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Communication

Factors affecting a pharmacist led Postgraduate education event: An island case study

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Abstract: There are no widely established models for postgraduate interprofessional (IPE) events. Due to low number of healthcare professionals (HCPS) on the island of Guernsey, pharmacist continuing professional development (CPD) events incorporate an IPE element making it a unique CPD model. This study evaluates an event that took place in April 2015, to support identification of positive attributes of the event as an IPE case study. From 33 attendees 29 [88%] evaluation forms were returned covering an audience including pharmacists, doctors and nurses. Although the event increased knowledge and understanding of the topic, there was a statistical difference when comparing anticipated change in practice [p<.05], with over half [n=15, 51.7%] saying the learning would not change their practice. No significant differences in responses were seen between different professional groups. Attendees were positive about learning with other HCPs. The focus group comprising 6 professionals identified a key theme of 'factors affecting attendance at an IPE event' with four subthemes; IPE and networking, topic, convenience and CPD. All professions were open to and saw the benefit of IPE. Face-to-face events were preferred, facilitated by an expert speaker, with a topic that has relevance to multi-professions. Post qualification IPE events allow a synchronised view of a topic and should be encouraged in the future.

Keywords: interprofessional; education; pharmacist;

1. Introduction

Interprofessional education (IPE) is providing collaborative education and learning opportunities for two or more professions.[1,2] Whilst IPE is an essential element of pharmacy undergraduate education,[3] in the United Kingdom (UK) there are no widely used established channels in pharmacy for this post qualification. The benefits of learning together include better communication and breaking down barriers between professionals. Taking part in IPE has positive effects on perceptions of working interprofessionally [4] with each profession bringing their specialism, especially with new roles of pharmacists emerging.

Over twenty years ago, Owens et al.[5] found that 75% of professionals had taken part in IPE, although pharmacists were the profession with lowest participation. Since then, IPE sessions including pharmacists are increasing, with studies mainly being conducted in the United States.[6]

Interprofessional learning (IPL) may arise from IPE, where learning occurs as a result of the interactions between 2 or more professionals learning with, from and about each other.[2] When validating the readiness for interprofessional learning (RIPLS) questionnaire for postgraduate use, Reid et al.[7] found that GPs place less emphasis on team work than other healthcare professions, although pharmacists had lower mean scores for patient centeredness. Pharmacists have also been seen to show a statistically significant preference in learning with doctors over learning with other healthcare professionals (HCPs).[8]

Guernsey is one of the Channel Islands, 70 miles south of the English coast. There are 15 community pharmacies on the island,[9] and 1 hospital, the Princess Elizabeth, which has 280 beds.[10]

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Pharmacists in Guernsey are registered with the General Pharmaceutical Council; (GPhC), which is the independent regulator for pharmacists, pharmacy technicians and pharmacy premises in Great Britain.[11] The GPhC set standards for requirements for education, training, acquisition of experience and Continuing Professional Development (CPD) that is necessary for registrants to achieve.[12] Attendance at face-to-face meetings is one way that pharmacists and other HCPs can achieve their CPD requirements.

The Royal Pharmaceutical Society (RPS) is the professional and membership body representing pharmacists in Great Britain. RPS members have a local network called Local Practice Forums (LPF) where they come together at regular meetings, to provide local peer-to-peer support, education, share and promote best practice. Each LPF is run by a steering group, made up of local members. Free and voluntary face-to-face meetings are often planned to support pharmacist education and achievement of CPD requirements.

The Guernsey LPF had 20 registered pharmacist members in 2015. Due to geography and low numbers of HCPs on the Island, for face-to-face LPF meetings on Guernsey, other professionals are invited through the various networks and relationships established on the island thus creating a unique pharmacy led regular IPE event, which is rare in Great Britain. The April 2015 meeting was given by an Accident and Emergency (A and E) consultant from England, focusing on illicit drug use, entitled 'uppers, downers and round and rounders.' The IPE session itself was largely didactic in nature with a talk for 45 minutes, with 15 minutes then used for questions, with food and networking before and afterwards as the opportunity for IPL.

