Research Section Spotlight

MLA 2018 Research Section Research Awards

Congratulations to the Winning Research Papers and Posters from MLA '18 and the Winner of the Best Biennial *JMLA* Research Paper!

The MLA Research Section is pleased to announce the winners for best research papers and posters presented at the MLA 2018 annual meeting in Atlanta, GA. Thank you to the 31 judges who volunteered their expertise to help select these deserving awardees. To learn more about the awards and selection process, visit the Research Section website at http://www.mlanet.org/p/cm/ld/fid=938.

Contributed Posters

1st Place
Authors:
Sarah Wright – Clinical Librarian, University of North Carolina-Chapel Hill, Chapel Hill, North Carolina
Rebecca McCall – Clinical Librarian, University of North Carolina-Chapel Hill, Chapel Hill, North Carolina

Title: Clinical Librarians and Their Essential Services in Academic and Health Care Settings: A Comparative Survey

Objectives: While there are many indicators and models of individual successful clinical librarian services and programs in health sciences libraries in the literature, there is no recent, comprehensive summary of services provided by clinical librarians. This poster, based on a current survey of clinical librarians, provides summary data of clinical librarian service models in the US and internationally.

Methods: In February, 2018, we distributed an online survey to librarians who currently provide clinical services in academic and/or hospital settings. Requests to complete the survey went to multiple library listservs frequented by clinical librarians.   The survey collected statistics in the following areas: clinical team rounding; participation in departmental activities; instruction for students, residents, or professional staff; expert searching and research involvement; identification of clinical teams served; the ratio of clinical librarians to all health sciences librarians at institution, the average number of clinical departments served; and their clinical environments and geographic locations. The authors asked survey questions regarding clinical librarians' tasks and their perception of service impact on their constituents.

Results: Three hundred and thirty-eight participants responded to the 14 question survey. Responses to the ranked questions regarding services were coded by the authors. Overall, 180 respondents answered all questions. The remaining participants answered

some of the survey questions. 27% survey responses were from individuals at academic libraries, and 63% of responses were from hospital libraries. 52% of respondents were from the United States, while 48% were from international respondents, including Canada, UK, and Europe. The majority of clinical librarians serve physicians, residents, allied health professionals, and nurses. From this survey, the authors can make the following statements: Clinical librarians serve multiple specialties working with a variety of clientele. In ranking their services, clinical librarians feel that they provide these top impact services to their clientele: 89% save clinicians time, 87% advance evidence-based practice, and 76% increase teaching skills of clinicians.

Conclusions: Our analysis of current trends in clinical librarian services provides an overview of service models and the areas of focus clinical librarians have in their current positions. These results can be used to: 1) give creative ideas for services to current clinical librarians, 2) help justify a clinical librarian service to management, and 3) assist a new clinical librarian in providing creative and meaningful services to health care professionals.

2nd Place
Authors:
Tallie Casucci – Assistant Librarian, J. Willard Marriott Library, Salt Lake City, Utah
Amy Locke – Associate Professor of Family and Preventive Medicine; Co-Director, Resiliency Center, Salt Lake City, Utah

Title: Leading the Way to Transform Burnout among Health Sciences Librarians

Objectives: Measure burnout among health sciences librarians and determine if a wellness game intervention improved personal and workplace wellness.

Methods: A burnout and satisfaction survey was administered to health sciences faculty in summer 2016 and fall 2017. A single item assessed emotional exhaustion, validated to the Maslach Burnout Inventory. The survey was a part of a Health Sciences initiative to address faculty burnout and job satisfaction. Each department selected wellness champions to develop programs to meet identified departmental wellness priorities with specific metrics. The library wellness champion created a team-based game after participatory interviews. Players collected points for activities related to appreciation, social, mental, and physical wellness. At the game conclusion, a paper-based survey was administered to library employees. The survey included multiple choice and free-text questions. The data were analyzed with descriptive statistics and the grounded theory. Game participants celebrated with an awards lunch.

Results: Twelve library faculty completed the wellbeing and burnout survey. They scored poorly on burnout indicators in both 2016 and 2017. Emotional Exhaustion increased from 43% to 73%. Faculty felt a great deal of stress due to their job (58% in 2016 and

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91% in 2017 compared to 45% among other health sciences employees). Factors predicting burnout include sense of control over workload, job satisfaction, stress because of job and finding meaning in work. Highest areas of concerns were a chaotic work environment, work flexibility, sense of control and team collegiality.30 out of the 59 employees completed the post-game survey. 70% reported the game encouraged them to socialize with colleagues. After coding qualitative data, five categories emerge: socialize (19), motivation (6), fun (5), game play (3), and recognize habits (3). Participants found the wellness game to be a useful strategy in encouraging a more social culture with fun activities.

