Pharmacist Contributions

Faculty Discussant: Andrea Kjos, PharmD, PhD

Article 1: The Evolution of the Field Of Social and Administrative Pharmacy: Past, Present, and Future – A Network Perspective
Daniel Ricci, PharmD, MS; Betty Chewning, PhD

Article 2: The Developing Role of Community Pharmacists in Facilitating Care Transitions
Kooyman Chase; Matthew J. Witry, PharmD, PhD

Article 3: Exploring the Utilization of Community Pharmacists to Facilitate Linkage and Retention in Care of People Living with HIV
Adati Tarfa, PharmD, RPh; Olayinka Shiyanbola, PhD, BPharm

Article 4: The Roles of Clinical Pharmacists in Diabetes Management: What Do Minority Patients with Uncontrolled Type 2 Diabetes Have to Say?
Nadia A. Nabulsi, MPH; Connie H. Yan, PharmD; Ben S. Gerber, MD, MPH; Lisa K. Sharp, PhD

Article 5: An Ethical Case Study of PBM Practices' Impact on Providers
Jacob J. Drettwan, Graduate Student; Andrea L. Kjos, PhD, PharmD

Article 6: Operationalizing Occupational Fatigue in Wisconsin Pharmacists
Taylor Watterson, PharmD; Kevin Look, PharmD, PhD; Michelle Chui, PharmD, PhD

Pharmacist Contributions Faculty Discussant: Andrea L. Kjos, PharmD, PhD
Associate Professor
Drake University College of Pharmacy and Health Sciences
2507 University Ave, Des Moines, IA 50311
Email: andrea.kjos@drake.edu

Today we have heard from a number of projects and proposals that all center on our impact and contributions as pharmacists and with pharmacy practice-based research. As I was reflecting on this body of work, I called to mind a recently published op-ed. The article resonated with me, and although it was written from the perspective of two physicians, I believe there is something applicable for us here today. The article by Talbot and Dean was titled, "Physicians aren't 'burning out.' They are suffering from moral injury."[1] I applied several ideas from this commentary to shape my comments herein.

Aptly, we often use the analogy that pharmacists, and all health providers, as working on the 'front-lines.' Moreover, patient care providers are said to be in the 'trenches' of our profession. However, do we ever stop to consider, what exactly compromises the 'war' being fought? Could it be that the 'war' fought by pharmacists are their own personal battles to provide the best patient care in an environment of conflicting priorities? Could our 'war' be the never ending struggle to reach for excellence in patient care? Providing high quality patient care is not easy and certainly not for the faint of heart. Further, Talbot and Dean in the commentary posited that it is by providers working in a never-ending struggle to navigate the complexities of the health care system that are in fact causing direct 'moral injury' on providers. The authors borrow the concept of 'moral injury' from the study of the psychology of soldiers' responses to personal actions taken during war that often conflict with internal moral and ethical beliefs. The authors eloquently state this concept in relation to health care with the idea that, "Routinely experiencing the suffering, anguish, and loss of being unable to deliver the care that patients need is deeply painful. These routine, incessant betrayals of patient care and trust are examples of 'death by a thousand cuts.' Any one of them, delivered alone, might heal. But repeated on a daily basis, they coalesce into the moral injury of health care." It seems that they could be on to something. Are we winning the 'war' to deliver the best patient care? Or are we slowing dying from a moral injury of 'death by a thousand cuts?'

In the present-day rhetoric of struggling pharmacists we are all becoming familiar with the term 'burnout' or even building 'resiliency.' Questions abound in clinical and professional education settings such as how to we prevent burnout? How do we create capacity in future providers towards higher levels of resiliency? How can we empower our pharmacists to continue in the never-ending fight for professional excellence? Turning again to Talbot and Dean, they ask the reader to consider that this negative 'burnout' phenomenon experienced is not innate to providers, but rather a symptom of something larger and significantly more systemic within the health care system. Likewise, I am not convinced that the current and next generation of pharmacists simply need more "resiliency," or that they are somehow weaker than previous generations or otherwise unable to realize their professional strengths. There is something else going on in the professional environment. There is something bigger we have been missing. And we have a role to play to remedy this problem.

Many of us, perhaps not all, who are trained as pharmacists are no longer on the 'front-lines' nor are situated in the 'trenches.' We may no longer have active practice settings nor are directly involved in patient care. Therefore, are we immune from 'death by a thousand cuts?' Perhaps, in some ways we are. However, who takes responsibility for the soldiers waging battle on the front-lines? Who is it that can see the bigger picture and the systemic problems coming on the horizon before they descend? In my view, an important part of the future story of pharmacists, rests with us. We are the coaches, the strategists, the assessors and miners of knowledge with aims to reduce barriers in the war to provide excellent patient care. We understand the system, know how to intervene on the system, change the system, and thereby – reduce the potential for injury of our pharmacists.

