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Original Research

Setting the agenda for clinical pharmacy in Qatar: thematic and content analyses of news media headlines

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Abstract

Background: Public awareness of the role of pharmacists and availability of pharmacy services in Qatar is low. As per agenda-setting theory, mass media may be contributing toward this problem by selecting and disseminating headlines and stories according to their own objectives and not those of the profession.

Objectives: The objective of this study was to examine the agenda set by mass media organizations in Qatar pertaining to the profession of pharmacy and to determine the frequency of professional identifiers that appear within news headlines.

Methods: Publicly available news headlines published between November 2016 and November 2018 were obtained from local news websites. Thematic analysis was performed using agenda-setting theory to explore how the public's agenda was set for pharmacy practice in Qatar. Content analysis was used to determine the proportion of headlines that contained a professional identifier linking the news report to the pharmacy profession.

Results: A total of 81 headlines were included in the analysis. The agenda for pharmacy practice in Qatar was set according to two themes: achievement and outreach/engagement. Achievement related to awards, use of new technologies, interprofessional education, and novel student training accomplishments. Outreach/engagement reported student and pharmacist involvement upon completion of a health awareness event. Approximately half (47%) of headlines contained a professional identifying word linking the headline to the profession of pharmacy.

Conclusions: The findings of this study demonstrate that the mass media's agenda for the pharmacy profession in Qatar does not inform the public of pharmacist's services or expanded scopes of practice. Furthermore, a lack of professional identifiers within headlines likely limits the public's agenda of pharmacist roles. The pharmacy profession must work collaboratively with news media to better align the public's agenda with pharmacists' roles and services.

Keywords

Mass Media; Pharmaceutical Services; Pharmacies; Pharmacists; Professional Role; Journalism; Qualitative Research; Qatar

INTRODUCTION

The profession of pharmacy is undergoing a global reform with the advent of new roles and responsibilities, including expanded scopes of practice and increases in the number and types of services provided.^{1,2} As such, pharmacist training programs are also being modernized with greater focus on person-centered care and the cognitive and clinical competencies required of pharmacists to meet and fulfill their expanded scope.³ In order for reform to be successful and allow pharmacists to practice according to their full potential, however, the public must be aware of the types of services pharmacists offer and to what extent a pharmacist can meet their health-related needs. Public awareness and perception are vital to any professional change, as the public are the primary stakeholder for utilization of pharmacist services.^{4,5} The more the public demands of pharmacists, for example, the more policymakers may further invest in the profession and facilitate advanced roles within global healthcare systems.⁶

In Qatar, the healthcare system is rapidly modernizing and advancing as part of the National Health Strategy and Qatar National Vision.^{7,8} The National Health Strategy calls for better utilization of pharmacists, which includes facilitating

the necessary infrastructure and legislation to allow them to practice according to their full scope.⁷ This process has been largely supported by the opening of the first pharmacist training program in Qatar at Qatar University, which has been graduating pharmacists for practice since 2011.⁹ The university offers four degree programs, including an entry-to-practice Bachelor of Science in Pharmacy, an entry-to-practice Doctor of Pharmacy (PharmD), a Masters of Pharmaceutical Sciences, and a Doctor of Philosophy. A pharmacy technician program is also present at the College of the North Atlantic – Qatar.¹⁰ Due to differences in credentialing requirements and compensation, graduating pharmacists and pharmacy technicians largely work in hospital settings, while primary care centers and community pharmacists largely rely on foreign-trained workers. With the increase in workforce capacity, provision of pharmacist services has expanded in recent years.¹¹ Hospital pharmacists, for example, are well integrated into ward rounds and multidisciplinary teams. Pharmacists are also heavily involved in practice-based research and quality improvement initiatives, which is a core part of pharmacists' education in the country.¹² Roles in primary care and community are mainly dispensing and counselling oriented but efforts are being made to expand service provision in these settings.⁷

Despite the focus to modernize the profession in Qatar, public awareness of pharmacy and the services pharmacists offer remains low.¹³ In one study, for example, it was found that >70% of patients did not expect pharmacists to monitor their health progress or offer any health-related

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screening. Furthermore, the greatest desired service by patients was automatic processing of prescriptions, with much fewer respondents desiring professional and clinical services.¹³ The reasons for this may be many, but may include a lack of experience of the public with pharmacists, a lack of locally-trained pharmacists providing front-line care in community pharmacies, or a lack of promotion by the profession itself regarding pharmacist roles and services available for public use. Pharmacists also report many barriers to providing professional services aside from preparing and dispensing medications (e.g. inconvenient access to patient information, lack of staff and time), which could limit their exposure and in turn, influence their perceived role by the public or even policymakers.^{14,15}