This study aimed to evaluate the pharmacist-led postgraduate IPE event held on the Island through end of session evaluation forms and a focus group, as a case study for achieving CPD and to support identification of positive attributes of the event to support future postgraduate IPE event planning.

2. Materials and Methods

A mixed method approach using quantitative and qualitative approaches was used utilising an end of session evaluation form and a focus group after the event.

The 8-question evaluation form consisted of 5 sections as follows. Section 1: demographics, 3 questions, was tick box asking gender, role and sector of practice. Section 2: motivation for attendance was 1 question using free text response. Section 3: about the learning experience, 3 questions using a 5-point Likert scale where 1 was strongly disagree to 5 being strongly agree plus free text responses. Section 4: intended outcomes, 2 questions, tick box and free text. Section 5: Interprofessional learning experience, 1 question, using six 5-point Likert scale questions from the RIPLS questionnaire,[13] validated for postgraduate use.[7] A copy of the evaluation form can be seen in Appendix S1.

The Likert scale questions in section 3 were taken from an evaluation used widely in the researchers local LPF, so no additional piloting was deemed necessary.

The 9 semi-structured focus group questions sought to understand the drivers for attendance, the experience of learning with other professions as well as impact on practice after the event, to gain a greater insight into views and experiences.

The chief researcher was introduced at the beginning of the session by role and evaluation forms were handed out, with an explanation that the data would be used to understand thoughts about the event and to aid future planning of events. Implied consent was given when completing the evaluation form. Completed forms were collected at the end of the event. The focus group lasted 20 minutes. Those participating in the focus group were given a participant information letter and completed a consent form prior to the interview, and gave permission for the interview to be recorded and transcribed verbatim, prior to deletion. The research team was independent to the delivery of training, and the interviewer had no prior relationship with the members of the focus group who had volunteered to take part after an invitation was extended from the LPF steering group.

Evaluation forms were numbered, and the results were transposed into Microsoft Excel containing the questions, where 1 was used for a positive response, and 0 for a nil response per data

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set. This was used for data collection, summary and evaluation, using Chi squared for statistical significance. Free text responses were also copied verbatim for thematic and word count analysis. The focus group was imported into NVivo 10 software [QSR International Ply Ltd, Doncaster, Victoria, Australia] and analysed using inductive thematic analysis.[14] The lead researcher transcribed the focus group, and did initial coding. These codes were then reviewed by the second researcher, and altered during the consolidated analysis. Results are shown as themes with corresponding subthemes

Ethics

Ethics approval was received from a University ethics committee [1415/108].

3. Results

There were 33 attendees. In total 29 [88%] evaluation forms were returned. Demographics of attendees can be seen in table 1.

Table 1. Demographics of attendees

Characteristic	N [%]
Gender	Female 6 [21%] Male 23 [79%]
Profession	
Pharmacist	11 [38%]
Doctor	5 [18%]
Nurse	7 [24%]
Pharmacy support staff	4 [14%]
Optometrist	1 [3%]
Approved mental health professional	1 [3%]
Sector	
Community	22
Hospital	5
Prison	1
Forensics	1

3.1 Evaluation forms

From the 28 free text comments received about the reason for attendance, 26 of these were based on the topic area. The other 2 focused on wanting to meet other HCPs.

On rating the event, 100% of attendees rated the speaker as good or very good (4 and 5 on the Likert scale). When asked about whether the event increased their understanding of the topic, 24 people [82.8%] gave positive responses (4 or 5 on the Likert scale), with no one disagreeing (1 or 2 on the Likert scale). Although the attendees said the event increased their knowledge, over half (n=15, 51.7%) said that the learning would not change their practice (1 or 2 on the Likert scale). This difference is significant ($p<0.05$). Nurses were optimistic about a change of practice after the event with 42.9% (n=3) scoring positively compared to only 27.3% (n=3) of pharmacists. When asked what would be done with the learning after the event, the biggest responses were 20 (69%) people saying they would complete a CPD cycle and 15 (51.7%) saying they would proactively deal with patients affected. This was echoed by the free text responses stating patient interactions would be improved.

