielding a response rate of 26.3 % (35/133). Table 9 provides a summary of the demographics of this sub sample.

	Number (n)	Percentage (%)
Gender		
Male	2	5.7%
Female	29	8.3%
Prefer not to say	4	11.4%
Job Type		
Pharmacy technician	0	0%
Accuracy checking tech.	1	2.8%
Dispensing assistant	10	28.6%
Medicines counter assistant	17	48.6%
Other	7	20%
Years of experience (in current role)		
Under 5	26	74.3%
6-10	3	8.6%
11-20	3	8.6%
21-30	1	2.8%
Prefer not to say	2	5.7%
Working hours per week		
Less than 15 hours	1	3.2%
16-30 hours	16	51.6%
>30 hours	14	45.2%
Pharmacy Type		
Independent	6	20%
Small multiple	5	16.7%
Large multiple	19	63.3%

Table (9): Demographics of the follow up HC

Results were paired for the 35 respondents and mean scores of confidence and knowledge were calculated for the paired respondents immediately after the training and after 3 months to see whether the improvement reported in the above section ([section 3.1](#)) had been maintained after 3 months of the training. However, improvement in knowledge was only maintained in the following two areas: flu vaccination and EHC after 3 months of the training. There had been a decrease in knowledge levels in all other areas, most notably for areas such as weight management and chlamydia screening. It must be noted that the rated knowledge went below baseline for 7 of the health services, and was only maintained or slightly higher than baseline, for flu vaccination, EHC, oral health, dementia and BP. Results are shown in table (10) below.

Weighted Likert Score Average				
	Baseline (before training)	Immediately after training (post-training)	Current	Difference (Current- post-training)
Flu vaccinations	6.64	6.57	7.2	0.63
EHC	6.76	6.76	7.08	0.32
Oral Health	6.5	6.47	6.52	0.05
Other Sexual Health Services	6.52	6.76	6.44	-0.32
Minor Ailments	7.06	7.37	6.97	-0.4
Dementia	6.43	6.91	6.48	-0.43
Healthy Living Advice	7.92	8.36	7.88	-0.48
BP checks	7.22	7.91	7.34	-0.57
Alcohol Misuse	6.92	7.4	6.67	-0.73
Smoking Cessation	7.39	7.48	6.58	-0.9
Chlamydia Screening	6.5	6.91	5.82	-1.09
Weight Management	7.46	7.97	6.71	-1.26

Table (10): Perceived knowledge scores of the trainees currently, immediately after the training and at baseline.

Similarly, confidence levels were also noticed to decrease in all areas except for flu vaccination and EHC after 3 months of training, as shown in table (11) below. Decrease in confidence levels was mostly noticed with weight management and chlamydia screening, similar to knowledge levels. However, despite the perceived decrease in confidence rating, it remained higher than the confidence rating at baseline prior to receiving training in all health areas (table 11).

Weighted Likert Scores Average				
	Baseline (before training)	Immediately after training (post training)	Current	Difference (Current- post-training)
Flu vaccinations	6.02	7	7.3	0.3
EHC	6	7.31	7.57	0.26
Oral Health	5.53	6.71	6.67	-0.04
Alcohol Misuse	5.66	7.5	7.43	-0.07
Healthy Living Advice	6.41	8.12	8	-0.12
Dementia	5.47	6.81	6.6	-0.21
Other Sexual Health Services	5.38	7.03	6.74	-0.29
Smoking Cessation	5.93	7.31	7	-0.31
BP checks	6.43	8.06	7.53	-0.53
Minor Ailments	6.25	7.59	7	-0.59
Chlamydia Screening	5.51	7.03	6.21	-0.82
Weight Management	5.88	7.78	6.81	-0.97

Table (11): Perceived confidence scores of the trainees currently, immediately after the training and at baseline.

There had also been a decrease in the trainees' confidence levels in most of the skills required for the role after 3 months of training, except for the following two skills: supporting patient self-management, and signposting patients. On the other hand, the decrease in confidence levels was mostly noticed with the trainees' skills in approaching external organisations and identifying own personal development needs (Table 12). Nevertheless, the confidence in the transferable skills the HC were trained on was maintained above the rating at baseline (table 12).