One contributor to the public perception of pharmacists in society may be the way in which mass media portrays pharmacists and pharmacy services.¹⁶ Media stories are typically published in both English and Arabic and headlines are also promoted using social media. As the media selects the articles to be published, they are in fact 'setting the agenda' of how pharmacy and pharmacists are presented to society.¹⁷ This, in turn, may influence how the public perceives the profession, including the type and nature of roles and services pharmacists offer. No study to date has attempted to explore how the media could be contributory to public perceptions of pharmacy and pharmacists in Qatar. The objectives of this study, therefore, were to examine the agenda set by news organizations in Qatar pertaining to the profession of pharmacy and to determine how profession is identified within the news headlines themselves.

METHODS

Study Design

This qualitative study employed thematic and content analyses of news headlines to determine the effects of agenda setting by two major news organizations relating to the profession of pharmacy in Qatar.

Theoretical Framework

The theoretical framework informing this study is based on agenda setting theory. Agenda setting theory arises from the premise that the media, by selecting and reporting news stories related to a specific topic, has the ability to inform public opinion of what is important regarding that topic.^{17,18} Agenda setting theory can be explained by the cognitive accessibility mechanism, which states that what a person is exposed to the most is what that person will typically recall. It also relates to 'how much' or 'how recently' one has exposed to a particular issue.¹⁹ As such, accessibility associated with agenda setting is thought to be a memory-based model that assumes people tend to make judgements based on information readily retrievable from their memory.²⁰ The media, as a disseminator of news and headlines, is able to effectively influence what and how much one is exposed to and hence, drive the formation of memories regarding a particular topic.

There are three main types of agenda setting: public agenda setting; media agenda setting; and policy agenda setting.¹⁹ In our case, the public's agenda may be first

informed by the types of stories or news generated from the pharmacy profession in Qatar and then set by the media through prioritization and publication of chosen articles. According to agenda setting theory and the premise of accessibility, exposure of the public to the headlines and messages of these articles will initiate the formation of memories and allow information to be retrieved when prompted at a later date.¹⁸⁻²⁰ As such, the concept of agenda setting offers a theoretical lens to further understand how the media may influence public's perceptions of pharmacy and the societal role of pharmacists in Qatar.

Data sources

A keyword search of the two primary English-language news websites was conducted for headlines published between November 16th, 2016 and November 16th, 2018.^{21,22} These Gulf Times and The Peninsula Qatar were chosen, as they offer news media in print, online, and social media forms, are the two locally-based news sources in Qatar, and should have captured the large majority of articles disseminated within Qatar's English-language media. Headlines are disseminated consistently across media forms and articles are well balanced across many topics, including a large focus on local news and events. A date range of two years was chosen, in order to ensure relevance to the current media-influenced conversations regarding pharmacy in Qatar. Each website had a search function and the keywords of 'pharmacy' and 'pharmacist' were each searched separately. Using the word 'pharmacist' also captured other forms of this word, including 'pharmacists', 'pharmacist's', and 'pharmacists'. Other related terms (such as medication) were not searched, as the aim of the study was to capture headlines that were identifiable to the profession. One investigator assessed identified articles for relevance to the pharmacy profession and extracted headlines of these articles into an excel spreadsheet for each website and keyword search. One investigator then combined and sorted the headlines to remove duplicates. The final set of headlines, after duplicates were removed, formed the basis for the discourse and content analyses. Headlines were chosen as the unit of analysis, as compared to full articles, based on previous studies employing similar methodology and the assumption that the headline would reflect the content of the news article and be the greatest contributing factor to formation of memories.^{23,24}

Thematic analysis

A thematic analysis was used to answer the first research question. The general method used in this study was reported previously.²⁵ Briefly for this study, headlines were read multiple times by one investigator (KW). This investigator received previous training in qualitative research and has led numerous projects employing qualitative research methods. Once familiar with the general nature of the headlines, this investigator began inductively coding headlines by assigning one or two words that represented the topic of the headline. Once coding was complete for all headlines, the investigator re-read headlines and codes in an iterative fashion to confirm coding and begin grouping coded headlines together into similar categories. This process was repeated until the

