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EDITOR'S MESSAGE / MESSAGE DE LA RÉDACTION

The publication of this issue marks my last as a member of the editorial team for JCHLA/JABSC. The last three years have been rewarding and an amazing learning opportunity. I would encourage anyone who has an interest in research, writing, or scholarly publishing to consider applying for the editorial opportunities that arise.

This fall, we welcome Sandra McKeown from Queen's University as Junior Editor, and Lucy Kiester of McGill University as Copyeditor. I would like to thank Grace Romund for her work as Copyeditor over the past year and a half. Nancy Gadoury will continue as Production Editor, Erin Watson will now move onto Senior Editor and Nicole Askin will take over as Editor in Chief. It has been a privilege and a pleasure to work with this team. I am confident that the journal will continue to move forward under Nicole's guidance.

I would like to take this opportunity to thank all of the peer reviewers, without whom this journal would not be possible. I would also like to thank the Board of Directors of CHLA/ABSC for their continued support and encouragement.

We are pleased to offer a wide variety of interesting content in this issue. We have two articles that discuss library support for researchers, an article that discusses the promotion of Indigenous Children's interests through book collections, a product review on Colandr, three book reviews, as well as contributed paper abstracts, lightning talk abstracts, and poster presentation abstracts from the annual CHLA/ABSC conference that was held in St. John's, NL this past June.

Alison Farrell

JCHLA/JABSC Editor-in-Chief

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La publication du présent numéro constitue ma dernière contribution à titre de membre de l'équipe éditoriale du JABSC / JCHLA. Les trois dernières années ont été pour moi une occasion exceptionnelle d'apprentissage et de gratification. J'encourage toute personne intéressée par la recherche, la rédaction ou la publication universitaire à poser sa candidature pour saisir ces possibilités éditoriales.

Cet automne, nous accueillons chaleureusement Sandra McKeown de l'Université Queen's à titre de rédactrice adjointe, ainsi que Lucy Kiester de l'Université McGill à titre de réviseur de textes. Je tiens à remercier Grace Romund pour son travail de réviseur de textes au cours de la dernière année et demie. Nancy Gadoury demeure au poste de directrice de la production, Erin Watson mutera au poste de rédactrice principale et Nicole Askin assumera le poste de rédactrice en chef. Travailler au sein de cette équipe a été pour moi un plaisir et un privilège. Je suis persuadée que le journal continuera à progresser sous la direction de Nicole.

Je tiens à profiter de l'occasion pour remercier tous les pairs évaluateurs sans qui ce journal ne pourrait exister. Je remercie par la même occasion les membres du conseil d'administration de l'ABSC / CHLA pour le soutien indéfectible et l'encouragement qu'ils m'ont accordés.

Nous nous enorgueillissons d'offrir un large éventail de contenu intéressant dans ce présent numéro. Notamment, deux articles qui traitent du soutien des bibliothèques accordé aux chercheurs ; un article qui traite de la promotion des intérêts des enfants autochtones par le biais de collections ; une évaluation de produit portant sur Colandr ; trois critiques de livres ; ainsi que des extraits de présentations d'articles, d'extraits de présentations éclair et d'affiches dans le cadre de la conférence de l'ABSC / CHLA qui s'est tenue à St. John's à Terre-Neuve, en juin dernier.

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RESEARCH ARTICLE / ARTICLE DE RECHERCHE

Librarian Support for Researchers in Ontario Hospitals

Mary McDiarmid⁺ and Michael T. Lam

Abstract: Introduction: The purpose of this paper is to investigate the extent to which Ontario hospital librarians and library resources, support research and explore the librarians' participation in research capacity building within their institutions. **Methods:** 53 potential participants received via email, a 16-question web-based questionnaire (SurveyMonkey™). **Results** The response rate was 60%. Librarians have supported anywhere from 10 or less to 76 or more researchers in the past 12 months. Librarians supported a variety of scholarly research outputs, assisting research authors with journal articles being the most frequently supported activity. The top 3 library resources used to support researchers were licensed electronic journals, print collections and expert librarian searches. One of the reported ways librarians received training to better assist researchers was via online continuing education. **Discussion:** As other studies have reported, there was a predominance of support for literature studies including literature reviews and systematic reviews. It was surprising to find that some librarians reported that they had all the databases or resources they needed to support research. Shrinking library budgets in Ontario hospitals has been the trend for several years, so it was unexpected that some respondents felt they had sufficient resources to support research activities. It was alarming that 79% of respondents reported not having access to all the databases and resources they needed to conduct research. Lack of access to databases or online resources may have a negative effect on the quality of research support librarians provide. Raising the awareness of the role of librarians in supporting researchers in the hospital setting can inform the health sciences librarians' professional practices and provide evidence of the library's participation in building research capacity in the organization.

Introduction

Hospital-based research is becoming increasingly important in the Ontario healthcare system due, in part, to the emphasis on the provision of evidence-based or evidence-informed services.

Library research training may not be adequate or a required component for all clinician trainings in all institutions; hence, there may be a need for research support and capacity building in healthcare.

The role and expertise of the hospital librarian is well-suited to support organizational research [1-6]. Hospital librarians typically support the research process in traditional ways, doing literature searches, providing articles, resources and expertise as needed. A scoping review found that research support provided by health sciences librarians was predominantly for

systematic review support, though there was an emerging role in data management support [7]. Another study described a team of clinicians and librarians who created an online workspace using web 2.0 tools for use by researchers within their hospital. The library page on this website provided researchers with helpful instruments and offered them a document repository to share their results, teaching materials or clinical protocols [8]. In another study, the librarians supported clinical researchers by establishing an institutional-wide tracking system to monitor research publications and scholarly activities [9].

Beyond direct assistance with research, the health sciences librarian has the opportunity to support research capacity building of the hospitals by offering library research training to hospital staff. Through these workshops or online training, librarians provide

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appropriate skills and confidence to apply those skills in their research projects [10]. While there is little literature describing such programs, one study conducted in a teaching hospital described the implementation and outcomes of a program aimed at improving the scholarly productivity of hospital staff [9]. The program included librarian-led instructional workshops and researcher training on topics like searching key health databases and using bibliographic management citation software. Upon completion of the program, they found an increase in the usage of research databases and webpages, as well as improved tracking of research projects due to the new tracking system implementation as part of the training program [9]. Health sciences librarians have the skills and capacity to provide varied and meaningful support to organizational research activities; however, the extent to which this expertise occurs in hospital library services remains unknown.

Interestingly, studies have shown that fewer than 50% of health science libraries evaluate their services, with a scoping review reporting that only 25 of 60 studies included in the study mentioned evaluation [7]. Additionally, a systematic review of the effectiveness of librarian provided services in healthcare found no studies of librarians providing direct services to researchers and patients in healthcare settings [11]. While evaluation is poorly reported in the literature, it remains unknown whether these reports reflect the evaluation of hospital library research services in practice.

Hospital librarians have the expertise to become an integral part of the multidisciplinary research team to support evidence-based healthcare and publication activities and provide practical skills training. As discussed above, the literature is scant and the role of hospital librarians, including research support, training, and evaluation of services, is poorly understood. Therefore, this study investigates the extent to which Ontario hospital librarians and library resources support researchers and describes the librarians' participation in research capacity building within their institutions. The objectives of this research were:

1. To determine the extent and variety of activities performed by hospital librarians to support researchers and research capacity building in their institutions;
2. To identify the specific scholarly research outputs librarians support; and

3. To identify specific library resources provided by hospital librarians to assist researchers.

Methods

This study used a descriptive exploratory study approach with a structured 16-item questionnaire. We chose an online questionnaire survey instead of telephone or face-to-face interviews. This approach is the most appropriate given time and monetary constraints. The institutional research ethics board approved this study. We advised respondents in the preamble to the questionnaire that returning the questionnaire implied informed consent. The questionnaire was administered online through SurveyMonkey™ program by sending a link to the registered e-mail of 53 Ontario hospital librarians. The questions sought to investigate activities and services provided to researchers within the hospitals. The questionnaire was originally developed and used in an academic health sciences library and was adapted with permission to reflect the hospital library context [2].

In order to identify and to improve on any ambiguous questions, two hospital librarians from non-Ontario general hospitals volunteered to serve as pre-test participants to provide feedback on the questionnaire and to test the data collection procedure (August 8, 2017 to August 11, 2017). Pre-test participants completed both the questionnaire and a questionnaire evaluation feedback form. After the pre-test 2 questions were deleted and two new questions were added to the questionnaire. We expanded response categories for 5 questions and 5 questions were reworded for clarity.

We created a list of 53 potential participants by identifying Ontario hospitals registered with the National Library of Medicine's DOCLINE® interlibrary loan system. The advantage of using this tool is that in order to participate, a hospital must have an active library service in their facility. Questionnaires were distributed by direct email to managers or directors of libraries with multiple library staff and to solo librarians who may or may not be in a managerial role in Ontario hospitals. As one of the authors, is a solo librarian at an Ontario psychiatric hospital library, we excluded all other Ontario psychiatric hospitals to avoid researcher bias.

Potential respondents had five days from October 16, 2017 to October 20, 2017 to complete the

questionnaire. SurveyMonkey™ was used and data was exported to Microsoft Excel 2010 (Microsoft Corporation, Redmond, WA, USA) for data analysis. It was not necessary to validate data entry as participants completed the questionnaire online through SurveyMonkey™.

The 3 objectives of this study were used to categorize and analyze the data. Frequency tables, and descriptive statistics were used to summarize the data collected. Tables, bar and pie charts were used to demonstrate the survey data where applicable. We conducted all data analyses using SurveyMonkey™.

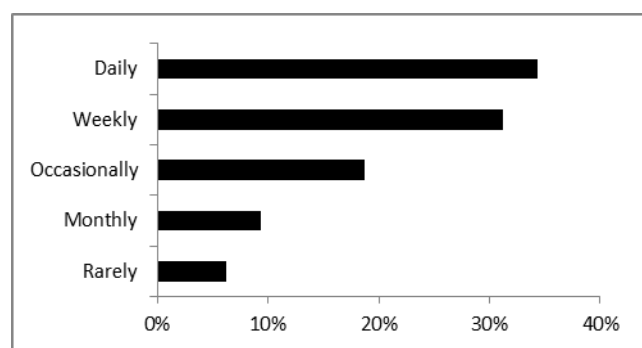
Results

Of the 53 hospital librarians contacted, 32 respondents returned the questionnaire (60% response rate). Twenty-four of the respondents (75%) completed all the questions. The total number of responses to each question varies because some questions were unanswered.

1) The extent and activities of hospital librarians regarding their support of researchers and research capacity building within their hospitals.

All 32 respondents reported that they received requests for research support with various frequency; daily (34%), weekly (31%), occasionally (18%), monthly (9%) or rarely (6 %) (Figure 1).

Fig. 1 Frequency of Requests for Research Support (n=32)



Ten respondents indicated their librarians spend 26% to 50% of their time devoted to supporting research. Eight respondents reported spending 25% or less of their librarians' time on research support. Seven reported they spend 51% to 75% of their time and 1

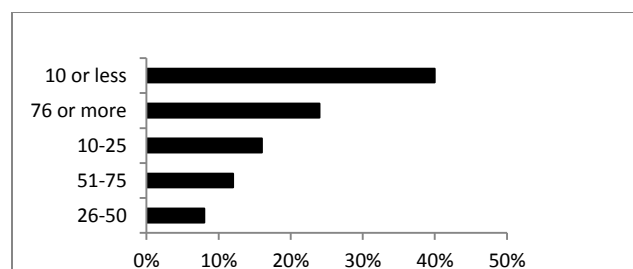
respondent reported spending 76% to 90% on research support (Table 1).

Tab. 1 Per Cent of Librarians' Time Spent Supporting Research (n=26)

Time Spent	25% or less	26% to 50%	51% to 75%	76% to 90%
Responses	8	10	7	1

Ten respondents reported that they have supported 10 or less researchers over the past 12 months. Six respondents reported they supported 76 or more researchers within their hospitals. Four respondents served 10 to 25 researchers. Three respondents supported 51 to 75 researchers and 2 respondents indicated they supported 26 to 50 researchers. (Figure 2)

Fig. 2 Number of Researchers Supported by Librarians in Past 12 months (n=25)

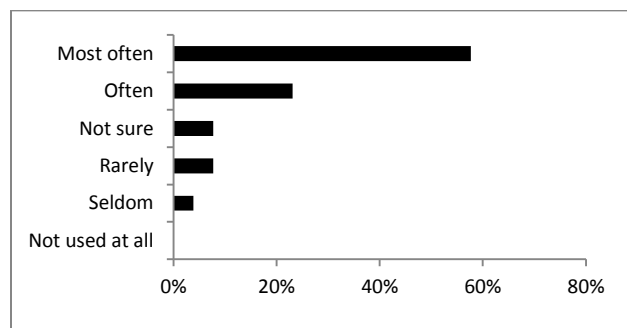


The average number of full-time library staff per hospital whose role requires them to support researchers was 2.03, with a standard deviation of 1.84. The median number of staff is 1.5. The highest and lowest FTE reported is 7.0 and 0.2 with a range of 6.8.

All 32 respondents believed in the importance of librarian support for research. Twenty-five respondents (78.1%) believed support was very important, while 7 (21.8%) believed it was important or somewhat important.

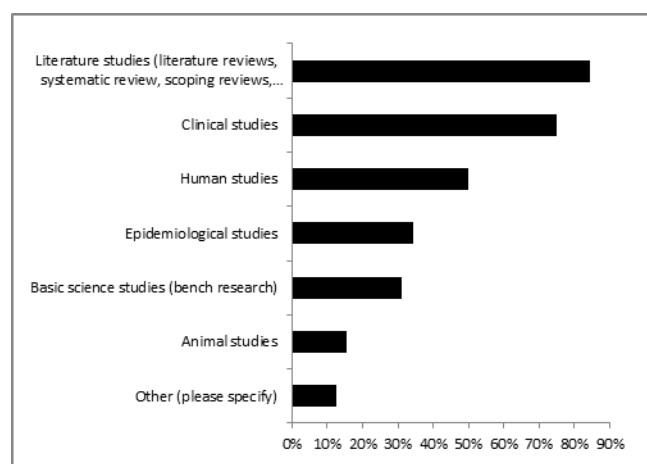
The majority of respondents (80%) reported they often or most often used their knowledge of multiple databases to support the work of researchers. Eleven per cent of respondents indicated they rarely or seldom used multiple databases. Two respondents were not sure of the frequency of use (Figure 3).

Fig. 3 How often does the librarian use knowledge of multiple databases to assist the work of researchers? (n=26)



Type of research performed by 84% of respondents included literature studies, and literature reviews and systematic reviews. Clinical studies are supported by 75% of librarians, 50% support human studies, 34% support epidemiological studies, 31% support basic science (bench research), 15% support animal studies and 12% supported other studies. Other studies included “health profession education”, “broad spectrum of nursing and allied health information”, and “all of the above as dictated by clinician interests” (Figure 4).

Fig. 4 Types of Research Supported (n=32)



Librarians reported participating in various types of training to better assist researchers. Respondents (86%) used education via online training while 56% of respondents used continuing education via classroom setting. Respondents (73%) also attended conference

workshops. Forty-seven per cent of respondents reported they learned through the library science research and publication activities. Forty-three per cent of respondents reported they used online discussion forums. Internal mentors were used by 34% of respondents compared to 21% who were mentored by an external librarian (Figure 5).

Fig. 5 Types of Training for Librarians to Assist Researchers (n=23)



The majority (62%) of hospital librarians do not support researchers who are unaffiliated with their hospital. Some librarians (29%) do support external researchers, but for a fee, while 8% report that they support external researchers at no cost.

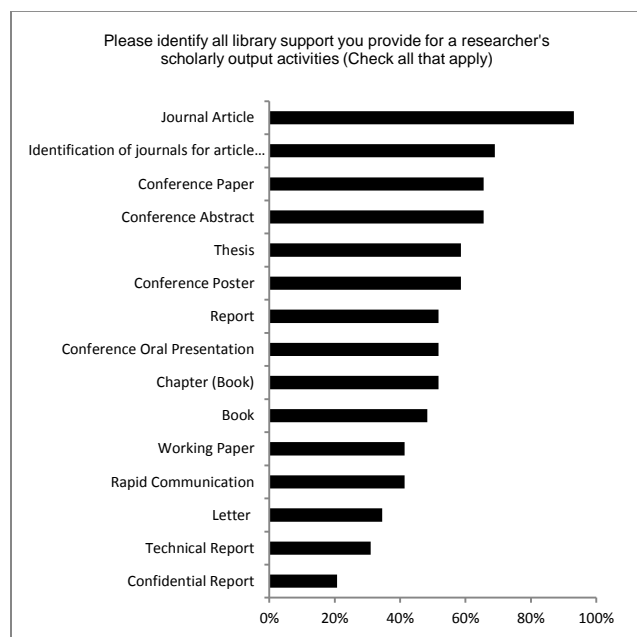
Sixteen hospitals provide financial support to fund research librarian activities while 10 hospitals do not provide any financial support. We defined financial support as funds for librarian training, or attendance at conferences.

When asked if the library provides information to the general public about a hospital's clinical trials, 95% of the 24 respondents who answered this question reported that they did not provide this kind of information. Only 1 respondent replied that they provided the public with clinical trials information.

2) What specific scholarly research outputs do librarians support?

The librarians supported the following scholarly research outputs; journal articles (93%), identification of journals for article publication (68%), and conference abstract or conference paper (65%). The least supported scholarly research outputs included: confidential reports (20%), technical reports (31%), and letters (34%) (Figure 6).

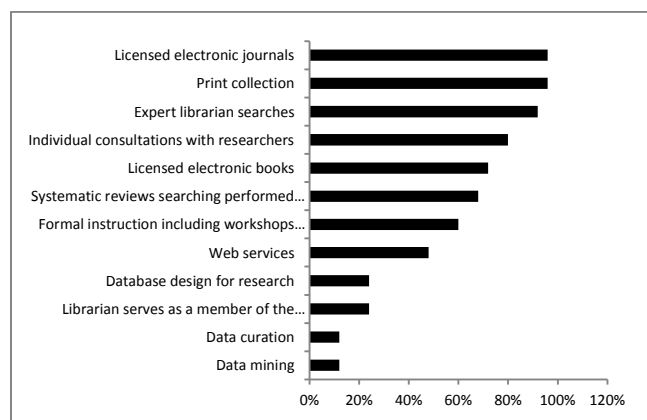
Fig. 6 Researchers Scholarly Outputs Supported by Librarians (n=29)



3) What specific library resources do hospital librarians provide to better assist researchers?

The top 3 library-provided resource supports for research were licensed electronic journals (96%); print collection (96%) and expert librarian provided literature searches (92%). The least-used resource supports provided by libraries were data mining and data curation (12%), database design for research (24%) and web services (48%) (Figure 7).

Fig. 7 Library Resources Supporting Researchers (n=25)



When asked if the library supports specific educational programs or tutorials for researchers, there was a divided response. Among the 24 respondents (out of 32) who responded to this question, 14 (58%) supported educational activities for researchers while 10 (41%) did not.

Only 5 (20%) librarians felt they had all the databases or resources that were needed to support research, and 19 (79%) of librarians did not feel they have all the databases or resources they needed. Nineteen respondents (79%) reported that they have not evaluated the library's research service, and 10 (38%) librarians responded that they have done evaluation of research support services provided by their library.

Discussion

This was the first study to investigate the extent to which Ontario hospital librarians support research. Generally, findings showed that, while not yet pervasive, librarian support for research in Ontario hospitals does exist at various levels of service. This study, however, did yield some unexpected results. Two respondents reported providing support to 26 to 50 researchers over the past 12 months. We would not have expected a hospital librarian to have sufficient dedicated time to support a relatively large number of researchers. It was also unexpected that 2 respondents were not able to indicate how often they use their knowledge of multiple databases to support the work of researchers, suggesting that some librarians are not keeping accurate records of their work. Another interesting finding was that some librarians support external researchers at no cost. Hospital librarians are always looking for ways to generate revenue. Perhaps in the case of supporting external researchers, these people might have been external collaborators with staff employed in the hospital. It was also unexpected to learn that some hospital librarians are not providing specific educational programs or tutorials for researchers. A recent benchmark survey of Canadian health facility libraries found that 29% of librarians reported a decrease in library budgets and 36% reported their budget had stayed the same over the past 5 years [12]. Under this kind of budget constraint, we were surprised to find that 5 respondents reported that they had all the databases or resources they needed to support research.

Similar to previous studies [7] our study found that the majority of projects supported were literature studies, followed by support for clinical studies. This is not surprising as evidence-based medicine is a priority in many healthcare organizations and both systematic reviews and clinical trials are cornerstones of scientific evidence. This study confirmed there was library support for all of the research types listed in our survey.

One disturbing finding was that 79% of respondents reported not having access to all the databases and resources they needed to conduct research. Modern day library research on health sciences topics often requires searching of multiple databases [13]. Lack of access to databases or online resources may have a negative effect on the quality of research support librarians provide. This is possibly related to the ongoing budget pressure felt by hospital libraries across the province, and is also reflective of the lack of an overall provincial or national strategy in terms of database subscription like the models adopted by the National Health Service (NHS) of the United Kingdom [14].

Limitations

One limitation of our study is that we did not distinguish between different types of hospital libraries, as it is natural that libraries of larger academic or teaching hospitals in major city centres would have more research activities, enjoy better resources than their counterparts in smaller community and (or) non-teaching hospitals. This factor might contribute to the variations in how frequently libraries receive research request, how much time librarians spend on supporting research, or how many full time staff libraries have to support research activities.

A possible limitation in questionnaire based surveys involves measurement error [15]. Respondents could provide inaccurate answers because they fear criticism or choose to make the response that they think is desirable to researchers. In order to address this limitation, we advised respondents in the preamble preceding the questionnaire that their responses would remain anonymous and that no answers were correct or wrong.

In regards to the design of our questionnaire, we inadvertently introduced a scale format bias in the third question. We had listed a response category “somewhat important” twice in question 3, which

asked, “How important do you think librarian support is for researchers?”. As only 2 respondents selected “somewhat important”, the bias on this question is minimal.

Conclusion

This research contributes to the field of health sciences librarianship by exploring the hospital librarian’s role and the extent of support they provide to researchers within hospital settings across Ontario. This study’s findings identified current activities of librarians, the library resources provided to support researchers and variations in services or resources across Ontario hospital libraries. Raising awareness of the librarian’s role in supporting researchers in the hospital setting can inform the health sciences librarian’s professional practices and provide evidence of the library’s participation in the research capacity building of the organization.

Librarians supporting researchers is relevant as it demonstrates the value of hospital librarians, which in turn supports library budget and staffing. Future research could explore the presence of a formal hospital-based research department or institute, and compare it to library support in hospitals without a dedicated research service.

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PROGRAM DESCRIPTION / DESCRIPTION DU PROGRAMME

Dare to Dream : Promoting Indigenous Children's Interest in Health Professions through Book Collections

Monique Clar⁺, Éric Drouin and Sandy Iverson

Abstract: Introduction: Indigenous peoples in Canada experience significant health challenges, but few pursue careers in the health sciences. Two programs by medical librarians designed to encourage children in First Nations communities to develop an interest in science and health and to dream of careers in the health professions will be presented. **Description:** An academic library in the province of Quebec developed children's health and science book collections with Indigenous school libraries. Library and information science students, as well as a librarian, participated in health education activities in the recipient schools. This project inspired the community service project of the joint MLA/CHLA-ABSC/ICLC Mosaic/Mosaïque 2016 conference, which focused on placing similar collections in Ontario Indigenous communities. The mechanics, benefits, and challenges of the programs will be discussed including book selection and delivery. **Outcomes:** Hundreds of books have been delivered and informal qualitative evaluative data from the recipient communities indicates that the programs have been very well received. Some difficulties in providing optimal access to the books were identified due to communication problems or the relative lack of library infrastructure in these communities. **Discussion:** Reading for pleasure is linked to student's academic success. Access to varied and quality literature is important for school achievement, therefore these collections may potentially impact student's future life chances. While a direct correlation between these collections and student's future career choices cannot be easily measured, it is known that Indigenous high school graduates frequently choose to pursue professions linked to the needs of the community. Therefore any materials drawing attention to potential community health needs or encouraging interest for health sciences may well influence students' choices.

Introduction

Indigenous peoples in Canada face significant health challenges and since the 1990s numerous public commissions and health associations have published recommendations to address these issues (1-6). Starting in the mid-2000s, the Indigenous Physicians Association of Canada (IPAC) and the Association of Faculties of Medicine of Canada (AFMC) have collaborated to help medical schools address Indigenous health issues in their curricula, and to support the recruitment and retention of Indigenous students into medicine. Measures taken by medical schools to respond to those recommendations include:

different admission requirements, scholarships, reserved seats, partnerships with Indigenous communities, support programs and outreach programs (7). In 2017, the AFMC has renewed its commitment to social accountability and Indigenous health, in light of the Truth and Reconciliation Commission Calls to Action (8).

The Mini-école de la santé (Mini-school of health), an outreach program at the Université de Montréal, was created in 2011 by Dr. Stanley Vollant (a member of the Innu Nation) and the Groupe d'intérêt en santé autochtone (GISA), a health sciences students' interest group in Indigenous health. The objectives of the program are to motivate Indigenous children and youth

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to stay in school, to introduce them to the health professions and to encourage them to have healthy living practices. It also aims to raise awareness of Indigenous culture and health among health sciences students who participate in the Mini-school program, and to ultimately improve health services to Indigenous peoples (9). The University health library joined this program by developing, in collaboration with Indigenous school libraries, a children's science and health book collection component, and inviting Library and Information Sciences (LIS) students to participate in the Mini-school. Existing research shows us that reading for pleasure is linked to student's academic success and that access to varied and quality literature is recommended to stimulate interest for reading (10). It is estimated that "for most sciences, print materials typically have a shelf life of 3 to 5 years" (11). Helping schools visited by the Mini-school to update their science and health book collections is a way to support the Mini-school objectives.

This paper describes this Quebec-based program and a similar children's book collection project, inspired by the Quebec project, that was launched in Ontario as part of Mosaic/Mosaïque: the 2016 joint meeting of the Medical Library Association (MLA), the Canadian Health Libraries Association/Association des bibliothèques de la santé du Canada (CHLA/ABSC), and the International Clinical Librarian Conference (ICLC).

Description

The Mini-school organizes school visit activities 3 times a year in northern Indigenous communities in the province of Quebec. The university health library became involved in 2013. The first collections of children's books on topics related to health and sciences were developed and delivered to schools in 2014.

Aware of the Quebec program (12), the local arrangements committee for the joint MLA/CHLA-ABSC/ICLC conference (Mosaic/Mosaïque 2016) developed a similar project as the community service element for the conference. The project invited conference attendees to buy children's books on health and science topics to send to First Nations communities in Ontario to encourage Indigenous kids to pursue interest in science, research, medicine and health.

Choosing and purchasing books

While ideally both projects would have preferred to provide children's books in Indigenous languages and (or) by Indigenous authors, there are very few children's books in Indigenous languages published in North America, and none have been located on health and sciences topics. Efforts were made by both projects to offer books with Indigenous content whenever possible which proved challenging, and particularly so for the Mini-school project.

The Cooperative Children's Book Center, based at the University of Wisconsin-Madison, has documented, annually since 1994, the number of children's books about First/Native Nations and by First/Native Nations authors or illustrators published by United States publishers or distributed in the U.S. by Canadian publishers. Of the 3,700 books identified as being about people of colour or First Nations peoples in 2017, only 38 (1 %) were by Indigenous people and 72 (1.9 %) about Indigenous people (13). No such inventory is performed regularly for books in French. The Canadian French language children's book publishing industry is very small in comparison to the North American English language industry; therefore the amount of books published by or about Indigenous people in the French language are even more rare. Consulting a children's book list on First Nations subjects (14) and the catalogue of an Indigenous bookstore (15), identified very few books on health and science topics. Work done by Medin and Bang (16, 17) on Native and non-Native children's books was useful to identify books that, although without Indigenous content, had characteristics that could make them attractive to Indigenous children, such as North-American mammals in a natural habitat and acting "normally", or devices allowing children to interact with the books such as books with texture or flaps to lift, and first person narratives. Medin and Bang's belief that "science communication necessarily involves and includes cultural orientations" (16) led to the decision that final selection of the books should be done at the school and not by a non-Indigenous academic librarian. This approach would allow for a better match of the collections with the school's science curricula and foster a collaborative relationship with the teachers and library staff. Therefore, the Mini-school book collection project developed lists of possible titles of interest, based on Indigenous content, characteristics identified by Medin and Bang and selection tools for general children

literature (18, 19) and children literature on health topics (20), and sent them to the recipient schools to be reviewed. Teachers and (or) library staff in the schools could then choose titles from the lists, keeping in mind the allotted budget. The schools were also invited to add titles to the lists.

The Ontario project benefited greatly from the foundational work that was done at the Université de Montréal. Extensive lists of possible children's book sources were provided by the librarian involved in the Mini-school project, as well as some guidelines on selecting books for Indigenous kids. Tan and Campbell's "Juvenile Health Fiction Review Checklist" (21) and bibliography were also used and these authors provided further suggestions for sources as well as for selection guidelines. Numerous sources (websites and publishers catalogues) were consulted and a preliminary list of over 200 titles was created. First Nations advisor for public libraries in Ontario (Nancy Cooper) reviewed the preliminary list of books and made further suggestions. The goal was to offer books about health and science as well as health professions while appealing to a variety of ages and to include, when possible:

1. Books on health topics by and about Indigenous people
2. Books for younger readers on health or science related topics that featured Canadian settings, or animals that might be familiar to Indigenous kids
3. Graphic novels or comics

In order to facilitate donations of the selected books by attendees of the conference, Amazon book lists were created (U.S. and Canada). People were invited to purchase books on the list and have them sent to the organizers or brought to the conference. People also had the option of making monetary contributions via PayPal or cash donations at the conference. The cash donations were used to purchase additional titles to ensure that the schools received similar collections. Each primary school received 45 or 46 books and each high school received 31 books.