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130 All pharmacists (n=11) and pharmacy technicians (n=2) said they would complete a CPD cycle after
131 the event, compared to 60% of doctors (n=3) and 57.1% of nurses (n=5).
132 With regards to the questions from RIPLS, none of the questions asked were given a negative
133 score. Full results can be seen in table 2.
134

135 **Table 2: RIPLS question positive responses**

RIPLS statement	1	2	3	4	5	Mean
Shared learning with other HCPs will increase my ability to understand clinical problems	0	0	1	13	15	4.5
Shared learning with other HCPs will help me to communicate better with them	0	0	2	11	16	4.5
Learning with other healthcare professionals will help me to be a more effective member of the health care team	0	0	3	13	13	4.3
Patients ultimately benefit if health care professionals learn together to solve patient problems	0	0	3	13	13	4.3
Shared learning will help me to think positively about other health care professionals	0	0	4	12	13	4.3
Shared learning will help me understand my own limitations	0	0	6	14	9	4.1

136
137 When comparing the responses from the three main professional groups [pharmacists, doctors
138 and nurses], there was no major difference between responses, except for the questions 'shared
139 learning will help me to think positively about other health care professionals' and 'learning with
140 other HCPs will help me to be a more effective member of a health care team' where doctors scored
141 lower than both other groups. When thinking positively about other health care professionals,
142 pharmacists were the most positive with 63.6% [n=7] scoring a 5 and 9.1% [n=1] scoring a 3, compared
143 to 40% [n=2] of doctors scoring 1 and 3 with 20% [n=1] choosing 4. For nurses, 14.3% [n=1] scored a 3
144 and 57.1% [n=4] scored a 5.
145

146 3.2 Focus group
147 The focus group consisted of 1 GP, 1 A and E nurse, 1 pharmacy technician and 3 pharmacists
148 and lasted 20 minutes. Due to limited sample populations, further demographic data was not
149 captured in order to maintain anonymity of responders. The main theme identified was 'factors
150 affecting attendance at an IPE event' under which four subthemes were identified.
151

152 **IPE and networking opportunities:**
153 The participants of the focus group saw IPE an important opportunity to see different sides of a topic,
154 and to be able to question others to understand their involvement and viewpoint. All professions saw
155 the benefits of networking at IPE events and learning with, from and about each other. The
156 networking element was also seen to support patient care through building relationships. The small
157 group session was deemed positive by enabling networking and the ability to ask questions in a
158 trusting environment.
159 **Topic:**
160 The event topic was cited by all in the focus group as their reason for attendance. This topic had
161 relevance, professionally, as all the participants would see patients affected by the issues discussed,

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so attendance could aid understanding of the patient and their journey, help identify potential patients and ensure positive patient care. The topic potentially also had personal relevance. However, it was highlighted that for interprofessional events, the topic needed to be based on an area of practice seen by all those who attend with it being pitched at the right level. If a topic is relevant, key messages will be remembered and translated into action. Although the topic is important, its delivery by an expert speaker in a face-to-face event was a motivator. Understanding the patient journey is seen to be best from an expert speaker, who can share stories, and case studies.

Convenience:

Convenience of meetings was seen as important, with a desire to stay local. To attend meetings off an island is a large investment of time and money, with most courses having to be completed during annual leave and at personal expense [quote 16]. The evening format worked, with a one-hour meeting meaning you still get home at a decent hour.

CPD:

Regulatory relevance of completing CPD was mentioned. However, it was seen that, although a regulatory requirement, personal relevance of CPD was a greater benefit from attendance. It was also recognised that completing CPD does not have to take a huge amount of time. The use of technology for learning was also discussed. The comments supported the use of technology for completion of CPD, although there was no mention of technology as a supportive tool for networking or IPE opportunities. Potential barriers for technology use were noted such as ease of access and patchy broadband.

