Accepted manuscript of: Mey, A. and Hattingh, H.L. and Davey, A. and Knox, K. and Fejzic, J. and Wheeler, A. 2015. Preparing community pharmacists for a role in mental health: An evaluation of accredited Australian pharmacy programs. Currents in Pharmacy Teaching and Learning. 7 (3): pp. 371-377.

Preparing community pharmacists for a role in mental health: an evaluation of accredited Australian pharmacy programs

Abstract

Background: Australian community pharmacists are well placed to provide medication related support and to contribute to optimisation of outcomes for mental health consumers and their care givers. However, little is known about the actual competencies of community pharmacists to provide this care. To determine how graduates are being prepared to competently assist mental health consumers and their caregivers, an exploration of the curricular mental health content in university pharmacy programs which set the foundation for pharmacists' professional roles, is needed.

Aims: To investigate the mental health content of accredited Australian pharmacy qualifying programs.

Method: A review of publically available online profile information for accredited degree programs was conducted, and program coordinators from the 18 accredited pharmacy degree programs providers in Australia were surveyed.

Results: Mental health education is embedded in core subjects such as pharmacology, pharmacotherapy and pharmacy practice. Multiple options are employed to deliver mental health teaching, including lectures, workshops, and experiential learning. However, while education is intended to align with pharmacists' expected level of professional competencies, there is lack of national standardised outcome-based competency criteria for new graduates, and wide ranging inter-program variations were evident.

Conclusion: A lack of standardised content in pharmacy qualifying programs that underpin pharmacists' mental health knowledge and skills might result in variations to practice competencies. Further work is needed to determine how variations impact the way pharmacists deliver care to mental health consumers and their care givers.

Keywords: Mental health, education, training, community pharmacy.

Conflict of Interest There are no known or potential conflicts of interest.

Introduction

Australian community pharmacists provide a range of primary health care services directly to consumers.[1] In the past, these services have mostly included disease state management and lifestyle support programs, particularly for smoking cessation and weight loss. Under the current Community Pharmacy Agreement[1], these services have been extended, and $344 million (over the 5-year life of the Agreement) has been allocated to remunerate pharmacies for the provision of health and medication management services to support consumers with chronic illnesses such as diabetes, cardiovascular disease, respiratory diseases and mental illness[2]. Several community pharmacy services could be utilised to improve the medication management and subsequent health outcomes for mental health consumers and their care givers living in the community. These include services that have already been in place for many years, such as Home Medicines Reviews[2], provision of dose administration aids, and inter-professional collaborations, as well as newer services such as in-pharmacy medication reviews and clinical interventions.[3-5] However, no large scale studies have assessed the competency of pharmacists to deliver these services in the Australian community pharmacy practice setting.

Research to explore the role of community pharmacy in mental health is limited, particularly in the Australian context. However, a recent review of the literature identified a number of studies highlighting the positive effect of services provided by pharmacists to support health care consumers generally.[6] Such services include providing education, information and resources to consumers, care givers and other health professionals, conducting medication reviews, making treatment recommendations, and providing monitoring services. Evidence also indicates that inter-professional collaboration between

[1] Community Pharmacy Agreement: An agreement between The Commonwealth of Australia and The Pharmacy Guild of Australia to remunerate community pharmacy for providing specific health services.

[2] Home Medicine Review: In cooperation with the individual's general practitioner, the pharmacist visits the individual at home, reviews their medicine regimen, and provides the general practitioner with a report. The general practitioner and consumer then agree on a medicine management plan.

pharmacists and other health professionals contributes to the optimisation of treatment, and promotes recovery.[7,8] International research has focused mainly on pharmacists' attitudes and beliefs that generally express a positive attitude towards pharmacists providing mental health care and inter-professional collaboration.[9-11] However, it has also demonstrated they lack knowledge, confidence and effective communication skills needed to convey this in practice.[9,10,12] These findings suggest education and training for pharmacists might be inadequate in preparing them for a role in mental health care. In the Australian context, exploratory studies have shown similar positive attitudes among pharmacists,[13,14] but there is a lack of empirical research about the practice readiness of Australian community pharmacists in mental health care.

