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Title:

Pharmacy students' views on community pharmacy provision of first aid and responding to medical emergencies: A scenario-based questionnaire study
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Abstract: (Please refer to instructions to authors and example abstract)

Focal Points:

- This study aimed to ascertain pharmacy students' views about community pharmacy responding to various first aid and medical emergency scenarios.
- First aid training significantly increased students' ratings of being comfortable responding to more severe medical emergencies, but increased community pharmacy work experience significantly reduced their agreement that responding to such emergencies could be accommodated within community pharmacy workloads.
- Further research seems warranted on community pharmacy involvement in first aid and medical emergencies.

Introduction:

With increasing pressure on emergency services, alternative means of first aid provision and responding to medical emergencies are needed, including from community pharmacy. Research has assessed community pharmacists' responses to hypothetical medical emergencies,¹ but pharmacy students' perspectives have not been reported. This study aimed to ascertain students' views about community pharmacy responding to various first aid and medical emergency scenarios.

Methods:

Following institutional ethical approval a questionnaire was developed based on the study objectives and literature findings. This included demographic data about first aid training and community pharmacy experience. Participants were asked about perceived comfort to provide treatment, desire for additional training, concern about potential litigation, perceived ability to accommodate treatment within pharmacy workloads, and perceived appropriateness as an enhanced service in relation to five scenarios of varying severity. These were (A) treating a small cut on a finger, (B) Epi-Pen administration, (C) pre-hospital thrombolysis administration by bolus intravenous injection, (D) use of an Automated External Defibrillator (AED), and (E) being a Community First Responder treating a non-breathing patient. The questionnaire was piloted on pharmacist lecturers and non-pharmacy students. All undergraduate pharmacy students were invited to participate. Questionnaires were distributed in lectures with no reminders. The data was subjected to descriptive statistical analysis. Chi-squared tests determined whether trends in opinions were significantly associated with demographic factors.

Results:

The overall response rate was 43%: year 1 = 78 (61%); year 2 = 38 (41%); year 3 = 27 (25%); year 4 = 37 (43%). From each year 67-100% of students agreed/strongly agreed that they would be comfortable providing treatment in scenario A, but less so for other scenarios, particularly scenario C (B = 52-78%; C = 38-63%; D = 55-73%; E = 51-70%). Previous first aid training with AED training significantly increased participants' comfort ratings for scenarios C (76% versus 45%, $p=0.01$), D (81% versus 45%, $p=0.01$) and E (65% versus 40%, $p=0.02$) compared to no previous first aid training. Higher agree/strongly agree ratings were returned from all years about scenarios A (78-92%), B (70-86%) and D (62-84%) being enhanced services than E (54-63%) or C (46-67%). Based on scenarios C and E, those with increased community pharmacy experience rated it as less likely that community pharmacists could accommodate such situations within their workload (C = 46% versus 26%; E = 46% versus 30%, $p=0.04$) compared to those with less experience. Participants indicated that extra training would be required before providing any of the treatments and 91% of participants agreed/strongly agreed that first aid training should be part of the MPharm course. Concern about the potential for litigation was most frequently rated as neither agree nor disagree by years 1-3, but year 4 participants expressed concern about litigation for scenarios B-E, particularly scenario C (70% agreed/strongly agreed).

Discussion:

The findings suggest that pharmacy students broadly support pharmacies providing first aid and responding to medical emergencies, which aligns with previous study findings¹. First aid training significantly increased students' ratings of being comfortable responding to more severe emergencies, but increased community pharmacy work experience significantly reduced their agreement that responding to such emergencies could be accommodated within community pharmacy workloads. Whilst only a small-scale study, these findings suggest that further research is warranted on increased community pharmacy involvement in first aid and medical emergencies.

References:

1. McMillan S, Hatting H & King M. An assessment of community pharmacists' responses to hypothetical medical emergency situations. *Int J Pharm Pract* 2012; 20: 413-416.