	Weighted Likert Score Average			
	Baseline (before training)	Immediately after training (post-training)	Current	Difference (current – post-training)
Signposting patients	6.28	8.12	8.35	0.23
Supporting patient self-management	5.87	7.85	8.05	0.2
Setting goals	5.79	7.94	7.87	-0.07
Communicating with other members of pharmacy team	7.23	8.41	8.26	-0.15
Communicating key health messages	5.85	8	7.73	-0.27
Approaching patients about their health needs	5.82	7.88	7.35	-0.53
Communicating difficult messages	5.6	7.73	7.14	-0.59
Approaching external organisations	5.75	7.76	6.8	-0.96
Identifying own personal development needs	6.44	8.14	7.1	-1.04

Table (12): Perceived confidence scores of the trainees currently, immediately after the training, and at baseline in different skills.

In addition, differences in knowledge and confidence levels for each respondent, within each area and skill were calculated immediately after training and after 3 months, via the sign test to examine the increase or decrease in these levels after 3 months of the training. As shown in table (13) below, there have been a lot of negative differences which highlights decrease in knowledge levels after 3 months of conducting the HC training. Decrease in knowledge levels was mostly seen with chlamydia screening (n= 22/35) and this was statistically significant (P= 0.033), followed by weight management (n= 21/35) and alcohol misuse (n= 21/35), both of which were statistically significant (P= 0.048 for each) (Table 13). There was also decrease in knowledge levels with respect to the other public areas but this was not statistically significant. The only exceptions, where more positive differences were seen compared to negative differences among the respondents were for minor ailments, flu vaccinations and oral health; however, these were not statistically significant. Respondents were required to provide reasons if they ranked their knowledge less than 5 in any area. In this regard, few responses were

Health Champions Kent Surrey and Sussex

provided, however most of them were related to lack of practice, the need for more training or time constraints. Respondents' quotations are summarised in box (1).

Knowledge level in different public health areas	Differences		Ties	P value
	(-)	(+)		
Smoking Cessation	20	10	5	0.067
Weight Management	21	10	4	0.048*
Oral Health	13	14	8	0.84
Dementia	18	13	4	0.36
Minor Ailments	16	17	2	0.86
Flu vaccinations	12	14	9	0.69
Emergency hormonal contraception	15	14	6	0.85
Chlamydia Screening	22	10	3	0.033*
Other Sexual Health Services	18	11	6	0.19
Healthy Living Advice	16	13	6	0.57
BP checks	19	13	3	0.28
Alcohol Misuse	21	10	4	0.048*
<p>(-): if post < pre (+): if post > pre Tie: if pre and post answers are the same *: results are significant at P < 0.05.</p>				

Table (13): Number of positive and negative differences observed associated with sign test with respect to knowledge levels.

Box (1): Respondents' quotations related to knowledge in public health areas

"We don't offer flu vaccinations or a comprehensive sexual health service at present."

"Oral hygiene. No recent training. I will ask for an update."

"Not dealt with in this branch."

"I do not deal with these things."

"We do not do anything related with sexual health in our pharmacy (no screening)."

"We don't deal with a lot of people that might experience alcohol misuse so I'm inexperienced in this area."

"Dementia knowledge is scant due to broad scope of this condition."

"Minor ailments, sometimes we have to refer to the pharmacist. Alcohol misuse I don't know enough so will look more into it."

"Have not had enough training."

"Too busy."

As for confidence levels in different public health areas, nearly half of the trainees had an increase in their confidence levels in areas such as oral health (48.5%, n=17/35), flu vaccination (48.5%, n=17/35), and EHC (48.5%, n=17/35) after 3 months of training. However, this increase was not statistically significant for any of the areas. On the other hand, there was a decrease in confidence levels among a considerable number of the trainees in areas such as BP checks (n=57%, n=20/35), other sexual health services (54.2%, n=19/35), chlamydia screening (51.4%, n=18/35) and minor ailments (51.4%, n=18/35). Again this decrease was not statistically significant for any of the areas (Table 14). Some of the respondents provided reasons for decrease in confidence levels which revolved around: lack of practice, lack of knowledge, and perceiving these activities to be related to pharmacists only. Some of the respondents' quotations are presented in box (2).