Conclusions: Similar to previous studies on bibliometric librarians and health professionals (mainly physicians and nurses), health sciences librarians experience burnout. Although the game intervention did not improve burnout or job satisfaction, it did build collegiality and recognition amongst employees. A wellness game can encourage team building, but may not sufficiently address the root causes for health sciences librarian burnout.

Honorable Mention

Authors:

Rachel Hinrichs – Health Sciences Librarian, University Library, Indianapolis, Indiana

Title: Evidence-Based Practice Skill Retention and Use by Dietetic Interns: Did Library Instruction Have an Impact?

Objective: To determine if dietetic interns retain the evidence based practice (EBP) knowledge and skills that they were taught in three library instruction sessions in the fall by the end of the 10-month internship, and whether there is a change in their EBP clinical behaviors.

Methods: This non-randomized before and after study will use a validated survey to measure EBP knowledge, and EBP clinical behaviors. Dietetic interns (n=16) from a large, Midwestern university will be given the survey after EBP library instruction in the fall, and at the end of their internship in the spring. Library instruction sessions will cover PICO questions, database searching, filtered and unfiltered resources, and critical appraisal. A paired t-test will be used to compare interns' scores in the fall and spring.

Results: Fourteen interns (n=14) completed both surveys. On the EBP knowledge assessment, interns scored an average of 18/24 (75%) in the fall after library instruction, and 13/24 (54%) in the spring, a difference that is considered statistically significant (t(13)=7.0, p < .0001). The decrease was primarily due to missing questions on statistics and advanced Boolean searching. Interns retained and even improved their scores on PICO, MeSH, and the evidence pyramid. A slightly statistically significant change in evidence-based practice behaviors was found between the fall and spring (t(26)=2.1,

p=.046). In particular, interns reported that they searched PubMed (t(13)=2.8, p=.016), and critically appraised articles more frequently (p(13)=2.2, p=.045).

Conclusion: Despite the three library sessions occurring early in the internship, these results suggest that interns retain information on PICO, MeSH, and the evidence pyramid, but not on statistics or complex Boolean searching. It is possible that these skills were not used frequently in the internship, so they did not retain the information. Interns did report, however, that they more frequently performed all evidence-based behaviors including searching PubMed, accessing systematic reviews, and critically appraising articles, while decreasing their use of textbooks. While the sample size is small and not necessarily generalizable to other populations, this study suggests that dietetic interns retain some information from library EBP instruction, and do make use of the EBP resources and skills demonstrated by the librarian during their internship. Future studies could examine different health professional students, and test whether spreading library sessions over the course of the year would increase retention and evidence-based behaviors further.

Contributed Papers

1st Place
Authors:
Frances Delwiche – Library Associate Professor, University of Vermont, Burlington, Vermont

Title: Bibliometric Analysis of Scholarly Journal Literature on the Zika Virus (ZIKV) 1952-2016

Objectives: The primary objective of this study was to characterize the scholarly journal literature on the Zika Virus (ZIKV) on the basis of publication date, source journal, subject of source journal, country of first author, and publication type. A secondary objective was to develop a reproducible method of bibliometric analysis for this topic that would enable future updates to this study.

Methods: A search on the word Zika or ZIKV was conducted in PubMed, using both MeSH headings and keywords. The search was limited to articles published between 01/01/1952 and 12/31/2016. Results were imported into an EndNote library using a modified import filter, then exported to an Excel file using a customized output style. Exclusions included duplicates, off-topic articles, errata or corrections, and articles from popular magazines. Data were analyzed by publication date, in five-year increments. A list of journals in which the articles were published was generated, and frequency ranked. Frequency ranked lists were also obtained for the subjects of the journals and countries of

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first authors. Finally, a comparison of the number of opinion pieces versus research articles was conducted for six infectious diseases, including ZIKV.

Results: Approximately 93% of articles in PubMed on ZIKV were published in 2016, with the remaining 7% published between 1952 and 2015. Though nearly 600 journals contributed articles on the topic, one third of the articles were contributed by just 19 journals. Conversely, over 81% of journals contributed three articles or fewer, and 55% contributed only one article. Articles were contributed by authors working in over eighty countries scattered worldwide. The publication type comparison for six infectious diseases showed that ZIKV had both the highest percentage of opinion pieces and the lowest percentage of research articles.