To undertake their practice roles, Australian trained pharmacists must complete a university qualifying degree program, meet professional registration requirements, complete one year of supervised practice, and pass two entrance examinations.[15-17] Australian universities offering pharmacy degrees are subject to a compulsory accreditation process intended to ensure the delivery of a consistently high quality standard of education and training.[1819] Once registered with the Australian Health Practitioner Registration Agency, pharmacists must comply with continuous professional development requirements for annual re-registration purposes.[17,20] These quality control measures further facilitate a high standard professional practice, and ensure that pharmacists are accountable for their conduct, thus fostering and maintaining public trust in the profession.[21]

The majority of Australian trained pharmacists enter the profession after the completion of a full-time four-year Bachelor of Pharmacy, or a two-year postgraduate Master of Pharmacy degree. Pharmacy degree curricula are guided by a comprehensive set of competency standards which specify the required level of knowledge, numeracy, literacy and communication skills, as well as the attitudes conducive to professional practice.[18,22] Experiential learning opportunities are embedded within the curricula and aim to provide

students with the opportunity to integrate their knowledge of pharmaceutical sciences and therapeutics to practice settings.[17,20] In addition to knowledge of disease states and pharmacotherapy, pharmacists are also expected to have an understanding of the legal, ethical, cultural, communication and sociological issues that add to the complexity of the health care management of patients, including those with mental health conditions.[33,34] Furthermore, pharmacists should be capable and confident to adopt a multidisciplinary team approach to ensure optimal outcomes for mental health consumers. These mental health specific competencies were developed by the profession's governing bodies in 2009, and recently updated in A framework for pharmacists as partners in mental health care.[23,24] The new Framework emphasises pharmacists' knowledge, attitudes and communication skills as major enablers to their extended role in mental health. Still, little is known about the actual practice competencies of community pharmacists in mental health care.

Aim

The purpose of this study is to explore the mental health content included in the curricula of accredited pharmacy programs in Australia, acknowledging that this is only one component in shaping pharmacists' practice competency. The information obtained will be utilised to gain insights regarding the competency of graduate pharmacists for providing mental health services in a community pharmacy setting.

Method

This study involved: 1) A review of the mental health curricula of accredited pharmacists' qualifying programs, and, 2) A survey of pharmacy academics of the qualifying programs. Ethical approval was granted by the Griffith University Human Research Ethics Committee.

The mental health content of pharmacy programs was evaluated by accessing program provider websites between January 2012 and July 2012. For consistency purposes, the

steps undertaken to access publically available information followed a standardised procedure. From the university home page, the word “pharmacy” was entered in the search window. Links to degree course e.g. “Bachelor of Pharmacy” (BPharm) or “Master of Pharmacy” (MPharm) were followed. The program profile was downloaded and content reviewed. For each accredited program, the review focused on identifying how mental health teaching was delivered within the program including the time allocation and mode of delivery.

A survey involving the 18 accredited Australian pharmacy degree program providers was also conducted to seek information not publically available or easily obtained from the online program information. Relevant academics were identified through the program websites focusing on those who had roles in coordinating pharmacy programs. An email with the survey attached was sent to these academics in January 2012. The survey collected information about:

- The type of pharmacy program(s) offered at the university (i.e. BPharm/MPharm/both).
- Students took mental health specific experiential learning (i.e. placement at mental health units or clinics).
- The program content and experiential learning included specific references to legal, ethical, communication or sociological issues pertaining to mental health.
- Changes had been made to the content to reflect the Government’s national emphasis on mental health.
- The approximate student learning time (in hours) spent within core subjects/units (i.e. pharmacology, pharmacotherapy and pharmacy practice) allocated to mental health content.
- The format of delivering mental health education (i.e. lectures, workshops and placements).

Responses were invited via return email, facsimile or telephone. Initial response rates were low (5/18 = 28%) despite follow up emails and attempts to contact the academics by telephone. In January 2013, website information was again reviewed to identify alternative staff members to approach. To encourage responses to the survey, the primary author sent email appealing for the support of the addressee (with the survey attached), followed immediately by a telephone call. A message was left if the addressee did not answer the telephone. Email responses were checked daily, and if no response was received, further attempts to contact the addressee by telephone (again leaving messages if no answer). This intensive effort continued over a two week period and resulted in another seven responses, taking the total number of survey participants to 12 out of 18 (67%).

