Scholarly communication knowledge and skills in hospital and health services libraries: Report of a survey

Dr Mary Anne Kennan
Adjunct Associate Professor, Charles Sturt University, ORCID https://orcid.org/0000-0003-1342-9853

Dr Danny Kingsley
Visiting Fellow, Australian National Centre for the Public Awareness of Science, ORCID https://orcid.org/0000-0002-3636-5939

Dr Joanna Richardson
Scholarly Communication Consultant, Griffith University, ORCID https://orcid.org/0000-0002-1871-6707

Introduction

This brief report discusses the early findings focussing on hospital and health service librarian responses, from a survey designed to shed light on the respondents' self-perception of their competency in specific areas of scholarly communication. The full data set includes participants in Australia and New Zealand academic and research libraries and other professionals, such as hospital and health services librarians who work in the scholarly communications area. A detailed analysis of the full data is underway and will be published later 2021 in another source. The specific areas of scholarly communication covered by the survey include:

- Institutional repository management
- Publishing services
- Research practice
- Copyright services
- Open access policies and the scholarly communication landscape
- Data management services
- Assessment & impact metrics

These core competencies in scholarly communication were developed by the researchers using the "NASIG Core Competencies for Scholarly Communication Librarians" developed by the North American Serials Interest Group (NASIG, 2017), the "Librarians' Competencies Profile for Scholarly Communication and Open Access" developed by the Confederation of Open Access Repositories (COAR, 2016) and our own knowledge of, and experience in, the Australian academic and research library sector.

The impetus for the study came from a number of areas. First, library-based roles in some areas of scholarly communication are relatively recent. A 2012 systematic review identified scholarly communications librarians as one of many new roles

within the health sciences for librarians (Cooper & Crum, 2013). Second, recent research in other jurisdictions found that academic librarian respondents exhibited elements of Impostor Phenomenon in their scholarly communication roles more than in their other academic librarian duties (Owens, 2021 accepted). Third, it is anecdotally reported that many of these emerging scholarly communication skills are not taught explicitly in Australian and New Zealand library and information studies programs.

While this report focuses on the responses from librarians in hospitals and health services it also compares these health librarians' results with some of the results from people working in scholarly communications in the wider context. The survey was open to anyone working in scholarly communication as we defined it. The questions did not ask what role the respondents held, only which institution they worked at. For this reason, it was not possible to identify which respondents worked in a health library within academic institutions. The respondents discussed in this report were all working in a health organisation.

It should be noted that in contrast with the Australian Library and Information Association (ALIA) *Foundation Knowledge, Skills and Attributes relevant to Information Professionals working in Archives, Libraries and Records Management* (2015), the ALIA *Health Library Association (HLA) Competencies* do specifically mention scholarly communication tasks. The *HLA Competencies* include "data science, research data management", "promoting scholarly communication", "promoting open science and open access to government-funded research outputs", "content, learning, research data, repository, and database management systems" and "digitisation and digital repository management" (ALIA 2018).

Method

In order to reach as many librarians as possible working in the scholarly communications space a survey instrument was deemed appropriate. Questions in the survey were compiled using a number of sources. A recent survey titled "Impostor Phenomenon and Skills Confidence among Scholarly Communications Librarians in the United States" provided a starting point (Owens, 2021 accepted). The research team made a decision to focus on the questions of confidence and the educational and training background of respondents. The questions relating to Impostor Phenomenon were not included in the study. The questions were further adapted to the Australian and New Zealand context.

The survey was built using the Qualtrix survey software, and analysed using Excel for the quantitative questions, and NVivo and manual thematic coding for the qualitative questions. Once the survey was approved by the Australian National University's ethics process the survey was distributed via email lists, Twitter, and to people identified as working in scholarly communications roles on Australian and New

Zealand University web pages. The survey opened on 21 October 2020 and closed on 3 December 2020.