Conclusions: This study provided a broad overview of the state of scholarly journal publishing on ZIKV as of the end of 2016. The analysis revealed a remarkably rapid response to the ZIKV epidemic of 2015-2016 by the medical, scientific, and publishing communities, drawing contributions from scholars worldwide, working across dozens of disciplines. By describing a reproducible methodology, the study provided a mechanism for conducting periodic updates that will track the evolution and maturation of the ZIKV literature well into the future.

2nd Place

Authors:
Julia Esparza, AHIP – Head, User Education and Outreach Services, Medical Library, Louisiana State University Health Sciences Center, Shreveport, Louisiana
Grace Dodd – Student Researcher, LSUHSC Library, Shreveport, Louisiana
Derrick Murcia – Student Worker, Neurosurgery, Frierson, Louisiana
Jessica Sims, Student, Multicultural Affairs, Shreveport, Louisiana
Gunjan Kahlon – Chair of Hospital Medicine, Department of Internal Medicine, Philadelphia, Pennsylvania

Title: Community Knowledge Assessment of HPV Vaccination in Males

Objectives: To ascertain community member perspectives regarding transmission of Human Papillomavirus infection, associated diseases and to identify barriers which prevent these groups from ensuring that males 9-26 receive the three-shot vaccine series to prevent HPV infection. Using this information develop and implement health professional and patient education.

Methods: After Institutional Board Approval at an Academic Medical Center, a community survey using a convenience sample of visitors and patients to outpatient clinics was done. To establish a margin of error ±6%, 270 paper surveys were needed. The survey was 15 questions broken into a demographics section, HPV vaccination status of their children or

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self (if a young adult), their knowledge of transmission of HPV and if they would vaccinate their children or self based on the information provided in the survey. Participation was sought from visitors in the outpatient Internal Medicine and Pediatric clinics. Over 800 individuals were approached to complete the survey. Surveys were collected during June through July, 2016. The Medical Library, Internal Medicine, and Pediatric faculty with the Hospital and Outpatient Pharmacy spearheaded the project. The Medical Library faculty recruited three research apprentices to collect data.

Results: The survey was completed by 385 (95% confidence interval with a ±5% margin of error) participants. Over 80% of the participants were female (80%) with most being African American (65%) or Caucasian (29%). Results show that 50% of the survey participants never had a physician discuss HPV vaccination, 39% didn't know the diseases associated with persistent HPV infection and only 39% knew that sexual contact is the mode of transmission. "Other" comments demonstrate the information needs of the participant population with statements such as "heard the vaccine doesn't work" and "don't trust vaccines" still a part of the community knowledge.

Conclusions: To date this is the largest study United States face-to face (not telephone) study of community knowledge on male HPV vaccination, knowledge of the results of persistent infection, methods of transmission, and change in vaccination acceptance. The results provided crucial insights. Healthcare providers were not always having conversations about vaccination of males against HPV and that there was a gap in community knowledge on the cancers associated with persistent infection with HPV, and how HPV was transmitted. With this data a grant was obtained to create a comprehensive educational plan for healthcare providers and the community.

Honorable Mention

Authors:

Kaitlin Costello – Assistant Professor, Rutgers University, Department of Library and Information Science, New Brunswick, New Jersey

Norris Brown – Research Assistant, Department of Library and Information Science, New Brunswick, New Jersey

Title: Coverage of Core Competencies for Health Information Professionals in American Library Association Programs

Objectives: What health-related courses are available to students in master's programs accredited by the American Library Association? Which of the core competencies necessary for work in health informatics, as defined by both the Medical Library Association and the American Medical Informatics Association, are covered in these classes? What curriculum gaps should instructors in these programs focus on for future course development?

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Methods: A list of 60 accredited programs was obtained from the American Library Association directory in January 2017. During a six-month period from February 2017 through July 2017, the research team visited program websites and institutional course catalogs, and searched for course listings covering health-related topics between Fall 2014 and Fall 2017. Course descriptions and other related data (e.g., date of last offering, number of credits, whether the class was part of a larger concentration in health informatics or similar, last available syllabi) were collected when available. The Medical Library Association and American Medical Informatics Association competencies were discussed among the research team and six codes, each corresponding to one of the six objectives outlined by both frameworks, were created. Deductive quantitative content analysis was then applied to the available course descriptions to determine the main competency addressed in each class.

Results: Thirty-nine of the 60 schools offer at least one class focused on health. Nine programs offer a concentration in health informatics, while 18 of them offer one health class. Most (32) classes focus on health information services and health reference. Nineteen are related to the development of the health information professions; 16 cover leadership, management, and organizational communication; 12 address technical skills like data structures and programming; 8 are on instructional design and the design of sociotechnical systems; and 5 focus on evidence-based medicine and fundamental theoretical frameworks. Programs with concentrations in health offer more comprehensive coverage of the competencies.