Results

Review of online program profile information

The review of pharmacy program information available on provider websites revealed that, in general, mental health teaching was embedded within core subject areas such as pharmacology, pharmacotherapy and pharmacy practice.[16,25-41] Multiple strategies was used to deliver the program content, including lectures, workshops (in which case-based scenarios and role plays were employed as teaching tools) and experiential learning.

Pharmacology, a foundation subject for pharmacy students, appeared to be the favoured vehicle for initial delivery of mental health content. Within this subject, course profiles indicated that teaching was aimed at providing students with an understanding of the aetiology of mental health disorders such as schizophrenia, anxiety and mood disorders, alongside the mechanism of action of medicines used in the treatment of these disorders, such as antidepressants, antipsychotics and sedative hypnotics. The actual time dedicated to the delivery of mental health-related pharmacology teaching was not able to be determined from the program information.

The bulk of mental health content was delivered in the study of Pharmacotherapeutics. For example in one program, integration of foundation subjects physiology, pathophysiology, epidemiology and pharmacology was used to deliver mental health teaching via face-to-face lectures, case-based tutorials and workshops. Another program profile indicated the use of lectures and tutorials to deliver mental health content intended to equip students with therapeutic decision making skills that incorporate patient parameters with pharmacoeconomic considerations. Other profiles outlined the development of students'' knowledge of pharmacotherapy through case-based learning, and development of students' communication skills through role plays and experiential learning opportunities. One program profile indicated mental health teaching delivery through 3.5 hours of lectures, 2.5 hours of tutorials, and 3 hours of experiential placement per week over two semesters that accounted for over 11% of the overall content of the third year program.

A number of program providers listed subjects which appeared to recognise a mental health specific practice role for pharmacists. For example, in one BPharm program profile, students learning objectives included understanding of roles and responsibilities of the pharmacist in community mental health programs, residential care, and opioid substitution programs. The program also covered the social and emotional issues that affect people living in rural, remote and indigenous communities. The mental health role of pharmacists in rural and remote settings was further highlighted in another program, delivered in the fourth year of BPharm degree. The syllabus, which included mental health issues in rural settings, Indigenous health and mental health issues for rural health care providers, appeared to be a key focus in the final year of this degree program, featuring in the Therapeutics as well as the Rural Pharmacy Practice program profiles. While it is not possible to estimate the actual time dedicated to the delivery of mental health content, these two course account for over 74 % of the year's teaching. Although most pharmacy practice course profiles implied mental health content, the extent to which mental health specific material was integrated in such

course was not explicit. In total, three providers stated that experiential learning formed part of the students' mental health learning activities in their course profiles.

Survey of accredited Australian pharmacy program providers

Survey data was obtained from academics at 12 of the 18 pharmacy programs providers (67%), with at least one response in each Australian state and territory. Participants' responses to the survey questions are summarised in Table 1. Eight of the respondents indicated their institution offered a BPharm only, one offered a MPharm only, and three offered both BPharm and MPharm qualifications. While all respondents who provided information about specific references to legal, ethical, communication and sociological aspects of their program reported that ethical and communication issues were addressed, three respondents indicated that their programs did not specifically address legal or sociological issues as they pertain to mental health. A combination of lectures, workshops and experiential learning was used to deliver the content. However, inter-program variations were evident.

INSERT TABLE HERE

While all respondents indicated mental health teaching to be integrated throughout all major disciplines (pharmacology, pharmacotherapy and pharmacy practice), there were wide variations in the number of hours and delivery mode. Three respondents indicated that mental health was part of the first year BPharm degree, one stated that mental health was introduced in the first year only by way of brief comments in lectures (the duration of which could not be quantified), while all others indicated that mental health content was reserved for later years. One respondent indicated that mental health was mainly delivered within the second semester of the second year of their four year program, but the majority of respondents signified the bulk of mental health teaching was delivered to students during their third and fourth year. Further variations were evident, for example, amongst those who

delivered the bulk of their mental health content within the third year, a wide range of time (10 to 80 or more hours) was estimated to be dedicated specifically to this topic area. Furthermore, it was not possible to quantify the mental health targeted learning that students received through work-integrated learning (industry placements).