Partnership and program delivery

One of the primary challenges of both projects was the logistics of delivering the books to the desired recipients. Transportation costs to these remote communities are extremely expensive. At the Université de Montréal, logistics for delivering the

books is managed by the Mini-school project. The librarians involved focus mainly on developing the book collections in partnership with the schools, and recruiting LIS students to participate in the project.

Student and faculty participants in the Mini-school project travel to the recipient communities by chartered bus. One day is spent in each school, and the entire outing can last from 1 day to 1 full week, depending on the distance and the number of schools visited. Mini-school visits consist of activities in classes and tables in the gymnasium (9), the librarian and the LIS students staff the book table and meet with library and school personnel. LIS students attend, with the health sciences students, a pre-departure training on cultural competence which provide knowledge about the community's reality and promotes respectful and culturally informed interactions (9). Books are left with the school library at the end of the visit. The book collection project has involved 10 schools, ranging from 250 kilometres away from Montreal to over 1300 kilometres away. Schools are located in the Atikamekw communities of Manawan and Wemotaci and the Innu communities of Pessamit, Ekuanitshit, Nutashkuan, Uashat Mak Mani-Utenam and Unamen Shipu (Table 1).

Tab. 1 Mini-école de la santé: visited communities and schools in the province of Quebec

Communities	School
Communauté Atikamekw de Manawan	École primaire Simon Pineshish Ottawa
	École secondaire Otapi
Communauté Atikamekw de Wemotaci	École primaire Seskitin
	École secondaire Nikanik
Communauté Innue de Uashat Mak Mani-Utenam	École primaire Tshishteshinu
	École primaire Johnny Pilot
	École secondaire Manikanetish
Communauté Innue de Ekuanitshit	École Teueikan
Communauté Innue de Nutashkuan	École Uauitshitun
Communauté Innue d'Unamen Shipu	École Olamen

It should be noted that none of these communities have a public library, so the books are a substantive contribution to the communities in general, not just the individual schools.

From March 2014 to June 2017, 486 books have been donated and a librarian and (or) LIS students have participated in 14 school visits with the Mini-school, starting with one visit in 2014 to 7 schools visited in 2017. Funding for the book purchases is provided by the university library, while the Mini-school covers traveling costs (transportation, food and accommodation).

The Mini-school of health travels by bus to the communities and this offers further transportation challenges including poor road conditions and weather. When a Mini-school is cancelled due to travel conditions, the books must be shipped separately; resulting in increased costs.

Communication with people you have never met is always a challenge. Emails and phone calls often go unanswered, partly because schools have a high staff turnover. When a visit to a new school is planned, the activities and the book collection component are always described to school leadership first by the Mini-school program coordinator and the student group in charge of the Mini-school educational activities. The librarian contacts the school after this initial consultation, and frequently has had a very short time period with which to establish communication, share the book list, receive the book selections from the school, order the books and receive them in time for the Mini-school visit.

Unlike the Université de Montréal project, which is ongoing and has evolved over time, The Mosaic/Mosaïque project was designed as a one-off program. In order to locate possible recipient schools, the program coordinator of the Mosaic/Mosaïque project, collaborated with Nancy Cooper, Coordinator of Club Amick and the First Nations Consultant at the Southern Ontario Library Services (SOLS), to locate recipient schools. SOLS's mandate is to deliver programs and services on behalf of the Ontario Ministry of Tourism Culture and Sport to assist in the delivery of public library services across Ontario. Club Amick is a project administered by SOLS that selects and provides books for Indigenous children in 35 northern Ontario communities. These communities belong to the Nishnawbe Aski Nation. Club Amick was able to send the books collected from the conference attendees to the schools (Table 2), absorbing all costs, by piggybacking on some of their own deliveries.

Tab. 2 Mosaic|Mosaïque: recipient primary schools in Ontario

Communities	Schools
Nibinamik First Nation (Nishnawbe Aski Nation)	Nibinamik Education Centre
Wabaseemoong Independent Nation - (Nishnawbe Aski Nation)	Mizhakiiwetung Memorial School
Moose Factory, ON (Nishnawbe Aski Nation)	Ministik School
Aroland First Nation (Nishnawbe Aski Nation)	Johnny Therriault Memorial School
Constance Lake First Nation (Nishnawbe Aski Nation)	Mamawmatawa Holistic Education Centre

Cooper also helped to establish a partnership with the Northern Ontario School of Medicine (NOSM) to deliver the 2 high school collections to schools for Indigenous youth (Table 3).

Tab. 3 Mosaic|Mosaïque: recipient high schools in Ontario

Location	School
Thunder Bay	Dennis Franklin Cromarty Secondary School
Sudbury	N'Swakamok Alternative Secondary Program (N'Swakamok Friendship Centre)

As mentioned, transportation difficulties and costs are a major challenge in shipping materials to remote communities. With the project in Ontario, this challenge resulted in substantial delays in delivering the book collections. Club Amick uses a shipping company that offers spare space in vehicles to charities for a reduced cost. During the timeframe of this project, this arrangement was altered to be handled by a different company resulting in months of delays in their books shipments reaching the communities.

Outcomes

Informal feedback received on the book collections delivered have been very positive from both children and youth as well as teachers and school leadership. Staff and students at the Mini-school kiosks have noted that books with an interactive component are the most popular with the children. Feedback from school library personnel in some of the Quebec high schools has highlighted the popularity of the sexual education books. LIS students who have attended the Mini-school visits have also provided very positive feedback on their experience. They reported appreciating the opportunity to discover Indigenous cultures and communities, collaborate with health sciences students, interact with the school students, answer occasional questions about their future profession and realize firsthand the reality of these First Nations communities, including the extremely limited access to books in these communities and how difficult it is to find children's books with Indigenous content. One of the LIS students collaborated with a health librarian and the program coordinator (Dr. Éric Drouin) to deliver a lunchtime talk at the LIS School to share her experience with her peers (22). For the health library, outcomes can be measured in terms of partnerships established and developed with the Mini-school of health, the Library and Information Sciences School, schools in Indigenous communities and other book programs.

The Université de Montréal updates the book collections every year or two. In some cases, communications with the schools during the updating process has been much smoother than the original contact, and schools have requested more books on health topics prevalent in their communities (diabetes, drug abuse, sexual education, sexually transmitted infections, etc.) rather than books that are more science oriented.

Inspired by how the schools have appreciated receiving the book collections, primary school leadership and teachers were invited by the health librarian to participate in 2 other book programs, operated by non-profit organizations (23, 24) where they receive books to be given to the children. Although the books given by these programs do not focus on science and health, having books at home contributes positively to children's leisure reading (10) and academic success. Schools visited by the Mini-school of health are now participating in those two programs. The Université de Montréal also partners

with one of those programs, The Gift of Reading, by organizing an annual book drive throughout campus wherein students, staff and faculty are encouraged to donate new books for the schools. Members of the UdeM community are especially encouraged to donate books by Indigenous authors (25).

Nancy Cooper from Club Amick reported to the Mosaic project coordinator that the teachers in the Ontario recipient communities have all been very pleased to receive the books. Cooper is in regular and ongoing contact with the schools in these communities and collects feedback on book donations in an informal manner. One of the teachers, who has taken on the responsibility of organizing a library for her school where there hadn't been one before noted that they were really glad to receive the collection because while they did have a good supply of story books they lacked nonfiction titles. In addition, at the time the books arrived their Grade 5 and 6 class was studying anatomy so right away she was able to make use of a number of the books. Her personal goal as a Grade 7 and 8 teacher is to help students to begin thinking about their future and introduce them to a variety of career options. She noted that for kids in these isolated communities "it can be difficult for kids to imagine anything else. These books will really help" (26).

As mentioned, the high school book deliveries were arranged by the Northern Ontario School of Medicine. NOSM serves as the faculty of medicine for 2 different universities in 2 different cities, 1000 kilometres apart. Both of these communities also host alternative high schools for Indigenous students. Two students from NOSM visited 1 of these high schools and talked to the students about their own personal journeys leading them to medical school. The donated books were displayed on a table for the students to look through before being integrated into the small library collection at the school. It should be noted that the school is a very small alternative school located in a community centre and serves a total student population of approximately 12 students across grades 9 to 12. Thirty-one books were given to the high school. Given the size of the schools, 31 books represents a rather substantial contribution. Books on Indigenous plants and healing that were included in the collection were particularly popular with the students. The entire NOSM visit was quite inspiring to the high school students. One student, a mature student and young mother who had been considering pursuing nursing as a career was inspired by the visit to consider even more advanced studies (27).

Discussion

In the communities that received these books, there are no bookstores or libraries, often for hundreds of kilometres. Therefore, the donated books benefit not only the schools they are given to, but by extension their entire communities. One of the objectives of both these projects was to inspire Indigenous children to dream of future careers in health professions. It is unlikely we will ever know for sure if any of these books directly impact any student's future decisions. However, reading for pleasure is linked to student's academic success (9). While a direct correlation between these collections and students' future career choices cannot be easily measured, it is known that Indigenous high school graduates frequently choose to pursue professions linked to the needs of the community (28). Therefore any materials drawing attention to potential community health needs may well influence students' choices.

The Canadian Federation of Library Associations / Fédération canadienne des associations de bibliothèques (CFLA-FCAB) has invited Canadian libraries to respond to the calls to action of the Truth and Reconciliation Commission of Canada (TRC). These children's book programs are aligned with the TRC's call "to work toward an increase of the number of Aboriginal professionals working in the health-care field" (5), and various aspects of the programs are also in line with the recommendations of the CFLA-FCAB Truth & Reconciliation Committee (29). Both programs were developed and established in collaboration with First Nations representatives and local communities; cultural relevance was integrated in the collection development process; donated books have contributed to improving and updating local school libraries' collections; and awareness of Indigenous cultures and communities and library services in those communities were improved among Mini-school's LIS student participants and shared with their peers.

Our literature review (6, 7, 30, 31) and a scan of the websites of the 17 Canadian universities with a faculty of medicine indicates that health sciences outreach activities for Indigenous children and youth are numerous. However, we could not find any indication of the involvement of libraries in any of these outreach programs. These existing outreach programs, often very well established, present unique partnership opportunities for libraries, furthermore with the reaffirmed AFMC "pledge to make a difference for

Canada's First Nations, Inuit and Métis peoples" in response to the TRC commission Calls to Action (8), it might be a good time to propose new elements for these programs.

Recommendations

Based on our experience, we propose some recommendations for libraries wishing to embark on programs in partnership with Indigenous peoples and (or) communities:

1. When possible, join or partner with already existing programs.
2. Establish early a strong shared decision making collaboration with Indigenous partners in the community. This can take time and works best when parties can meet in person. Be prepared to start with a very small project that will allow you to meet people, build relationships and develop the project with them.
3. Be aware of language and cultural barriers.
4. If possible, involve LIS students in the project. Their involvement was unplanned at the beginning of the Mini-school book project; however, their participation has turn out to be a very positive element.
5. If planning to formally evaluate the project, consult your institution or funding agency ethics guidelines for research involving Indigenous peoples. If you are a non-Indigenous researcher, try to lead your research project in partnership with an Indigenous researcher.

It should be noted that in order for an eventual broader partnership to evolve and include UdeM non-health sciences outreach activities in Indigenous communities, the responsibility for the books program has been transferred to the university's education librarians. A week-long Mini-school is in preparation for schools in Algonquian communities, and funding will be sought by the university library for the book component.

Conclusion

Although 1 of the presented programs in this paper was initiated before the Calls to Action of the Truth & Reconciliation Commission (5), the writing of this paper is, in part, a response to Maestro and

Chadwick's (32) (recipients of the 2017 JCHLA / JABSC Student Paper Prize) - call "to show a visible commitment to the TRC's calls to action".

As librarians, we believe in the power of reading to change lives and it is this belief that motivated our involvement in these programs. We would like to conclude with a quote from the Honourable James K. Bartleman, first Indigenous Lieutenant Governor of Ontario (2002 to 2007), who initiated Club Amick in 2006:

"I discovered that reading really is an act of self-discovery. It expands your consciousness and wakes you up. There is a wonderful author named Mark Edmundson, and in his book *Why Read?* He writes, "Reading takes you from a world of harsh limits into expanded possibilities." And that was what happened to me (33)".

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Appendix A

Mini-école de la santé Booklist

French Books	Age groups	Notes
Agouridas C. La chimie dans le sport. Les Ulis (France): EDP Sciences; 2014.	10-15	
Alexie S. Le premier qui pleure a perdu. Paris: Albin Michel; 2014.	12-17	Indigenous Content
Alton S, Sharratt N. Le livre des miam, glourps, glou, plop!. Paris: Gallimard jeunesse; 2007.	4-10	Interactive
Alton S, Sharratt N. Le livre des hic, snif, atchoum, boum-boum!. Paris: Gallimard Jeunesse; 2011.	4-10	Interactive
Arrou-Vignod JP, Bravi S. Louise Titi. Paris: Gallimard jeunesse; 2012.	6-10	
Ashwell KWS. Le corps humain : Manuel d'identification : 500 planches d'anatomie. Paris: Elcy éd.; 2014.	15-17	
Azam J, Cambournac L, Guibert F. Mon premier Larousse des pourquoi?. Paris: Larousse; 2013.	4-8	
Bailey J, Naylor S. Bientôt ados!. Paris: Casterman; 2010.	10-12	
Ball J, Spanjaard E. Les maths c'est magique!. Saint-Laurent, Québec: ERPI; 2006.	10-15	
Bartleman J. Aussi longtemps que les rivières couleront. Winnipeg, Manitoba, Les Éditions des Plaines; 2015	15-17	Indigenous Content
Bawin MA, Le Masne C . Tom à l'hôpital. Paris: Mango jeunesse; 2013.	4-8	
Beaupère P, Cayrey AS, El Don G. Petites histoires de technologie. Montrouge (France): Bayard jeunesse; 2013.	10-12	
Beauséjour C. L'ABC de la santé. Montréal: Éditions Les Malins; 2016.	12-15	
Beck P. Le corps humain. Gennevilliers (France): Prisma; 2012.	8-12	Interactive
Bègue B, Azam J. La puberté, c'est génial (ou presque)!. Paris: De La Martinière jeunesse; 2015.	12-17	
Béha P. L'abécédaire du pet. Saint-Lambert, Québec : Soulières éditeur; 2014.	4-10	
Benlakhel N. Sais-tu vraiment ce que tu manges?. Toulouse: Milan jeunesse; 2011.	8-12	
Bergeron Y, Goldstyn J. Au labo, les Débrouillards!: Des expériences nouvelles et excitantes!. Montréal: Bayard Canada livres; 2013.	8-15	
Bingham C, Perat MF, Swerling L, Lazar R. Les petits génies enquêtent sur... le corps humain. Saint-Laurent, Québec: ERPI; 2011.	8-10	

Boncens C. Les bruits du corps. Paris: Auzou; 2013.	4-6	Interactive
Bourgoing P, Chion C. L'infirmière. Fribourg (Suisse): Calligram; 2002.	4-8	Interactive
Butschkow R, André M. Moi aussi, je serai infirmière. Saint-Michel-sur-Orge (France): Piccolia; 2014.	4-8	
Butschkow R, Murat A. Moi aussi, je serai secouriste. Saint-Michel-sur-Orge (France): Piccolia; 2009.	4-8	
Calabresi L, Ollivier-Caudray M. Le corps humain. Paris: Larousse; 2014.	8-12	Interactive
Callery S, Gifford C, Goldsmith M. La grande encyclopédie: 8 ans +. Paris.: Rouge & Or; 2012.	8-12	
Cambournac L, Guibert F. Mon premier Larousse des comment?. Paris: Larousse; 2013.	4-8	
Campbell NI, LaFave K. La pirogue de Shin-chi. Saint-Boniface, Manitoba: Éditions des Plaines; 2010.	8-10	Indigenous Content
Campbell NI, LaFave K. Shi-shi-etko. Saint-Boniface, Manitoba: Éditions des Plaines; 2010.	8-10	Indigenous Content
Chairopoulos P, Delpas C, Caillou P. Les cinq sens. Paris: Flammarion; 2008.	8-10	
Charbin A. Mon corps. Paris: Larousse; 2002.	4-8	
Chauvel P. Mon premier Larousse des sciences de la vie et de la terre. Paris: Larousse; 2011.	6-8	
CHUM. Connaître son diabète pour mieux vivre. Montréal: Éditions Rogers; 2013.	15-17	
Clark CV, Clark M, Shields S. Le livre des croc, crunch, slurp!. Paris: Gallimard jeunesse; 2010.	4-10	Interactive
Clausener M. L'amour, la sexualité et toi. Toulouse: Milan; 2012.	10-15	
Claybourne A. L'histoire des sciences. Londres: Usborne; 2011.	8-12	
Clerget S, Bravi S. Comment te faire respecter. Begnins (Suisse): Limonade; 2014.	12-17	
Clerget S, Bravi S. Comment guérir d'un chagrin d'amour: Et retrouver le sourire. Begnins (Suisse): Limonade; 2015.	12-17	
Clerget S, Bravi S. Comment renforcer ta confiance en toi pour réussir et être aimé. Begnins (Suisse): Limonade; 2015.	12-17	
Clerget S, Bravi S. Comment te passer du tabac. Chavannes de Bogis (Suisse): Limonade; 2015.	12-17	
Clerget S, Bravi S. Comment bien apprendre et réussir à l'école?. Begnins (Suisse): Limonade; 2016.	12-17	
Clerget S, Bravi S. Comment être gay et joyeux ou lesbienne et sereine. Chavannes de Bogis (Suisse): Limonade; 2016.	12-17	
Clerget S, Bravi S. Comment gérer tes kilos en trop. Chavannes de Bogis (Suisse): Limonade; 2016.	12-17	
Clerget S, Soledad. Comment maîtriser ton stress. Begnins (Suisse): Limonade; 2016.	12-17	

Cloutier MC. Le corps humain en questions et réponses. Montréal: Caractère; 2014.	8-10	
Cohen L, Gouny N. Le pet: Une aventure de Jean l'éléphant. Montrouge (France): Frimousse; 2015.	4-10	
Cole B, Cockenpot M. Comment on fait les bébés!. Paris: Seuil Jeunesse; 2014.	6-10	
Connolly S, Chouraqui G, Connolly S. Petites expériences scientifiques potentiellement catastrophiques !: 50 expériences pour jeunes scientifiques audacieux. Paris: Dunod; 2013.	10-17	
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D'Amico S, Noël A. Le corps humain: Comprendre notre organisme et son fonctionnement. Montréal: Québec Amérique; 2012.	12-17	
Davidson A. En mouvement. Saint-Laurent, Québec: Éditions du Renouveau pédagogique; 2008.	6-10	
Davidson S. Corps humain: Un monde à explorer. Paris: Onyx/Gallimard; 2006.	8-12	Interactive
De Koninck JM, Cliche JF. En chair et en maths: Rencontre avec les mathématiques qui façonnent notre quotidien. Québec: Septembre éditeur; 2010.	12-17	
De Koninck JM, Cliche JF. En chair et en maths: Rencontre avec les mathématiques qui façonnent notre quotidien. Québec: Septembre; 2008.	12-17	
Delafosse C, Bour D. Le bébé. Paris: Gallimard Jeunesse; 2013.	4-8	Interactive
Delafosse C, Fuhr U, Sautai R. Les métiers de la nuit. Paris: Gallimard; 2014.	6-10	Interactive
Delafosse C, Valat PM. Le corps humain. Paris: Gallimard Jeunesse; 2014.	4-6	Interactive
Delagneau M, Société pour l'étude des techniques mangas. Le corps humain. Paris: Eyrolles; 2015.	12-17	
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Delaunoy A, Thisdale F. Attention poison!. Montréal: Éditions de l'Isatis; 2009.	4-10	
Delaunoy A, Thisdale F. Beau sang rouge. Montréal: Éditions de l'Isatis; 2009.	4-10	
Delaunoy A, Thisdale F. Bonne nuit, beaux rêves. Montréal: Éditions de l'Isatis; 2008.	4-10	
Delaunoy A, Thisdale F. 206 os dans mon corps. Montréal: Éditions de l'Isatis; 2011.	4-10	

Delaunois A, Després G. Neuf mois. Montréal: Éditions de l'Isatis; 2015.	4-10	
Delaunois A, Thisdale F. Envie de pipi. Montréal: Éditions de l'Isatis; 2004.	4-10	
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Delaunois A, Thisdale F. Grand méchant rhume. Montréal: Éditions de l'Isatis; 2010.	4-10	
Delaunois A, Thisdale F. Je grandis. Montréal: Éditions de l'Isatis; 2010.	4-10	
Delaunois A, Thisdale F. Je respire bien!. Montréal: Éditions de l'Isatis; 2010.	4-10	
Delaunois A, Thisdale F. Rots, pets et petits bruits. Montréal: Éditions de l'Isatis; 2010.	4-10	
Delaunois A, Thisdale F. Un ordi dans ma tête. Montréal: Éditions de l'Isatis; 2012.	4-10	
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Deraime S, Beaumont J. La naissance. Paris: Fleurus; 2015.	8-12	
Des Roches R. Boîtâmémoire. Montréal: La Courte échelle; 2014.	15-17	
Dessiner le corps humain. Paris: Vigot; 2012.	15-17	
Dessiner, mode d'emploi: Le corps humain en 60 exercices. Paris: Vigot; 2014.	15-17	
Dolto C, Faure-Poirée C, Mansot F. L'opération. Paris: Gallimard jeunesse-Giboulées; 2010.	4-8	
Dolto C, Faure-Poirée C, Mansot F. La naissance. Paris: Gallimard Jeunesse-Giboulées; 2014.	4-8	
Dorling K. Wow! Une encyclopédie toute visuelle. Saint-Laurent, Québec: Éditions du renouveau pédagogique; 2008.	8-15	
Drouin V. L'importance de Mathilde Poisson. Montréal, Québec: Bayard Canada; 2017.	12-17	
Dufour G. Mathis: Faire face aux difficultés et choisir la vie. Québec: Éditions Midi Trente; 2016.	12-17	
Dufour M. Apprivoiser son lion: Apprendre à calmer son lion intérieur et à communiquer sans rugir. Québec: Éditions Midi Trente; 2017.	6-12	
Dumont V, Rosy M. Questions d'amour: 5-8 ans. Paris: Nathan; 2015.	4-8	
Dumont V, Montagnat S, Millet D, Millet C. Questions d'amour: 8-11 ans. Paris: Nathan; 2012.	8-12	
El Don G, Faller R. Génération ado, le dico: De A comme amour à W comme Wi-Fi!. Montrouge (France): Bayard jeunesse; 2015.	10-15	
Ernst, Zidrou. Docteur Zita. (Boule à zéro.) Paris: L'École des loisirs; 2014.	8-12	Graphic Novel

Ernst, Zidrou. Petit coeur chômeur. (Boule à zéro.) Paris: L'École des loisirs; 2014.	8-12	Graphic Novel
Ernst, Zidrou. La gang des crocodiles. (Boule à zéro.) Paris: L'École des loisirs; 2015.	8-12	Graphic Novel
Ernst, Zidrou. Madame la mort. (Boule à zéro.) Paris: L'École des loisirs; 2015.	8-12	Graphic Novel
Farndon J, Kirkwood J. Ma grande encyclopédie 5 ans +. Paris: Rouge & or; 2012.	6-10	
Feertchak S, Muller C. L'encyclo des filles. Paris: Grund; 2016.	12-17	
Fontanel, B. (2009). Autour du corps: Le corps dans l'art. Paris: Palette.	10-17	
Fougère I, Bone B. L'encyclo de la vie sexuelle: 4-6 ans. Paris: Hachette jeunesse; 2011.	4-6	
Frith A, Chaspoul R, Chaput N, Larkum A, Stellmacher N. Qu'est-ce qu'il m'arrive?. Saint-Lambert (Québec): Héritage jeunesse; 2007.	10-12	
Gaston C, Camara C. Les secrets des athlètes. Paris: Fleurus; 2013.	10-15	
Geninet I, Seidah A. Tout savoir pour composer avec les turbulences de l'adolescence (et devenir un adulte génial!). Québec: Éditions Midi Trente; 2016.	12-17	
George LM, AndoTwin. Enseignants. Toronto: Éditions Scholastic; 2016.	6-10	
George LM, AndoTwin. Médecins. Toronto: Éditions Scholastic; 2016.	6-10	
George LM, AndoTwin. Vétérinaires. Toronto: Éditions Scholastic; 2016.	6-10	
Gepner P, Wanert A, Frecon S. Le corps humain. Paris: Gründ; 2013.	8-12	
Germain V. Clara: Les désordres alimentaires à l'adolescence. Québec : Éditions Midi Trente; 2015.	12-17	
Gifford C. Wow!: Les sciences. Saint-Laurent, Québec: ERPI; 2012.	10-15	
Girard-Audet C. La puberté: Tout ce que vous devez savoir sur la puberté!. Montréal: Editions les malins; 2013.	9-12	
Godard D, Weil N, Garrigue R. Aïe ! Prout ! Atchoum !. Paris: Nathan; 2016.	8-10	Interactive
Godard D, Weil N, Grand, A. Ouille! Ouille! Ouille!. Paris: Nathan Jeunesse; 2016.	8-12	
Goldsmith M, Evans M, Muñoz M. La science en 30 secondes. Montréal: Hurtubise; 2014.	8-12	
Goldstyn J. Ça va barder. Montréal: Bayard Canada livres; 2008.	9-15	Graphic Novel
Goldstyn J. Il m'en faut un!. Montréal: Bayard Canada livres; 2012.	9-15	Graphic Novel

Gordon S. L'activité physique. Toronto: Éditions Scholastic; 2006.	6-10	
Gravel E. Le pou. Montréal: La Courte échelle; 2016.	6-10	
Gravier-Badreddine, D, Cordier S. Les trésors du corps. Paris: Gallimard Jeunesse; 2013.	4-6	Interactive
Gravier-Badreddine D, Roederer C. Le corps. Paris: Gallimard Jeunesse; 2013.	4-6	Interactive
Grevet Y. L'école est finie. Paris: Syros; 2016.	8-12	
Guibert F, Pillot F. L'hôpital. Toulouse: Milan jeunesse; 2009.	6-10	
Guichard J. Incroyable corps humain. Paris: Larousse; 2010.	8-10	Interactive
Gutman A, Hallensleben G. Lisa est malade. Paris: Hachette Jeunesse; 2007.	6-10	
Hammond R, Zajac B. Question de forces!. Saint-Laurent, Québec: ERPI; 2007.	8-12	
Hammond R, Zajac B. La chimie c'est élémentaire!. Saint-Laurent, Québec: ERPI; 2008.	8-12	
Hawkins E, Harris S. L'univers animé du corps humain. Paris: Éd. Quatre fleuves; 2007.	8-12	Interactive
Hébert A, Morin J. L'anxiété racontée aux enfants. Boucherville, Québec: Éditions de Mortagne; 2017.	8-12	
Hédelin P, Barborini R. Le grand livre animé du corps humain. Toulouse: Milan; 2015.	6-10	Interactive
Hédelin P, Vidal O. Boire et manger. Toulouse: Milan; 2013.	6-8	
Hédelin P, Verdier JL, Thiam A. Anatomic: Le livre animé du corps humain. Toulouse: Milan; 2012.	8-10	Interactive
Heinecke LL. Le labo du petit scientifique: 52 expériences amusantes à faire à la maison. Montréal: Petit homme; 2015.	8-12	
Hewitt S. J'ai une vie saine. Toronto: Éditions Scholastic; 2016.	6-10	
Hewitt S, Davidson C. Mes os. Toronto: Éditions Scholastic; 2009.	6-10	
Hewitt S, Davidson C. Mon cerveau. Toronto: Éditions Scholastic; 2009.	6-10	
Hewitt S. Je goûte. Toronto: Editions Scholastic; 2009.	6-10	
Hewitt S. Je vois. Toronto: Éditions Scholastic; 2009.	6-10	
Hewitt S. Je vais chez le dentiste. Toronto: Éditions Scholastic; 2016.	6-10	
Hewitt S, Wicks M. Je touche. Toronto: Éditions Scholastic; 2009.	6-10	
Hewitt S, Wicks M. J'entends. Toronto: Éditions Scholastic; 2009.	6-10	
Hewitt S, Faubert M, Davidson C. Mon coeur et mes poumons. Toronto: Éditions Scholastic; 2009.	6-10	