Confidence level in different public health areas	Differences			
	(-)	(+)	Ties	P value
Smoking Cessation	16	13	6	0.57
Weight Management	17	13	5	0.46
Oral Health	12	17	6	0.35
Dementia	16	13	6	0.57
Minor Ailments	18	15	2	0.6
Flu vaccinations	12	17	6	0.35
Emergency hormonal contraception	15	17	3	0.72
Chlamydia Screening	18	11	6	0.19
Other Sexual Health Services	19	12	4	0.2
Healthy Living Advice	17	12	6	0.35
BP checks	20	12	3	0.15
Alcohol Misuse	18	15	2	0.6
<p>(-): if post < pre (+): if post > pre Tie: if pre and post answers are the same *: results are significant at P < 0.05.</p>				

Table (14): Number of positive and negative differences observed associated with sign test with respect to confidence levels

Box (2): Respondents' quotations related to confidence in public health areas

"I feel these subjects are really for a qualified pharmacist to deal with."

"I am a smoking cessation advisor and confident in this, but speaking to someone about alcohol misuse and other issues is a difficult area and feel training such as the stop smoking would be helpful."

"Don't know enough about alcohol or drug misuse."

"Not enough base knowledge."

"Do not know a lot about dementia - going to complete dementia friends soon. Sexual health, I know how to explain screening process but may be unable to answer more questions about them."

"Some of them we haven't had to deal with at our pharmacy."

"Dealt with by pharmacist."

"I don't deal with flu vaccinations, chlamydia screening or blood pressure in my job role."

With respect to confidence in skills required for the role. A significant decrease was noticed in the respondents' confidence in approaching external organisations (74.2%, n=26/35, p= 0.0001) and identifying own personal needs (74.2%, n=26/35, p= 0.0004), this was followed by supporting patients self-management (62.8%, n=22/35, P=0.019). There was also decrease in confidence in the other skills among the respondents, but this was not statistically significant (Table 15). The trainees did not provide many reasons for such decrease in confidence, however some reasons were related to lack of practice again and lack of orientation within the provided training, as highlighted in the quotations presented in box (3).

Confidence level in skills	Differences			
	(-)	(+)	Ties	P value
Setting goals	14	11	10	0.54
Approaching pts about their health needs	19	10	6	0.09
Communicating key health messages	16	10	9	0.23
Communicating difficult messages	21	12	2	0.11
Communicating with other members of pharmacy team	16	15	4	0.85
Supporting patient self-management	22	9	4	0.019*
Signposting patients	20	13	2	0.22
Approaching external organisations	26	5	4	0.0001*
Identifying own personal development needs	26	6	3	0.0004*
(-): if post<pre (+): if post>pre Tie: if pre and post answers are the same *: results are significant at P<0.05.				

Table (15): Number of positive and negative differences observed associated with sign test with respect to confidence in skills needed for the HC role.

Box (3): Respondents' quotations related to confidence in skills

"Once again I feel these areas are more for a professional although I believe healthcare is changing."

"I use the training daily and build up rapport with our patients. Many of them come in and ask our advice on a regular basis. We offer support to those wishing to make lifestyle changes. We try to make 'every contact count.'"

"We don't tend to go to other places/organisations."

"I am still lost in what to do with the paperwork and don't know how to start it all."

The trainees also identified some challenges that were perceived to have an impact on their role as a HC. These were mainly related to resources such as lack of time, and staff, workload,

space to show leaflets and posters; lack of support from senior management or other staff; in addition to lack of patients' engagement and lack of confidence. Some of the respondents' quotations are presented in Box (4)

Box (4): Respondents' quotations related to barriers to implement the HC role

"Staff not supporting sure due to high workload, and staff not allowing you time and out the back, where patients can't see us, only when covering lunches!"