The responses also varied as to whether the content reflected the Australian Government's national emphasis on mental health care. Three respondents stated that an emphasis on mental health had traditionally always been incorporated in their program, one stated that recent changes were due to the involvement of new staff with interest and expertise in mental health care, and another confirmed that Mental Health First Aid®[3] was a mandatory component of their pharmacy degree program since 2012. One participant reported that while not specific to pharmacy, students enrolled at the university can access Mental Health First Aid® training free of charge. In the nine remaining institutions participants reported that changes were being made to the syllabus at the time of the study. For example, one respondent indicated the incorporation of project data from National Survey of Mental Health and Wellbeing as well as the framework for pharmacists as partners in mental health care into teaching offered in the 4th year of their BPharm program as of 2013. Another respondent indicated that they were "keen" to incorporate Mental Health First Aid training to their curriculum, and were currently investigating training for a staff member to become a training instructor.[24,24]

Discussion

This study found that while the Statement of Mental Health Care Capabilities for Pharmacists 2009,[23] and other professional standards and frameworks were used to guide pharmacy curricula, the evaluation of online pharmacy program information and responses

[3] Mental Health First Aid® a standardised course designed to help adults provide emergency support to others who may have developed a mental health illness or be in the midst of a mental health crisis.

to a survey of conveners revealed wide variations between programs. These variations were seen in the content, format of delivery, practice application and intended competencies. Although no studies have investigated the impact of these variations on the practice competencies of pharmacy graduates, this research has identified the need for outcomes-based mental health criteria for all pharmacy programs as assurance of standardised competency for new pharmacy graduates in a mental health care role.

The recent release of A framework for pharmacists as partners in mental health care[23] provides clear guidance for the development of skills and competencies required to meet practice needs for community pharmacy to play a more integrated role in mental health care. Amongst the recommendations, Mental Health First Aid® training was identified as a facilitator to improved communication with mental health consumers and their care givers. Encouragingly, one accredited school indicated the inclusion of Mental Health First Aid® in their current program. At the time of the research, the new framework for pharmacists' role in mental health had just been released. It is possible that many of the schools were considering changes to their curriculum, which could have also accounted for the low response rate. For those who indicated changes to their existing curricula, attempts were made to clarify the nature of change, however, confirmation was not possible at the time as many schools had not finalise their decisions. While it remains to be seen how the Framework will impact on future pharmacy curricula, it highlights opportunities for pharmacy tertiary education providers to emphasise mental health as a possible area of practice specialisation, and to offer advanced practice mental health courses. For example, some program providers offer interprofessional post-graduate programs (e.g. Graduate Certificate and Master of Mental Health Practice)[24] which could potentially enhance registered pharmacists' roles as integral members of multidisciplinary teams providing mental health care.

There are some limitations to this study. Reviewing available information from university websites may be limited by website design and content age which may not be a true reflection of the current syllabus. Furthermore, using a standardised routine may have resulted in missing information. For these reasons, the email survey instrument was used to collect data that could not be gleaned from reviewing the profile, clarify discrepancies, and support information gathered the online evaluation. The survey was designed for ease of completion, and while academics whose institution offered more than one qualification option (for example BPharm and MPharm) were asked to complete two separate surveys, some completed only a single survey and did not indicate whether they were referring to one program or both. While attempts were made to elicit further information, it was not possible to all convenors for further clarification. With almost 70% response rate and from program providers representing all jurisdictions in Australia, the information gathered provides some generalisability of the findings. There are many educational components that contribute to ensuring competent pharmacists, such as internship training and continuing professional development activities. However, as this study aimed to provide insights into the tertiary education and training which underpins pharmacists practice competencies, a sole exploration of the curricula content of qualifying programs is justified.