Hewitt S, Faubert M, Davidson C. Mon système digestif. Toronto: Éditions Scholastic; 2009.	6-10	
Holleben J, Helms A, Fuentes R, Magana, J. Est-ce que ça arrive à tout le monde ?. Paris: Syros; 2015.	10-15	
Holm JL, Holm M. Coup de Soleil. Toronto: Éditions Scholastic; 2016.	8-12	Graphic Novel
Irvine S. En santé pour la vie!. Saint-Laurent, Québec: Éditions du Renouveau pédagogique; 2009.	8-12	
Irvine S. Ton sang, un champ de bataille!. Saint-Laurent, Québec: Éditions du renouveau pédagogique; 2009.	8-12	
Kahn-Nathan J, Héliot E. L'encyclo de la vie sexuelle: 7-9 ans. Paris: Hachette Jeunesse; 2012.	6-10	
Kahn-Nathan J, Cohen J, Verdoux C, Desmoinaux, C. L'encyclo de la vie sexuelle: 10-13 ans. Paris: Hachette jeunesse; 2011.	10-12	
Korkos A, Beigel C, Harel E. Comment faire entrer huit mètres d'intestins dans mon ventre?: Et autres questions essentielles sur le corps humain. Paris: De La Martinière jeunesse; 2009.	8-12	
La grande encyclopédie visuelle: Plus de 2000 images pour connaître et comprendre l'essentiel. Montréal: Hurtubise; 2016.	8-12	
Laberge C. Tout connaître sur le monde qui nous entoure. Montréal: Caractère; 2013.	4-10	
Lamérand JP. Apprendre à dessiner les mouvements du corps: Plus de 200 modèles. Paris: Fleurus; 2011.	15-17	
Ledu S. Chez le docteur. Toulouse: Milan Jeunesse; 2005.	4-10	
Ledu S, Bécue B. Le corps humain. Toulouse: Milan; 2013.	6-10	
Ledu S, Chenot P. L'hôpital. Toulouse: Milan jeunesse; 2009.	6-10	
Ledu S, Convert H. Le vétérinaire. Toulouse: Milan; 2011.	6-10	
Ledu S, Hüe C. L'histoire de la vie: Du big bang jusqu'à toi. Toulouse: Milan; 2017.	6-10	
Lemieux L, Couture C, Duquette C. Tracer son chemin. Chicoutimi, Québec: Centre des Premières Nations Nikanite; 2014.	6-10	Graphic Novel, Indigenous Content
Leroux-Boudreault A. Fred: Vivre avec le TDAH à l'adolescence. Québec: Midi Trente Éditions; 2015.	12-17	
Lessard Y, Paquet F. Stat: Une urgence en BD! Tome 2. Québec: Moelle graphique; 2014.	15-17	
Lorrain F, Delvaux C. Léo-Bobos. Saint-Laurent, Québec: Éditions du Renouveau pédagogique; 2009.	6-10	
Lotthé-Glaser, F, Clerget S, Rouquette A. C'est quoi être une fille? C'est quoi être un garçon?. Montrouge (France): Bayard Jeunesse; 2014.	10-12	

Ma grande encyclopédie: Géographie, animaux, histoire, art, science et technologie, corps humain. Sayat (France): Terres éditions; 2-14.	12-17	
Markle S, McWilliam H. Quels drôles de cheveux!. Toronto: Éditions Scholastic; 2015.	4-10	
Markle S, McWilliam H. Quels drôles de pieds!. Toronto: Éditions Scholastic; 2016.	6-10	
Markle S, McWilliam H. Quelles drôles de dents!. Toronto: Éditions Scholastic; 2014.	4-10	
Marleau B. Le dragon à la dent sucrée. Terrebonne, Québec: Boomerang éditeur jeunesse; 2008.	4-10	
Marleau B. Le bedon tout rond. Terrebonne, Québec: Boomerang éditeur jeunesse; 2010.	4-10	
Marleau B. Plus envie de rien!. Terrebonne, Québec: Boomerang éditeur jeunesse; 2016.	4-8	
Marleau B. Le défi de Loïk. Morin-Heights, Québec : Boomerang éditeur jeunesse; 2017.	4-10	
Marleau B, Mika, Deschênes J. Le loup est malade. Terrebonne, Québec: Boomerang éditeur jeunesse; 2010.	4-10	
Masson C, Lauprête A. Les cinq sens. Paris: Mango Jeunesse; 2009.	6-10	
Matter P. Mini-Loup à l'hôpital. Paris: Hachette jeunesse; 2007.	4-8	
Mezinski P, Azam J, Jaud F. La drogue, non merci. Paris: La Martinière jeunesse; 2016.	10-15	
Mimoun S, Étienne R. Ados, amour et sexualité. Paris: Albin Michel; 2012.	15-17	
Mitjaville C. 100 mystères de la science. Paris: L'imprévu; 2016.	15-17	
Mollé P, Béha P. Recettes pour épater: La bonne cuisine pour petits et grands. Montréal: Fides; 2007.	8-15	
Morgan S, Rioux H. J'aime bouger. Toronto: Éditions Scholastic; 2016.	6-10	
Morrison I. Des cellules sensationnelles. Saint-Laurent, Québec: Éditions du Renouveau pédagogique; 2009.	8-12	
Mullenheim S, Millet J. Mon tout premier Larousse des pourquoi?. Paris: Larousse; 2013.	4-8	Interactive
Murphy G, Calvetti L., Murphy G, Godwin M. Les inventions. Paris: Larousse jeunesse; 2013.	8-15	Interactive
Nadon Y, Gautier M. Ma maman du photomaton. Outremont, Québec: Les 400 coups; 2007.	6-10	
Naumann-Villemin C, Ronzon S. Bobos et maladies. Toulouse: Milan; 2017.	4-8	
Naumann-Villemin C, & Dermidjian F. Les dents. Toulouse: Milan; 2013.	6-8	

Nielsen S, Martinez R. Ma vie (racontée malgré moi) par Henry K. Larsen (qui tient ce journal seulement parce que son psy lui a dit de le faire, ce qui est stupide). Montréal: La Courte échelle; 2014.	12-15	
Panaïeu JB. L' aventure de la vie. Paris: Fleurus; 2008.	8-15	
Panaïeu JB, Gries P. Histoires de squelettes. Paris: Gallimard jeunesse; 2012.	8-12	Interactive
Panaïeu JB, Perroud B, Rioland L. Humanimal: Notre zoo intérieur. Saint-Herblain (France): Gulf Stream éd; 2010.	8-12	
Paquette B. On chill à soir!: Être à l'écoute et bien vivre sa sexualité. Québec: C.A.R.D.; 2013.	12-17	
Paquette B. Trip d'un soir!: Être à son écoute et bien vivre sa sexualité. Québec: Éditions C.A.R.D.; 2013.	12-17	
Paré S, Germain A. J'veux de l'amour!. Montréal, Éditions La Semaine; 2014.	12-17	
Parent N. Alex: Surmonter l'anxiété à l'adolescence. Québec: Midi Trente Éditions; 2015.	12-17	
Peacock G, Guillaume C. Dictionnaire des sciences. Saint-Laurent, Québec: ERPI; 2010.	8-10	
Pelletier M. Une vie en éclats. Montréal: La Courte échelle; 2005.	12-17	
Perreault M, Harisson A. Mia et l'infirmière. Saint-Laurent (Québec): Éditions P. Tisseyre; 2009.	6-10	
Peyrols S. La vie du corps. Paris: Gallimard Jeunesse; 2012.	4-6	Interactive
Peyrols S. Le corps. Paris: Gallimard jeunesse; 2016.	4-6	Interactive
Piquemal M, Witek J. Tout savoir sur le sexe sans tabous ni complexes. Paris: De La Martinière; 2009.	12-17	
Professeur Génius. Mon album de la connaissance. Montréal: Québec Amérique; 2012.	10-15	
Professeur Génius. Mon album du corps humain. Montréal: Québec Amérique Jeunesse; 2006.	8-15	
Professeur Génius. Mon album des sciences. Montréal: Québec Amérique; 2007.	10-15	
Professeur Scientifx, Goldstyn J. Les expériences des Débrouillards: 40 expériences excitantes. Montréal: Débrouillards; 2004.	10-15	
Raith-Paula E, Longchamp E. Que se passe-t-il dans mon corps?: Tout savoir sur le cycle menstruel, les règles et la fertilité. Lausanne: Ed. Favre; 2012.	10-12	
Rentta S, Mim. Un jour à l'hôpital. Toulouse: Milan; 2013.	4-8	
Robert J. Full sexuel: La vie amoureuse des adolescents. Montréal: Éditions de l'Homme; 2004.	15-17	
Robertson DA, Henderson SB. 7 générations: 1. Saint-Boniface, Manitoba : Éditions des Plaines; 2013.	15-17	Graphic Novel; Indigenous Content
Robertson DA, Henderson SB. 7 générations: 2. Saint-Boniface, Manitoba : Éditions des Plaines; 2016.	15-17	Graphic Novel; Indigenous Content

Roederer C. L'hôpital. Paris: Gallimard jeunesse; 2009.	4-6	Interactive
Roederer C. Tous les bébés. Paris: Gallimard jeunesse; 2013.	4-6	Interactive
Roederer C. Les cinq sens. Paris: Gallimard Jeunesse; 2015.	4-6	Interactive
Royston A. Pourquoi je me brosse les dents. Toronto: Éditions Scholastic; 2017.	6-10	
Royston A. Pourquoi je me lave les mains. Toronto: Éditions Scholastic; 2017.	6-10	
Royston A, Binette L. Pourquoi je dors. Toronto: Éditions Scholastic; 2017.	6-10	
Royston A, Binette L. Pourquoi je fais de l'exercice. Toronto : Éditions Scholastic; 2017.	6-10	
Saint-Mars D, Bloch S. Max va à l'hôpital. Fribourg (Suisse): Calligram; 1995.	6-10	Graphic Novel
Saint-Mars D, Bloch S. Max et Lili sont malades. Fribourg (Suisse): Calligram; 2001.	6-10	Graphic Novel
Saint-Mars D, Bloch S. La copine de Lili a une maladie grave. Paris: Calligram; 2003	6-10	Graphic Novel
Sarfati S. Comme une peau de chagrin. Montréal: La Courte échelle; 2005.	12-17	
Sargueil-Chouery S, Mia. Se soigner vite et bien. Paris: De La Martinière jeunesse; 2007.	12-17	
Savoir et découvertes: Encyclopédie thématique. Saint-Constant, Québec: Broquet; 2015.	8-12	
Schürmann S, Butschkow R. Moi aussi, je serai vétérinaire. Saint-Michel-sur-Orge (France): Piccolia; 2010.	4-8	Interactive
Sendrané A. Le corps humain. Paris: Fleurus; 2005.	12-15	
Slipperjack R, Faubert M. Les mots qu'il me reste: Violette Pesheens, pensionnaire à l'école résidentielle. Toronto: Éditions Scholastic; 2017.	12-15	
Smith I, Rioux H. Je vais chez le docteur. Toronto: Éditions Scholastic; 2016.	6-10	
Somerville PT. Tout savoir sur le cerveau. Montréal: Marcel Didier; 2012.	12-17	
Sparadrap Herrenschmidt S. Dis-moi, Docteur!. Paris: A. Michel Jeunesse; 2010.	6-10	
Spilsbury L, Gordon M, Estèves A.-L. Moi, moi, moi: Pour tout savoir sur la puberté. Toulouse: Milan jeunesse; 2011.	10-15	
Stowell L, Leake K, Chaspoul R. Le corps humain. Londres: Usborne; 2013.	6-10	Interactive
Tatarsky D. Cool sciences: 50 expériences faciles et amusantes. Paris: Fleurus; 2014.	12-17	
Telgemeier R, Allard I. Le secret de Stacey. Toronto: Éditions Scholastic; 2015.	9-15	Graphic Novel
Telgemeier R, Lamb B. Fantômes. Toronto: Éditions Scholastic; 2016.	10-15	Graphic Novel

Testard-Vaillant P, Finzo. À quoi ça sert? La chimie. Paris: Belin; 2001.	12-15	
Testard-Vaillant P, Finzo. À quoi ça sert? La biologie. Paris: Belin; 2011.	12-15	
Thomazeau, A.-M., & Bakonyi, B. (2011). L'alcool, un drôle d'ami. Paris: Ed. de la Martinière Jeunesse; 2011.	12-17	
Tibo G, Favreau MC. Le corps du Petit Bonhomme. Montréal: Québec Amérique; 2005.	6-10	
Tibo G, Verelst S. La première minute de Mathieu. Saint-Lambert, Québec: Soulières éditeur; 2013.	8-10	
Tremblay M, Turcotte C. Laisse-moi t'expliquer-- le diabète (de type 1). Québec: Midi trente éditions; 2012.	8-10	
Villeneuve E, Wilkins J, Rocheleau J. La fille invisible. Montréal: Glénat Québec; 2010.	12-15	Graphic Novel
Vincent A. Mon cerveau a besoin de lunettes: Vivre avec l'hyperactivité. Montréal: les Éditions Québec-livres; 2016.	8-10	
Vincent G. Ernest est malade. Tournai (Belgique): Casterman; 2015.	4-10	
Vrettos AM, Charras P. Comment j'ai disparu. Paris: T. Magnier; 2007.	12-17	
Walker R. Le corps humain. Paris: Gallimard jeunesse; 2009.	8-12	
Walker, R. Wow!: Le corps humain. Saint-Laurent, Québec: ERPI; 2010.	10-15	
Walker R, Harani S. Voyage au coeur du corps humain. Montréal: Hurtubise; 2013.	8-10	
Walker R, Winston, RML. Atlas du corps. Saint-Laurent, Québec: ERPI; 2006.	8-12	
Yolen J, Teague M, Bouchony E. Guéris vite, petit dinosaure!. Paris: Gallimard Jeunesse; 2013.	4-8	
Young T, Hewett, K. Cool maths: 50 incroyables jeux mathématiques. Paris: Fleurus; 2013.	12-17	

Appendix B**Mosaic|Mosaïque Booklist**

English Books	Age	Notes
Allaston A. Doctors. England: BookLife; 2016.	8-10	
Alton S, Sharratt N, Moore J. Blood and goo and boogers too!: a heart-pounding pop-up guide to the circulatory & respiratory systems. New York: Dial Books for Young Readers; 2009.	6-8	Interactive
Alton S, Sharratt N. The gooey, chewy, rumble, plop book. London: Bodley Head Children's Books; 2007.	4-6	Interactive
Alton S, Sharratt N. The icky, sticky snot and blood book. London: Bodley Head Children's Books; 2000.	4-6	Interactive
Armstrong J, Hall R. Dancing with the cranes. 2nd ed. British Columbia: Theytus Books; 2009.	8-10	Indigenous Content
Asher D. Epidemiologists: life tracking deadly diseases. New York: The Rosen Publishing Group; 2003.	12-15	
Ashwell K. The anatomy student's self-test visual dictionary: an all-in-one reference and study aid. New York: Barron's Educational Series; 2011.	10-12	Interactive
Auger D. Mwakwa talks to the loon. British Columbia: Heritage House Publishing Co. Ltd.; 2008.	6-8	Indigenous Content
Bailey D. Brain surgeons. New York: The Rosen Publishing Group; 2008.	12-15	
Barber T, Chapman L. Open wide!. Vancouver: Raincoast Books; 2007.	6-8	
Barracough S. I know someone who is obese. Chicago: Heinemann-Raintree; 2011.	6-8	
Barracough S. I know someone who uses a wheelchair. Chicago: Heinemann-Raintree; 2011.	6-8	
Barracough S. I know someone with autism. Chicago: Heinemann-Raintree; 2011.	6-8	
Barracough S. I know someone with cancer. Chicago: Heinemann-Raintree; 2011.	6-8	
Barracough S. I know someone with dyslexia. Chicago: Heinemann-Raintree; 2011.	6-8	
Beaty A, Lemaitre P. Doctor Ted. New York: Margaret K. McElderry Books; 2008.	4-6	
Beck P. Amazing x-rays: the human body. San Diego: Silver Dolphin Books; 2010.	8-10	Interactive
Becker B, Denton KD. The sniffles for bear. Massachusetts: Candlewick Press; 2011.	4-6	
Berenstain J, Berenstain M. The Berenstain bears come clean for school. New York: HarperFestival; 2011.	4-6	

Bickerstaff L. Careers in nutrition. New York: The Rosen Publishing Group; 2008.	12-15	
Bickerstaff L. Your immune system: protecting yourself against infection and illness. New York: The Rosen Publishing Group; 2011.	10-12	
Bobula B, Bobula K. Hall R. Sad sad Seth, the world's greatest writer, depression. Nebraska: Wildberry Productions; 2009.	4-6	
Bobula B, Bobula K. Quiet, quiet Hannah, the world's greatest artist, dyslexia. Nebraska: Wildberry Productions; 2011.	10-12	
Branford A, Allen E. Violet Mackerel's remarkable recovery. New York: Atheneum Books for Young Readers; 2011.	8-10	
Brezina C. Careers as a medical examiner. New York: Rosen Central; 2008.	12-15	
Bruchac J, Vojtech A. The first strawberries: a cherokee story. reprint ed. New York: Puffin Books; 1998.	6-8	Indigenous Content
Button L, Howells T. Willow finds a way. Toronto: Kids Can Press; 2013.	4-6	
Byers A. Jump-starting a career in dietetics & nutrition: health care careers in 2 years. New York: The Rosen Publishing Group; 2014.	12-15	
Caduto MJ, Bruchac J, Fadden JK, Fadden DK. Keepers of life: discovering plants through native American stories and earth activities for children. Colorado: Fulcrum Publishing; 1994.	8-10	Indigenous Content
Caduto MJ, Bruchac J. Native American gardening: stories, projects and recipes for families. Colorado: Fulcrum Publishing; 1996.	10-12	Indigenous Content
Caduto MJ, Bruchac J. Native plant stories. Colorado: Fulcrum Publishing; 1995.	10-12	Indigenous Content
Campbell NL, Lafave K. Shi-shi-etko. Toronto: Groundwood Books; 2005.	4-6	Indigenous Content
Canavan T. Fit and healthy: heart, lungs, and hormones. New York: Powerkids Press; 2015.	8-10	
Canino K. Maintaining a healthy weight. New York: The Rosen Publishing Group; 2010.	12-15	
Carmichael J, Ackerley S. Spaghetti is not a finger food (and other life lessons). San Francisco: Little Pickle Press; 2012.	8-10	
Caster S. Lungs. New York: Powerkids Press; 2010.	10-12	
Centre For Addiction And Mental Health, Weissmann J. Can I catch it like a cold?: coping with a parent's depression. Toronto: Tundra Books; 2009.	8-10	
Cheng A, Barton P. The year of the baby. Boston: HMH Books for Young Readers; 2014.	8-10	

Chilman-blair K, Taddeo J. Superheroes on a medical mission: medikidz explain ADHD. New York: Rosen Central; 2010.	10-12	Graphic Novel
Chilman-blair K, Taddeo J. Superheroes on a medical mission: medikidz explain autism. New York: Rosen Central; 2010.	10-12	Graphic Novel
Chilman-blair K, Taddeo J. Superheroes on a medical mission: medikidz explain HIV. New York: Rosen Central; 2010.	10-12	Graphic Novel
Chilman-blair K, Taddeo J. What's up with Bill?: medikidz explain epilepsy. New York: The Rosen Publishing Group; 2010.	10-12	Graphic Novel
Chilman-blair K, Taddeo J. What's up with Ella?: medikidz explain diabetes. New York: The Rosen Publishing Group; 2010.	10-12	Graphic Novel
Chilman-blair K, Taddeo J. What's up with Max?: medikidz explain asthma. New York: The Rosen Publishing Group; 2010.	10-12	Graphic Novel
Chilman-blair K, Taddeo J. What's up with Pam?: medikidz explain childhood obesity. New York: The Rosen Publishing Group; 2010.	10-12	Graphic Novel
Chilman-blair K, Taddeo J. What's up with Paulina?: medikidz explain food allergies. New York: The Rosen Publishing Group; 2010.	10-12	Graphic Novel
Chilman-blair K, Taddeo J. What's up with Sean?: medikidz explain Scoliosis. New York: The Rosen Publishing Group; 2010.	10-12	Graphic Novel
Chilman-blair K. Superheroes on a medical mission: medikidz explain depression. New York: Rosen Central; 2011.	10-12	Graphic Novel
Chilman-blair K. Superheroes on a medical mission: medikidz explain sleep apnea. New York: Rosen Central; 2010.	10-12	Graphic Novel
Coates JL. The power of harmony. Ontario: Red Deer Press; 2013.	10-12	Indigenous Content
Cole B. Dr. Dog. reprint ed. Victoria: Dragonfly Books; 1997.	6-8	
Cook J, DuFalla A, How to be comfortable in your own feathers. Tennessee: National Center for Youth Issues; 2013.	6-8	
Cook J, Falla AD. Wilma Jean the worry machine. Tennessee: National Centre for Youth Issues; 2012.	4-6	
DeLand MM. The great Katie Kate discusses diabetes. Texas: Greenleaf Books; 2010.	4-6	
DeLand MM. The great Katie Kate explains epilepsy. Texas: Greenleaf Books; 2014.	4-6	

DeLand MM. The great Katie Kate offers answers about asthma. Texas: Greenleaf Books; 2014.	4-6	
DeLand MM. The great Katie Kate tackles questions about cancer. Texas: Greenleaf Books; 2010.	4-6	
Dewdney A. Llama llama home with mama. New York: Penguin Young Readers Group; 2011.	8-10	
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Dr. Seuss, Mathieu J, Perkins A, et al. My big book of beginner books about me. New York: Random House Books for Young Readers; 2011.	6-8	
Fields J. Choosing a career as a nurse-midwife. New York: The Rosen Publishing Group; 2001.	12-15	
Fluet C. A Day in the life of a nurse. Minnesota: Capstone Press; 2000.	8-10	
Freedman J. Careers in emergency medical response teams' search and rescue units. New York: The Rosen Publishing Group; 2003.	12-15	
Freedman J. Your beautiful brain: keeping your brain healthy. New York: The Rosen Publishing Group; 2013.	10-12	
Galiano N. Choosing a career in pharmacy and the pharmaceutical sciences. New York: The Rosen Publishing Group; 2002.	12-15	
Garrett G. Rookie read-about science: scientists ask questions: physical science. New York: Children's Press; 2005.	8-10	
Gillespie D, McKay-Fleming K. Journey through the circle of life. Winnipeg: Pemmican Publications; 2007.	8-10	Indigenous Content
Hall LE. Careers in biotechnology. New York: The Rosen Publishing Group; 2007.	12-15	
Harasymiw T. A career as a physical therapist. New York: The Rosen Publishing Group; 2010.	12-15	
Harper CM. Henry's heart: a boy, his heart, and a new best friend. New York: Henry Holt and Co.; 2011.	6-8	
Hartt-Sussman H, Cote G. Noni is nervous. Toronto: Tundra Books; 2013.	6-8	
Harvey R, Sévigny. Caillou is sick. Montreal: Chouette Publishing; 2012.	4-6	
Hedelin P, Barborini R. The human body: lift the flap and learn. reprint ed. Montreal: Owlkids; 2011.	4-6	Interactive
Holler SF. Lacey and the African grandmothers. Toronto: Second Story Press; 2009.	10-12	Indigenous Content

Holloway AA. The bipolar bear family: when a parent has bipolar disorder. Indiana: Authorhouse; 2006.	4-6	
Holmes, MM, Mudlaff SJ. A terrible thing happened: a story for children who have witnessed violence or trauma. Washington D.C.: Magination Press; 2000.	6-8	
Houghton G. Blood: the circulatory system. New York: The Rosen Publishing Group; 2007.	8-10	
Houghton G. Muscles: the muscular system. New York: Powerkids Press; 2006.	10-12	
Houghton G. Nerves: the nervous system. New York: Powerkids Press; 2006.	8-10	
Johnson BL. Your digestive system. Minnesota: Lerner Publications Company; 2012.	8-10	
Johnston B, Nadjiwon A. The gift of the stars. bilingual ed. Ontario: Kecedonce Press; 2010.	6-8	Indigenous Content
Jurtzman-Counter S, Schiller A. Miles is the boss of his body. Los Angeles: The Mother Company; 2014.	4-6	
Kruger LF, Hamelin MM. Taking care of mother earth. British Columbia: Theytus Books; 2009.	6-8	Indigenous Content
LaDuke W, Alexander S. Food is medicine: recovering traditional foods to heal the people. California: Oyate Press; 2004.	10-12	Indigenous Content
Larochelle D, Fearing M. How Martha saved her parents from green beans. New York: Dial Press; 2013.	6-8	
Lehn B, Krauss C. What is a scientist. Minnesota: Millbrook Press; 1998.	6-8	
Leocoy D, Hamelin M. Looking after me. 2nd ed. British Columbia: Theytus Books; 2009.	6-8	Indigenous Content
Liebman D. I want to be a doctor. Richmond Hill: Firefly Books; 2000.	4-6	
Liebman D. I want to be a nurse. Richmond Hill: Firefly Books; 2000.	4-6	
Lowry L, Thomas M. Gooney bird and all her charms. Boston: HMH Books for Young Readers; 2014.	6-8	
Loyie L, Brissenden C. The gathering tree. British Columbia: Theytus Books; 2005.	8-10	Indigenous Content
Markle S, McWilliam H. What if you had animal ears. New York: Scholastic; 2016.	6-8	
Markle S, McWilliam H. What if you had animal feet. New York: Scholastic; 2015.	6-8	
Markle S, McWilliam H. What if you had animal hair. New York: Scholastic; 2014.	6-8	
Markle S, McWilliam H. What if you had animal teeth. New York: Scholastic; 2013.	6-8	
Marlowe S, Pascuzzo P. No ordinary apple: a story about eating mindfully. Massachusetts: Wisdom Publications; 2013.	6-8	

Martin R, Sanders A. Little explorers: my amazing body. Ina Ltf ed. New York: Little Bee Books; 2015.	6-8	Interactive
Matthies J, Valiant K. The goodbye cancer garden. Illinois: Albert Whitman & Company; 2011.	4-6	
McCain BR, Schuett S. Grandmother's dreamcatcher. Illinois: Albert Whitman & Company; 1998.	6-8	Indigenous Content
Meuse T, Stevens A. The sharing circle: stories about First Nations culture. Halifax: Numbus Publishing; 2003.	6-8	Indigenous Content
Milway SM, Fernandes E. Mimi's village and how basic health care transformed it. Toronto: Kids Can Press; 2012.	6-8	
Minton E. Powering up a career in biotechnology. New York: Rosen Young Adult; 2015.	12-15	
Mooney C, Carbaugh S. Genetics: breaking the code of your DNA. Vermont: Nomad Press; 2014.	12-15	
Morgan L, Laulbach K. Healing the bruises. Halifax: Formac Publishing Company; 2013.	12-15	Graphic Novel
Nelson O, Collins P. Moe and Malaya visit the nurse. Nunavut: Inhabit Media Inc.; 2010.	6-8	Indigenous Content
North L, Jevons C. Hansel and Gretel and the green witch. reprint ed. New York: Crabtree Publishing Company; 2015.	6-8	
Olson K, George L. Living safe, playing safe. British Columbia: Theytus Books; 2009.	6-8	Indigenous Content
Olson K, Hamelin MM. Eat, run and live healthy. British Columbia: Theytus Books; 2009.	6-8	Indigenous Content
Olson K, Hamelin MM. Healthy choices, healthy lives. British Columbia: Theytus Books; 2009.	10-12	Indigenous Content
Olson K. Eyes, ears, nose and mouth. British Columbia: Theytus Books; 2005.	6-8	Indigenous Content
Olson K. Living safe, playing safe. British Columbia: Theytus Books; 2005.	6-8	Indigenous Content
Palacio RJ. Wonder. New York: Alfred A. Knopf; 2012.	8-10	
Parker V. I know someone with a hearing impairment. Chicago: Heinemann-Raintree; 2011.	6-8	
Parker V. I know someone with asthma. Chicago: Heinemann-Raintree; 2011.	6-8	
Parker V. I know someone with diabetes. Chicago: Heinemann-Raintree; 2011.	6-8	
Parker V. I know someone with down syndrome. Chicago: Heinemann-Raintree; 2011.	6-8	
Parker V. I know someone with eczema. Chicago: Heinemann-Raintree; 2011.	6-8	
Parker V. I know someone with epilepsy. Chicago: Heinemann-Raintree; 2011.	6-8	
Pinette G. Choosing life: Bobby's story. Southampton: Ningwakwe Learning Press; 2002.	12-15	Indigenous Content

Pinette G. Diabetes and diet: Ivan's story. Southampton: Ningwakwe Learning Press; 2002.	12-15	Indigenous Content
Pinette G. Healthy pregnancy: Jenny's story. Southampton: Ningwakwe Learning Press; 2002.	15-17	Indigenous Content
Raum E. I know someone with a visual impairment. Chicago: Heinemann-Raintree; 2011.	6-8	
Raum E. I know someone with ADHD. Chicago: Heinemann-Raintree; 2011.	6-8	
Raum E. I know someone with HIV/AIDS. Chicago: Heinemann-Raintree; 2011.	6-8	
Redger E, Gowsell R. Fetal alcohol spectrum disorder: understanding mental health. New York: Crabtree Publishing Company; 2014.	12-15	
Renfrey GS. Emotional wellness : Mary's story. Southampton: Ningwakwe Learning Press; 2007.	10-12	Indigenous Content
Rice J. Understanding cancer: Mishoo's story. Southampton: Ningwakwe Learning Press; 2008.	12-15	Indigenous Content
Sanschagrin J, Brignaud P. Caillou: at the doctor. 3rd ed. Montreal: Chouette Publishing; 2013.	4-6	
Sawyer S. Careers in DNA analysis. New York: Rosen Central; 2008.	12-15	
Schaefer LM. We need nurses. Minnesota: Capstone Press; 2000.	4-6	
Schnitzlein D, Faulkner M. The monster who ate my peas. Atlanta: Peachtree Publishers; 2010.	8-10	
Shannon D. Bugs in my hair!. New York: Blue Sky Press; 2013	6-8	
Shantz-Hilkes C, Decode, editor. Hooked: when addiction hits home. Toronto: Annick Press; 2013.	15-17	
Silate J. Planning and preparing healthy meals and snacks: a day-to-day guide to a healthier diet. New York: The Rosen Publishing Group; 2005.	10-12	
Silver DM, Wynne PJ. My first book about the brain. New York: Dover Publications; 2013.	6-8	Interactive (colouring book)
Silver DM, Wynne PJ. My first human body book. New York: Dover Publications; 2009.	6-8	Interactive (colouring book)
Silver DM, Wynne PJ. The body book: easy-to-make hands-on models that teach. New York: Scholastic; 2008.	10-12	Interactive
Silverberg C, Smyth F. Sex is a funny word: a book about bodies, relationships, and you. New York: Triangle Square; 2015.	12-15	
Slegers L. Kevin goes to the hospital. New York: Clavis Publishing; 2012.	4-6	
Spalding A, Wilson J. Solomon's tree. British Columbia; Orca Book Publishers; 2002.	8-10	Indigenous Content
Speedy Publishing LLC. Anatomy and physiology: learning all about you for kids: human body encyclopedia. Delaware: Speedy Publishing LLC; 2015.	6-8	

Stead PC, Stead EE. Sick day for Amos McGee. England: Roaring Book Press; 2010.	4-6	
Stockham J. First time: dentist. Swindon: Child's Play; 2011.	4-6	
Stockham J. First time: doctor. Swindon: Child's Play; 2011.	4-6	
Stockham J. First time: hospital. Swindon: Child's Play; 2011.	4-6	
Sutcliffe M. Belle and Boo and the yummy scrummy day. London: Orchard Books; 2013.	4-6	
Taylor-Butler C. True books: the nervous system. New York: Children's Press; 2008.	10-12	
Tecco BD. Food for fuel: the connection between food and physical activity. New York: The Rosen Publishing Group; 2008.	12-15	
Troian M. HIV/AIDS awareness: Sage's story. Southampton: Ningwakwe Learning Press; 2011.	15-17	Indigenous Content
Walker R. DK eyewitness books: human body. London: DK Children; 2014.	8-10	
Walker R. Human body: a visual encyclopedia. London: DK Children; 2012.	10-12	
Wallack M, Given C. Why did grandma put her underwear in the refrigerator?: an explanation of Alzheimer's disease for children. South Carolina: CreateSpace Independent Publishing Platform; 2013.	8-10	
Wilson W, Chapman J. Bear feels sick. New York: The Little Simon; 2012.	6-8	
Wilson W, Chapman J. Bear's loose tooth. New York: The Little Simon; 2014.	6-8	
Woodward J. How to be a genius. reprint ed. London: DK Children; 2013.	10-12	
Ziegler A, Hainnu R, Leng Q. A walk on the tundra. Iqaluit: Inhabit Media; 2011.	6-8	Indigenous Content
Ziervogel K. Meet a dentist: Dennis Hewitt. Southampton: Ningwakwe Learning Press; 2007.	10-12	Indigenous Content

REVIEW ARTICLE / VUE D'ENSEMBLE

Research Support in Health Sciences Libraries : A Scoping Review

Sarah Visintini¹, Mish Boutet², Alison Manley³ and Melissa Helwig⁴

Abstract: Background: As part of a health sciences library's assessment of its research support services, an environmental scan and literature review were conducted to identify existing research services offered in Canada. Through this process, it became clear that a formal review of the academic literature would be a helpful base from which libraries could identify new models for their own services. To address this gap, we conducted a scoping review of research services provided in health sciences libraries. **Methods:** Searches were conducted in Medline, Embase, ERIC, CINAHL, LISTA, LISS, Scopus, Web of Science, Google Scholar and Google for articles that described the development, implementation, or evaluation of one or more research support initiatives in a health sciences library. We identified additional articles by searching reference lists of included studies and canvassing medical library listservs. **Results:** Our database searches retrieved 7134 records, 4026 after duplicates were removed. Title or abstract screening excluded 3751, with 333 records retained for full-text screening. Seventy-five records were included, reporting on 74 different initiatives. Included studies were published between 1990 and 2017, the majority from North American and academic health sciences libraries. Major services areas reported were the creation of new research support positions, and services for systematic review support, grants, data management, open access, and repositories. **Conclusion:** This scoping review is the first review of our knowledge to map out research support services provided by health sciences libraries beyond "traditional" library services as well as forms of service evaluation conducted.