Today, we heard about how research collaborations are as elemental in patient care as clinical intervention. We learned how collaborations have the potential to be natural bridges towards reducing barriers created by systems with conflicting priorities. We heard about the opportunity for pharmacists to become the central hub by which patients must pass, on each transition of their health journey. The pharmacists' roles in transitions of care have the capacity to link patients to services during their most vulnerable times. These are essential places where pharmacists can reach a posture towards excellence in patient care. Further, amidst a chaotic network of actors, pharmacists' plays the role of connector for the needs of our diverse patient populations, even if those connections are tangential to the health care system (i.e. social or legal services).

In addition, today's presented research explored how pharmacists relate with other organizations in the health care system which impact patient care. For example, drug manufacturers and pharmacy benefit managers (PBMs) work toward population-based care

benefits but also may create ethical dilemmas and barriers for individual patient care. Close monitoring of such organizations that impact provider behavior is needed in our changing health care system.

In summary, pharmacists experience barriers to optimizing patient care. As a result, pharmacists are experiencing professional 'fatigue,' 'burnout,' or even 'moral injury.' Use whatever term you want for today's discussion, but I strongly believe that with this knowledge we have an essential role to play as thought-leaders and scientists. We must continue in our work towards reducing barriers to the pharmacist provision of compassionate care. We must intervene upon systems of care at every level and champion to heal the wounds of our front-line pharmacists. This work lies within our collaborations, connections, and interventions. Combining efforts in championing professional empowerment and collaborations, changing the system to minimize tangential demands and aligning organizational priorities will all work towards healing moral injuries, reducing emotional exhaustion and improving quality of patient care contributions provided by all pharmacists.

1. Talbot, S. G.; Dean, W. Physicians aren't 'burning out.' They're suffering from moral injury https://www.statnews.com/2018/07/26/physicians-not-burning-out-they-are-suffering-moral-injury/ (Accessed Aug 27, 2018).

The Evolution of the Field Of Social and Administrative Pharmacy: Past, Present, and Future – A Network Perspective

Daniel Ricci, PharmD, MS
Graduate Student
University of Wisconsin-Madison
College of Pharmacy
777 Highland Ave.
Madison, WI 53705
dgricci@wisc.edu

Betty Chewning, PhD
Professor
University of Wisconsin-Madison
College of Pharmacy
777 Highland Ave.
Madison, WI 53705
betty.chewning@wisc.edu

Acknowledgements: Nothing to declare.

ABSTRACT

Introduction: Social and Administrative Pharmacy (SAP) has only officially existed since the early 1950s (then, Pharmacy Administration). Since its inception, the field has grown in depth and breadth touching all aspects of the practice of pharmacy. How did we get here? What *are* we? Where are we headed next? These are fundamental questions of interest to *any* scientific field, but are of particular interest to SAP—given that our "role" seems to be ever-evolving and seemingly resistant to formal definition.

Coauthorship provides an unobtrusive, objective window into the patterns of collaboration within an academic community. Analysis of coauthorship data can be accomplished by creating *coauthorship networks* and utilizing the techniques of network analysis to explore them. Coauthorship networks consist of a set of *nodes* (authors) connected by one or more *ties*—if authors have coauthored one or more papers together. This network can be utilized to answer a broad variety of questions about collaboration patterns—including prediction of possible future collaborations.

Objective: The objective of this study is to explore scientific collaboration in the field of SAP at three levels: 1) What do current collaborative research communities in SAP look like? 2) How were these research communities formed? 3) What collaborations will likely be formed in the future based on the current collaborations?

Theoretical framework: This study will employ many theories common in the network analysis literature and their use is organized by an overarching methodological framework proposed by Yan (2013). This framework can be used to conduct concrete and detailed analysis of scientific collaboration networks. This framework possesses both conceptual and empirical validation outlined in Yan (2013).

Proposed Methods: The first graduate degree related to Pharmacy Administration was awarded in 1953 and will serve as the beginning boundary of the data. Publications will be examined from 1953-2017. A coauthorship network will be created and analyzed.

Key Words: Social Network Analysis, Coauthorship Network, Bibliometrics

Citation: Yan E. Towards a systematic approach for studying scholarly communication through scholarly networks. Dissertation. Indiana University. 2013.