While much remains unknown about the actual roles and competencies of community pharmacy staff in providing mental health care, this study provides valuable insights into the structure and content of Australian tertiary training in mental health underpinning the knowledge and skills of Australian trained pharmacists. Importantly, the study has highlighted considerable variations in pharmacists' qualifying degree programs which could contribute to a lack of consistency in pharmacists' practice competencies upon entry to the workforce. Current findings demonstrate the need for a minimum standard and alignment of pharmacy degree programs with the new Framework[24] as a means of ensuring the practice readiness of new pharmacy graduates in mental health.

Conclusion

As mental health care is increasingly being delivered at the primary care level, it is imperative for new pharmacy graduates to have the required knowledge and skills to meet their expanding role. Therefore, development of future educational programs for pharmacists should be based on assessment of their actual practice needs. This assessment should focus on identifying the gaps in pharmacists' knowledge, skills, attitudes, beliefs and behaviours when working with mental health consumers and care givers,[6] and assessment of mental health consumer and care giver needs, expectations and experience of community pharmacy to understand mental health consumers' specific medication needs and expectations of community pharmacy.

Acknowledgements

This project is funded by the Australian Government Department of Health, as part of the Fifth Community Pharmacy Agreement Research and Development Program managed by The Pharmacy Guild of Australia. The financial assistance provided must not be taken as endorsement of the contents of this report. The authors would like to express their sincere gratitude to all the pharmacy program coordinators who responded to the survey. The authors thank xxx and yyy for providing administrative support to the project.

References

1. Pharmacy Guild of Australia. The Roadmap:The strategic direction for community pharmacy. 2010; http://www.guild.org.au/docs/default-source/public-documents/tab---the-guild/Strategic-Direction/here-.pdf?sfvrsn=0. Accessed 06 April, 2011.

2. Australian Government. The Fifth Community Pharmacy Agreement between the Commonwealth of Australia and the Pharmacy Guild of Australia. 2010.

3. Pharmacy Guild of Australia. Pharmacy Practice Incentives. 2012; http://5cpa.com.au/programs/pharmacy-practice-incentives/. Accessed June 16, 2012.

4. The Australian Government Department of Human Services. Home medicines reveiw (HMR). 2013; http://www.medicareaustralia.gov.au/provider/pbs/fourth-agreement/hmr.jsp. Accessed August 08, 2013.

5. Australian Government. The Fourth Community Pharmacy Agreement between the Commonwealth of Australia and the Pharmacy Guild of Australia. 2005; http://www.health.gov.au/internet/main/publishing.nsf/Content/pharmacy-4cpa. Accessed June 16, 2012.

6. Mey A, Fowler J, Knox K, et al. Review of community pharmacy staff educational needs for supporting mental health consumers and carers. Community Ment Health J. 2013;10.1007/s10597-012-9580-4.

7. Hammond RW, Schwartz AH, Campbell MJ, et al. Collaborative drug therapy management by pharmacists. Pharmacotherapy. Sep 2003;23(9):1210-1225.

8. Gilbody S, Bower P, Fletcher J, Richards D, Sutton AJ. Collaborative care for depression: A cumulative meta-analysis and review of longer-term outcomes. Arch Intern Med. November 27, 2006 2006;166(21):2314-2321.

9. Cates ME, Burton AR, Woolley TW. Attitudes of pharmacists toward mental illness and providing pharmaceutical care to the mentally ill. Ann Pharmacother. 2005;39(9):1450-1455.

10. Phokeo V, Sproule B, Raman-Wilms L. Community pharmacists' attitudes toward and professional interactions with users of psychiatric medication. Psychiatr Serv. 2004;55(12):1434-1436.

11. Bell JS, McLachlan AJ, Aslani P, Whitehead P, Chen TF. Community pharmacy services to optimise the use of medications for mental illness: A systematic review. Aust NZ Health Pol. 2005;2:29-40.

12. Freeman CR, Cottrell WN, Kyle G, Williams ID, Nissen L. An evaluation of medication review reports across different settings. Int J Clin Pharm. Feb 2013;35(1):5-13.

13. Healthcare Management Advisors. Managing mental illness and promoting and sustaining recovery: The role of community pharmacy. 2010; http://guild.org.au/services-programs/research-and-development/archive---fourth-agreement/2007-08-07. Accessed April 06, 2011.