Introduction

In health sciences libraries, we constantly strive to expand with new services to meet the evolving needs of the researchers we support. As we continue to become further integrated into our researchers' projects, we want to make the most productive use of our time and resources. In 2016, 2 members of our team (MB, SV) were involved in reviewing the research support services offered by the Health Sciences Library at the University of Ottawa. As part of this process, we were interested in identifying the services offered by other health sciences libraries, how these services were implemented, and the degree to

which they were evaluated, in order to inform future service development at our location.

We conducted an informal environmental scan of other Canadian academic health sciences library websites, as well as a preliminary literature review. We also reached out via email and telephone to several academic libraries across the country for their input. Through this process, we realized that no formal reviews of research services in the health sciences had yet been conducted (either in Canada or more broadly), and that there was an appetite at other academic libraries for a means to compare services. Given the seemingly ever-present scarcity of resources and time at health sciences libraries, many of the librarians we contacted indicated an interest in

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broadening their range of services without re-invention, false steps, failed attempts, and time lost. That is to say, they would prefer to implement service models that had already been tested and reported on elsewhere.

To this end, we conducted a scoping review to identify reports of research support services in health sciences libraries. We kept our criteria deliberately broad so that our review could inform libraries outside of Canada as well as within. We also endeavoured to examine not only academic health sciences libraries but also hospital and special libraries serving health researchers, so that we might paint a more fulsome picture of the current research service landscape. As such, references to health sciences libraries in this paper imply all academic, hospital, and special libraries that serve medical, allied health, or any other health-related researchers (including dentistry) unless specified otherwise.

The research service landscape that continues to evolve today stems from the period following World War II, when health sciences libraries examined means to better support researchers, keep up with their needs, prove the library's value to them, and even become part of the research team (1-4). This phenomenon of librarians as part of the research process—not only as suppliers of information, but increasingly as active collaborators—took firmer hold in the late 90s and 2000s, with a variety of new services, roles, and positions (5-9). For example, an emerging role in health sciences libraries this century has been the informationist, defined first by Davidoff and Florance (10) as specialists trained in the essentials of both information science and clinical work to more thoroughly bridge the 2 domains. The role has since proliferated in both the literature and job descriptions (8,11,12) and continues to expand to duties including systematic review support, training, and embedded librarianship (8,12-14).

Exploring the reported range of support services for researchers can assist the continued evolution of health sciences libraries. By determining the types of research support services provided by libraries, and the extent of evaluation conducted on these services, we can also build the foundation for a more rigorous assessment in the future of which services are backed by evidence.

Methods

Our protocol follows Arksey and O'Malley's scoping review framework (15). We used the PRISMA reporting checklist for systematic reviews to guide our report, as there are currently no formal reporting guidelines for scoping reviews to our knowledge (16, 17).

Search

One librarian on our team (MB) created the search strategy in Ovid MEDLINE using a combination of index terms and keywords around librarianship, research services, medicine, nursing, dentistry, and the health sciences. The search was peer-reviewed by a second librarian (KF). Once finalized, the search was translated to the other bibliographic databases of interest.

We conducted our bibliographic database searches on February 11, 2017. We searched MEDLINE (Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) 1946 to Present), EMBASE (Ovid, Embase Classic+Embase 1947 to 2017 February 10), ERIC (Ovid, ERIC 1965 to October 2016), CINAHL (EBSCO, from inception), LISTA (EBSCO, from inception), LISS (EBSCO, from inception), Scopus (Elsevier, from inception) and Web of Science (Thomson Reuters, all databases, from inception) to identify reports of research support services provided in health sciences libraries (full Medline search strategy available in Appendix A). We applied no date or language limits.

We imported citations into EndNote X7 and removed duplicates by manual inspection aided by the EndNote duplicate identification feature (18). We imported citations to Rayyan (19) for title/abstract screening, and Covidence (20) for full-text screening. We conducted screening in duplicate (AM, MH, MB, SV), discussing conflicts between screeners and, when necessary, involving a third team member to arbitrate.

In addition to our bibliographic database searches, 1 searcher (MB) conducted a series of advanced Google and Google Scholar searches in August 2017, and again in October 2017, to identify grey literature (Appendix B). For each search, the searcher reviewed pages of 20 results at a time for relevant results until no relevant results were identified for 3 consecutive pages (21, 22). Reports that the searcher deemed relevant were then reviewed in duplicate by additional team members (AM, MH, SV) at the full-text level. To complement the search for grey literature, a team

member (MH) contacted several health sciences library listservs in November 2017 and again in January 2018.

Further, 1 team member (AM) reviewed included studies' bibliographies for additional relevant reports. Reports that were deemed relevant were then reviewed in duplicate by the other team members (MB, MH, SV) at the full-text level.

Screening

We included articles if they:

- 1) were set in an academic health sciences library (including general science libraries serving health sciences populations), hospital library, or special library with a health focus;
- 2) described the development, implementation, or evaluation of one or more research support initiatives provided in the aforementioned contexts, regardless of study type; and
- 3) were available in English or French.

We consider "support initiatives" to be any service aimed at supporting individuals or groups conducting research that fall outside the "traditional" range of services offered in most academic, hospital, or special health sciences libraries (e.g. document delivery, reference services or loaning materials).

We define "research" as a "process of investigation leading to new insights, effectively shared" (23). This focuses our review on what we call "capital R research", which implies the explicit intention on the researcher's part to disseminate new knowledge. This is more specific than more general uses of the term that may imply simple information gathering, or information literacy training with no intention of publishing (e.g. students "researching" for their term paper), or work that informs clinician practice at the bedside but no further.

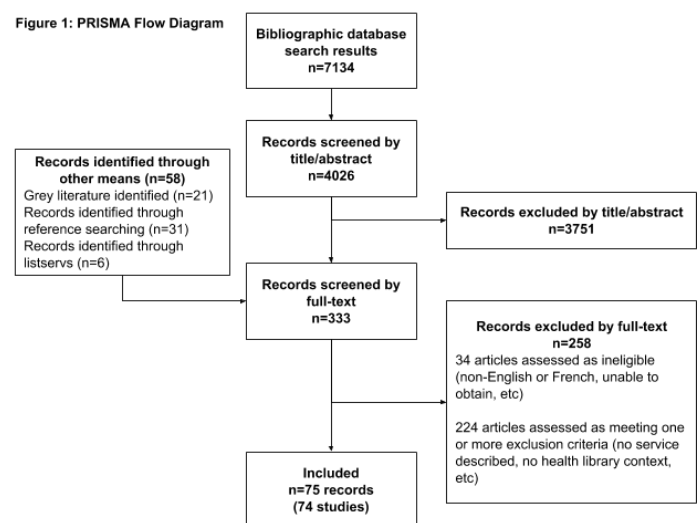
Extraction

Team members individually (AM, MB, SV) extracted study data in Google Sheets and extractions were verified by a second team member (MH). Conflicts between extractor and verifier were discussed and arbitrated by a third team member when necessary. Data extraction consisted of publication information, context (study country, library type), population (types of researchers supported), service types, service details, and, when available, evaluation methods and findings.

Results

We identified 7134 records through bibliographic database searching. We eliminated 3108 duplicates, and conducted title or abstract screening on 4026 records, with 3751 records excluded at this phase. Full-text screening was conducted on 333 records (275 records from title or abstract inclusion, plus an additional 58 records identified through grey literature searching, records from listserv responses, and reference list searching). Of these, we excluded 258, leaving 75 included records (Figure 1). Of these 75 records, two (24, 25) describe the same service implementation. For the purposes of reporting, we used the publication information from one (24) and merged the service and evaluation information extracted from these two records to treat them as a single study. For this reason, we will refer hereafter to 74 included studies.

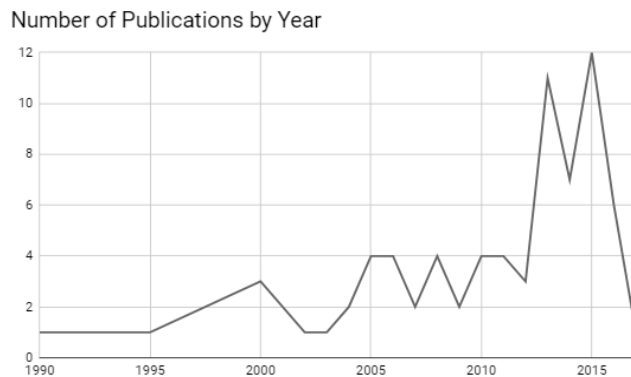
Fig. 1 PRISMA Flow Diagram



Included studies were published between 1990 and 2017 (Table 1 and Figure 2). Fifty per cent (n=37) of reports were published in the last five years. The year with the highest number of publications was 2015 (n=12). Included studies were most commonly published in the Journal of the Medical Library Association (n=20), Medical Reference Services Quarterly (n=11), and the Bulletin of the Medical Library Association (n=5) (Supplemental Table A).

Tab.1 Included study characteristics

		N =74	100%
Date Published	2013-2018	37	50%
	2007-2012	19	26%
	2001-2006	12	16%
	1995-2000	4	5%
	Pre-1995	2	3%
Study Design	Program Description	49	65%
	Program Evaluation	15	20%
	Research Article - Qualitative	5	7%
	Research Article - Quantitative	6	8%
Country of Origin***	United States	61	82%
	Canada	9	12%
	United Kingdom	5	7%
	South Africa	1	1%
Library Type	Academic	55	74%
	Hospital	8	11%
	Mixed (multiple types reported)	7	10%
	Special	4	5%
Service Type***	Creation of Library Position	27	36%
	Systematic Reviews	25	34%
	Grant Support	24	32%
	Data Management	19	26%
	Research Metrics	15	20%
	Open Access/Repositories	10	13%
	Other	35	47%
Evaluation Conducted		35	47%
Method of Evaluation***	Informal information gathering	17	48%
	Statistics	13	37%
	Surveys	7	20%
	Interviews	2	6%
	Post-workshop evaluations	2	6%
	Focus Groups	1	3%
	Pre-post test	1	3%
	Not specified	1	3%
***Numbers do not equal total included studies because some records reported on multiple countries/services/evaluation methods			

Fig.2. Included studies by year of publication

A large majority of included studies were program descriptions (n=49), featuring case studies providing context and information on new service implementations. The next most frequent study type was program evaluation (n=15). These articles described new library services and included an evaluation component. Eleven research articles were included, which consisted of 6 studies focused on quantitative data analysis and 5 focused on qualitative

analysis. Articles predominantly reported academic health library contexts (n=55). Of the remaining 19 included studies, 8 report on hospital library contexts, 7 have mixed contexts (reporting on 2 or more different contexts), and 4 were reports on special libraries, including the National Institutes of Health (NIH) (26, 27), the Veterans Evidence-based Research Dissemination Implementation Center (28), and the British Dental Association Library (29).

Populations served were primarily researchers and academic faculty, although staff, students, clinicians, nurses, and trainees were also mentioned. The most common research support services described were the creation of new research support positions (n=27), systematic review services (n=25), grant support (n=24), data management services (n=19), research metrics services (n=15), and open access publishing and/or repository services (n=10) (Table 2). Other less-represented services were also captured (n=32). These numbers do not equal our number of included reports as many articles reported implementing multiple services (Table 1).

Tab.2 Included Studies by Services Described

Studies	Services Described						
	SR	Grant Support	Metrics	OA/Repository	Data Mgmt	New Position	Other
Academic							
Braun (2017)			X				
Beasley et al. (2016)	X		X			X	X
Mi (2016)	X						
Rosenzweig et al. (2016)		X					
Blackstock et al. (2015)	X						
Burnette et al. (2015)			X			X	X
Campbell et al. (2015)	X						
Chiware et al. (2015)				X	X	X	
Falconer (2015)	X						
Henderson et al. (2015)		X		X	X	X	
Ludeman et al. (2015)	X						
Rambo (2015)					X		

Studies	Services Described						
	SR	Grant Support	Metrics	OA/ Repository	Data Mgmt	New Position	Other
Read et al. (2015)					X		
Allee et al. (2014)	X	X			X	X	
Hardi et al. (2014)	X						
Janke et al. (2014)		X	X		X		X
Raimondo et al. (2014)							X
Smith et al. (2014)						X	X
Steelman et al. (2014)							X
Black et al. (2013)		X					
Federer (2013)	X	X			X	X	X
Goode et al. (2013)	X				X	X	X
Gore (2013)	X				X	X	X
Hasman et al. (2013)					X		X
Li et al. (2013)					X	X	X
Mann et al. (2013)	X	X					
Pepper et al. (2013)	X						
Vaughan et al. (2013)	X	X	X	X	X		
Johnson et al. (2012)		X		X	X	X	
Reeves (2012)	X					X	
Holmes (2011)		X	X	X		X	X
Tattersall et al. (2011)							X
Wilmes (2011)		X					
Cheek (2010)	X					X	X
Cheek et al. (2010)		X			X	X	X
Hendrix (2010)			X				
Klem et al. (2009)	X						X
Koopman et al. (2009)				X			
Harroun et al. (2008)							X
Song (2008)		X				X	X
Barnett et al. (2007)			X	X			
Banks (2006)		X	X			X	

Studies	Services Described						
	SR	Grant Support	Metrics	OA/ Repository	Data Mgmt	New Position	Other
Epstein (2006)						X	
Minie et al. (2006)							X
Chilov et al. (2005)							X
Robinson et al. (2005)						X	
Tennant (2005)			X			X	X
Helms et al. (2004)					X		X
Moore et al. (2004)							X
Watson et al. (2003)				X			
Florance et al. (2002)					X	X	X
Means (2000)		X					
Yarfitz et al. (2000)						X	
Mead et al. (1995)	X						X
Fenichel et al. (1994)		X					X
Hospital	SR	Grant Support	Metrics	OA/ Repository	Data Mgmt	New Position	Other
Ginex et al. (2016)							X
Ipsaralexi et al. (2015)		X					
Lightfoot et al. (2015)	X						
Dudden et al. (2011)	X						
Leman (2008)		X					
Frumento et al. (2007)							X
Felber et al. (2006)							X
Pratt (1990)						X	
Special	SR	Grant Support	Metrics	OA/ Repository	Data Mgmt	New Position	Other
King et al. (2016)		X	X	X	X	X	X
BDA library to assist... (2014)							X
Whitmore et al. (2008)			X			X	
Harris (2005)	X						

Studies	Services Described						
	SR	Grant Support	Metrics	OA/ Repository	Data Mgmt	New Position	Other
Mixed							
Knehans et al. (2016)	X	X					
Macdonald (2015)	X						X
Crum et al. (2013)	X	X	X	X	X	X	X
Holmes et al. (2013)		X	X		X		X
Lorenzetti et al. (2012)		X					X
Glenn et al. (2010)	X	X				X	X
Bai et al. (2000)			X				

Creation of research support positions (n=27)

The most commonly reported research service was the allocation of positions that focused either exclusively or in great part on research support. These positions were created either through hiring or through the transformation of titles and roles of existing personnel. Our data set includes 27 reports (36%) on the creation of at least 1 new position (Table 2).

Position titles varied in specificity. Some titles clearly delineated the job's area of focus, such as director for research data management (30), emerging technologies librarian (31), or Institutional Review Board (IRB) librarian (32). Other titles were more general and did not necessarily share the same primary responsibilities as others with the same title at other institutions, such as informationist (26, 27, 33-37). In total, the 27 reports in this group presented 28 unique job titles, which are listed in Table 2 of the supplementary files. Among these titles, 14 permuted on the name informationist (e.g. information specialist, bioinformaticist). Twelve positions contained librarian in the job title (e.g. translational research librarian, public/private partnership librarian). Five positions included either liaison, analyst, developer, or director in their title. Note that the aforementioned breakdown adds up to more than 28 because some titles, such as bioinformatics librarian, fall into 2 categories.

More significant than their titles were the roles these people fulfilled in supporting research. Some, such as the IRB Librarian (32), had a particular focus, which in this case was to provide literature search and

consultative support to 2 IRBs. Others were charged with multiple tasks along the research continuum, such as the University of California-Los Angeles research informationist (38) who reported digitizing lab notebooks, aggregating research data, creating metadata standards for a research team, and offering expert searching and bibliometric analysis services to other teams.

Systematic review (n=25)

Support for systematic reviews was another highly-represented service, appearing in 25 of the 75 reports (34%) (Table 2). The earliest identified report of systematic review or meta-analysis support was from 1995 (39), although it was not until 2009 that systematic review services started being reported regularly (Table 2).

As systematic reviews are complex undertakings, it should come as no surprise that models for research support varied considerably. Depending on the specific implementation, a library's systematic review service could be provided by a single information professional (37, 40, 41) or by a coordinated team (28, 42, 43). In some instances, support consisted of a single main service, such as providing instruction on systematic reviews and their methods (33, 44, 45). In other instances, libraries introduced an array of services, including training, developing search strategies, running searches, managing search results, obtaining full-text reports, and providing methods write-ups (25, 43, 46-51).

Due to the time-intensive nature of systematic review support, some libraries identified the need to introduce fee-based services (24, 48). Knehans, et al. (48) and Beasley and Rosseel (24) both reported implementing a 2-tiered service model, where certain services, such as advising on the systematic review process, were offered at no charge, while services that placed a greater demand on personnel time and expertise, such as designing and running systematic review searches, fell under fee-based services.

Also due to the time-intensive nature of systematic review support, Campbell (42) presented strategies adopted by the University of Alberta's John W. Scott Health Sciences Library to free up personnel time that could then be re-allocated to helping with reviews. Crum's (35) survey study reported on traditional responsibilities (e.g. reference desk, collection development) that were eliminated to free up time for systematic reviews and other services. To demonstrate the value of its time commitment to systematic reviews, St. Michael's Hospital's Scotiabank Health Sciences Library in Toronto (43) tracked the different and significant roles played by library staff on reviews, such as critical appraiser, data extractor, and data synthesizer.

Grant support (n=24)

Twenty-four (32%) of the included studies addressed library services created to support researchers in pursuing grants (Table 2). Some of these services centred on facilitating access to grant funding, frequently in the form of creating databases of funding information (52-55). For example, Fenichel et al. (52) created an online bulletin board that included access to the Sponsored Programs Information Network (SPIN) database of funding sources, and Rosenzweig et al. (55) created a Research and Funding Grants Guide. At the School of Medicine at the University of Washington, a Research Funding Service librarian was hired to liaise between the school and the service, as well as perform "administrative and budget reporting, evaluation and sharing of funding information, and promotion of selected local funding opportunities." (53)

Several libraries offered workshops on grant writing or on grant application requirements. The University of Minnesota Health Sciences Libraries created a workshop to help applicants to the NIH and the National Science Foundation create data management plans (56). The University of Michigan Health Sciences Library, in collaboration with the

Medical School Office of Research, created a workshop and YouTube video on inserting graphics into grant applications (57). Other institutions also created general grant-writing workshops (58).

In addition to workshops, other described services included: the creation of the DMPTool (30), an open source template builder for data management plans; the involvement in grant writing and review (31, 35, 38, 50, 59); the provision of background information support for grant and funding applications (60); and the offer of training required as part of a local funding competition for small clinical projects (61).

Data management (n=19)

Data management was another main category of research support, with 19 (26%) studies examining this area (Table 2). As funding agencies and journals increasingly require sound data management plans, many libraries have stepped in with support. Of the 19 included studies that elucidated grant support services, 10 (53%) also offered data management support, either linked directly to their grant support initiatives or offered alongside their explicit grant support services. Methods of data management support ranged from workshops, like the University of Minnesota Health Sciences Libraries' "Creating a Data Management Plan for Your Grant Application Workshop" (56), to more intensive services where librarians provided their expertise to create data plans (62).

While most libraries reported providing data management training, support, and tool creation (30, 37, 63), 1 reported personnel becoming part of a research team to take on data management activities (38). This library member on the research team provided "advice on data management and curation, including metadata standards and preservation and preparation of data for sharing." (38) Li et al. (64) reported providing in-depth data analysis for researchers. Others' services included support and hosting of institutional repositories to store and share researchers' data (30, 65), enabling access to datasets and creating data catalogues (66, 67), and having dedicated librarians for data management projects (33).

Research metrics (n=15)

Fifteen (20%) studies discussed research metrics services (Table 2). Nine articles focused on research metrics services that libraries should be or were

providing, the majority of which focused on how research metric services were being offered or developed in their library (24-27, 62, 68, 69). In the group of 9 articles, 2 addressed the role of libraries in providing research metric services though not based on services they were providing in their libraries. Holmes (68) discussed results from an environmental scan of what health libraries were doing, while Crum (35) included results from a survey of library administrators and librarians on what they offered or were looking to offer. Hendrix (70) reported on an instruction series developed upon recognizing a need from faculty for more information on research metrics to assist them with tracking their publications for promotion as well as for grant applications.

Beyond general library services, 4 articles focused on researcher publication tracking (71-74). Bai and Kelly (71), Burnette and Keener (73), and Braun (72) discussed creating in-house databases to track their users' publications, and engaging with departments on campus who used the data they collected. Braun (72) noted a new collaboration that developed across campus through this initiative between information technology staff, medical school administrators, and liaison librarians. Burnette (74) provided an overview of a research audit of their institution and the subsequent building of a database to track their researchers' publications. Two reports (34, 59) focused on research impact services provided by librarians embedded in research departments.

Open access and repository (n=10)

Ten reports (13%) mentioned services involving open access and repository support (Table 2). Several libraries described promoting their own or external open repositories to their researchers (26, 30, 65, 75, 76). Koopman and Kipnis (75) described the implementation, promotion, and challenges of the Jefferson Digital Commons institutional repository. Henderson (30) reported on a new director of research data management who identified the library's institutional repository as a possible endpoint for researchers' data. The Cape Peninsula University of Technology's Library in South Africa, as part of the University's RDM Working Group, helped shape the university's RDM Policy (65), part of which involved assisting the university's Institute of Biomedical and Microbial Biotechnology identify laboratory journals for digitization and storage in the institution's repository. The University of Virginia's Claude Moore Health Sciences Library (76) championed open access

publishing in BioMed Central (BMC) with presentations, a newsletter article, a website, and investment in an institutional license to BMC. Even the NIH Library reported getting in on repository work (26). As a government library, the NIH Library was in a unique position to digitize its own public domain publications and place them on open repositories such as the Internet Archive for worldwide use (26).

In the United States, open access and repository services in health sciences libraries have often been a response to the NIH public access policy. Crum and Cooper's (35) survey of 405 librarians indicated that 110 respondents (27%) had in recent years added the role of helping authors comply with NIH public access policy to their repertoires. The Coy C. Carpenter Library at Wake Forest University (73) implemented three changes to better support policy compliance: including PubMed Central ID (PMCID) in its internal faculty member database, offering a Scholarly Publishing Assistance online toolkit, and offering faculty information sessions on open access and NIH policy compliance. Vaughan et al. (62) described how the University of North Carolina at Chapel Hill Health Sciences Library assisted researchers with repository selection and policy compliance. Finally, Holmes (68) reported on providing education and training on policy compliance, as well as further information on the Becker Medical Library's scholarly communication website.

Other services (n=35)

Thirty-five (47%) studies reported additional research support services that did not fall into the largest categories outlined above (Table 2). These less-represented services ranged from sitting on ethics review boards (40, 77), research committees (40, 78-80) or Animal Care and Use committees (81), to serving as full members of research teams (29, 31, 35-38, 59), offering copyright-related services (82) or consent form and research protocol assistance (83). Reported services also included the creation of tools, portals, or taxonomies (35, 37, 67, 78, 84, 85), providing non-systematic review search support (2, 69, 78, 81, 86, 87), creating new library spaces for researchers (88), providing training in various topics of relevance along the research lifecycle (31, 64, 67-69, 78, 82, 83, 85, 87, 89-91), or leading community-building activities such as forming groups or hubs to connect researchers with potential collaborators (26, 69, 74, 91-93).

Reports that include evaluations (n=35)

Among the 74 reports, 35 (47%) included some form of evaluation of the implemented services. Many of these evaluations were largely informal (n=17), with the authors reporting anecdotal feedback they had received after implementing new services (32, 37, 41, 42, 44, 66, 71, 72, 81, 84, 89, 94) or in which they supplemented another form of evaluation along with informal feedback (32, 48, 55, 78, 83). Statistics gathering (n=13) was the second most common form of evaluation, ranging from general usage and activity statistics (40, 43, 48, 50, 55, 57, 75, 79, 88, 95) to more specific forms of data gathering, such as tracking the number of related requests after a seminar (86), tracking the use of the services provided by a bioinformatics librarian (69), and tracking the YouTube views of instructional videos (57).

Other types of evaluations in the reported studies included surveys (n=7), interviews (n=2), post-workshop evaluations (n=2), focus groups (n=1), pre-post test (n=1), and not specified (n=1). One study, conducted by Minie et al. (82), administered a pre- and post-course evaluation for their Bioresearcher Tune-Up Course, a bioinformatics training course. Nine of the studies that reported an evaluation used multiple methods, including combining surveys and statistics (95), user satisfactions surveys and anecdotal feedback (83), and formal surveys, informal surveys, focus group discussions, and summary data (40).

Discussion

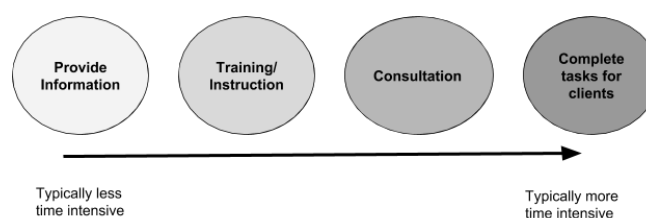
This scoping review maps a range of non-traditional services being reported by health sciences libraries to support researchers. While the services described may inspire ideas for new implementations, the proportionally small amount of rigorous evaluation present in the reports, and the fact that no critical appraisal was conducted on these studies, prevents us from being able to make any statement that the services contained herein necessarily model evidence-based practice. Despite these limitations, we have a number of observations from our review.

Among the reports, there was great variety in how health sciences libraries implemented and reported on their services. In some cases, services were introduced and provided by a single person, while in others the implementation was library-wide. In other cases, collaboration with non-library units helped shape new services. Among our included reports are services offered for or in conjunction with institutional review

boards / ethics review boards (32, 40, 77), a faculty's office of research (57), an institution's information technology and administrative units (72), research committees (40, 78-80), and an animal care and use committee (81). Such collaborations can create synergies between libraries and other units to assist researchers more comprehensively than either unit can on its own.

Across implementations, the depth of services also varied. Whereas some libraries might stop at providing users information on a topic through an online guide, other libraries would provide workshops or personnel would work directly on research teams. We attempt to demonstrate this range of depth in a spectrum of service provision in Figure 3, where less time intensive activities (such as information provision or gathering) is shown on one end of the spectrum, and the more time intensive tasks (such as being a member of the research team and completing tasks) sits on the other. Libraries looking to implement new services may consider this spectrum as part of their implementation, by beginning with less intensive services to start and working towards more time-intensive services later, if warranted.