Conclusions: Students in these programs will often need to supplement the health-related course offerings with classes in programming, coding, instructional design, human-computer interaction, and theoretical frameworks in information science and health in order to gain the core competencies required for a career in health information. Instructors in these programs looking to develop classes in health information should focus on developing those that address competencies that are not currently addressed fully, including the design of instructional programs and of sociotechnical systems for health; theoretical frameworks in information science, evidence-based medicine, and health behavior; and on technical skills like structuring data and coding.

Best Hospital Paper/Poster

Authors:
Marilyn Teolis – Clinical Medical Librarian, Library Service (142D), Tampa, Florida
Priscilla Stephenson – Chief, Library Service, Library Service, Tampa, Florida
Mary Virginia Taylor – Retired Librarian, Library, Shreveport, Louisiana
Edward Poletti – Chief, Learning Resources, Learning Resources, Little Rock, Arkansas

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Title: Leading the Way: Evaluating Health Information Professionals' Satisfaction with Discovery Systems

Objectives: Libraries are using discovery services to provide users with a one-box search engine to consolidate library content using a centralized index. The literature discusses use in academic libraries, but there is little data on usage in hospital libraries. We evaluated the experiences and satisfaction of hospital library staff concerning the purchase, implementation, and maintenance of a discovery service.

Methods: This study is based on a previous survey from 2015. An online questionnaire was sent to various health library mail groups, requesting participating librarians' level of satisfaction regarding discovery products. Participants were queried regarding which discovery products they had evaluated and whether a discovery product was purchased. Respondents rated specific features, their satisfaction, and whether the tool met their expectations as a single search box resource.

We inquired about the factors which influenced their purchasing decisions. Individuals who purchased a discovery service were asked if the time to implement and maintain the product was what they had anticipated. Participants were given the opportunity to share lessons learned during the process.

Finally, we invited health information professionals to share their experiences and questioned respondents regarding their perceptions of user acceptance and usage.

Results: Over 87% of the responding librarians were satisfied with discovery services. In the current study, 92% of respondents said they planned to purchase or had purchased a discovery product, in comparison with only 41% of health information professionals who reported purchases or purchase plans in the 2015 study. Many participants said discovery services not only increased utilization of the libraries' owned resources, but also enabled patrons to find underutilized resources they might not have located without a discovery service. Academic librarians said discovery services were essential to their libraries, because they integrated resources with link resolvers, and they revealed doctoral dissertations and other information in their collections which led to increased usage.

Conclusions: We anticipated librarians' satisfaction would increase as discovery services evolved, but we didn't expect the results would show a such a large, positive shift in librarians' attitudes regarding the purchase and utilization of discovery tools.

Future research efforts should focus on several barriers librarians mentioned, such as enabling discovery tools for mobile devices, improving the platform to work seamlessly with different vendors products; refining search filters to find the most specific, relevant, and high-quality resources; and simplifying maintenance and updating procedures.

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Best Biennial JMLA Research Paper

Authors:
Misa Mi, PhD, MLIS, AHIP – Associate Professor and Medical Librarian, Oakland University William Beaumont School of Medicine Library Rochester, MI
Yingting Zhang, MLS, AHIP – Research Services Librarian, Robert Wood Johnson Library of the Health Sciences, Rutgers, The State University of New Jersey, New Brunswick, NJ

Objective: This study investigated the current state of health sciences libraries' provision of culturally competent services to support health professions education and patient care and examined factors associated with cultural competency in relation to library services and professional development.

Methods: This was a cross-sectional study. Data were collected with a survey questionnaire that was distributed via SurveyMonkey to several health sciences librarian email discussion lists.

Results: Out of 176 respondents, 163 reported serving clients from diverse cultural backgrounds. Various services were provided to develop or support initiatives in cultural competency in health professions education and patient care. A considerable number of respondents were unsure or reported no library services to support initiatives in cultural competency, although a majority of respondents perceived the importance of providing culturally competent library services (156, 89.1%) and cultural competency for health sciences librarians (162, 93.1%). Those who self-identified as nonwhites perceived culturally competent services to be more important than whites ($p=0.04$). Those who spoke another language in addition to English had higher self-rated cultural competency ($p=0.01$) than those who only spoke English.

Conclusions: These findings contribute to our knowledge of the types of library services provided to support cultural competency initiatives and of health sciences librarians' perceived importance in providing culturally competent library services and cultural competency for health sciences librarians. The results suggest implications for health sciences libraries in fostering professional development in cultural competency and in providing culturally competent services to increase library use by people from a wide range of cultures and backgrounds.