14. O'Reilly C, Bell JS, Chen TF. Pharmacists' beliefs about treatments and outcomes of mental disorders: a mental health literacy survey. Aust NZ J Psychiatry. 2010;44(12):1089-1096.

15. Pharmacy Board of Australia. Registration. 2012; http://www.pharmacyboard.gov.au/Registration.aspx. Accessed 22 May, 2012.

16. Griffith University. School of Pharmacy. 2012; http://www.griffith.edu.au/health/school-pharmacy. Accessed June 16, 2012.

17. Australian Health Practitioner Regulation Agency. 2012; http://www.ahpra.gov.au/About-AHPRA/Who-We-Are.aspx. Accessed June 16, 2012.

18. Charman WN, Costelloe M, Galbraith K, et al. Pharmacy education in the context of Australian practice. Am J Pharmaceut Educat. 2008/12// 2008;72(6).

19. Australian Pharmacy Council. Accredited pharmacy schools. 2012; http://pharmacycouncil.org.au/content/index.php?id=18. Accessed June 01, 2012.

20. Pharmaceutical Society of Australia. About continuing professional development. 2010; http://www.psa.org.au/education/about-cpd. Accessed June 21, 2012.

21. Hattingh L, Smith NA, Searle J, King MA, Forrester K. Regulation of the Pharmacy Profession throughout Australia. J Pharm Pract Res. Sep 2007;37(3):174-177.

22. Pharmaceutical Society of Australia. National competency standards framework for pharmacists in Australia. 2010; http://www.psa.org.au/download/standards/competency-standards-complete.pdf. Accessed April 17, 2012.

23. Australian Pharmacy Council, Committee of Heads of Pharamcy Schools of Australia and New Zealand. Statement of mental health care capabilities for pharmacists. 2009; http://www.pharmacycouncil.org.au/PDF/Pharmacists%20Capability%20Statement%20%20June%20'09%20(v5).pdf. Accessed April 06, 2011.

24. The Pharmaceutical Society of Australia. A framework for pharmacists as partners in mental health care. 2013; http://www.psa.org.au/download/policies/mental-health-framework.pdf. Accessed 04 April, 2013.

25. Charles Darwin University. Bachelor of Pharmacy. 2012; http://stapps.cdu.edu.au/f?p=100:31:1006741494027381::NO::P31_SEARCH_COURSE,P31_SEARCH_YEAR,P31_SEARCH_VERSION,P31_TAB_LABEL:BPHAR,2014,5,. Accessed November 05, 2012.

26. Charles Sturt University. Bachelor of Pharmacy. 2012; http://www.csu.edu.au/courses/undergraduate/pharmacy/course-overview. Accessed November 05, 2012.

27. Curtin University. Course at Curtin. 2012; http://courses.curtin.edu.au/course_overview/undergraduate/pharmacy. Accessed November 05, 2012.

28. James Cook University. Bachelor of Pharmacy. 2012; http://www-public.jcu.edu.au/courses/course_info/index.htm?userText=70810-&gclid=CK2h7pT0trMCFTBZpgod1FsASg#.UJc1bWcrlp8. Accessed November 05, 2012.

29. La Trobe University. School of pharmacy and applied science. 2012; http://www.latrobe.edu.au/handbook/2012/undergraduate/science-tech/organisation/school-of-pharmacy-and-applied-science.htm. Accessed November 05, 21012.

30. Monash University. Faculty of pharmacy and pharmaceutical sciences. 2012; http://monash.edu/pharm/. Accessed November 05, 2012.

31. University of Technology Sydney. Pharmacy. 2012; http://www.uts.edu.au/future-students/find-a-course/search?short_courses_search_api_viewed=pharmacy. Accessed November 05, 2012.

32. The University of Canberra. Pharmacy. 2012; http://www.canberra.edu.au/faculties/health/courses/pharmacy. Accessed November 05, 2012.

33. The University of New England. Bachelor of Pharmacy. 2012; http://www.une.edu.au/study/pharmacy/. Accessed November 05, 2012.