Fig. 3. Spectrum of Services



While the majority of services were provided for free (many did not report any fee structure, by which we make the assumption that there were none), a particularly interesting fee-based model was reported by the University of Alberta, where a highly in-demand long-standing embedded nursing librarian contract position was converted into a fee-for-service funded position when budget constraints threatened to cut the position (24, 25). The library at Penn State College of Medicine also implemented a cost recovery model for its systematic review services (48).

If we examine the broad service categories by frequency of publication, we see interesting temporal trends. For one, the creation of new positions to support researchers has been reported since the 1990's and increased in frequency in the last 5 years, as health sciences libraries evolved roles to meet researcher

needs (9). Descriptions of systematic review services increased as of 2009. This is in keeping with our experiences anecdotally as well as in the literature, since the systematic review has grown significantly in popularity in the last 10 years (96), as has recognition of librarians' expertise as expert searchers (97-102). Grant support services were also frequently discussed beginning in 2010, reaching a peak in 2013, and demonstrating a small drop in frequency in the last 3 years. Similar trends were also noticed in research metrics.

Data management services were reported as early as 2002 (89), but the majority of publications are from the last 5 to 6 years. Given the increased interest in "Big Data" over the last 5 years, and technological and methodological developments in the area of data repositories and open data, it is understandable that data management services would be mentioned more frequently in recent history (103). This increase in interest is evident in Canada through the work of the Canadian Association of Research Libraries (CARL) in their release of a white paper entitled "Research Data: unseen opportunities" in 2009 to aid academic libraries in discussing data management on campus and the roles of libraries in the process, as well as their launch of Portage in 2015, a national library-based research data management network (104, 105). In a more international scope, the International Committee of Medical Journal Editors (ICMJE) have released a data sharing statement that takes effect July 1st, 2018 (106). The data sharing statement policy provides guidance for ICMJE journals to ensure that the results of clinical trials contain data sharing plans and statements (106).

Since researchers have been grappling with data management issues for much longer than the last 5 years, it is noteworthy that data management services have only been reported more recently (107). Part of the reason could be that many libraries have developed expertise in data management only recently, as library personnel have become more frequently embedded within research teams and as digital datasets have become more common, cost-effective, and readily accessible to researchers (103, 107-109).

Research metrics, open access, and repository services have all been sporadically mentioned over the last 20 years in small numbers. Two reports of research metrics services were reported last year, although it remains to be seen whether this indicates an increase in those services being reported. In many academic library contexts in Canada, these areas of expertise fall under the role of Data Management and Scholarly

Communications librarians, who often serve the entire university rather than specific research disciplines such as health sciences or sociology, providing one reason why these services may be underreported in this review. Likewise, in the international academic community, the conversation of data management and research metrics is a topic that is of concern and interest across many disciplines, not only in health sciences. Tools and documents like the Metric Tide (110) were developed with input from a variety of disciplines. Since our search was restricted to health sciences libraries, it could be that we did not capture reports of services in these domains or they were excluded during screening. Another possibility is that health librarians see providing or supporting research metrics as standard services—indeed similar services have been reported dating as far back as the 1970s (71), so it could be that we are instead seeing a revival and expansion of these services as granting agencies and universities require more proof of impact. This was the case as reported by Barnett and Keener (73), who identified that the library had been responsible for tracking faculty citations since 1977. While the partnership with the dean of the faculty had not changed, the information they collected had evolved over the years. Over time, the information collected was no longer for promotion, tenure, and informing the dean's annual report for the department, but instead, details like PMCID, DOI links, and ties to grant information, research protocols, and funding data had emerged to facilitate research activities. Along the same lines, the Becker Medical Library Model for Assessment of Research Impact was launched in 2009 and revised in 2011 to provide a "framework for tracking the diffusion of research outputs and activities." (111) This model has been discussed elsewhere in the health library literature but with a focus on the development of the tool and not on the library service component of the model (112).

By far, academic library contexts were the most represented amongst our included studies (n=56; 76%). Hospital libraries were less represented in our review (n=7; 9%); however, this may not necessarily indicate that hospital libraries are less interested in research service provision or are offering fewer services. Since there is some evidence that hospital librarians are less likely to undertake their own research, it is possible that such initiatives simply are not being published or presented at conferences (113,114). Special library service contexts are also rarely described (n=4; 5%). Articles such as Crum and Cooper (35) investigated emerging roles for

biomedical librarians and found that “hospital/health facility librarians were less likely than academic librarians to indicate they had added or planned to add an emerging role.”(35) Further results from this paper indicated that lack of staffing could be the factor in hospital librarians being less likely to take on new roles (35).

Few authors reported conducting needs assessments as part of their service initiation (55, 62, 64). This was conducted either through surveys (55, 64) or a series of interactive activities with stakeholders (62). Fewer than half ($n=35$; 47%) of our included studies contain some form of evaluation. Of these evaluations, 48% ($n=17$) rely, either wholly or in part, on anecdotal or informal feedback. Because of this, future research examining the efficacy of these research services may be difficult; however, since reporting of services is so heterogeneous, such an examination would be challenging in any case. Studies that used more robust methods of evaluation, such as usage statistics, surveys, interviews, or a mix of these methods, were much less frequent. Given the amount of time and planning involved in launching new services or in pivoting existing services to better suit research patrons, future studies need to give greater weight to evaluation and include it as part of the program plan, providing not only information about innovative services, but also accurate measures of their implementation. While assessment is not a new concept in librarianship, its focus has changed. For many years, quantity and utilization of resources were of primary interest to librarians and management as metrics of success. As library services have become more specialized and external stakeholders have required more specific outcome measures, this data has become increasingly insufficient (115).

In order to address this gap, libraries have since examined a variety of aspects of service in order to demonstrate value and efficiency, from quality of service desk service, to satisfaction with a rapid search service and clinical library financial impact, to a variety of other methods (116-123).

In addition to measuring effectiveness of services, Urquhart et al. point out in their impact and assessment of health library services that exploring service weaknesses is also important in order to substantiate anecdotal observations of service issues by the library team as well as provide evidence or justification for launching or adjusting services (124).

Whether or not a formal evaluation is planned for a new service, considering its sustainability will certainly benefit libraries. In that vein, Beasley and

Rossee (24) proposed evaluating the sustainability of their service implementation in terms of cost and impact on human resources. Applying the principles of Lean, the University of Alberta John W. Scott Library created a model for their research support services that allowed them to offer only the services that their users were going to use (24). The University of Alberta is not the first to use Lean, as Beasley and Rossee (24) point out, and a growing number of libraries are using Lean to evaluate the efficiency and viability of a wide variety of library services. Tying Lean to sustainability principles in the evaluation of library services may possibly allow for libraries to ensure they are answering the demands of their users, are not creating inefficient workflows, and are carefully examining the value-add of new initiatives (125). Sustainability is another window through which services can be explored to determine weaknesses and, in the era of shrinking library budgets, make best use of resources.

Limitations

Due to the heterogeneous application of research service evaluation, present in only half of the reports included in this review, a definitive statement can not be made on which services work best in which contexts, for whom, and why; however, we can point out interesting features and trends in services we have identified in the literature to inspire ideas and present cases of service implementation.

Additionally, given the nature of the service populations and institutions in the health sciences, with service populations having cross-appointments and clinical appointments, and institutions being university-affiliated hospitals, academic medical centres, and other overlapping functions, it was challenging at times to define the service population. We would have liked to report service provision at a more granular level (e.g. by population group); however, the overlap and blended service populations made it challenging to identify patterns about where research support services were taking place, and exactly who was being targeted.

With 80% ($n=61$) of the included studies coming from the United States, and with Canada, the United Kingdom, and South Africa representing the remaining 20% ($n=9$, $n=5$, $n=1$), there is a definite focus on research services and views from North America. From the concept of this project to publication, we have tried to be as comprehensive as possible; however, the North American focus in the literature concerned us. We would encourage others to explore

and present or publish on their services and outcomes in other regions of the world.

Conclusion

This scoping review has identified main areas of non-traditional research support provided by health sciences libraries reported from 1990 through to 2017. Health sciences libraries looking to build on their own set of research services now have a collection of program descriptions, evaluations, and studies from which they can draw ideas and identify potential hurdles.

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Statement of Competing Interests

No competing interests declared.

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Appendix A : Medline Search Strategy

1	librarians/
2	exp libraries/
3	library science/
4	library services/
5	librar*.ti,ab,kw.
6	1 or 2 or 3 or 4 or 5
7	research support as topic/
8	research personnel/
9	research/
10	(research* adj7 (service? or support or facilitat*)).ti,ab,kw.
11	(systematic review* adj7 (service? or support or facilitat*)).ti,ab,kw.
12	(synthes?s adj7 (service? or support or facilitat*)).ti,ab,kw.
13	(scholarly activit* adj7 (service? or support or facilitat*)).ti,ab,kw.
14	7 or 8 or 9 or 10 or 11 or 12 or 13
15	biomedical.ti,ab,hw,kw.
16	medical.ti,ab,hw,kw.
17	clinical.ti,ab,hw,kw.
18	health.ti,ab,hw,kw.
19	medicine.ti,ab,hw,kw.
20	dental.ti,ab,hw,kw.
21	dentist*.ti,ab,hw,kw.
22	nurs\$.ti,ab,hw,kw.
23	15 or 16 or 17 or 18 or 19 or 20 or 21 or 22
24	6 and 14 and 23

Appendix B : Google and Google Scholar Search Strategy

Search string	Search engine
medical biomedical clinical health medicine dental nursing library librarian research synthesis scholarly "systematic review" "data management" support service facilitation	Google
medical biomedical clinical health medicine dental nursing library librarian research synthesis scholarly "systematic review" "data management" support service facilitation	Google Scholar
medical biomedical clinical health medicine dental nursing library librarian research synthesis scholarly "systematic review" "data management" support service facilitation filetype:pdf	Google
medical biomedical clinical health medicine dental nursing library librarian research synthesis scholarly "systematic review" "data management" support service facilitation filetype:pdf	Google Scholar
medical "health sciences" library research "systematic review" support service facilitation	Google
medical "health sciences" library research "systematic review" support service facilitation	Google Scholar
medical "health sciences" library research "systematic review" support service facilitation filetype:pdf	Google
medical "health sciences" library research "systematic review" support service facilitation filetype:pdf	Google Scholar
medical biomedical clinical health medicine dental nursing library librarian research services	Google
medical biomedical clinical health medicine dental nursing library librarian research services	Google Scholar
medical biomedical clinical health medicine dental nursing library librarian "research services"	Google
medical biomedical clinical health medicine dental nursing library librarian "research services"	Google Scholar

Appendix C: Supplementary files**Tab. A** Included studies by Source

Source	N=74
Journal of the Medical Library Association	20
Medical reference services quarterly	11
Bulletin of the Medical Library Association	5
ALISS Quarterly	3
Non-Journal (Grey Literature)	3
Health information and libraries journal	3
Journal of eScience Librarianship	3
Journal of Hospital Librarianship	3
Journal of the Canadian Health Libraries Association (JCHLA)	3
portal: Libraries & the Academy	2
Reference Services Review	2
British dental journal	1
Computers in Libraries	1
Information Outlook	1
Information Services & Use	1
Journal of Academic Librarianship	1
Journal of Agricultural & Food Information	1
Journal of Electronic Resources in Medical Libraries	1
Journal of Library Administration	1
Library Management	1
Missouri medicine	1
Oncology Nursing Forum	1
Proceedings of the American Medical Informatics Association	1
Quality of life research : an international journal of quality of life aspects of treatment, care and rehabilitation	1
Science & Technology Libraries	1
SCONUL Focus	1
South African Journal of Libraries & Information Science	1

Tab. B Titles of positions created to support research

- bioinformaticist (Glenn 2010, Holmes 2011)
- bioinformatics consultant (Yarfitz 2000)
- bioinformatics librarian (Tennant 2005)
- bioinformatics specialist (Li 2013)
- bioinformationist (Florance 2002, Smith 2014, Song 2008)
- biomedical sciences librarian (Burnette 2015)
- biosciences & bioinformatics librarian (Glenn 2010)
- clinical and translational sciences librarian (Glenn 2010)
- director for research data management (Henderson 2015)
- emerging technologies librarian (Glenn 2010)
- e-research systems developer (Chiware 2015)
- human genetics liaison (Song 2008)
- information services librarian (Pratt 1990)
- information specialist in molecular biology and genetics (Epstein 2006)
- informationist (Allee 2014, Banks 2006, Crum 2013, Goode 2013, Gore 2013, King 2016, Whitmore 2008)
- institute for health informatics library fellow (Johnson 2012)
- institutional review board librarian (Robinson 2005)
- liaison librarian (Allee 2014)
- protocol analyst (Glenn 2010)
- public/private partnership librarian (Smith 2014)
- research informatics coordinator (Glenn 2010)
- research information technologist (Glenn 2010)
- research informationist (Federer 2013)
- research librarian (Cheek 2010, Cheek and Bradigan 2010, Glenn 2010)
- research support librarian (medicine) (Reeves 2012)
- translational research liaison (Smith 2014)
- translational research librarian (Allee 2014)
- translational science information specialist (Johnson 2012)

BOOK REVIEW / CRITIQUE DE LIVRE

Kenney MR, LaGuardia C. **Marketing Your Library's Electronic Resources**. 2nd ed. Chicago: Neal-Schuman; 2018. Softcover: 240. ISBN: 978-0-8389-1565-3. Price: USD\$65.00.

Available from:

<https://rowman.com/ISBN/9781442278851/Writing-Effectively-in-Print-and-on-the-Web-A-Practical-Guide-for-Librarians>

From the moment I saw Kennedy and LaGuardia's book, *Marketing Your Library's Electronic Resources*, I was overwhelmed with anticipation. I have always been an outspoken advocate for incorporating marketing principles into library practice. Before becoming a librarian, I completed a bachelor's degree in information and communication studies. I learned how difficult it is for information providers (including libraries) to remain valued by their clients, given the increasingly competitive landscape. Since becoming a librarian, I've realized that libraries spend a lot of time acquiring the library's electronic resources, but we don't spend nearly as much time making sure that our patrons know where these resources are or when and how to use them. As the authors of *Marketing Your Library's Electronic Resources* point out in the preface:

If our patrons really knew and understood how much we make available to them online, they wouldn't go to alternative information providers to do their research [...] but our patrons don't know about all that we've got because our online systems don't make e-resources very accessible, and 'marketing' has, until fairly recently, been an alien word, and practice, in libraries.

Kennedy and LaGuardia define marketing as "a combination of getting the word out about what our libraries offer and what those resources can do for various clientele, getting feedback from our clientele about their knowledge and use of the library e-resources, and being responsive to their needs after having gotten their feedback." This book is meant to help library staff enhance the visibility of their e-resources and reminds the reader that the library has

evolved into something that should not be valued solely on the usage of its physical space.

Marketing your Library's Electronic Resources is an incredibly helpful guide for all library and information science workers. The authors do not focus on a particular type of library, but opt to tackle marketing in general. This means that the tools and information they present can be applied in any type of library. Kennedy and Laguardia walk their audience through all the steps to develop a marketing plan for various types of e-resources. In part 1, they teach the reader how to design a marketing plan. They do a great job at providing the reader with pictures, tables, graphs and other visual aides to help them understand the different components of marketing. In part 2, they provide 7 different examples of marketing reports from a variety of academic (university and college), public, special and electronic libraries. Many of these examples also provide "lessons learned," which is great for those who might not be entirely convinced that marketing projects are going to be effective.

This book will help you determine the purpose of your marketing plan. It helps you create and implement your plan, construct your report, and then assess, revise, and update your plan. I particularly liked that the authors included many "web extras" as supplementary materials, such as a free SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis template to help organize your plan. A category of web extras that I believe would be helpful to the novice user are the links to Microsoft Word versions of completed reports. Readers can adapt these for their own use. At the end of each chapter, the authors recommend resources that go into more depth on topics such as marketing ethics, usability tests, and focus groups. These resources allow readers to guide their own learning. Although this book contains a lot of useful information, I feel that it does not address a pertinent issue: why it is important to market library resources. This topic could easily have warranted an entire chapter. Discussing this and explaining how to convey this message to other decision-makers would have tied the book together.

As a librarian, I am constantly challenged about the profession's value to society beyond providing access to a building full of books. *Marketing Your Library's Electronic Resources* is going to be a staple in my personal collection and I recommend it to all library staff. Not only has this book helped me understand

how to market my electronic resources better, but it has also shown me how to incorporate feedback from patrons to shape the resources they use. This includes the decisions I make when selecting and (or) deselecting resources as well as sharing patron feedback with vendors.

Statement of Competing Interests

No competing interests declared.

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BOOK REVIEW / CRITIQUE DE LIVRE

Benjes-Small C, Miller RK. **The new instruction librarian: a workbook for trainers and learners.** Chicago: ALA Editions; 2017. Softcover: 237 p. ISBN: 978-0-8389-1456-4. Price: USD\$68.00. Available from: <https://www.alastore.ala.org/content/new-instruction-librarian-workbook-trainers-and-learners>

As Candice Benjes-Small and Rebecca K. Miller note in *The New Instruction Librarian*, there is a rich body of literature about information literacy instruction but there has been no single go-to source for orienting librarians to the instruction role. This book aims to fill that gap—it examines the many facets of being an instruction librarian and provides information and tools to help librarians get started in this important role.

As long-time instruction librarians and co-founders of the information literacy conference The Innovative Library Classroom, Benjes-Small and Miller bring much experience and perspective to their topic. Benjes-Small is the head of information literacy and outreach and university coordinator of information literacy for the general education curriculum at Radford University, and Miller is the head of library learning services at Penn State University Libraries. They recognize that “for too many librarians, the entry into instruction is trial by fire, painful for both the instructing librarian and the students” (p.4), but they go on to reassure readers that with training and experience, teaching can be comfortable and rewarding.

This book is aimed at a broad target audience: Benjes-Small and Miller state that *The New Instruction Librarian* was written for any library professional with instruction duties. This includes recent graduates, experienced librarians new to instruction, and experienced librarians teaching in a new setting. As a practical handbook and workbook for trainers and learners, this book can be used by librarians to train themselves, or by managers or supervisors to provide instruction training to others. Although it focuses on academic librarians, it is applicable to librarians in other settings. For example, the parts of the book that

discuss instructional design, and those that discuss mentorship and planning for lifelong learning, will be useful to librarians who teach in any library setting.

The book is divided into 4 parts. The first demonstrates the importance of formal training in instruction and the value of developing a teaching identity, and presents concrete ideas and practices for creating a strong foundation for instruction at your library. The second provides an overview of 8 different “hats we wear” in the instruction librarian role, from colleague to instructional designer to teaching partner. The third discusses the use of observation, feedback, and performance management to grow and develop as an instructor. The fourth provides tools and templates that can be used to implement the strategies described in the book.

Each chapter contains activities that prompt the reader to explore and reflect on the issues raised in the chapter, an annotated bibliography for those interested in “exploring the conversation” in more depth, and a list of references. The chapters discussing instruction librarian “hats” also contain an “Ask the Experts” section presenting a problem or scenario that librarians in this role may face, followed by two or three possible solutions proposed by library instruction experts. Of the book’s 13 chapters, 2 are written specifically for managers; these focus on hiring and training new instruction librarians and on performance evaluation and management.

The New Instruction Librarian covers a lot of content in its 237 pages. This is both a strength and a weakness—there is enough depth given to each topic that readers can understand the landscape and determine which topics they would like to explore in more detail; however, each chapter functions more as an introduction to one aspect of instruction librarianship rather than a comprehensive look. The authors acknowledge this and recommend foundational texts that look in depth at these topics. Overall, the book succeeds at what it sets out to do. It is full of useful content and would be a good starting point for librarians new to instruction.

This book is written in an easy-to-read, conversational style. Terminology is clearly defined and the logical organization makes it easy to locate tools and information relevant to each part of the instruction role. It also presents an honest look at the challenges of working with colleagues, timelines, limited resources, and library and institutional priorities, along with some strategies for dealing with them.

The greatest strength of this book is its practical applicability; as they present each idea, the authors demonstrate how it can be applied in the workplace. Tools such as a sample orientation checklist, training curriculum, lesson plan, and workshop script would help new librarians design their first classes. An interview schedule would give interviewees an idea of what to expect. Activities are useful and encourage reflection and discovery of yourself and your organization. For example, an activity at the end of the

chapter about the “teacher hat” asks readers to identify learning outcomes for a workshop tied to the provided sample assignment.

I appreciated the authors’ acknowledgement that public speaking and teaching can be difficult for many. Benjes-Small and Miller describe themselves as librarians who love instruction, and their enthusiasm shines through in the book. They maintain a positive and encouraging tone throughout. Their work may inspire even a hesitant instructor to tackle the challenges and reap the rewards of library instruction.

This book will be most useful to academic librarians or those or interested in academic librarianship. I would recommend it to new graduates, to those new to teaching librarian roles, and to those who have been doing instruction but who would like some guidance from which to grow and develop as a teacher.

Statement of Competing Interests

No competing interests declared.

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BOOK REVIEW / CRITIQUE DE LIVRE

Allan, B. **The no-nonsense guide to project management**. London: Facet Publishing; 2017. Softcover: 240p. 978-1-78330-203-1. Price: CAD \$109.42. Available from:

http://www.facetpublishing.co.uk/title.php?id=302031&category_code=#.Wq7WweY2w

Are you involved in project-based work? Whether you are working on simple, complex, small, or large projects, *The no-nonsense guide to project management* can equip you with practical tips, strategies and insight. Barbara Allan is an academic consultant and author, specializing in management and leadership in business schools. She has held a variety of positions including librarian, library manager, and dean of the University of Westminster Business School. Allan previously authored a 2004 book on project management; however, the information and communications technologies available to support project management have changed greatly since then. This book therefore reflects the current state of project management in libraries.

The book is arranged logically. Chapter 1 lays the foundation by defining project management and then placing it within the context of library work. Chapter 2 provides an overview of project management, and introduces 3 different approaches (traditional, PRINCE2 and Agile) commonly used in libraries. Criteria and advice for choosing the most appropriate approach are also included. Chapters 3 to 6 discuss the 4 stages of the project management cycle (getting started, planning, implementation, and evaluation and dissemination). Chapters 7 to 10 cover information and communication technology, money, people, and partnerships. Having the stages of project management addressed separately from other aspects such as technology, money and people, gives the book a more logical flow. The book contains an index and a list of the tables, figures, and case studies; this is useful for those who want to look just at specific sections or examples.

One of the major strengths of this book is the many case studies; these provide the reader with additional insight, and an understanding of real-life challenges.

Some describe simple projects, while others describe large, complex projects. This variety makes the book applicable to all library projects, regardless of size or complexity. Common library projects, such as developing a new course or online tutorial, moving a collection, or implementing a new technology or service, are well represented. The case studies span across settings and geographies, to include academic, public, national, and school libraries in North America, Europe and Australia. This attempt to provide a diverse range of case studies demonstrates the author's intent to make this book broadly relevant to all libraries, regardless of type or location.

Allan's book is 240 pages; this length provided an appropriate level of detail to be both useful and practical. The book is filled with numerous tables and figures that provide the reader with detailed processes, plans, instructions or criteria that can aid in all stages of project management. "A practical guide to project management" would be a fitting title for this book because of the many practical elements that were included. I found a few sections particularly interesting and useful:

- a) Risk management and analysis, described in Chapter 3, includes step-by-step instructions for risk assessment.
- b) Measuring impact and methods of dissemination, part of Chapter 6, covers the use of social media.
- c) Tables 7.4 and 7.5 list various software packages and collaborative tools for specific functions of project management.
- d) Chapter 9, which is dedicated to the people side of projects, includes sections on working with virtual teams, volunteers, diverse teams, and change management.
- e) The 7 case studies on working in partnerships included in Chapter 10; these showcase the variety of forms that partnerships can take and how beneficial they can be for both sides.

It would not be possible for a 240 page book to provide in-depth information on every aspect of

managing a project, for each of the 3 different approaches introduced earlier. This is the only weakness of the book that I noticed. The Agile and PRINCE2 approaches to project management are described in Chapter 2, but are mentioned only a few times in the subsequent chapters on the 4 stages of project management (chapters 3 to 6). However, Allan did include references to other resources, so the reader can find more information about the approaches or aspects that are not addressed in detail within this book.

In my current role as research and learning librarian at the University of Calgary, I facilitate an introductory workshop on project management for research projects. It is based on the traditional approach to project management and is geared towards graduate students and faculty members new at leading, or collaborating on, academic projects. My prior

knowledge of project management was sufficient for facilitating this workshop and for managing small or simple projects. Having read this book, I already feel better equipped to handle the more complex questions I receive at my workshop. And, now that I have this book to refer to, I feel more confident in my ability to plan and lead a larger project should the opportunity arise.

The no-nonsense guide to project management would be a valuable resource for any library professional involved in projects, regardless of size or scope. For health librarians in particular, the guidance in this book would be helpful for managing collaborative projects such as systematic reviews. For a librarian who is leading a project, or one who is part of a project team, this book will be relevant and useful. As for me, I do not think my copy of this book will be getting dusty anytime soon.

Statement of Competing Interests

No competing interests declared.

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PRODUCT REVIEW / ÉVALUATION DE PRODUIT

Product: Colandr

Purpose: Systematic review software

URL: <https://colandrapp.com/>

URL community:
<https://www.colandrcommunity.com/>

Cost: Free

Bottom line: Colandr is a free product that uses machine learning to facilitate screening and data extraction for comprehensive literature review projects. Although Colandr currently has limited functionality, it has the potential to become more useful as it develops further. As an open source application, whose code can be used and adapted for other communities or purposes, Colandr contributes to efforts to create efficiencies in executing certain tasks for comprehensive literature review projects.

Purpose and intended audience

Screening large numbers of citations to identify relevant articles, and extracting data from accepted articles, can be time- and labour-intensive processes. Colandr uses text mining and machine learning to automate specific aspects of screening and data extraction, making some tasks related to systematic reviews more efficient. Developed in 2017, Colandr is a collaborative project between the Science for Nature and People Partnership, Conservation International, and DataKind (SNAPP, n.d.). The original purpose of this tool was to support the needs of environmental and wildlife conservation researchers conducting large-scale reviews of research literature. According to the developers, Colandr now houses projects by researchers representing a variety of fields, including conservation, medicine, and education (Augustin, 2018).

Product Description and Cost

Colandr is a free, browser-based product. Researchers register for an account, create a project file, and enter details including the research question, search terms, inclusion and exclusion criteria, and data extraction fields. Colandr uses this “planning phase” information to highlight relevant terms in titles, abstracts, and full text for quicker screening. At the full text review and data extraction stages, Colandr uses information gleaned from the planning and screening stages to compile and display potentially relevant excerpts of each full text article.

Features

I took a test drive of Colandr, using a previous systematic review project I had collaborated on. Unfortunately, I could not test beyond Colandr’s Planning Stage, as the program would not import references, despite my making multiple attempts, using a variety of browsers, and seeking assistance from the developer. Accordingly, the planning section of this review is informed by hands-on experience, but the screening and data extraction aspects of the product are based on information gleaned from available documentation and email communications with the Colandr team.

Project workflow is organized into planning, citation screening, full-text screening, and data extraction phases (Figure 1). In the planning phase users enter their research question as a sentence, as well as in PICO format, and list keywords for each search concept (called “key terms”). Colandr generates a basic Boolean search query exclusively from the user-provided keywords. Unfortunately, the search string generated connects all concepts with OR, so is not currently usable (Fig. 2).

Next, users enter inclusion and exclusion criteria for use during screening phase, add metadata fields for use during the data extraction phase, and then import citations for screening. According to Colandr’s FAQ,

the program can import .bib, .ris, and .txt files, with a maximum file size of 40 megabytes (typically 15,000-20,000 citations). The total project size is unlimited.

Colandr automatically deduplicates references on import, but it is unclear what the deduplication criteria

are, or whether a user can review or override duplicate removals. Additional user-identified duplicates cannot be removed from a Colandr project.