The Developing Role of Community Pharmacists in Facilitating Care Transitions

Kooyman Chase[1], Matthew J. Witry, PharmD. PhD[2]
[1] Student Pharmacist, University of Iowa College of Pharmacy, Iowa City, IA; [2] University of Iowa College of Pharmacy, Department of Pharmacy Practice and Science, Division of Health Services Research, Iowa City, IA

Matthew Witry
S515 PHAR
University of Iowa College of Pharmacy
115 S Grand Ave, Iowa City, IA 52242
matthew-witry@uiowa.edu

Acknowledgements: none

ABSTRACT

Introduction: The impact of multidisciplinary health care on the outcomes of care transitions is well established. However, the role of the community pharmacists has not been well established.

Objective: This narrative analysis aimed to describe interventions processes performed by community and ambulatory care pharmacists during care transitions using the Coleman Care Transitions Intervention Pillars and create a framework for future studies.

Methods: The following databases were searched for manuscripts published 1997-2017: PubMed, Cochrane Database, CINAHL, and Embase. Data Extraction: Two authors screened manuscripts for relevancy. Studies were included if they evaluated patient care processes by community or ambulatory care pharmacists as part of care transitions beyond receiving a discharge summary. Data were abstracted by one author and reviewed by the other

Results: Twelve studies were included in the review, 8 of which were from the community setting. Each Coleman pillar was represented, however, to differing levels. Pharmacists applied their experience with reviewing medications, identifying and resolving drug therapy problems, and providing education. Care transitions processes were, generally, found to occur in a specific sequence.

Discussion/Conclusion: Better mechanisms are needed to notify pharmacists of transitioning patients, grant access to medical records, and provide reimbursement. The Coleman Pillars of assisting patients with personal health records and discussing condition red flags were used infrequently and warrant further investigation. While important structural barriers exist, community pharmacists are increasingly positioned to contribute in care transitions and a sequential framework may guide interventions when creating new programs.

Implications: Access to medical records and appropriate reimbursement also will be needed for more impactful services, widespread adoption, and participation. Rigorous research, with more robust controls and factorial designs, are needed to determine the most impactful use of community pharmacists working in care transitions.

Key Words: Care Transitions, Community Pharmacist, Coleman Transitions Program

Exploring the Utilization of Community Pharmacists to Facilitate Linkage and Retention in Care of People Living with HIV

Adati Tarfa, PharmD, RPh
Graduate Student
School of Pharmacy
University of Wisconsin
777 Highland Ave. Madison, WI 53705
tarfa@wisc.edu

Olayinka Shiyanbola, Ph.D., B.Pharm
Assistant Professor
School of Pharmacy
University of Wisconsin
777 Highland Ave. Madison, WI 53705
Olayinka.shiyanbola@wisc.edu

ABSTRACT

Introduction: There is an alarming rate of attrition at each step of the HIV care continuum: only 85% of those living with HIV have been diagnosed, 40% of those people have not been linked to care to access the treatment and support they need to stay healthy and reduce the likelihood of transmitting the virus. HIV treatment is a lifelong process of receiving continuous care, known as retention in care, however, 48% of people living with HIV are not retained in care. Due to the epidemiological changes of HIV from an acute terminal condition to a chronic illness, more infected patients reside in the community rather than hospital settings. There is a need for exploring how pharmacists that practice naturally in community settings, can impact patient linkage and retention in care.

Objective: To (I) Explore how community pharmacists can improve linkage and retention in care of people living with HIV and (II) Modify current model of HIV care for pharmacists to be community pharmacist-specific and target gaps in the HIV care continuum.

Theoretical Framework: This study will use the Institute of Medicine (IOM) continuum of HIV care and supportive services framework, as well as the Theory of Change (TOC). The TOC will inform the study design and procedures. The IOM framework maps the primary challenges to optimal health outcomes for patients living with HIV including delayed linkage to care and poor retention in care.

Proposed Methods: We will conduct semi-structured interviews with 10 patients living with HIV, 10 community pharmacists, and 5 patient navigators who are lay health workers that assist in linking and retaining patients in care. Questions will explore the supports and services pharmacists can provide to compliment facilitators and address barriers to patient linkage and retention in care. We will analyze the data using conventional content analysis.

Keywords: Community Pharmacists, HIV Care Continuum, Linkage to Care, Retention in Care

The Roles of Clinical Pharmacists in Diabetes Management: What Do Minority Patients with Uncontrolled Type 2 Diabetes Have to Say?