34. The University of Newcastle. Master of Pharmacy. 2012; http://www.newcastle.edu.au/degrees/bachelor-of-pharmacy/why-study-with-us. Accessed November 05, 2012.

35. The University of Queensland. School of Pharmacy. 2012; http://www.uq.edu.au/pharmacy/. Accessed November 05, 2012.

36. The University of South Australia. Bachelor of Pharmacy. 2012; http://programs.unisa.edu.au/public/pcms/program.aspx?pageid=177&sid=104. Accessed November 05, 2012.

37. The University of Sydney. Faculty of Pharmacy. 2012; http://sydney.edu.au/pharmacy/. Accessed November 05, 2012.

38. The University of Tasmania. School of Pharmacy. 2012; http://www.utas.edu.au/pharmacy/home. Accessed November 05, 2012.

39. The University of Western Australia. Master of Pharmacy. 2012. Accessed November 05, 2012.

40. RMIT University. Bachelor of Pharmacy. 2012; http://www.rmit.edu.au/programs/bp271. Accessed November 05, 2012.

41. Queensland University of Technology. Study pharmacy. 2012; http://www.qut.edu.au/study/study-areas/study-pharmacy?gclid=CLHZ-831trMCFckhpQodalQAiw. Accessed November 05, 2012.

Email invitation to program convenors and survey instrument

Dear Program Convenor

I write to you from the Mental Health-Community Pharmacy Project team. Our project, funded by the Department of Health and Ageing, under the Fifth Community Pharmacy Agreement, explores the role of community pharmacy in mental health. We are seeking information about mental health teaching provided by accredited pharmacy schools.

Could you please spare a few moments to provide a snapshot of your school's curricula, which we have been unable to glean from course profile documentation. Your response can be returned by telephone (area code) telephone number or fax (area code) fax number or return email to email address of primary author

Your participation will contribute significantly to our research and is greatly appreciated. Thanking you for your time.

Yours sincerely,
Name of primary author, Qualifications

Mental Health Content of Pharmacy Curricula Survey

1. Please indicate which pharmacy program(s) is offered at your university **(BPharm/MPharm/Both).** If both programs are available, **please provide answers for each program separately.**
2. Do pharmacy students undertake placement at sites with specific mental health focus e.g. psychiatric hospitals, clinics? (**Yes/No)**
3. Does pharmacy teaching include specific references to **legal (Yes/No), ethical (Yes/No), communication (Yes/No) or sociological (Yes/No)** issues as they pertain to Mental Health?
4. Have changes been made to course content to reflect the national emphasis on mental health? **(Yes/No),** If Yes, please provide more details

_____
_____
_____
_____

Please estimate the Mental Health content of curricula (in approximate hours per year)

	1st Year	**2nd Year**	**3rd Year**	**4th Year**
Pharmacology				
Pharmacotherapy				
Pharmacy Practice				

Please indicate the mode of delivery for mental content of curricula e.g. lectures, practicals e.g. workshops/tutorials, placements

	1st Year		**2nd Year**		**3rd Year**		**4th Year**	
Pharmacology								
Pharmacotherapy								
Pharmacy Practice								

Table 1: Summary of Mental Health Content of Pharmacy Programs

Do pharmacy students undertake placement at sites with specific mental health focus? e.g. mental health centres, community clinics	Number of respondents (n=12)					
	Yes	No	Did not answer			
	5	5	2			
Does pharmacy teaching include specific references to: • Legal • Ethical • Communication • Sociological issues	 8 11 11 8	 3 0 0 3	 1 1 1 1			
Have changes been made to the course content to reflect the national emphasis on mental health?	5	5	2			
Number of programs with mental health content	BPharm				MPharm	
	1st year	2nd year	3rd year	4th year	1st year	2nd year
	3	5	11	10	2	1
Range in approximate hours per year	Brief Comments- 44	2 - 36	10 -80	Unable to estimate – 90	9 - 60	9 - 60
Mode of delivery • Lectures • Workshops/tutorial • Placements	 3 0 0	 5 4 0	 11 11 2	 11 11 4	 3 3 0	 2 2 0