Fig. 1. Colandr project workflow

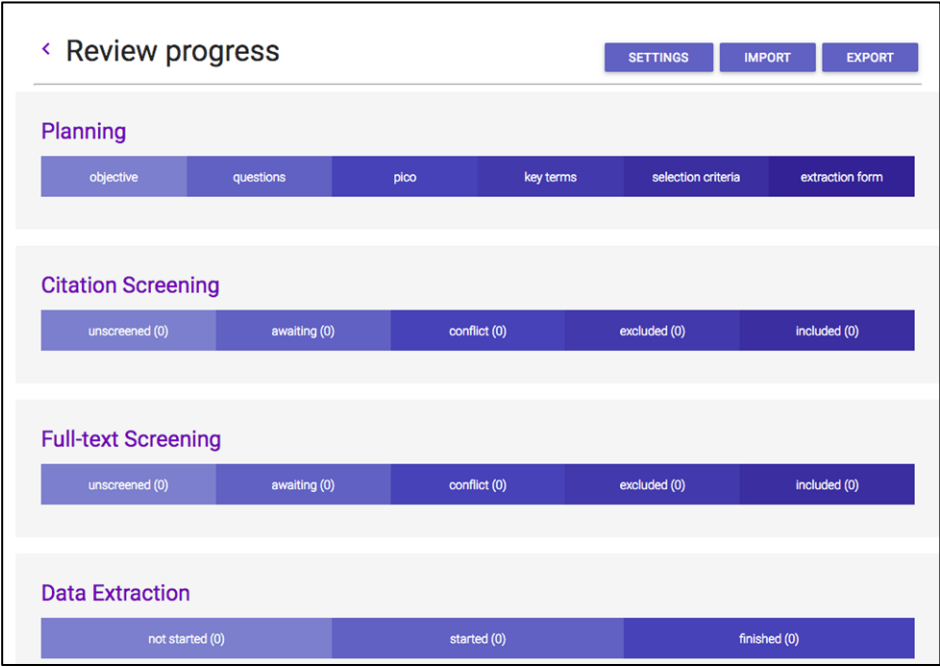
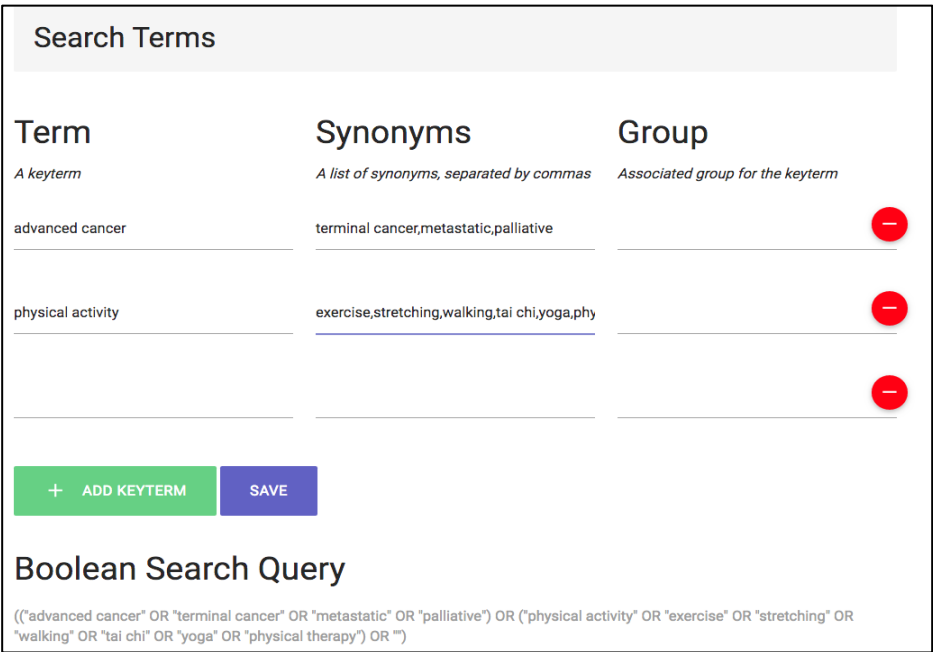


Fig. 2. Planning phase: Search terms and auto-generated Boolean search query



Following title and abstract screening, users import PDFs of full text articles, one at a time, into Colandr for full text screening, review and data extraction. During the citation and full-text screening phases, Colandr searches the title, abstract, and author-supplied keyword fields of the imported citations for the user-provided keywords. It then highlights these terms in the citation, abstract, and full text. Once at least 50 full-text items have been reviewed, Colandr looks for potentially relevant blocks of text within an article and collates them. The idea is that reviewers can focus on those excerpts, reducing the time spent poring over the whole document looking for relevant information. This aspect of Colandr is meant to be highly sensitive, to retrieve potentially relevant content to reduce the likelihood of missing relevant items (Augustin, 2018).

Researchers can export their data extraction files in .csv format; a summary of metrics is provided at time of export (e.g., number of articles imported, accepted, excluded organized by reason for exclusion).

Additional feature

- Colandr can list citations by expected relevance. Ranking is initially based on the user-supplied keywords from the planning phase (Colandr checks title, abstract, keyword fields of imported citations), but is dynamic—it changes as more items are screened and as data extraction occurs, because Colandr also uses the included/excluded articles to determine relevance.

Platform, usability and compatibility

Colandr is a web-based application, with no local client install. It is platform- and browser-agnostic, and works on mobile devices running iOS.

Training and support resources are very basic. Clicking on Help sends users to the Colandr Community website (<https://www.colandrcommunity.com/>). The Training section includes a slide presentation with an annotated screenshot tour of Colandr. An informal video walkthrough, FAQ, and sparsely populated Google+ community forum/bulletin board for posting questions are also available. A Report a Bug feature is available on the Colandr Community site, but is not accessible from within a Colandr project.

Strengths

1. Open access and open source product—free for anyone to use. Other developers are also able to examine or reuse it, and enhance its code.
2. Browser- and platform-agnostic

Weaknesses

1. Limited to 2 screeners or reviewers per project
2. As of this review, could not import references in .ris and .txt format, even with developer intervention
3. Projects with less than 50 accepted articles cannot take advantage of the machine learning feature for data extraction
4. Missing contextual help buttons and field validation criteria to guide researchers as they enter information; small missteps could lead to data not being saved and having to be re-entered
5. No bulk PDF upload

Conclusion

Colandr is a young product that would be worth reviewing again, once the above-noted limitations have been addressed and the user interface has had time to mature. By sharing their code, the developers of this program have made an important contribution to efforts to automate labour-intensive aspects of comprehensive literature review projects.

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Statement of Competing Interests

No competing interests declared.

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CHLA 2018 CONFERENCE CONTRIBUTED PAPERS / ABSC CONGRÈS 2018 COMMUNICATIONS LIBRES

CP = Contributed Paper

CP1. How to (Easily) Prove That People Think We're Awesome

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Vancouver Coastal Health

Introduction: Literature searches are the most important value-added service our library provides. Quantifiable data is regularly gathered for each literature search performed, but measurable outcome-related feedback from patrons is harder to obtain. After consulting the literature and seeking input from colleagues, we devised an easy to implement procedure that has enhanced our data collection activities, capturing the value and impact of library services. **Description:** Two weeks after literature search results are delivered, patrons receive an automated email inviting them to complete a brief, anonymous survey on the timeliness, relevance, and intended use of their research results. Patrons can also provide additional comments and suggestions. The email mentions the search topic as a memory prompt but is otherwise generic. We decided on a two-week delay between sending the results and the survey email; enough time to review results yet not so long as to hamper recall. We review responses monthly, and incorporate the data into our annual reports. **Outcomes:** Response rates since implementation in 2014 have averaged 59%. We receive positive comments about our services, useful information regarding how people discover our libraries, and reasons people request literature - to support direct patient care, program planning, professional development and clinical research. **Discussion:** The automated feedback procedure is now an important part of our regular workflow. Information collected using the survey has provided us with rich data to inform strategic planning and advocacy endeavors, and it demonstrates the value and impact of the library from the perspective of clinicians, managers and administrators.

CP2. The Information Assessment Method: Over 15 Years of Research Evaluating the Value of Health Information

Vera Granikov¹, Reem El Sherif¹, Pierre Pluye¹, Roland Grad¹, Michael Shulha², Genevieve Chaput¹, Genevieve Doray³, Annie Rochette⁴, David Li Tang¹
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Introduction: The Information Assessment Method (IAM) is a unique theory-driven validated questionnaire used to evaluate health information outcomes from the viewpoint of information users (clinicians, managers, patients, general public). **Description:** IAM allows information users to rate specific health information content online (e.g., a webpage), stimulate their reflection, and collect feedback comments. Consequently, ratings and comments can be used by information providers to improve content. IAM is based on a theoretical model of information outcomes organized in four levels: situational relevance, cognitive impact, use, and health outcomes of information. The IAM questionnaire has been validated for different audiences using participatory mixed methods studies, therefore integrating quantitative survey data with qualitative insights. **Outcomes:** Six audience-specific IAM versions are currently used. For example, IAM-physician has been implemented by the Canadian Medical

Association (CMA) since 2009. 22,000 CMA members use IAM to rate daily InfoPOEMs (Patient-Oriented Evidence that Matters) as part of continuing medical education. Since 2014, IAM-parent has been implemented with an online parenting information resource (Naitre et Grandir) and 55,000 questionnaires have been completed so far and contributed to improving Naitre et Grandir content. Other versions include IAM-pharmacist, IAM-manager, IAM-survivor and IAM-heart. **Discussion:** IAM stimulates reflective learning and collects user-generated content-specific constructive feedback. It is useful to both information users and providers as it facilitates a two-way knowledge translation between them. Moreover, IAM ratings have been used to identify InfoPOEMs about tests or treatments considered unnecessary by clinicians, in line with the international 'Choosing Wisely' campaign.

CP3. Recovery-oriented Collection Development: Results of a Qualitative Study on Mental Health Information Needs in a Patient Library

Sharon Bailey, Riley Saikaly, Andrew Johnson, Alexxa Abi-Jaoude, Genevieve Ferguson
Centre for Addiction and Mental Health

Background: Client libraries represent effective tools for responding to the information and educational needs of the clients they serve. A quality improvement project was conducted to evaluate the utility of the client library at the Centre for Addiction and Mental Health (CAMH) and to collaborate with main stakeholders in the creation of a consumer health collection. **Objective:** To understand the health information needs of CAMH clients, and their families to inform the development of a consumer health collection in a mental health care setting. **Design and Methods:** Our qualitative approach included one-on-one semi-structured interviews with clients (n= 11), families (n= 8), health care providers (n= 7) and two focus groups with library volunteers (n= 7). A pilot collection was presented in these sessions to foster discussion. **Results:** Participants expressed a need for health information to be presented in multiple formats and represent diverse voices. Participants also discussed how access to information is empowering and contributes to a client's or family member's overall knowledge of their illness or condition. Though information needs were well articulated, it was evident that our library has a dual role in serving the recreational and information needs of clients and families. **Discussion:** Our findings uncovered intriguing revelations around the meaning of the client library for patients and families in a mental health care setting and the need to meet their information and recreational needs. Further, gaps in our pilot collection signal a need to engage end-users in the development of consumer health collections.

CP4. Développer une collection de livres numériques dans un établissement de santé et de services sociaux au Québec

Nancy Gadoury
CISSS de Lanaudière

En 2015, le gouvernement québécois, par la loi 10, a modifié l'organisation du réseau de la santé et des services sociaux. En bref, tous les établissements d'une même région administrative ont été fusionnés. Par exemple, dans la région de Lanaudière, six établissements ont été réunis pour en former un seul : le Centre de santé et de services sociaux de Lanaudière. Le regroupement inclut plus de 61 installations dispersées sur un territoire de plus de 12 000 km². Comme les services de santé et de services sociaux de la région, les bibliothèques du CISSS de Lanaudière ont également dû fusionner leur offre de service. Un

des défis majeurs rencontrés par la nouvelle bibliothèque unifiée du CISSS de Lanaudière a été de trouver des moyens de desservir une clientèle très diversifiée, aux besoins différents et sur un territoire très étendu. Le développement d'une collection de livres numériques accessibles à tous en tout temps est ainsi devenu une priorité. Plusieurs possibilités différentes ont été étudiées afin d'arriver à développer ce type de collection. Différents fournisseurs ont été contactés. Différents types de collections numériques et leurs plateformes ont été testées et évaluées (Clinical Key, ProQuest Ebook Central, Accès Medecine, Cantook). Les divers types de connexion (ex reconnaissance IP ou ID) pour l'utilisateur ont aussi été analysées.

CP5. Promoting Positive Mentoring Relationships Among Academic Librarians: A Qualitative Case Study

Diane Lorenzetti, Elizabeth Oddone Paolucci, Bonnie Lashewicz, Ann Casebeer, K Alix Hayden, Tanya Beran
University of Calgary

Introduction: While formal peer mentoring may promote collaborative learning, and further professional development and career outcomes in academia, few studies have explored the perspectives of individuals who have participated in these programs. The objective of this study was to explore the formal peer-mentoring experiences of academic librarians. **Methods:** A qualitative case study methodology enabled an in-depth exploration of a research-focused group peer-mentoring program in a North American academic library. Program participants included ten academic librarians at various career stages. Program documentation, observational field notes, and participant interviews formed the data inputs for this study. Qualitative thematic analysis techniques were used to analyze study data. **Results:** Our analysis of study data suggests that academic librarians view peer mentors as fundamental to their ongoing professional development. While participants valued opportunities to develop skills, build relationships, and share their expertise with others, many felt unprepared, and unsupported, in their efforts to engage in these relationships. Common barriers to participation included a lack of mentorship training, and the need for role clarity, and dedicated time. Competing organizational priorities also appeared to influence individual attitudes towards, and limit participation in, peer mentoring. **Discussion:** The findings from this study highlight the role of peer-mentorship in academic librarians' professional development, and the extent to which program design and organizational culture can impact participation in, and satisfaction with, formal mentoring programs. Participation in peer mentorship may be contingent upon explicit efforts to mitigate individual, program-level, and organizational barriers to mentorship engagement.

CP6. Library as Space: Rant 'n Roar Old School (How People Really Use Hospital Library Spaces)

Sandy Iverson, Zack Osborne
St. Michael's Hospital

Introduction: The Health Sciences Library at St. Michael's Hospital (a large teaching hospital) encompasses three unique but adjacent physical spaces: Library, Information Commons, and Computer Lab. Hospital leadership frequently asks library staff: 'who uses your spaces?'. To answer this question and gather evidence that would inform a redesign of the library's spaces and services, the library

conducted a simple space survey. **Methods:** The paper-based survey focused on understanding who uses the spaces, the purpose of their visit, and their use of each space. Responses were collected daily over two separate weeks in two different months to ensure a cross-section of opinions and staff were represented. Subsequent focus groups explored more in-depth what clients believe would improve the spaces. **Results:** Spaces are used by both students and staff almost equally. Among other findings, the spaces are sought-after for computer access, and visitors use the space more for work-related activities than study-related activities. A substantial number of people use the spaces for personal relaxation; the most valued asset of the spaces was quiet. **Discussion:** While library staff were aware that their library was busy, the data gathered from this project deepened staff understanding of how clients use library spaces and will inform future service and space planning. Survey results were communicated to the institution using a variety of methods, but most heavily via social media and library's communication channels. The goal of this assessment project was to keep it simple, because surveying clients (and reporting results) doesn't have to be elaborate.

CP7. Using Online Technology to Help Advanced Practice Nursing Programs: A Survey of Current Librarian Practice in Canada

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Introduction: Some Advanced Practice Nursing (APN) programs are moving many or all of their classes online. To meet the research and instruction needs of these students, some nursing librarians are using technology for virtual research and instruction. This study was designed to assess the extent to which nursing librarians in North America are providing virtual research and instruction services for APN students. **Methods:** A ten question, IRB-approved survey to determine how librarians are providing services for APN students at their universities was announced in October 2017 through several health sciences librarian listservs. The survey ran for four weeks. Data were analyzed using Qualtrics and Excel. **Results:** Ninety-seven complete responses were received. Nine responses were Canadian, representing universities in six Provinces. The majority of Canadian respondents (56%) indicated that their universities' APN programs were conducted entirely in-person and the majority of the librarians (78%) indicated that they generally provide library instruction in person. Most librarians indicated that they have provided research assistance through some virtual method (phone or email) and some have also used online chat (56%) and video chat (33%). Nearly all Canadian librarians indicated that they feel comfortable using technology to provide research assistance and instruction. **Discussion:** Many opportunities exist for nursing librarians to use technology to provide virtual research assistance and library instruction. Greater promotion of these alternate methods can supplement traditional in-person services, providing greater flexibility for the busy schedules of graduate nursing students. Some outreach may be necessary to highlight the advantages of virtual services.

CP8. Effectiveness of Teaching an Alternative Framework for Question Formulation in Occupational and Physical Therapy: RCT

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Introduction: In educating students in the health professions about evidence-based practice, instructors and librarians typically use the PICO (patient, intervention, comparison, outcome) framework for asking clinical questions. A recent study, however, found that in the clinical setting, occupational and physical therapists' clinical questions did not conform to the PICO framework. A new, alternative framework was consequently proposed for the rehabilitation professions. This study looks at its effectiveness in an educational setting. **Methods:** We conducted a randomized controlled trial with students in occupational therapy (OT) and physical therapy (PT) enrolled at McGill University to determine if the alternative framework for asking clinical questions was effective for identifying information needs and searching the literature. Students were randomly allocated to either a control or intervention group to receive two hours of face-to-face information literacy instruction from a librarian on formulating clinical questions and searching the literature using MEDLINE. The control group received instruction that included the PICO question framework and the intervention group received instruction that included the alternative framework. **Results:** A total of 63 students participated in the study. Results will compare recall, precision, and F-measure in the control and intervention groups as well as information literacy self-efficacy. In addition, the perceptions and experiences of learning the alternative clinical question framework, gathered in focus groups, will be reported. **Discussion:** Results from this study are expected to demonstrate the feasibility of using a new, alternative question framework in guiding OT and PT students and clinicians in formulating clinical questions.

CP9. Exploring the Potential of Library Clinics in Nursing Curricula to Develop Evidence-Based Practice (EBP) Skills

Francesca Frati¹, Maryam Wagner¹, Lia Sanzone¹, Martin Morris¹, Jodi Tuck¹, Laura Banfield²
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Introduction: Fostering critical thinking skills and iterative strategies is integral to nursing education. Just-in-case workshops/lectures do not teach skills that nursing students can easily apply to complex scenarios. Individual consults more effectively tie learning to practice but are less efficient. We explore the potential of library clinics to support EBP/IL competency development with a just-in-time, inquiry- and case-based, student-led approach similar to consults. **Methods:** This is a sequential exploratory mixed methods study. Participants include undergraduate (FTE ~600) and graduate (FTE ~80) nursing students. All receive a lecture/workshop, optional consults, and an online course guide. Students may attend unlimited library clinics. The librarian keeps a journal. An end-of year questionnaire gathers quantitative and qualitative student feedback, whether or not they attended clinics. Self-selection allows comparison of four cohorts: attended clinic, attended consult, attended both, and attended neither (control). **Results:** September-December students attended 5 clinics (N=38, 7.6/hour), and 28 consults (N=29, one/hour); workshops/lectures did not meet student needs, but they did not know about/have time to attend clinics. January-February students attended 11 clinics (N=61, 5.5/hour), and five consults (N=5, one/hour); student feedback is pending launch of the second end-of term questionnaire. Journal data forthcoming. **Discussion:** Data to date demonstrates the importance of scheduling according to student needs and tying clinics to assignments, and suggests that clinics result in successful learning outcomes, meet needs not addressed by workshops/lectures, and are more efficient than consults. Experienced librarians teaching large numbers of students/using an inquiry or case-based approach should consider clinics.

CP10. Explaining the Method Behind the Madness: 3-part Series on Comprehensive Searching for Knowledge Syntheses

Erica Lenton, Kaitlin Fuller
University of Toronto

Introduction: Many graduate students are being encouraged to conduct a systematic or scoping review. We found in consultations that these students are unprepared and often resist the searching techniques we teach as 'above and beyond' what is necessary for publication; therefore, learning outcomes for this workshop series stress students' critical understanding of the why, how and to what ends the search for a knowledge synthesis (KS) affects the overall quality of their review. **Description:** This workshop was designed for graduate students and consists of three 2.5 hour sessions. In these interactive sessions, students practice an objective, structured method for developing exhaustive search strategies; identify potential sources for bias in their search and develop strategies to mitigate them; and evaluate search methods. Our 'hidden agenda' is to equip students to reduce research waste by improving the quality of methods reporting, and reduce bias introduced through poor searches. **Outcomes:** Feedback from the popular workshop is gathered from a 'ticket out the door' evaluation and a reflection questionnaire. Insights from the questionnaire indicate that the series meets the 'hidden agenda', encouraging us to investigate the impact of librarian instruction on graduate students' attitudes and practices conducting comprehensive searches for KS. **Discussion:** We increased the workshop duration, advanced the content, and added more engaging activities. By explaining exhaustive search techniques through the lens of reducing bias and increasing reproducibility and transparency, the instructors have anecdotal evidence to indicate that students are listening.

CP11. Design and Validation of a Search Filter for LGBTQ+ Populations

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Introduction: The health of LGBTQ+ people is a subject area that is challenging to search due to variant and changing terminology. This presents a challenge when developing comprehensive searches for systematic reviews. The objective for this project is to develop and validate a PubMed search filter to identify research concerning LGBTQ+ populations for systematic reviews. **Methods:** We searched for systematic reviews on LGBTQ+ topics and extracted the included studies from a selection of recent reviews in order to use relative recall to test sets of search terms. The resulting citations were split into a development set and a validation set of over 500 citations each. The citations were also categorized by subgroups included in the study, such as gay men, lesbians, bisexuals, transgender people, or combinations of groups. We tested combinations of index and text word terms in PubMed and used the development set to create and calculate the precision, sensitivity, and recall of three search filters: sensitive, specific, and a balance of the two. Search filters were also developed for the various subgroups. The final search filters were then tested against the validation set to confirm the performance measures. **Results:** We created a test set and a validation set of gold standard citations using the relative recall method. The search filters and their performance metrics will be presented. **Discussion:** A validated search filter is an easier and more reliable approach to retrieve relevant literature for reviews on topics related to this minority population.

CP12. Bridging the Concept Gap: Assessing the Impact of Proximity Operators on Retrieval, Recall and Precision in SR Searches

Tara Landry¹, Alex Amar², Elena Guadagno³

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Introduction: The Cochrane Handbook recommends that searches for systematic reviews (SR) be designed according to the following structure: controlled vocabulary terms and text words for each concept are combined with the Boolean 'OR' operator. Sets for each concept are then combined with the 'AND' operator, resulting in a set where each reference contains at least one term from each concept. While the Handbook concedes that, when available, the use of proximity operators results in greater precision than the use of the 'AND' operator alone, they are typically used to combine text words within individual concepts (e.g. patient* adj3 anxiety), rather than across concepts (e.g. diabetes adj3 metformin). This study investigates how the use of proximity operators to combine text word searches across concepts impacts retrieval, recall and precision in SR searches. **Methods:** the original Medline searches within a sample of SRs were re-executed for the purpose of calculating recall and precision. Once replicated, the structure of the original MEDLINE strategies was modified using proximity operators (3 degrees of proximity were tested: adj10, adj5 and adj3) to combine text word searches across concepts. Recall and precision of the original search and modified searches of each SR were calculated and compared.

CP13. Evidence-based Evaluation of Sustainable Synthesis Review Service Models: The University of Saskatchewan Context

Catherin Boden, Angie Gerrard, Caroln Doi
University of Saskatchewan

Introduction: Increasing demand for synthesis review (SR) support has led us to define these services at our institution. We plan to develop and implement a new service model based on (1) SR activity at our institution over the past 10 years, and (2) models of SR services in the profession. **Description:** We currently support SRs as an extension of our liaison program, however there is not a consistent approach across the library. To understand the local context, we analyzed reference statistics over a 1-year period and conducted an analysis of our institution's publications over the past 10 years. To investigate potential models, we identified current and emerging SR service models by: reviewing the published literature and surveying Canadian librarians. **Outcomes:** Analysis of the local context indicated that: faculty who undertake SRs are predominantly from Health Sciences colleges; the number SRs has increased significantly since 2007; and librarians are infrequently co-authors. In a 6-month period, liaisons provided 70 consultations/collaborations supporting 28 reviews. The literature review identified various service models (e.g., fee-for-service). The survey results will be collected by March 2018. We will present a summary of the identified models and their applicability for our local context. **Discussion:** By collecting SR statistics we gained an understanding of the breadth of local demand and workload. While we have identified various models, we lack clarity about their effectiveness. The survey results will enrich our understanding of the available models in the Canadian context.

CP14. An Environmental Scan of Systematic Review Support Service Models

Christine Neilson, Nicole Askin, Lisa Demczuk, Tania Gottschalk, Andrea Sz wajcer
University of Manitoba

Introduction: Librarians at our institution are experiencing increasing requests to support systematic reviews (SR). In seeking a new service model, we undertook a review of current SR service models with these objectives: 1) determine the volume of SR output from our institution; 2) identify academic libraries offering SR support services; and, 3) describe the different service models and their characteristics. **Methods:** SR publications affiliated with our institution were identified through a bibliographic database search. An environmental scan identified libraries with SR services through: a search for published literature and hand-search for conference material; analysis of websites from Association of Faculties of Medicine of Canada (AFMC) member libraries, the U15 academic libraries, and libraries identified in a general online search; follow-up interviews with the directors and/or staff of AFMC libraries. Data from the scan were collected in Google sheets and characteristics of SR services were extracted using a tested Google form. **Results:** The number of systematic reviews produced by our institution has grown steadily over the past 10 years. We identified 62 libraries offering SR services. Tiered models providing services for different needs and audiences were prevalent. Varying facets of service included the level of librarian involvement, cost, disciplines served, modes of intake, and formal agreements. **Discussion:** We predict that demand for SR support at our institution will continue to grow, both in- and outside the health disciplines. Our analysis of existing SR service models provides a guide for developing and implementing an evidence-informed, formal SR service model at our institution.

CP15. Sharpening the Other Side of the Dual Edged Systematic Review Sword: Expecting More from Our Users

Lindsey Sikora¹, Michelle Bass²

¹University of Ottawa; ²Stanford University School of Medicine

Introduction: Librarians are often well prepared before meeting with researchers to discuss their knowledge syntheses needs, specifically systematic reviews (SRs). However, what are the expectations we place on our users to come prepared? **Methods:** We completed an environmental scan of select medical library websites in the United States, Canada, the United Kingdom, and Australia, examining academic, government and hospital libraries. We searched for information about systematic reviews including guides, services, forms and documents that were required to be filled by users before meeting with a librarian. **Results:** Preliminary results indicated that there are few institutions that have clearly delineated their expectations of the user before meeting with a librarian for planning a systematic review. Libraries that had more comprehensive systematic review information available to users were more likely to require users to complete a form prior to meeting with a librarian. Most Canadian academic libraries had a consultation form requirement. Australian academic libraries had more interdisciplinary guides on systematic reviews. **Discussion:** A similar level of preparedness expected from librarians when planning a systematic review should also be extended to users. By delineating what is expected from users ahead of time, both members can properly plan. We have created a set of best practices for SR services, bringing together all relevant information found on forms, documents, and websites from our scan, in the hope of providing the health librarianship community with guidelines they can adapt and implement within their institution or organization.

CP16. When Health Professionals Rant and Roar for Free Continuing Education: The Development of a Virtual Provincial CE Series

Orvie Dingwall, Maureen Babb
University of Manitoba

Introduction: A provincial health sciences library outreach service previously faced technological and financial barriers that prevented the provision of regular, accessible, and substantive education sessions to its clients. Recent improvements to provincial broadband and technologies accessible in rural areas created the opportunity to launch a free health information literacy education series to health professionals throughout the province. The content, timing, and delivery of the series was informed by a 2016 survey that explored the education needs of outreach clients. **Description:** Three hour-long education sessions were piloted in summer 2017: Introduction to outreach services, UpToDate, and Google searching. Sessions were presented both in-person and virtually. Participants were invited to complete an assessment survey after each session. Following a successful pilot series, fall and winter curricula were developed, featuring topics selected based on the 2016 survey and ongoing client feedback. **Outcomes:** The education series has proven to be sustainable and popular. Due to client demand, virtual sessions were offered twice and the webinar technology needed to be upgraded to provide more seats for attendees. Post-session assessment surveys indicate that attendees learned valuable information and are interested in attending future sessions. Regular promotion of the sessions has led to increased requests for outreach services. **Discussion:** A province-wide continuing education series for health professionals is feasible, sustainable, and addresses previously unmet client needs. Outreach services will continue to offer summer, fall, and winter education series, incorporating continuous input and feedback from clients.

CP17. ECHO HIP: Phase 1: A Needs Assessment for Continuing Professional Education for Health Information Professionals

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Project Extension for Community Healthcare Outcomes (Project ECHO) is an innovative clinical education and tele-mentoring model that aims to democratize knowledge and build capacity in the healthcare workforce. ECHO uses a hub-and-spoke model to connect rural and under-served areas (spokes) to learn from each other and from inter-professional specialists (hub). Primarily focused on health care provider education, the ECHO model has not yet been applied to health librarianship. ECHO has the potential to be leveraged by health information professionals (HIP) to share best practices, develop specialty expertise and create a virtual community of practice. Each ECHO session is comprised of a didactic presentation, and case-based learning. To better understand the needs of HIPs and develop a curriculum, a needs assessment survey was developed and conducted. The survey focused on the need for a telehealth-based model of continuing education (CE) for HIPs across Canada, and what topic areas should be considered. Based on preliminary data (n=46) 61% of respondents would likely attend ECHO sessions for HIPs, with an additional 35% uncertain. Preferred frequency of sessions is monthly. Didactic topics of greatest interest were literature searching, emerging technologies and evidence-based librarianship. All respondents, so far, have been from medium or large urban centers. There is definite interest in pursuing CE for HIPs based on the ECHO model. One limitation of the survey is the lack of respondents from small/rural communities, which may be addressed once data collection is complete. Future steps include determining funding models and infrastructure, and exploring multilingual options.

CP18. A Description of Evidence Gathering for a Metanarrative Review on Patient Engagement in Health Professions Education

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Introduction: A metanarrative review is a knowledge synthesis methodology examining how a topic is conceived, researched and developed across and within academic traditions. In this paper we will describe the evidence gathering process used by a team that is examining how patient engagement in health professions education has been conceptualized, theorized, and investigated. **Methods:** The information gathering process for a metanarrative review is iterative and ongoing, requiring a variety of tools and strategies. Central to the goal of a metanarrative review is identifying a diverse range of sources including databases, experts, stakeholders, key authors, and research centres or bodies of literature. **Results:** Initial steps involved searching bibliographic databases in medicine, education, social sciences, and history. Searches were based on terminology and authors sourced from the team, known literature, and consultations with experts and stakeholders. As the results were screened, grouped into themes and discussed, the team found new questions, terminology, concepts and angles that invited deeper examination. Over the course of the review, the team also used reference lists, citation searching, Google N-gram, and discussions with both experts and stakeholders to develop an understanding of how patient engagement in health professions has been theorized over time and across research traditions. **Discussion:** The process of information gathering for a metanarrative review is complex, requiring decisions at many points about what is needed, how to find it, and when to stop. Each metanarrative review's methods must be flexible and guided at each stage by what is found in the earlier stages.