4. Discussion

Based on our results, the responders felt that undertaking supplementary IPE had benefits in improving patient care and increasing clinical knowledge, along with better interprofessional relationships, although intended change in practice was limited. Learning together and networking is seen to encourage more interprofessional conversations on a topic, allowing a unified approach, with professionals delivering the same message to their patients, which supports the CAIPE definition of IPE. [15] It was seen that topic plus an expert speaker are key drivers of attendance to support CPD, further supported by geography for convenience.

Limitations of this study are that this was the evaluation of only a single event with a small sample size. Recent studies have also show limitations of using the RIPLS scale.[16] Outcomes of the focus group may also have differed if a different profession was dominant, or if working relationships were not established. As this was a one-off focus group with a defined populations, saturation cannot be assumed.

The professional group variations to the RIPLS questions echoed the original study[7] where doctors placed less value on teamwork and collaboration than nurses and pharmacists. There was a desire seen for IPE opportunities from pharmacists in the evaluation form responses, as limited opportunities exist in their daily role, particularly for community pharmacists. There were mixed views on application of learning into practice, and it was not seen as likely for pharmacists, although more likely for nurses and GPs, despite the fact that pharmacists did note an increase in knowledge from attendance.

Individuals have personal and professional drivers for attendance at events. Topics for interprofessional learning events should be an area that all participants will come across regularly. Focus group responses showed that the speaker must be presenting on a topic with relevance to the professional development and practice of the audience. Topic is seen as a driver for participation across professions in previous studies.[17-19]

It was seen that 69% of the survey respondents said they would complete a CPD cycle after the session. It is interesting that pharmacists had the highest intent to complete a CPD cycle, although the lowest intent to apply learning into practice, considering that the last stage of the CPD cycle asks about intended application of learning into practice. Pharmacists complete CPD to fulfil regulatory

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requirements[20] whereas doctors have no specified number of cycles to complete[21], and it is seen that nurses commitment to a job cannot be correlated with CPD completion[22] which may explain these results.

From our audience, although there is an increased use of technology to support CPD, it was seen that face-to-face learning is still preferable, where possible, to increase networking opportunities, and allow interaction with the speaker along with the opportunity to ask questions and share learning. Hence, it was felt that face to face meetings are more conducive to IPE. Such meetings also overcome any technical barriers that may arise from online learning provision.

5. Conclusions

All professions were open to, and saw the benefit and value of IPE and contribution of this towards achievement of CPD. The focus group highlighted the elements that need to be considered for future IPE events. Such events were preferred to take place face to face and to be facilitated by an expert speaker and driven by a topic that has relevance to the practice of multi-professions while being pitched at the right level for all members of the attending healthcare team. The event should also take place at a convenient location and time and should run as a small group to ensure effective interactions and prepare for application of learning into practice. Based on this case study from Guernsey, post qualification IPE events allow a synchronised view of a topic and understanding of professional roles with impact on patient care hence should be encouraged in the future.

Author Contributions: Conceptualization, R.M. and R.K.; Methodology, R.M and R.K.; Validation, R.M; Formal Analysis, R.M.; Investigation, R.M.; Resources, R.M.; Data Curation, R.M.; Writing-Original Draft Preparation, R.M.; Writing-Review & Editing, R.M and R.K.; Supervision, R.K.; Project Administration, R.M and R.K.