Nadia A. Nabulsi, MPH
Graduate Student
University of Illinois at Chicago
College of Pharmacy
Department of Pharmacy Systems, Outcomes and Policy
833 South Wood Street
Chicago, IL 60612
nnabul2@uic.edu

Connie H. Yan, PharmD
Graduate Student
University of Illinois at Chicago
College of Pharmacy
Department of Pharmacy Systems, Outcomes and Policy
833 South Wood Street
Chicago, IL 60612
yan33@uic.edu

Ben S. Gerber, MD, MPH
Professor of Medicine
University of Illinois at Chicago
Institute for Health Research and Policy
1747 West Roosevelt Road
Chicago, IL 60608
bgerber@uic.edu

Lisa K. Sharp, PhD
Associate Professor
University of Illinois at Chicago
College of Pharmacy
Department of Pharmacy Systems, Outcomes and Policy
833 South Wood Street
Chicago, IL 60612
sharpl@uic.edu

Acknowledgments: This project was supported by the National Institute of Health (NIH) grant number R01DK091347.

ABSTRACT

Introduction: Clinical pharmacist support for patients with type 2 diabetes mellitus (T2DM) can optimize patient outcomes and medication adherence.[1] Although there is evidence of the impact of clinical pharmacist care in T2DM, there is limited understanding of patient perspectives regarding the helpfulness and role of clinical pharmacists in diabetes management programs.[2,3]

Objective: This study explores patient perspectives of the roles of clinical pharmacists in a diabetes-management intervention delivered by community healthcare workers (CHW) and clinical pharmacists to improve diabetes outcomes in minorities with uncontrolled T2DM as part of a larger NIH-funded randomized controlled trial.[4]

Methods: In the trial, 244 African-American and Latino adults with uncontrolled T2DM were offered clinical pharmacist support (including medication/disease management services) for two years with the addition of CHW support for one of those years.[4] Patients (n=191) completed a mixed-methods survey rating clinical pharmacist support on a 10-point Likert scale from "not at all helpful" to "very helpful". An open-ended question collected patient descriptions of perceived support provided. Thematic analysis was used to code responses within a modified medication therapy management (MTM) framework.[5] Two investigators coded patient responses independently and differences were resolved by a third investigator.

Results: Of 147 participants who met with a clinical pharmacist, 108 (73.5%) were African-American, 39 (26.5%) were Latino, and 101 (68.7%) were female. The 44 patients with no pharmacy visits reported scheduling conflicts as the primary barrier. Clinical pharmacists were rated as "very helpful" by 84 (57.1%) and "not at all helpful" by ten (6.8%) of participants. Patient education was the most highly perceived supportive role of the clinical pharmacist.

Discussion/Conclusion: Most patients rated clinical pharmacists' support to be very helpful. Patient perspectives of clinical pharmacist services for T2DM are crucial for developing effective programs, maximizing patient engagement, satisfying patient needs, and ensuring that a program's intended purpose aligns with the patient's self-reported experience.

Key Words: Diabetes Mellitus, Patient Perspectives, Medication Management, Clinical Pharmacists, Minorities

References

1. Skinner JS, Poe B, Hopper R, Boyer A, Wilkins CH. Assessing the effectiveness of pharmacist-directed medication therapy management in improving diabetes outcomes in patients with poorly controlled diabetes. *Diabetes Educ.* 2015;41:459-465.
2. Chung N, Rascati K, Lopez D, Jokerst J, Garza A. Impact of a clinical pharmacy program on changes in hemoglobin A1c, diabetes-related hospitalizations, and diabetes-related emergency department visits for patients with diabetes in an underserved population. *J Manag Care Spec Pharm*. 2014;20:914-919.
3. Lindenmeyer A, Hearnshaw H, Vermeire E, Van Royen P, Wens J, Biot Y. Interventions to improve adherence to medication in people with type 2 diabetes mellitus: a review of the literature on the role of pharmacists. *J Clin Pharm Ther.* 2006;31:409-419.
4. Gerber BS, Rapacki L, Castillo A, et al. Design of a trial to evaluate the impact of clinical pharmacists and community health promoters working with African-Americans and Latinos with diabetes. *BMC Public Health.* 2012;12:891.
5. Gale NK, Heath G, Cameron E, Rashid S, Redwood S. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Med Res Methodol.* 2013;13:117.