CP19. Managing Health Information for Renal Patients: A Model of Clinical Consumer Health Collaboration

Tedi Brash
St. Michael's Hospital

Introduction: The information needs of people with Chronic Kidney Disease (CKD) are extensive and constantly changing. Recognizing this, the Renal Program at a large urban hospital enlisted an in-house consumer health librarian to create an information delivery tool that could inform patients at any point in their care continuum. Combining the clinical team's subject knowledge and the librarian's expertise in health literacy and information management, a strong partnership was formed and an innovative resource was created. **Description:** An information-management structure was created by consulting a multi-disciplinary group of clinicians who outlined the care continuum. Then, the team collaborated to refine the structure, establish core areas of care and gather relevant resources to support these. A low-cost internet-based tool was chosen to organize and house the resources. The tool was extensively redesigned to enhance usability and ease of navigation. The tool was tested by both end users and clinicians to ensure it met patient needs. **Outcomes:** Users strongly endorsed the tool, stating it was 'long overdue' in providing easy-to-navigate, single point access to information that could be used even as their needs changed. The tool can also be quickly changed or edited as new resources are identified. **Discussion:** This collaboration serves as a model for clinical-consumer health partnerships. Together, the team successfully brought quality health information to a large and diverse patient population and created a tool that can be replicated in other patient care areas.

CP20. In Primary Health Care, What Are the Outcomes of Using Online Consumer Health Information?

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Introduction: The use of online consumer health information (OCHI) usually improves knowledge, participation in healthcare, and health outcomes. However, little is known about these outcomes in a primary care setting. Our objectives are to revise an initial framework on OCHI outcomes and identify strategies to prevent negative OCHI outcomes. **Methods:** A systematic mixed studies review informed an interpretive qualitative study. Review: Six bibliographic databases were searched using a strategy developed by four librarians. Two independent reviewers selected and critically appraised included studies. Using thematic analysis, harmonization of themes, and a framework synthesis, we produced a revised framework of OCHI conditions and outcomes. Configurational Comparative Method (CCM) was used to investigate the association between three conditions (health literacy, health status, confidence in OCHI) and positive/negative outcomes. Qualitative study: Interviews with 19 OCHI users and 10 health care practitioners and health librarians explored negative outcomes in-depth. Three qualitative researchers performed a thematic analysis and identified potential preventive strategies. **Results:** In 65 included studies, we identified 31 outcomes and 21 conditions, which were then defined and included in the revised framework. Preliminary CCM results linked high literacy or high confidence with a positive outcome. In the qualitative study, we found three dimensions of OCHI 'tensions' (internal, interpersonal, service-related) and three main preventive strategies (providing reliable OCHI sources, teaching consumers how to evaluate OCHI sources, encouraging consumers to discuss OCHI). **Conclusion:** The results help us understand the outcomes of OCHI use and support the key role of health librarians in preventing negative OCHI outcomes.

CP21. How Do Millennials Find Health Information? A Study of Everyday-life Health Information Seeking

Joan Bartlett, Jamshid Beheshti, Cynthia Kumah, Anna Couch
McGill University

Introduction: Past research indicates that millennials rely heavily on information obtained from the web and social networks, but also that they may not be able to judge the authenticity, validity and reliability of digital information, and may share misinformation among themselves. As part of a larger study to understand millennials' information behaviour, we present preliminary findings of research into their health related everyday-life information seeking. **Methods:** Data collection used an online survey of all McGill University undergraduate students, and obtained 3565 usable responses. Questions included how often respondents used specific information resources, and how they judged the credibility of information. Demographic variables included age, program of study, and previous information literacy training. **Results:** When looking for information relating to everyday health concerns, the three most frequently used resources were friends and family, experts (e.g., health professionals) and well-known websites (e.g., WebMD), while the top three most credible resources were experts, scholarly books and journals, and government or university websites. The most highly rated factors in judging credibility were whether the information was consistent with that from other sources, whether the information was up-to-date, and the quality of the language. Google was the most frequently used website. **Discussion:** The findings highlight a disconnect between participants' assessment of the credibility of a source, and their choice to use it. They also suggest a need for information literacy education relating to everyday-life contexts;

academic health sciences libraries should consider student life and outreach programs to address students' everyday health information needs.

CP22. Core Entrustable Professional Activities (EPAs) and Librarian Involvement in Competency-based Medical Education

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In May 2014, the Association of American Medical Colleges (AAMC) published the Core EPAs for Entering Residency. In spring of 2016, the American Association of Health Sciences Libraries (AAHSL) formed a task force to evaluate how the new Core EPAs could impact the engagement of librarians in medical school curriculum development, teaching, and assessment. The task force's first charge was to libraries participating in Core EPA activities and develop a methodology to characterize the nature of participation. The second charge was to map and cross-reference the Association of College & Research Libraries (ACRL) Framework to the Core EPAs and existing competencies. First, a survey was developed and sent to medical schools via the AAHSL listserv in fall of 2016. Results were analyzed using SPSS, and a statistician was consulted. Second, task force members used inter-rated reliability to map the ACRL Framework to relevant EPAs and ACGME Common Program Requirements. The survey results have been analyzed, and follow up interviews will commence in the winter of 2017. Generally, librarians are involved in teaching and assessment of EPA 7, forming a clinical question and retrieving evidence, and to a lesser degree in EPAs 9 and 6, but overall involvement and awareness of EPA domains remains low. Trends identified in the data can help medical librarians broadly plan how they could use EPA's, to identify areas for librarians to impact medical school curricula. Our data demonstrates that EPAs can be a powerful tool to increase information literacy activities in a curriculum.

CP23. Roles, Methods, and Values in Teaching Evidence-Based Medicine: Roaring or Silent Librarians?

Catherine Pepper
Texas A&M University

Introduction: Teaching evidence-based medicine (EBM) is often a vital and substantial portion of medical libraries' instructional programs. Yet teaching EBM has presented challenges for both medical librarians and medical school faculty, ranging from finding time in the curriculum to faculty's lack of EBM knowledge and skills, as well as difficulties in students' mastering EBM skills and in librarians' being included in EBM curricula. This qualitative study investigated effective educational approaches, including the role of librarians, in teaching EBM. **Methods:** Using a grounded theory approach, semi-structured interviews at multiple institutions were conducted in person with librarians and faculty involved in teaching EBM at schools of medicine and other health sciences. Questions included:

Where/when in the curriculum are EBM topics introduced (e.g., PICO, literature searching, and critical appraisal of evidence?) With sophisticated tools such as UpToDate available, is there still value in students learning EBM skills? What specific teaching methods are used; how do you know whether they are effective? To what extent are librarians involved in the curriculum; why (or why not)? Two reviewers are independently coding interview data using MAXQDA and will subsequently reconcile differences and reach a consensus on themes. **Results (preliminary):** 90 interviews were completed at sixteen institutions in the Pacific Northwest. Interviewees stated that more robust and standardized EBM curricula and addressing the perceived lack of EBM relevance to students are needed. Medical faculty and librarians expressed different perspectives on librarians' roles and value in teaching EBM.

CP24. One Year Evaluation of the CHLA/ABSC Knowledge Synthesis Interest

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Introduction: Many information specialists in Canada play a role in supporting knowledge synthesis (KS) activities, such as the production of systematic reviews, scoping reviews, and health technology assessments. A significant number, however, find themselves working in relative isolation from other KS librarians. Although international interest groups are available, there were no groups specifically for Canadian health information professionals working in KS to discuss methodological issues and provide mutual support. **Description:** In November 2016, a group of librarians reached out to CHLA/ABSC membership to discuss the formation of a KS Interest Group (KSIG). A formal proposal was submitted to the CHLA/ABSC board, and approved at the February 2017 board meeting. Following an online survey to determine member priorities, the group began work on a variety of activities to facilitate member communication and continuing education. **Outcomes:** The survey highlighted a desire for continuing education activities, and a need for a community of practice for librarians involved in KS. A series of regularly scheduled webinars and CHLA/ABSC accredited online journal club sessions was established, and work on other projects is ongoing. We will conduct a follow up survey in early 2018 to evaluate member satisfaction with KSIG activities and identify future directions for the group. **Discussion:** KSIG has made strides towards creating a connected community of Canadian librarians working in the KS field. The group's strength lies in an engaged membership. The 2018 survey results will guide future KSIG activities and provide insight into the ongoing support needs of librarians.

CP25. The Way Forward in Reconciliation Through Indigenously-authored Children's Literature

Maria Tan¹, Andrea Quaiattini², Sandy Campbell¹

¹University of Alberta; ²McGill University

Introduction: Improving Indigenous health in Canada means understanding reconciliation as it is presented through an Indigenous lens. Storytelling is a way that many Indigenous peoples pass on history, traditions, knowledge, and wisdom from one generation to another. Truth and Reconciliation content presented in children's fictional works by Indigenous authors can provide an accessible starting point for anyone wishing to build awareness and cultural competence in Indigenous health. This paper is Part 2 of a two-part study addressing residential school experiences and the reconciliation process as they appear in children's books authored by Canadian Indigenous peoples. **Methods:** The Amazon 100 Bestseller Canadian Indigenous Story Books list was sampled over a seven week period;

additional titles were gathered from publishers, academic and public library book lists. Books were screened and we determined their relevance to the 10 Principles of Reconciliation and the 94 Calls to Action, identified themes, and then organized books according to those themes. **Results & Discussion:** Participants in this session will gain an appreciation for the breadth of Indigenous children's publication in Canada. They will also have access to a thematically-organized list of over 100 fictional works for children and youth, created by Canadian Indigenous authors and/or illustrators. This content can be used to discuss Principles and Calls to Action set out by the Truth and Reconciliation Commission. This is a practical tool that can be used by diverse groups looking for stories that promote awareness, discussion, understanding of residential schools, their legacy, and the way forward.

CP26. Towards Better Collaboration between Librarians and Faculty in Program Reviews: A Case Study in the Health Sciences

Lynne Bowker
University of Ottawa

Introduction: This paper investigates academic librarians' perceptions that they are marginalized by faculty during academic program reviews and recommends ways for more effective collaboration. It contributes to the body of knowledge about librarians' roles in program reviews by providing direct and empirical measures to triangulate prior perception-based investigations that rely on surveys and interviews. It summarizes limitations of the current institutional quality assurance process, as well as benefits to be gained by integrating librarians more fully. **Methods:** The paper describes a case study at a Canadian university where the documents produced as part of the program review process for ten graduate programs in the health sciences were analyzed using corpus tools and techniques (e.g. keyword generation, key-word-in-context analysis). For each program, the volume and nature of the discussion involving libraries was examined in six documents: self-study, library report annex, site visit itinerary, reviewers' report, academic program's response, and final assessment report. **Results:** Empirical corpus-based evidence validates the findings of prior perception-based studies and confirms that health librarians currently have a minor role in program reviews. The results suggest that programs are not currently putting their best foot forward during program reviews, but this could be improved by including librarians more fully in the program review process. **Discussion:** Best practices and gaps emerged, prompting five recommendations for policymakers and practitioners for ways in which academic librarians can collaborate more closely with faculty to play a more meaningful role in the program review process.

CP27. Identifying Challenges and Facilitators Facing Early Career Researchers When Conducting Systematic or Scoping Reviews

Lindsey Sikora¹, Ana Patricia Ayala², Shona Kirtley³
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Introduction: Librarians often guide early career researchers (ECRs), including graduate students, through many of the steps required when undertaking a systematic or scoping review. There are many similarities in the questions posed by ECRs during consultations with librarians. Librarians could enhance their support to ECRs by pinpointing the challenges that ECRs face at each step of the review process, and developing ways to overcome these challenges to facilitate participation by ECRs in the systematic or scoping review process. **Methods:** We conducted a scoping review to identify the challenges and facilitators that impact the level of preparedness of ECRs and graduate students conducting or participating in systematic or scoping reviews. Our hope is that by pinpointing these challenges, we can

create better resources and tools for ECRs to navigate more seamlessly through the systematic or scoping review lifecycle. We also want to determine the facilitators that may already be available. **Results:** Final results of this study will be presented at the CHLA conference in May 2018. **Discussion:** At each stage during the systematic or scoping review cycle, different challenges can arise, especially for a novice researcher. This scoping review would be one of the first to cover this topic in a systematic way. Results would be of interest to librarians and the wider research community in health sciences and medicine, particularly educators.

CP28. Factors Associated with Search Strategy Reporting in Published Network Meta-Analyses

Michelle Swab, Alison Farrell
Memorial University of Newfoundland

Introduction: A new knowledge synthesis technique called network meta-analysis (NMA) is becoming increasingly popular. As with other types of knowledge synthesis studies, search reproducibility in NMAs is critical; presenting a full electronic search strategy from at least one database allows researchers and reviewers to assess the comprehensiveness of the search and the potential for bias. This study examines the association between the presence of at least one full electronic search strategy and factors such as documented librarian involvement, pharmaceutical company involvement, consulting company involvement, publisher policies regarding article length, and relative journal importance. **Methods:** The study builds on a previously published dataset that includes all NMAs published prior to July 2015 [Li et. al. 2016, doi: 10.1371/journal.pone.0163239]. Searches developed by Li were rerun in order to retrieve citations entered from 9 July 2015 to 31 December 2016. After de-duplication, two reviewers independently screened the search results to determine if they met the eligibility criteria. Reviewers then extracted data from all published NMAs identified for inclusion (n = 1202). Logistic regression will be performed in order to identify factors associated with search strategy reporting.

CP29. Mapping of Methodologies Used in Retraction Reviews

Janice Kung¹, Melissa Helwig²
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Introduction: The impact of retracted publications has been studied across disciplines using various review methods often with limited search documentation, making replication and validation difficult. Retraction studies have been explored in some biomedical disciplines but not all. This project aims to map the methodologies used by retraction reviews in health sciences, as well as identify best practice and subject gaps. **Methods:** We searched Medline, Embase, and CINAHL using a mix of controlled vocabulary and keywords to capture reviews of retracted publications. We used Covidence to screen titles and abstracts through full-text review screening. Articles synthesizing or reviewing retracted publications were included while individual retraction studies were excluded. Data extraction focused on search methodology, discipline/subject, reason for retraction, and data management/analysis. **Results:** After removing duplicates, 3343 results remained for title/abstract screening. We conducted full-text screening of 83 articles and selected 54 studies for data extraction. Preliminary results show low use of reproducible methods. Several studies offer a minimum level of reporting, indicating only the name of databases searched and keywords used. **Discussion:** Librarians have expertise documenting searches in other contexts (i.e. systematic reviews) and this pre-existing knowledge will contribute to developing

reproducible search strategies and methods in retraction studies. This paper maps the existing literature and methods used in reviews of retracted publications. It provides both librarians and biomedical researchers with knowledge on the gaps in methodology and insights into which biomedical disciplines are lacking retraction reviews.

CP30. Turning a Negative Into a Positive: The Case of a Failed Search Filter Project

Me-Linh Le, Christine Neilson
University of Manitoba

Introduction: Research projects fail all the time: here is our story. The amount of literature published every year grows rapidly. This presents challenges for staying up to date. One tool used to narrow search results while maintaining relevance is search filters. We decided to design a filter for locating systematic review methodology articles in Ovid Embase. **Methods:** The PubMed Systematic Review Methods Subset was used as a Gold Standard. Development, calibration and validation samples were chosen and relevant records identified in Embase, where available. Embase records were saved and exported to VosViewer for text analysis to inform term development. **Results:** After months of work, including data collection, data visualization, preliminary analysis, and consultation with experts, we determined that the filter could not be completed. The project was a failure. **Discussion:** The dissemination of failed research is becoming more common, particularly in the health sciences, due to growing awareness of the importance of publication bias related to failed clinical trials. Within the field of library research there is little available related to failed research projects. This has several negative impacts - including the chance that doomed programs or studies will be repeated, or that researchers who have experienced failure will be hesitant to try again. In order for library research to continue to grow we must acknowledge (and perhaps even roar about!) our failures alongside our successes to promote a culture that is accepting, forgiving, and even inspired by the studies that do not turn out as planned.

CHLA 2018 CONFERENCE POSTERS / ABSC CONGRÈS 2018 AFFICHES

PP = Poster Presentation

PP1. Engaging Learners: Interactive Ideas for Teaching Health Literacy

Daphne Horn
Mount Sinai Hospital

According to the Public Health Agency of Canada, 55% of working age Canadians have inadequate health literacy skills, which in turn increases to 88% for those aged 65 years or older. In order to minimize the poor health outcomes associated with low health literacy, health care providers can utilize specific tools to effectively communicate with patients and their families. Using plain language principles and incorporating the teach-back method are two tools that increase patients' understanding of information, allowing them to more fully participate in their health care. As librarians' roles evolve and become more integrated in the circle of care, they become a natural fit for teaching information literacy skills to health care professionals. This poster discusses different teaching platforms that health literacy skills can be taught across, along with interactive and engaging ways to encourage participant participation and learning.

PP2. Patient Library Collaborations

Daphne Horn
Mount Sinai Hospital

To promote the newly established Patient Education Pavilion (PEP) to hospital staff and patients the Library collaborated with many hospital departments and external organizations. Using monthly national health awareness topics as a guide, and the shared goal of health promotion and patient outreach, the Library proposed activities and events to these groups. Examples of successful partnerships hosted at the PEP include music and pet therapy for Recreational Therapy Month; mustache, trivia, and prostate screening handouts for Movember; silent film screenings for National Canadian Film Day; and a Powerpoint presentation highlighting hospital volunteers for Volunteer Appreciation Week. Notwithstanding the success of these collaborative initiatives, the Library faced some institutional barriers, including insufficient library staff and volunteers, space limitations, noise issues, and uncooperative hospital employees. Despite these organizational challenges, the Library is encouraged by the positive feedback from hospital patients, families and staff.

PP3. ATLAS: Advancing Teamwork for Library Accessible Services- A Communication Training Program for Library Volunteers

Tonya Mahar, Janis Sternhill, Bruce Ballon, Shoshana Helfenbaum, Cathy Smith, Lisa Sokoloff,
Faith Boucher
Baycrest Health Services

The Baycrest Wellness Library volunteers (primarily seniors) serve predominantly geriatric patrons. While these volunteers are trained and dedicated, a needs assessment indicated that quality of service provided was inconsistent. Literature on training for this unique group is scarce and outdated, but highlights the value of senior volunteers. In response, an innovative training program, ATLAS (Advancing Teamwork for Library Accessible Services), was developed in collaboration between Library Services and Training and Simulation. ATLAS offered these volunteers the opportunity to improve their customer service skills and learn to effectively work together while assisting patrons. The library volunteers were engaged in the process of creating the training through a focus group where an appreciative inquiry approach was used to determine areas of need and set clear objectives. Based on these objectives, three experiential 90 minute workshops (Orientation, Teamwork, and Communicating with Clients) were created and delivered jointly by the Library Manager, and interprofessional and simulation educators. Evaluation was completed by all volunteers after each session, showing primarily positive responses. To evaluate the effect of the program on customer service, a 'mystery visitor' in-situ simulation approach was used 6 months post-training. Simulation Participants played roles of library patrons. They conducted a semi-scripted patron-volunteer interaction, and provided written feedback on the interaction. Ninety percent of the interactions were rated as 'a pleasant experience' by the simulation participants. With this training, volunteers are better equipped to offer customer-focused service tailored to the needs of patrons.

PP4. A Practical Toolkit for Clinicians to Locate Best Evidence

Sandra Kendall, Michelle Ryu, Chris Walsh
Mount Sinai Hospital

Introduction: Sinai Health System (SHS) is an internationally recognized academic health sciences centre affiliated with the University of Toronto. With more than 28,809 admissions a year, clinicians at SHS are often challenged with locating the best available evidence at the time of need. In addition to the growing number of electronic resources, long hours of clinical work and working in multiple locations prevent staff from accessing information in an efficient and timely manner. **Description:** The SHS Library created a toolkit that groups electronic resources available locally and remotely into tiers based on the hierarchy of evidence. The goal is to provide clinicians with an easy-to-use and practical tool to access high quality and relevant medical evidence to support quality patient care. The toolkit is also used as a valuable teaching aid by connecting clinical queries to the most relevant evidence-based resources. The toolkit guides users through the research cycle as means-test to identifying new or under-researched areas of inquiry. **Outcomes:** Originally published in 2008, the toolkit received positive feedback from medical students and clinical staff. The toolkit has been incorporated into the teachings of the College of Physicians and Surgeons of Ontario and Ministry of Public Health. **Discussion:** The authors encourage other libraries and institutions to adapt the toolkit for their users. In the future, this toolkit will be revised to tailor to the information needs of nursing and allied health staff. The toolkit will be updated to respond to changes in health information dissemination, organization, and new and emerging technologies.

PP5. Expanding the Role of the Librarian as Knowledge Synthesis Methodologist: A Case Study in Teaching Rayyan

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Introduction: Health librarians assisting research teams with knowledge synthesis projects often find themselves answering questions about methodology and managing the screening process. The literature screening stage of knowledge syntheses is time consuming and difficult to track and researchers often ask for advice on ways to make this stage quicker and more efficient. This poster describes how we developed a workshop and associated online guide for Rayyan, a tool which facilitates the screening process. **Methods:** We researched and compared the available online screening tools. We chose to work with Rayyan for three main reasons: it is under active development (therefore, constantly improving), free to use with no restrictions, and meets most of the researchers' needs. Using feedback from researchers and librarians working on knowledge syntheses, we worked together to create a lesson plan that adapted the use of the tool to their needs. The workshop was offered without paper handouts; instead, we created an online guide to mirror the content of the lesson plan. **Results and conclusions:** The workshop and online guide have been popular and successful additions to the librarians' contributions to knowledge synthesis work. In 2017, four workshops reached 110 participants with positive feedback, and the subject guide has had almost 6000 visits. Rayyan is not a perfect solution, and we have developed recommendations to fill the gaps left by the tool. By sharing our experience, we hope to help other librarians looking for an open access tool that will assist researchers in the screening process.

PP6. Library Newsletters: Are They Worth it?

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University of Manitoba

Introduction: Academic and hospital health libraries serve a diverse set of users, some of whom may be distributed across a wide geographic range and never physically set foot in the library. It is essential that libraries find effective ways to communicate about their programs, resources, and services online. At Institution X we send out a newsletter to subscribers once a month highlighting, among other things, upcoming training sessions, new resources, and relevant or interesting items. However, with the wide variety of other communication tools now available (social media, websites, listservs) is a newsletter still the best way to communicate with our users? **Methods:** An online survey using Survey Monkey will be distributed to over 1,000 subscribers to determine their satisfaction with the newsletter. Subscribers include students, residents, professional health care workers, faculty, staff, and researchers from a large academic institution and its affiliated healthcare hospitals and health centres. Usage statistics generated by Mail Chimp and WordPress will also be analyzed. **Results:** The survey will be distributed in early 2018 and results presented at the conference. **Discussion:** The majority of Canadian health facility libraries use newsletters to communicate with their users, and the amount of staff time dedicated to creating, maintaining, and distributing them is not insignificant. In times of fiscal restraint across libraries, is that effort sustainable? The results of this study are intended to help guide the decision-making process at one institution, but can hopefully be applied to any library that produces a newsletter.

PP7. Health Professionals' Awareness of Predatory Journals

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Introduction: Predatory journals have become a serious problem in recent years; they threaten to compromise the integrity of medical literature by introducing poor quality material into the academic

record. Librarians and editors have been at the forefront of raising awareness about such journals, but have primarily focused on advising academics to avoid publishing in predatory venues. Healthcare professionals engage with the medical literature regularly, using it in their practice, to inform their own research, and to develop policy. As such, it is important that they be aware of the issues posed by predatory journals. This study assesses the level of awareness of health professionals regarding predatory journals, and explores the effectiveness of education sessions in raising that awareness. **Methods:** During a continuing education session delivered to health professionals, attendees rated their familiarity with predatory journals. In response to their low levels of familiarity, a continuing education session was developed, to assist health professionals in becoming aware of the existence and perils of predatory journals. Session attendees were surveyed on their prior familiarity with such journals, and the effectiveness of the education session. **Results:** Participants expressed little to no prior awareness of predatory journals. Education sessions were an effective means of raising their level of awareness. **Discussion:** While healthcare professionals require awareness of predatory journals to accurately assess the information they use on a daily basis, their level of awareness tended to be very low. Education sessions appear to be an effective means of raising healthcare professional awareness of predatory journals.

PP8. Non-Traditional Library Instruction: St. Michael's Hospital Health Sciences Library (HSL) Excel Training Program

Alissa Epworth
St. Michael's Hospital

Introduction: In 2014, a HSL user survey identified the need for Excel training which was not being offered by any other hospital department. Though outside the traditional scope of education provided by a medical library, it was determined that the introduction of Excel courses met our mandate to enable the hospital community to access existing knowledge and create new knowledge. **Description:** We piloted a one-hour hands-on workshop targeted to all potential library patrons, including staff, students and volunteers at the hospital. The well attended workshops identified challenges with variances in levels of previous knowledge and learning. To address this, the content was divided and expanded to include both Basic and Intermediate Excel workshops. Continued demand, measured through workshop evaluation responses, resulted in the further addition of an Excel Pivot Tables course. **Outcomes:** Excel is the most attended workshop in our portfolio, making up 51% of total attendance across core offerings. By offering non-traditional workshops, such as Excel, HSL workshop attendance has continued to increase, and is up 700% from 2011. **Discussion:** By diversifying our workshop portfolio and responding to user demand, we have substantially increased the number of visitors to the library. In addition we are reaching a user group that is outside of our core clientele (i.e. administrative, clerical, non-clinical, non-research professionals). This has proved to be an effective means of organically growing our user base and interest in the Health Sciences Library in general.

PP9. Student Success: Undergraduate Engagement on a Systematic Review

Lisa Demczuk, Kendra Rieger, Sochimaobi Nweze
University of Manitoba

Systematic review teams frequently engage student research assistants (RA). Undergraduate RAs, with less education and experience, bring energy and enthusiasm, but also the need to inspire further research interest and skill development. We report on the approach used to achieve a successful student experience and systematic review. A nursing research intern, supported by an Undergraduate Research Award, was engaged on a systematic review. A primary goal of the internship was developing research skills and experience. The review's principal investigator (PI) and librarian took a practical, outcomes-focused approach to the student's orientation, task assignment, and expected deliverables. The PI was responsible for mentorship and organizing the student's overall experience, including training, assignment of review tasks, and work supervision. The librarian worked closely with the student, providing instruction, consultation, and feedback on the tasks. Development activities included instruction on systematic review procedures and database/grey literature searching, guidance for keyword and subject heading identification, and training for reference management and article screening. Student deliverables included developing a search terms table, testing librarian-developed searches for key articles, grey literature searching, initial title/abstract screening, organization of RefWorks and EndNote libraries, and, full-text article retrieval including document delivery requests. The review successfully moved through the initial stages with an undergraduate RA and is nearing completion. Undergraduate students can be successful RAs for a systematic review. Review team leads and librarians can collaborate to provide effective learning and skill development experiences for research interns while maintaining rigour in the review process.

PP10. A Concept Map to Support Question Formulation in Evidence-Based Practice (EBP) Instruction in a Nursing Curriculum

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Introduction: The PICO framework facilitates question formulation and improves the success of searches by identifying the Problem/Patient, Intervention, Comparison and Outcome. It helps distinguish multiple questions within complex scenarios and identify key concepts for each. However, PICO works best for effectiveness questions, while nursing and other specialties often encounter other types of questions such as those about experience or meaning, and implementation. Several frameworks have been developed to address qualitative and other questions, however the thought process that accompanies question formulation is more important than the choice of framework. **Description:** A concept map illustrating how PICO relates to type of question and best evidence was previously developed and used effectively to teach hematology residents, undergraduate medicine students, and hospital based occupational therapists and nurses. To better reflect the nature of nursing questions, a modification to this map allows for the use of any or no framework and focuses on identifying individual questions and related key concepts as the essential first step in the process of question formulation. A further modification has been the inclusion of implementation questions, and higher levels of evidence based on the 6S evidence pyramid to reinforce the importance of seeking out pre-appraised, synthesized evidence when available. The updated map is interactive, linking to an online 6S evidence pyramid subject guide. **Results/Discussion:** The updated concept map helps illustrate how key concepts relate to type of question and best evidence when addressing questions that do not lend themselves to the PICO framework during EBP instruction.

PP11. A New Role in Systematic Review Support: Collaborations between Health and Social Science Librarians

Jackie Stapleton, Sarah Brown
University of Waterloo

Introduction: The growing nature of interdisciplinary research and collaborations between researchers across academic faculties are expanding the role of systematic review support in the academic library. In Fall 2017, a health librarian and social sciences librarian teamed up to develop a systematic review workshop targeted towards social science researchers. **Description:** Drawing on experience from previous systematic review collaborations, it became clear that there were misconceptions and an unfamiliarity with systematic review methods among social science researchers. To educate researchers and gauge the need for systematic review instruction, a health and social sciences librarian designed a workshop intended as a high-level introduction to systematic review methods. The workshop focuses on techniques specific to social science research questions and information sources. **Outcomes:** Although initially unsure as to the level of interest in the workshop, registration quickly exceeded capacity and additional workshops were scheduled. Workshop data and participant feedback will be collected and used for evaluation purposes. In particular, data will be collected to determine which academic departments attended the workshop, the relevance of the content and how the participants intend to use this knowledge. **Discussion:** The collaboration between the health and social science librarians resulted in a mutual exchange of skills and subject expertise. As the need for systematic review support continues to expand beyond the health sciences, building a community of practice among academic librarians in a variety of disciplines will be vital.