Table 1. Discourse themes and illustrative headlines	
Theme	Headlines
Achievement	<ol style="list-style-type: none"> 1. QU-CPH students complete pharmacy program in US 2. QU college wins top honours in national and global events 3. Wellcare pharmacies open 40th branch 4. HGH's pharmacy robot cuts waiting time for patients 5. Qatar University College of Pharmacy wins poster contest in Oman 6. Sidra opens three pharmacies 7. QU-CPH MSc graduate wins Best Poster Award 8. 31 Students take oath of a pharmacist 9. CAN-Q honours Wellcare pharmacy group 10. Qatar University launches pharmacy postgraduate society
Outreach/Engagement	<ol style="list-style-type: none"> 1. QU's Health Cluster marks Hemophilia Day 2. QU Healthcare students take part in antimicrobial stewardship 3. College of Pharmacy signs MoU with Qatar Pharma 4. QU-CPH students hold awareness campaign on common cold, allergies 5. QU collaborates on IPE smoking awareness drive 6. Smoking cessation awareness campaign held 7. QU-CPH shares Ramadan tips on use of medications 8. QU-CPH organises mediation awareness campaign 9. QU pharmacy chapter holds 'go smart' event 10. HMC pharmacy department holds medication management campaign
QU-CPH = Qatar University – College of Pharmacy; US = United States; HGH = Hamad General Hospital; QU = Qatar University; MoU = Memorandum of Understanding; IPE = Interprofessional Education	

coding framework was deemed to be stable. A total of six categories were initially identified according to this process (operations and training, continuing professional development, technology, role, awards, agreements, student training). At this point, the second investigator (MD) was provided the data to review and then discussed the six categories with the first investigator. Using discussion and consensus, the two investigators interpreted two themes related to the agenda media sets for the pharmacy profession in Qatar.

Content Analysis

A content analysis was used to answer the second research objective.²⁶ For this analysis, the headlines were re-coded based on whether or not they included any identifying word specific to the profession of pharmacy. In all cases of coding, this was any instance of the words (or derivatives of) "pharmacy", "pharmacist", or "pharmacy technician". If two or more words were present in a headline, it was only coded once. Once coding was complete, the frequency and proportion of headlines containing coded words were calculated.

RESULTS

A total of 95 articles and headlines were identified based on the search methods described above. After screening for duplication and relevance to the profession of pharmacy in Qatar, 81 remained. Irrelevant articles included those that linked to articles with embedded advertisements for pharmacy or those that did not have any content related to pharmacy or pharmacists. Upon completion of the analysis, two agenda setting themes were interpreted from the data: achievement, and outreach/engagement. Illustrative headlines supporting each theme are provided in Table 1.

Theme 1: Achievement

News organizations in Qatar focus on achievement of students, faculty members, employees, organizations, and interprofessional activities as a major part of the media's

agenda for pharmacy. Achievement was documented with respect to awards, completion of specialized or international training programs, hosting of conferences or meetings, and signing of collaborative agreements both locally and abroad. Achievement was not only limited to pharmacy, but also included interprofessional achievement (i.e. training programs and awards) that pharmacy students or pharmacists were part of. The last component of achievement focused on technology and operations achievements of pharmacies or pharmacy departments, specifically relating to the acquiring and use of robotic systems in medication preparation and distribution.

Theme 2: Outreach and Engagement

The second agenda setting theme was that of outreach and engagement. News headlines reported health promotion initiatives conducted by pharmacy students or pharmacists that typically occurred in public settings, such as malls or sports parks. Headlines were typically a summary of the event and reported after the event occurred. Similar, to achievement, outreach and engagement initiatives also included a strong interprofessional component where pharmacy students or pharmacists were included within a broader label as health professionals.

Content Analysis

Of 81 coded headlines, 38 (47%) contained an identifier word specific to the pharmacy profession. The remaining 43 (53%) used acronyms that would not be known to the public (e.g., CPH = College of Pharmacy), used broader terms to describe interprofessional activities (QU Health, Interprofessional Education), or did not contain any identifier word ('Smoking cessation awareness campaign held').

DISCUSSION

The purpose of this study was to examine the agenda set by news organizations in Qatar pertaining to the profession of pharmacy and to determine how profession is identified within the news headlines themselves. Two themes were

identified: achievement and outreach/engagement. These themes encompassed different aspects of the profession (student training, technological advances, awards, interprofessional activities, etc.) but exposed a gap in the media pertaining to pharmacy services and the role of pharmacists in society. Specifically, there was no link between the identified articles and direct patient care services. There was also no public discussion about pharmacist services and scope of practice. Furthermore, the content analysis demonstrated that only approximately half of headlines contained identifying words that associated news stories with pharmacy or pharmacists.