An Ethical Case Study of PBM Practices' Impact on Providers

Jacob J. Drettwan
Pharm.D./MBA Candidate
Drake University
College of Pharmacy and Health Sciences
2507 University Ave
Des Moines, IA 50311
jacob.drettwan@drake.edu

Andrea L. Kjos, Ph.D. Pharm.D.
Associate Professor
Drake University
College of Pharmacy and Health Sciences
2507 University Ave
Des Moines, IA 50311
andrea.kjos@drake.edu

Acknowledgements: This study is funded through Drake University College of Pharmacy and Health Sciences' Harris Endowment Student Research Program.

ABSTRACT

Introduction: PBM (Pharmacy Benefit Managers) practices have recently been under increased scrutiny by health policy experts and health providers. Examples of such practices have included incentives driving formulary status and prohibiting pharmacists from disclosing lower cost coverage alternatives for certain covered prescriptions. Within the broader national debate on the practices of health insurers, investigation is justified into whether or not specific PBM practices could impact ethical decision-making behavior of health providers.

Objective: The objective of this project was to analyze several specific PBM practices using a variety of ethical decision-making models in a systematic case analysis to determine the potential impact on pharmacists.

Methods: This study systematically applied multiple ethical decision-making models to a variety of PBM practices associated with PBM-related dilemmas encountered by pharmacists. The ethical decision-making models used in this study included Utility, Choices and the Virtue Models as well as others. The pharmacist and physician codes of ethics were compared for alignment with the results of the ethical decision-making scenarios.

Results: The data showed a unique assessment of PBM practices' using ethical decision-making models. The cases resulted in mixed outcomes for the assessed dilemmas. That is, PBM practices were both ethical and unethical depending on the applied model. Alignment with the Codes of Ethics further triangulated the results.

Discussion/Conclusion: This ethical case study analysis provided context from a holistic perspective. To our knowledge, this perspective has not been previously applied to recently scrutinized PBMs practices. Ethical decision-making models provide a variety of perspectives that offer practical context to current dilemmas surrounding PBMs. It is important to analyze healthcare dilemmas using ethics to systematically assess the potential impact on providers' decision-making behavior.

Keywords: Pharmacy Benefit Manager (PBM), Ethics, Pharmaceutical Regulation, Policy, Provider Decision-Making

Operationalizing Occupational Fatigue in Wisconsin Pharmacists

Taylor Watterson, PharmD
Graduate Student
University of Wisconsin-Madison
School of Pharmacy
777 Highland Ave
Madison, WI 53705
twatterson@wisc.edu

Kevin Look, PharmD, PhD
Assistant Professor
University of Wisconsin-Madison
School of Pharmacy
777 Highland Ave
Madison, WI 53705
kevin.look@wisc.edu

Michelle Chui, PharmD, PhD
Associate Professor
University of Wisconsin-Madison
School of Pharmacy
777 Highland Ave
Madison, WI 53705
michelle.chui@wisc.edu

ABSTRACT

Introduction: Although studies have assessed pharmacists' workload, no research exists to describe pharmacist occupational fatigue—a characteristic of excessive workload that inhibits workers' abilities to function at normal capacity. This area is crucial as evidence suggests that nurse occupational fatigue can negatively impact patient safety. The objectives of this study were to 1) develop a conceptual model to operationalize pharmacist occupational fatigue and 2) identify the latent structure underpinning pharmacist fatigue.

Methods: A model was created to conceptualize "fatigue" domains found in the literature. A priori, the two domains identified were physical fatigue (ex. pain and tiredness), and mental fatigue (ex. trouble thinking clearly and lack of motivation). These domains were operationalized and used to create a survey. The survey underwent iterative cognitive interviewing and pilot testing. The survey was distributed to licensed pharmacists via paper at a Wisconsin educational pharmacy conference. An Exploratory Factor Analysis (EFA) was conducted utilizing maximum likelihood estimation with promax oblique rotation.

Results: 283 surveys were distributed and 115 were returned (40.6% response rate). Respondents were primarily white (89%), female (60%), and 39-years-old on average. Respondents worked 9.52 hours-per-day on average and half (50%) worked in a hospital or institutional setting. The EFA suggested a statistically significant two factor model of pharmacist occupational fatigue (X^2 9.73, p=0.28; TLI 0.998, RMSEA 0.048), which included physical fatigue (α=0.87) and mental fatigue (α=0.82).

Discussion/Conclusions: The EFA resulted in substantial item reduction from the initial survey questions (13 items to 7), yet yielded a structure similar to what was anticipated from the literature (physical and mental/emotional fatigue). Measuring pharmacist fatigue is the first step to developing and testing interventions to reduce fatigue, which could lead to improved pharmacists' job satisfaction and patient safety.

Key Words: Fatigue, Survey, Exploratory Factor Analysis