PP12. Stretching PICO: Implications for Database Searching and Perceived Searching Confidence

Jody Nelson, Lisa Shamchuk
MacEwan University

Introduction: Library Technician (LT) students develop knowledge and expertise in translating diverse patron reference questions into effective search strategies. Traditionally they are taught generic concept mapping for identification of searchable components. This poster explores how PICO could be modified and applied, outside of the clinical context, as a novel teaching approach to structuring search strategies and promoting searching confidence in information literacy instruction across disciplines. This study examines the effectiveness of PICO vs generic concept mapping as searching strategies for first year LT students, also considering student preference, and any differences in perceived searching confidence. **Methods:** Classroom instructor and librarian collaboratively facilitated guided searching activities, wherein students employed both PICO and generic strategies, submitting their search results and personal reflections via an online form. Responses were analyzed for differences in the quality of search results, in students' indication of preference, and in the students' perceived confidence scores. **Results:** Initial analysis of search results revealed comparable recall between the two strategies but greater precision with PICO searches. Students commented on the greater effectiveness of PICO for structuring a focussed search, yet no clear preference was noted. Self-rated searching confidence results were not significantly different between the two strategies. **Discussion:** Though no strong preference was indicated, both strategies appeared useful to students depending on the context of the question. The instructor will continue to teach both generic concept mapping and PICO, thus equipping these undergraduate students for the various information seeking requests they will encounter, as either students or as library professionals.

PP13. Rants, Reflection and Revisions: Faculty-Librarian Collaboration to Improve Senior BScN Critical Analysis Learning

Jody Nelson, Elizabeth White-MacDonald
MacEwan University

Introduction: Nursing faculty collaborated with the nursing librarian for strategies to promote in-depth analysis and evaluation of nursing knowledge for fourth year BScN students. With librarian support, faculty designed a discourse analysis assignment, requiring students to apply critical textual analysis through a nursing framework, and integrate evidentiary support. Resultant assignments tended to lack the requisite depth of analysis or desired integration of nursing theory and knowledge. Collectively reflecting on the challenges, the faculty-librarian collaboration moved to a partnership which saw the development of a novel teaching approach. The revised partnership focused on strategies related to class structure and process, as well as the evaluative strategies intended to enhance student learning. **Description:** In Fall 2017, the faculty-librarian team facilitated critical textual analysis classes and scaffolded learning, which afforded students low-stakes opportunities to apply concepts in a supportive environment prior to completing the evaluative assignment. This quality improvement project includes an analysis of student reflective and evaluative assignments. We will reflect on how revisions influenced depth of analysis and effectiveness of integration of evidence, theory and nursing knowledge with this cohort. **Outcomes:** Overall, student assignments demonstrated deeper textual analysis and more effective application of discourse analysis concepts. Nursing knowledge was not integrated to the degree that we had anticipated. **Discussion:** We will share insights from this small-scale quality improvement project and address how our novel teaching design served to promote student learning in this cohort. Additionally, we will discuss the value of librarian-faculty collaboration in supporting student success, hopefully inspiring other faculty-librarian partnerships.

PP14. Patient Information Aid: An Innovative Educational Program to Improve Outcomes of Online Consumer Health Information

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Introduction: The volume of online consumer health information (OCHI) is ever-growing. However, OCHI quality varies, which may lead to positive and negative health outcomes. Based on results of a systematic review and a qualitative study, we designed an educational program the Patient Information Aid (PIA). The PIA website is aimed to facilitate information seeking, enable positive outcomes of OCHI, and reduce negative outcomes. **Description:** A systematic mixed studies review uncovered positive and negative outcomes of OCHI, and a qualitative study identified strategies to reduce negative outcomes. As a result, we proposed a conceptual framework of OCHI outcomes, and suggested that negative outcomes may be reduced when consumers are supported in searching, assessing and discussing OCHI with their social networks and health professionals. These results led to design PIA. Before people start searching for information, PIA provides searching tips and links to reliable sources, e.g., the Medical Library Association's list of websites. During search, PIA helps them assess sources using a friendly checklist based on Health On the Net (HON) standards. After finding potentially relevant and reliable information, PIA encourages them to 'save' and 'share' with relatives and health professionals when needed. **Outcomes:** The beta-version of the PIA website will be presented at the conference. PIA users will rate

and comment on OCHI they find using the validated Information Assessment Method. **Discussion:** PIA constitutes an innovative educational program. PIA is based on research results and addresses three searching stages (before, during, after) in an iterative manner.

PP15. Collaborative Monitoring and Filtering of Patient-Oriented Research Publications: A Protocol for a Mixed Methods Study

Vera Granikov, France Bouthillier, David Li Tang, Pierre Pluye
McGill University

Introduction: Keeping up-to-date is intrinsic to research, but is challenging due to information overload, time constraints, and insufficient evaluation skills. This is particularly true for Patient-Oriented Research (POR), which is meant to engage researchers, patients, clinicians, and decision-makers (i.e., POR stakeholders), with diverse research experience and skills. Collaboration may provide a solution. Our objective is to explore collaborative monitoring and filtering from the perspective of POR stakeholders.

Methods: The project is based on an innovative collaborative research trends monitoring system and will follow an explanatory sequential mixed methods design. A quantitative longitudinal study with system users (POR stakeholders): data will be collected automatically by the system (e.g., number of abstracts read and rated). Descriptive statistics summarizing system usage data will inform a qualitative multiple case study with a purposeful maximum variation sample of participants, until reaching data saturation. Data collection will include semi-structured interviews about participants' experience with collaborative monitoring and filtering, and will be complemented by researcher diary and correspondence with system users. Data will be analyzed using inductive and deductive thematic analysis. Quantitative data will inform qualitative data collection; quantitative and qualitative results will be compared. **Results:** Two POR communities are using the system; two others are in development. **Discussion:** The project will advance knowledge regarding the processes and outcomes of collaborative monitoring and filtering of POR trends, important to those providing monitoring services or studying collaborative information behaviour. The findings will contribute to our understanding of current awareness practices and will inform future system design.

PP16. Quiet Down at the Library: Promoting the Library as a Place/Source of Wellness

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St. Michael's Hospital

Introduction: St Michael's Hospital library partnered with their corporate health and safety department to offer a series of events to help hospital staff and students manage stress, and focus on wellness while simultaneously promoting the library space and services. Health and wellness programming is a popular trend in public libraries, but seldom offered in hospital libraries despite health and wellness being top of mind for health care staff. The aim of this program was to promote the library as a place/source of wellness. Framing the library as a source of wellness aligned the library with a pre-existing concern of health care staff and the library enjoyed increased engagement with its clients as a result. **Description:** Monthly workshops or activities addressing stress management and wellness were held in the library over a five month period. Sessions were facilitated by clinical staff and/or library staff. Sessions included crafts, games, therapy dogs, aromatherapy, meditation and yoga. Events were promoted throughout the hospital and on social media. **Outcomes:** Most sessions were over enrolled, indicating a high level of

interest in these topics. Attendance records and brief evaluations were collected and analyzed. All sessions were extremely well received. **Discussion:** The library benefited from this promotional effort by enhancing their image as a place of active engagement in the hospital community and as being sensitive to staff and student needs beyond providing traditional library services. Over 300 people attended the most popular session, which made it the most popular event this library has ever held.

PP17. An International Survey of Grey Literature Searching Practices in Horizon Scanning

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CADTH

Introduction: Information on new and emerging technologies is often not available in traditional bibliographic databases such as PubMed. As such, there is an increased reliance on grey literature in horizon scanning on health technologies. The objective of this survey was to gain an understanding of current practices in searching for grey literature among producers of horizon scanning reports internationally. **Methods:** Members of the EuroScan International Network and other international agencies that produce horizon scanning reports were invited to complete an online survey. The survey included questions about whether and how grey literature is searched, which types of grey literature are searched, and how the searches are documented. **Results:** Sixteen horizon scanning agencies completed the survey. All but one reported always or frequently conducting a grey literature search for horizon scanning reports. The categories of grey literature most frequently reported as always searched were: regulatory agencies (95%), clinical trial registries (88%), horizon scans/health technologies assessments (88%), and manufacturer information (81%). Half of the agencies reported using a checklist to guide the grey literature search. Half of the agencies documented the grey literature search in the final report. The time spent on conducting a grey literature search varied from two hours to ten days. **Discussion:** There was high agreement that horizon scanning agencies are conducting grey literature searches and which types of sources were the most frequently searched. However, there was wide variation in how the grey literature searches are conducted and documented and how much time is spent on the searches.

PP18. Standards for Literature Searching: Validation of a Proposed Model for Search Methods

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Objectives: Through three years of iterative literature review, research and development, a pan-Canadian group of librarians have outlined model search methods for handling each of five progressive levels of search complexity, supported by a lexicon glossary for mediated literature searching collected from the literature. This online questionnaire seeks to compare what mediated searchers 'should do' with what they actually do. **Methods:** As Part 2 of a multi-methods research study, our online questionnaire asked mediated searchers (n=104) to choose one of 13 exemplary searches and describe how they handled a recent similar search. Responses were analyzed by search level in subgroups defined by mediated searchers' years of experience searching, and number of searches completed weekly. Data were then represented graphically to illustrate congruency within and between groups, and between questionnaire respondents and the model. Incongruities were flagged and addressed through reflexivity and

consultation. **Results:** The results of our online questionnaire were analysed and any incongruities between our placement and inclusion of certain steps within the search stages and the questionnaire responses were debated as a group. Preliminary questionnaire analysis suggests that mediated searchers may not always tailor search methods to search complexity, possibly 'over-searching' or 'under-searching' as a result. Inconsistencies within and between subgroups as defined by years of experience suggest inconsistencies in search education/training. Some respondents indicated uncertainty with search terms. **Conclusions:** This questionnaire study highlights inconsistencies in approaches used by mediated search professionals. Although client satisfaction with mediated search services has been reported in research literature, professional searchers have worked.

PP19. Les bibliothécaires pourraient-ils appuyer les chercheurs?

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Introduction : L'anglais est la langue de la diffusion scientifique, bien qu'un pourcentage faible de la population mondiale soit anglophone. Comment les chercheurs non anglophones accèdent-ils à la littérature? La traductique joue-t-elle quel rôle? Comment les bibliothécaires peuvent-ils les appuyer? On présente une enquête menée auprès de chercheurs en santé en Colombie pour déterminer si la bibliothèque peut les appuyer. Bien que cette enquête vise les colombiens, les résultats sont pertinents pour le Canada, qui a des chercheurs francophones ainsi qu'un nombre croissant de chercheurs internationaux. **Méthodologie:** Nous avons sondé des chercheurs hispanophones qui travaillent en sciences de la santé à une université colombienne pour déterminer pourquoi, quand, comment et combien de fois ils utilisent la traductique pour accéder à la littérature, ainsi que le type de soutien dont ils ont besoin. **Résultats:** La grande majorité des 46 répondants utilise amplement la traductique pour accéder à la littérature. Cependant, ils expriment des inquiétudes quant à la qualité et ils ont des connaissances limitées sur la façon d'optimiser leurs interactions avec ces outils. Une écrasante majorité aimerait recevoir une formation pour mieux utiliser la traductique. **Exposé:** En tant qu'experts de la culture numérique, les bibliothécaires sont bien placés pour appuyer les chercheurs en leur offrant une formation en la littérature de la traductique. Maintenant que le besoin a été identifié, l'étape suivante consistera à concevoir une formation.

PP20. The Residential School Experience Through the Eyes of Indigenous Children's Authors

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Introduction: Residential school experiences and their legacies underpin many health and public health challenges faced by Canada's Indigenous peoples. This poster presents the findings of Part 1 of a two-part study, which addresses the residential school experiences and the reconciliation process as they appear in children's books (PreK-12) authored by Canadian Indigenous people. Part 1 includes content related to the residential school experience and its legacy. Books selected for this study were reviewed by one or more of the researchers who identified and came to consensus on themes related to the Indigenous residential school experience. We present examples from books that illustrate themes identified in the research. **Methods:** The Amazon 100 Bestseller Canadian Indigenous Story Books list was sampled over a seven-week period; additional titles were gathered from publishers, academic, and public library book lists. A

list of books selected for the project was organized according to the residential school themes. **Results & Discussion:** Participants at this session will gain an appreciation for the breadth of Indigenous children's publications related to residential schools in Canada. They will also have access to a list of fictional works on this topic that were created by Canadian Indigenous authors and/or illustrators. The list can be used by diverse groups looking for stories that promote awareness, discussion, and understanding of residential schools and their legacy.

PP21. Librarian as Course Collaborator: An Embedded Model of Information Literacy Instruction for First-Year Pharmacy Students

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University of Waterloo

Introduction: Over the past decade, there has been an increase in the number of academic librarians' pursuing embedded approaches to teaching in specific courses, as opposed to teaching 'one-shot' instructional sessions. The published literature includes examples from the University of Arizona's Health Sciences Library, Duke University's Medical Center Library, and many others. Becoming 'embedded' into a course involves close collaboration with faculty and includes duties like content development, lecturing, assignment creation and grading, as well as maintaining an online presence via a course management system. This poster outlines a librarian's role in collaborating with a faculty member on delivering IL instruction in a first-year pharmacy course. **Description:** The School of Pharmacy undergraduate curriculum includes a required, first-year course called 'Introduction to Drug Information Fundamentals.' The librarian develops and delivers 4 lectures on topics in information literacy and evidence-based medicine, in addition to creating and grading a PubMed searching quiz and questions for the midterm. The faculty member instructs on interpreting biostatistics and performing critical appraisal, in addition to developing and grading course assignments. **Outcomes:** Feedback was gathered from students using Top Hat and Evaluate and was mostly positive. Performance on course requirements illustrates the level of student success in the course. **Discussion:** Becoming embedded into a course is a very enriching experience for a librarian. Not only does it provide librarians with the opportunity to showcase their IL skills, but it facilitates relationship building with faculty and students, as well as a better understanding of student information needs.

PP22. Telling Canadian Research Data Management (RDM) Stories in the Health Sciences

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Introduction: Canadian funding agencies' anticipated requirements around data sharing, data preservation, and the creation of data management plans (DMPs) have prompted the development of a national research data management strategy. Academic librarians are contributing to this conversation by developing new services and infrastructure that help researchers manage their data throughout the project life cycle. To better understand how academic libraries can best further the national RDM agenda and support researchers, librarians at 9 Canadian universities have collaborated to survey researchers in medicine and health sciences regarding their RDM needs and practices, generating both institutional and

national results. **Methods:** To examine the RDM practices and needs of health sciences and medical researchers, representatives from each library distributed a standard, multi-institutional survey. The survey results will generate a richer understanding of disciplinary practices and the state of RDM both locally and nationally. **Results:** Results will be available by May 2018. **Discussion:** The present study focuses on the RDM practices and future needs of health and medical researchers and expands on two previous surveys: one of the social sciences and humanities, and another of the physical sciences and engineering. This national partnership will help to inform libraries, researchers, and other stakeholders across Canada on the national, provincial, and local level to help them build a cohesive and reflective data service.

PP23. Collaborative Assessment: Developing a Library Assessment Framework for a Distributed Medical Program Libraries in British Columbia

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Introduction: The objective of this project was to develop a thoughtful but simple assessment framework for use at both university and hospital libraries supporting a distributed MD undergraduate program across a large geographic space. Currently, there are no best practices for assessing library services at distributed medical programs. **Description:** By determining the unique needs of a distributed medical program and its highly varied libraries (e.g. distributed, with several hubs, managed through various university and health authority libraries) a pilot assessment framework was developed to assess broad service levels and the quality of research support and information provision for MD undergraduate students. **Outcomes:** Many aspects of library services will be considered including pedagogical instruction, research and publication support, including scoping and systematic review support, and collection development streamlining. **Discussion:** We aim to create and share a best practices document for assessing similar distributed MD Undergraduate library programs and services.

PP24. How Can 'Pain' be Found? Preliminary Analysis of Searching for Pain Topics for Systematic Reviews

Melanie Anderson

University Health Network

Introduction: Pain can be a complicated topic to perform a systematic search for, with many subject headings and keywords to consider. In order to gain insight into how to effectively find studies addressing pain for systematic reviews, this is a preliminary analysis of how systematic reviewers are currently searching for pain topics, and how that compares to how articles about pain topics are indexed in medical databases. **Methods:** Systematic reviews published in 2017 under the Pain, Palliative and Supportive Care group in the OVID Cochrane Database of Systematic Reviews formed the basis for this analysis. The database selection and the use of subject headings and keywords relating to pain pulled from the search strategies as well as the indexing and keywords from the records for the articles selected for inclusion were examined. **Results:** In these reviews, primarily Medline, Embase, and Cochrane Central were searched, although some included between one and seven additional databases. The pain related search terms varied significantly both between and within specific pain topics. The articles

selected for inclusion in these systematic reviews share some subject headings across pain topics, however some headings or keywords are unique to a specific pain topic. **Discussion:** In this preliminary analysis, potential patterns are identified in the search strategies of recent pain topic Cochrane systematic reviews as well as in the bibliographic records of papers selected for inclusion in these reviews.

PP25. Evaluating the Impact of an Information Specialist as a Knowledge Broker

Sheila Tucker
CADTH

Publicly funded organizations which produce information are increasingly expected to demonstrate their value through evaluation of the impact of their services. Within the continuum of information services, there is now an additional component of evaluation and impact assessment. This involves the evaluation of the impact that information providers and knowledge translation specialists have on identified stakeholders and decision-making forums. The role of the knowledge broker is essential in this process, as they provide a two-way link between information producers and users. Their activities include: information needs assessment; facilitating the development and delivery of information and supporting the evaluation of these methods; assessing the impact of information services; and identifying innovations in the transfer of information based upon the evaluation (both formal and informal) of outcomes. This poster presentation will discuss the role of an information specialist as a knowledge broker in the process of building organizational capacity to evaluate the impact of processes and outcomes. Specific examples of information and knowledge exchange services which have influenced policy and practice in the health sector will be discussed with a focus on the role of the information specialist in this process.

PP26. In Search of Nursing's History

Aleteia Greenwood, Katherine Miller
University of British Columbia

Introduction: In Search of Nursing's History is a half-day symposium sharing collections and stories about partnerships between the School of Nursing at UBC and units at UBC Library and Archives. Librarians and archivists from several units will highlight their collaborations with the School of Nursing. **Description:** This poster will present to the CHLA community one example of a partnership between the School of Nursing and the library. March 8th, 2018 Woodward Library will host, In Search of Nursing's History a symposium highlighting the partnerships between UBC Library (Archives, cIRcle, Special Collections, and Woodward Library) and the School of Nursing and its impact on scholars. The 2018 Nursing History Symposium highlights new and existing primarily open access resources in nursing history on campus and beyond. **Outcomes:** This symposium will be an opportunity to shine a spotlight on the work of archives and the library to further the work of researchers in nursing history. It is also an opportunity to welcome scholars into the historic space for a walkabout tour of exhibits featuring some of the unique and valuable nursing collections. **Discussion:** Some reflections on the lessons learned from this event. Opportunities for further partnerships and promotion of library collections and services.

PP27. Collaboration by the numbers: How many librarians does it take to teach a medical student?

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The Health Science Research (HSR) Working Group is a collaboration of 16 academic and hospital librarians from 6 different institutions whose mandate is to support information literacy instruction to students enrolled in the MD program at a large research university. The group works in coordination with the HSR curriculum committee through the university's liaison librarians. To meet newly created curricular objectives, the working group created three new online modules, worksheets, an evaluation rubric, a tutor's marking guide, and an in-person instructional session. The instructional session was designed for 2nd year medical students, needed to be taught at the hospital academy sites, and needed to follow the programs flipped classroom model. The group met throughout the year to collaborate on content development, lesson plans, evaluations, and numerous logistics. On October 4th 21 librarians, and 3 graduate library school students successfully coordinated and taught a 2 hour class at the same time, to 268 students, across 7 separate locations, throughout the metropolitan area. This poster will focus on how the collaboration came together, and will discuss what worked and lessons learned when collaborating with a group of such significant size.

CHLA 2018 CONFERENCE LIGHTNING TALKS / ABSC CONGRÈS 2018 PRÉSENTATIONS ÉCLAIR

LT=Lightning Talk

LT1. A Few of Many: The Experience of Two Librarians Supporting Instruction Within a Large Collaborative Working Group

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The Health Science Research (HSR) Working Group is a collaboration of 16 academic and hospital librarians from 6 different institutions, whose mandate is to support information literacy instruction to students enrolled in the MD program at a large research university. While librarians have always been involved with the teaching of the programs' information literacy, their roles and degree of participation have evolved over time. The HSR Working Group has the most proactive involvement to date, with multiple librarians from different organizations. This talk will explore the experiences and perspectives of two librarians who each had different roles within the HSR Working Group, and will also highlight their experiences teaching materials that was developed centrally.

LT2. Gamifying a Medical School Lecture to Teach Students How to Use Electronic Tools for Clinical Practice

Zahra Premji, Anthony Seto

University of Calgary

Introduction: In clinical rotations, medical students are tasked with efficiently searching up information for clinical queries. Students often learn these skills on-the-job, when needs arise. Prior to clinical placements, students sitting in lectures may be less motivated to learn how to navigate clinical resources, as they are not actively on clinical duties. Gamification of teaching library resources can help promote interest and active participation, so that students can be encouraged to develop and adopt life-long learning early on. **Description:** The objective was to create an interactive session that equipped second-year medical students with knowledge on how to use several clinical tools. The session incorporated hands-on practice to showcase relevancy for students and to allow an opportunity for students to demonstrate their learning of navigating clinical tools. An academic medical librarian and clinical educator collaborated to develop this 60-minute session. The initial segment was a lectured overview of 5 electronic tools frequently used in clinical practice. Thereafter, students played a team-based game called 'Fast Finder' to practice using the tools to find answers to clinical questions. Teams of 10 students completed as many questions as possible from a 100-question, multiple-choice quiz, in 15 minutes. The team with the most correct responses received a prize. This presentation will discuss the challenges in creation and implementation of a game for teaching library resources to medical students, as well as the ways in which the information gathered from the game, and a post-game survey, can be used to assess both learning and student engagement.

LT3. Lights, Camera, Learn! A Cross-Organizational Approach to Noon-Hour Information Literacy Instruction

Leah Boulos¹, Katie McLean², Lara Killian², Robin Parker³, Melissa Helwig³

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Introduction: Lunch and learn series are a common method of education delivery in healthcare. Increasingly, learners want and expect the option to view recordings and supplemental materials afterwards. How do librarians leverage existing supports and educational offerings to meet the modern needs of healthcare professionals, researchers, and students? **Description:** Librarians across three organizations collaborated on developing and delivering a four-part lunch and learn series to empower attendees with practical information-gathering, evaluation, and synthesis skills. Technologies from each organization were employed for promotion, registration, evaluation, online delivery, and recording. Two original content sessions were presented by the librarian organizers (Creating Effective Research Questions; Screening & Appraising Results), a panel discussion focused on synthesizing information (Synthesizing Information), and a session delivered by healthcare professionals demonstrated an evidence-gathering framework to change local practice (Using Evidence to Change Practice). Feedback surveys were automatically emailed to registrants after each session. **Outcomes:** 105 people registered across organizations and 63 attended, while 23 completed the feedback survey. Overall, participants were satisfied with the content and identified it as filling knowledge gaps. The majority of survey respondents identified as Researcher (n=6) or Program Coordinator (n=8). Respondents ranked preferred topics for follow-up sessions which will inform planning of future series. **Discussion:** Affiliates of our health organizations have a range of information needs that are not all met with current training offerings. Creating opportunities for people involved in knowledge creation to acquire skills and engage with colleagues doing similar work demonstrates librarian engagement and the value of our services.

LT4. Reflective Journal Writing to Improve Curriculum-Based Library Instruction in Pharmacy

Janice Kung
University of Alberta

Description: Reflective practice is a form of self-assessment to analyze what is taught in the classroom, how students respond, what are the instructor's thoughts related to successes and failures of the instruction, and suggestions for improvement. An established method for reflective practice in teaching is through journal writing. In the Fall 2017 term at the University of Alberta, eight reflective journal entries were completed immediately following pharmacy library instruction sessions that were curriculum-based. Journal entries included Course Name, Date, Time, Background (e.g. name of the faculty member who requested the session), Class Details (e.g. what did/did not go well), Post-session Evaluation (e.g. informally assessing students' level of learning), and Suggestions for Next Time. The exercise of journal writing provides time and focus for reflection with librarians' teaching that may not have been known otherwise. Lessons learned from the practice of journal writing for library instruction will be shared.

LT5. Developing Librarian Search Skills Through 'Search Club'

Christine Neilson
University of Manitoba

Literature searching to support systematic reviews requires an advanced level of search skill. Formal training in advanced search techniques can be difficult to access, and librarians' confidence in conducting systematic review searches can vary. This lightning talk will describe 'Search Club', an opportunity for a group of health librarians in a university library system to practice complex literature searching and learn from one another in a low-stakes environment.

LT6. Projet de Production de Capsules Vidéo pour la Promotion de nos Professions

Tara Landry¹, Patrick Cossette², France Pontbriand³, Marise Bonenfant⁴, Jean Charbonneau⁵,
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Dans le souci d'offrir un outil de promotion aux professionnels de l'information au sein de leurs institutions, le comité Promotion du Chapitre du Québec/Association pour l'avancement des sciences et techniques de la documentation, section santé services sociaux (ASTED3S) a élaboré une vidéo promotionnelle. Celle-ci met de l'avant le positionnement des professionnels de l'information (bibliothécaires et techniciens en documentation) en tant que membres de l'équipe multidisciplinaire des professionnels de la santé et des services sociaux, à titre de spécialistes de l'information. Le but était de faire valoir aux clientèles cliniques et administratives la contribution des professionnels de l'information dans le développement de leurs meilleures pratiques. Tout au long du processus de création, il a fallu rester à l'écoute des acteurs du milieu, ce qui s'est avéré un défi en soi, mais qui a permis d'enrichir le produit final. Portrait de notre expérience.

LT7. A Collaboration in EBM Library Services at a Swiss University

Carolyn Ziegler
St. Michael's Hospital

In March and April 2018, a Canadian teaching hospital information specialist will have the opportunity to work on contract at a Swiss university medical library to help develop a range of EBM services to improve the quality of research, teaching, and learning. The information specialist will present on how this opportunity developed, the outcomes of the collaboration, and the nature of EBM library services at a Swiss university.

LT8. A Library Guide for the Documentation and Reporting of a Systematic Grey Literature Search

Jackie Stapleton
University of Waterloo

Performing a systematic grey literature search can be problematic as these forms of publication are often unorganized and lack systematic search tools. This is a particular problem in public health as research questions often involve synthesis of information not published in the traditional peer reviewed journal

article. A public health librarian created a tool to aid researchers through the process of conducting a grey literature search. It provides step by step instructions for the creation of a search plan and guides the researcher in organizing and documenting the information required for PRISMA reporting standards. This tool is regularly used during research consultations between the librarian and public health researchers. The components of the tool are based on the methods outlined in the paper 'Applying systematic review search methods to the grey literature: a case study examining guidelines for school-based breakfast programs in Canada' by Godin et al.

LT9. Info Bites: Experimenting with Informal and Conversational One-Off Instruction (With Snacks!)

Zack Osborne
St. Michael's Hospital

Reflecting upon evidence to suggest a refresh was needed, accompanied by a decline in participation for regular library workshops, the St. Michael's Hospital Health Sciences Library examined alternative formats and styles to delivering instruction programming. In fall 2017 a modified approach to one-off instruction was introduced titled 'Info Bites', which took shape as brief, casual, bi-weekly, afternoon drop-in sessions focused on topics related to library services and resources, time-saving tools, and emerging trends in research. The informal nature of Info Bites enabled library staff leading these sessions to foster a conversational group atmosphere and to better engage with clients on a focused topic. Tea and snacks were also provided, and the Info Bites tagline was born: 'Info Bites: Enjoy tea and treats, leave with some information to chew on'. This Lightning Talk will share the inspiration, motives, marketing and promotional efforts, participant feedback and evaluations of offering short, informal, and conversational library instruction.

LT10. Logic Modelling to Assess Value and Impact of a Systematic Review Service

Heather Cunningham
University of Toronto

Introduction: Providing a robust and effective systematic review service (SRS) requires a significant allocation of resources, training and staff time. Performance and impact cannot be gauged if inputs, outputs and outcomes are not measured. A logic model framework was chosen as an assessment tool. Such models are commonly used as a planning and evaluation framework in healthcare, applied in research impact assessments by funding agencies, and used to identify indicators to measure impact. **Description:** An SRS at a large academic health science library was assessed (and continues to be assessed) using a logic model framework. During Winter/Spring of 2017/2018 indicators of success for program components were defined, appropriate assessment measures determined and stakeholder input gathered. **Outcomes:** An evaluative framework and assessment plan were developed which maps inputs, time, and resources to short and long-term outcomes and objectives. **Discussion:** Logic modelling framework goes beyond assessing the outcomes of an SRS. It can also be used as a communication tool to library administration, faculty and other researcher stakeholders. A main disadvantage of logic modeling is the time intensive development. Advantages were a roadmap of the overall SRS evaluative plan and alignment with the larger health science research community. This model and framework would be applicable to other health science libraries to plan, measure and communicate the value of an SRS.

LT11. Choosing Your Own Library Service: Adapting Patient Decision Aids for Library Patrons

Vincci Lui, Heather Cunningham, Patricia Ayala
University of Toronto

Introduction: Patient decision aids are designed to help people make informed choices about their own healthcare. They can be used for a variety of health as well as social issues. Decision aids are available online or in print and provide information as well as the pros and cons about available options, often in a visual layout. A novel idea is to apply a patient decision making framework in the library setting to help library patrons navigate through the choices of services and resources that are available to them. **Methods:** We adapted the Ottawa Decision Support Framework to revise a patron information resources in a large academic health sciences library. A handout of reference and research services was modified to provide informed context about options, timeframes and expectations. This will serve as the framework for a beta version of an online interactive decision tool to help choose between options for systematic review support. Decision aids were tested during the development phase in consultation with stakeholders. **Results:** Methodology used to develop and test a library adapted decision aid will be presented. **Discussion:** A Cochrane systematic review of decision aids concluded they improve decision making by reducing uncertainty, increasing knowledge of options and creating realistic expectations of outcomes. This project will determine the usability and effectiveness of employing this approach in a library setting.

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