Funding: This research received no external funding

Acknowledgments: The authors would like to thank the committee members of LPC Guernsey for allowing the researcher to attend the session, and for arranging the participants of the focus group.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Lakhani, N.; Anderson, E. Interprofessional education: preparing future pharmacists for 2020. *Pharm J* 2008;280[*7501*]:571-572.
2. Barr, H.; Koppel, I.; Reeves, S.; Hammick, M.; Freeth, D. Effective Interprofessional Education: Argument, Assumption and Evidence. Promoting Partnership for Health: Wiley; 2008.
3. General Pharmaceutical Council. Future pharmacists. Standards for the initial education and training of pharmacists. 2011; Available at: http://www.pharmacyregulation.org/sites/default/files/GPhC_Future_Pharmacists.pdf. Accessed 02/03/2015.
4. Joseph, S.; Diack, L.;, Garton. F.; Haxton, J. Interprofessional education in practice. *Clin Teach* 2012;**9**[1]:27-31.
5. Owens C, Goble R, Pereira Gray D. Involvement in multiprofessional continuing education: A local survey of 24 health care professions. *J Interprof Care* 1999;13[3]:277-288.
6. El-Awaisi, A.; Joseph, S.; El Hajj, MS.; Diack, L. A comprehensive systematic review of pharmacy perspectives on interprofessional education and collaborative practice. *Res Social Adm Pharm* 2017.
7. Reid. R.; Bruce, D.; Allstaff, K.; McLernon, D. Validating the Readiness for Interprofessional Learning Scale [RIPLS] in the postgraduate context: Are health care professionals ready for IPL? *Med Educ* 2006;40[5]:415-422.
8. Micallef, R.; Kayyali, R; South London pharmacists' interest in multidisciplinary learning. *Int J Pharm Pract* 2016 March;24[Supplement 1]:43-44.

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 27 September 2018 doi:10.20944/preprints201809.0526.v1

258 9. States of Guernsey. Pharmacies. 2015; Available at: https://www.gov.gg/pharmacies. Accessed 15/01/2018.
259 10. States of Guernsey. Hospital. 2015; Available at: https://www.gov.gg/article/120355/Hospital. Accessed
260 15/01/2018.
261 11. General Pharmaceutical Council. About us. 2015; Available at: http://www.pharmacyregulation.org/about-
262 us. Accessed 16/09/2014.
263 12. General Pharmaceutical Council. Standards. 2015; Available at: http://pharmacyregulation.org/standards.
264 Accessed04/07/2015.
265 13. Parsell, G.; Bligh, J. The development of a questionnaire to assess the readiness of health care students for
266 interprofessional learning [RIPLS]. *Med Educ* 1999;33[2]:95-100.
267 14. Braun, V.; Clarke, V. Using thematic analysis in psychology. *Qual res psychol* 2006;3[2]:77-101.
268 15. CAIPE. Interprofessional education – a definition. 2002; Available at: www.caipe.org.
269 16. Mahler, C.; Berger, S.; Reeves, S. The Readiness for Interprofessional Learning Scale [RIPLS]: A problematic
270 evaluative scale for the interprofessional field. *J Interprof Care* 2015;29[4]:289-291.
271 17. Micallef, R.; Kayyali, R. Factors affecting a face-to- face learning event. *Int J Pharm Pract* 2017;26[2]:183-190.
272 18. Brekelmans, G.; Maassen, S.; Poell, RF.; Weststrate, J.; Geurdes, E. Factors influencing nurse participation in
273 continuing professional development activities: Survey results from the Netherlands. *Nurse Educ Today*
274 2016;40:13-19.
275 19. Ikenwilo, D.; Skåtun, D. Perceived need and barriers to continuing professional development among
276 doctors. *Health Policy* 2014.
277 20. Hanson, AL.; Bruskiewitz, RH.; Demuth, JE. Pharmacists' perceptions of facilitators and barriers to lifelong
278 learning. *Am J Pharm Educ* 2007;71[4]:67.
279 21. General Medical Council. Continuing professional development. Guidance for all doctors. 2012; Available
280 at: http://www.gmc-
281 uk.org/Continuing_professional_development___guidance_for_all_doctors_0316.pdf_56438625.pdf. Accessed
282 25/11/2016.
283 22. Pool, I.; Poell, R.; Ten Cate, O. Nurses’ and managers’ perceptions of continuing professional development
284 for older and younger nurses: A focus group study. *Int J Nurs Stud* 2013;50[1]:34-43.
285