The findings of this study demonstrate that the agenda set by the news media in promoting headlines relating to pharmacy focuses primarily on achievements and events, rather than highlighting professional roles or services. The public, therefore, does not appear to be exposed to headlines outlining pharmacist roles or services by mainstream news sources. According to the results of this study, the public mainly receives messages from headlines stating that pharmacy students and pharmacists win awards or complete specialized or international training programs, and that they organize or participate in health promotion activities. The reasons for this may be two-fold. First, as per agenda-setting theory, it is possible that the news outlets deem headlines about achievement and outreach/engagement to be the most newsworthy for their readers and preferentially select these for publication.²⁰ Secondly, it is also possible that the profession itself does not generate headlines outside of these themes for the news organizations to report. Furthermore, the profession may not realize the importance of generating headlines that provide the public with a greater perspective of the profession and the services pharmacists offer. If this is the case, the agenda for the public is being set not only by the news organization but also by the profession itself.²⁷ Key professional stakeholders in both education and practice should therefore be encouraged to collectively use opportunities within news media to promote headlines and articles that provide a greater representation of the professional roles and services available in Qatar.

The other key finding from this study is that the majority of headlines do not contain any professional identifiers that link the news item to pharmacy. As per agenda-setting theory, public agenda setting is largely based on memories and recall.^{19,20} Therefore, headlines that do not contain identifiers to the subject matter would not contribute to a person's memories of that particular topic. Based on the results of this study, more than half of headlines identified would fall into this category and would not influence one's set of memories specific to pharmacy, unless they read the entire article. One explanation for this finding appears to be the advent of 'QU Health', which is a division of health sciences colleges (College of Pharmacy, College of Medicine, and College of Health Sciences) now operating collectively under one banner. The public, however, likely does not know what QU Health represents and which professions are embedded within. Consequently, attempts to brand health programs according to one entity must be balanced with the need to distinguish between professions.

The results of this study add to the greater field of agenda-setting, as facilitated by news media headlines. To our knowledge, this is the first study to assess how the public's agenda for the pharmacy profession is set using news media headlines in any international setting. Related studies appear to show more in-depth discourse regarding professional roles and services in other settings yet are difficult to compare due to analysis beyond what is presented in news headlines.^{16,28,29} Our findings that headlines are focused on more 'eye-catching' concepts such as achievement and engagement do align with other headline studies showing the same.^{23,24} Whether or not this agenda set by headlines is similar or different than what is supported by the full articles, however, remains yet to be explored.

These findings have implications for the profession of pharmacy in Qatar. First, academic and practice organizations should reassess the types of news articles generated from their settings and determine if headlines and articles can provide greater focus on the professional role of pharmacists in society. If these articles match the agenda of the news organizations and are published, the public may be better exposed to the profession and perceive pharmacists more aligned to their actual scope of practice. Secondly, all parties involved should attempt to strike a balance between collective marketing in media submissions (e.g. under the guise of umbrella organizations, such as 'QU Health') and promoting submissions that contain professional identifying words. By doing so, the public may have better memory recall of professional roles yet will still be exposed to larger initiatives accomplished under collective (e.g., interprofessional) terms. Future studies should also be designed to investigate how other sources of information (social media, real-life experience) help to inform the public's perception of pharmacy, in order to focus professional promotional strategies in the most impactful way.

This study has limitations that must be addressed. First, only headlines written in English were included and no attempt was made to capture headlines published in Arabic. Any effect of this should be minimal, however, as most headlines appear in both English and Arabic news sources. Secondly, types of articles written and selected for publication in Qatar probably differ as compared to other countries, likely due to factors such as the lack of professional advocacy groups. That being said, the findings of this study may be transferable to other settings, especially where dissemination of articles for the news media is occurring at a divisional or institutional level. Thirdly, the analysis was based on headlines and not full-text articles. Although more professional identifiers and/or discourse relating to professional roles and services may have been identified from full-text review, the intent of this study was to analyze the content (i.e. headlines) most visible to the public eye. Analysis of the stories associated with the headlines could be explored in further studies. Fourth, we could not account for images associated with each headline at the time of publishing that may have contributed to the public's interest in the article. Finally, as mentioned above, these news organizations are not the only sources of information that may inform the public

agenda relating to pharmacy. Despite these limitations, we believe the rigour of our approach and dependability of our results supports the trustworthiness of our study and the resulting implications.

CONCLUSIONS

This study found, based on agenda-setting theory, that the primary news organizations in Qatar set the agenda for the public by publishing headlines relating to achievement and outreach/engagement in pharmacy. Furthermore, the majority of headlines did not contain any professional identifiers that could link the public's memories with the profession itself. These findings support the notion that portrayal (or lack thereof) of pharmacy roles by the news media may contribute to a lack of recognition by the public

for the scope of services able to be provided by pharmacists. Future studies should be designed to further investigate the impact of these findings and also to identify other information sources that may be impacting the public's agenda of pharmacy practice in Qatar.

CONFLICT OF INTEREST

None.

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