"We do not have the time, staff, and space to display posters. I imagine like many smaller pharmacies the problem is staff levels which decrease time to spend on one customer."

"We are very busy and when I have a queue of people it's tricky to 'make every contact count."

"Short of staff & time."

"Confidence."

"Being too busy and not supported by manager."

"Not enough time to do this when working."

"Reluctance by patients to accept their problem."

"Customers not willing to help themselves."

4. Conclusion

The training attracted 243 participants with a variety of roles, years of experience and those working in different types of pharmacies both as full time and part-time. The evaluation took the form of a cross sectional survey. Overall, HC were very satisfied with the training they were provided with. They perceived that the training day increased their knowledge and confidence in health services delivery and the transferable skills required for the role. In fact the increase in average rating of confidence and knowledge compared to baseline was statistically significant ($P < 0.001$). It must be noted that the increased perceived confidence seen in transferable skills was higher than that observed for health domains.

The majority of HC perceived the role to be important not only to their personal development but also to the community and the pharmacy. There was a huge appetite for wanting to implement the role into practice immediately after the training day with 48% expecting to spend more than 20% of their working hours in an HC capacity, despite the fact that half of the trainees originally believed that they have less than 10 opportunities a day to deliver health interventions. However, despite the positive attitude post training, apart from 14 HC (8%), the remainder of HC did not believe that their training would result in more health services being delivered at that pharmacy.

When comparing demographic groups, it was apparent that the perceived knowledge and confidence gained increased statistically more for those with under 5 years of experience compared to those with longer experience ($P < 0.001$). In terms of type of pharmacy, HC working in independent pharmacies had a statistically significant increase in knowledge compared to those working in multiples ($p < 0.01$). This was not reflected in the confidence rating.

To ascertain whether the perceived gain in knowledge and confidence was maintained post training, a follow up survey was circulated to those for whom the original responses could be matched based on demographics. Despite two mail outs, 37 responses were received. Two were no longer in the role, therefore were discarded from the analysis, giving a sample size of 35. The results showed a decrease in the average perceived knowledge in all apart from 3 areas; flu vaccination, EHC and oral health, with the rated average knowledge in 7 of the health topics investigated being below the average rating at baseline. This was further investigated and it was found that the decrease in knowledge rating from immediately post training to current practice was statistically significant ($P < 0.05$) in the following areas; alcohol misuse, chlamydia screening and weight management. With regards to the average rated confidence, similar to knowledge, the average rating decreased apart from flu vaccination and EHC. A drop in the average rated confidence for transferable skills was also seen in all apart from those related to signposting patients and supporting patients' self-management. The current confidence rating in health topics and skills was, however, maintained above the rating at baseline (pre-training). Statistically, only the following decrease in individual rating of skill confidence was significant; supporting patient self-management, approaching external organisations and identifying own personal development needs.

Participants provided reasons for the rating given. These included; too many services being covered in the training event, with the majority not being seen in practice, no extra training provided, services being run by pharmacists or lack of belief that services are part of the role (lack of empowerment to practice role) in addition to time pressure.

The follow-up evaluation is limited by the small sample size but still provides a good insight about the perceived outcomes of the training. The findings echo a previous evaluation in South London where training was found to increase both knowledge and confidence in service delivery, however for the sustainability of the perceived benefits future training needs to match service delivery and issues like leadership support need to be tackled for full engagement (14).

5. Recommendations

Based on the report the following recommendations can be concluded:

- The need for role clarification for HC and Pharmacists and managers is needed.
- Training should focus more on transferable skills rather than services, as this is where the most gain in confidence was seen.
- Training should be based on current services offered to enable implementation in practice rather than generic on all potential services. This may explain how knowledge and confidence was maintained in certain areas e.g. flu vaccine and EHC compared to other areas.
- Training needs to be extended to pharmacists to empower the HC to undertake the role.
- Ongoing support on key skills for HC to identify personal development needs.
- There is a need to create environments and build local networks with external health organisations to enable signposting which is an essential part of the role.

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