One hundred and sixty valid responses were received, of which only six were from health and hospital librarians and these were all from Australia. This short paper provides a brief analysis of some of the data from the health librarians. As an indicator of proportional responses from the university sector and the hospital and health service sector, a census of health librarians in 2014-15 reported that there were an estimated 760 health librarians (Kammerman, 2015). While not directly comparable, the Council of Australian University Librarians (CAUL) statistics show that in 2014 in 39 Australian university libraries there were 1,619 professional librarian positions (https://statistics.caul.edu.au/pre2018/inst_data.php). This means the number of health and hospital librarians who responded to the survey is proportionally lower than what would be a representational number from the full set of responses.

A fuller research paper will be published separately with more detailed analysis of all the results. As the numbers for the hospital and health services librarians are very small, the results need to be treated with caution and are reported as percentages in order to facilitate comparison. Please note percentages are rounded to one decimal point, so will not always add to 100 and also for some questions, respondents were permitted more than one response.

Findings and discussion

Background data

The health services librarians who responded to the survey had all worked in libraries for more than 16 years and thus were very experienced. This is in contrast to the total responses where 42% of respondents had more than 16 years experience and 16% were in their first five years of work (see Table 1).

Answer	**All N=159**	**All %**	**Health N=6**	**Health %**
0-2 years	7	4.4		
3-5 years	19	11.9		
6-10 years	33	20.8		
11-15 years	32	20.1		
16-20 years	19	12.0	1	16.6
21+ years	49	30.8	5	83.3

Table 1: Number of years worked in libraries

All six health services respondents had a library and information sciences (LIS) qualification. The percentage was also high for other respondents of whom 88% had a LIS qualification, however 10% of the overall cohort did not have a LIS qualification (Table 2).

Answer	All N=160	All %	Health N=6	Health %
Yes	141	88.1	6	100.0
No – I am currently working toward it	3	1.9		
No – I do not have a library and/or information sciences qualification	16	10.0		

Table 2: Respondents with Library and information science qualifications

With regard to qualifications other than in LIS, 50% of the health services librarians had a higher education qualification in addition to their LIS qualification, in this case a lower percentage than the whole cohort, where 81% had another higher education qualification. The other qualifications from the health services librarians were reported as health informatics, a master of business administration and a bachelor degree in education. The respondent with a health informatics qualification said that it was not of much assistance in the scholarly communications aspect of their role but was useful in the other health librarianship aspects of their role. The respondent with the education qualification reported that it gave them "…great insight to communicate aka educate". As to be expected from the greater numbers of respondents for the whole cohort, there was a wider range of additional qualifications, which varied widely, from the arts (for example, history, philosophy, English) to business and law, to nursing and education, science and mathematics. Levels studied ranged from Bachelor to Doctorate.

Answer	All N= 160	All %	Health N=6	Health %
Yes	130	81.3	3	50.0
No – I am currently working toward one	3	1.9		
No – I do not have a qualification other than library and/or information sciences	27	16.9	3	50.0

Table 3: Respondents with qualifications other than library and information science.

Not unexpectedly given their length of time in the LIS professions (Table 1), only one (16.6%) of the health services librarians reported having done any formal training in the last five years that resulted in some sort of recognition such as a certification, and this training was reported as "research impact training". This is not greatly different to the respondents overall as while 33 in raw numbers of the total respondents had completed such training, the percentage is only 20.5% of the total respondents.

With regard to professional development (e.g. supervisor or colleague-assisted training, live or virtual classes, conference sessions, webinars) related to scholarly communication completed within the past five years 66% (4) of the health services librarians had completed some, as opposed to 83.8% of the total respondent cohort. This may be related to the context of health librarians, who often work in smaller libraries with fewer colleagues and thus fewer opportunities for such activities. Conversely the health services librarians in percentage terms have much greater take-up in self-directed learning which is where the individual chooses, plans and enacts their own learning experience (Follman, Hall & Omotade 2012). Whether or not an individual participates in self-directed learning can be influenced by an individual's level of motivation, their autonomy within their work role, and their current competences as well as the social environment in which the learning is occurring (Garrison, 1997, Straka, 2000). Health librarian participants engaged in much higher numbers and percentages in all listed self-directed learning options, but in especially high numbers participate in Listervs and reading journal and conference papers (Table 4).

Answer	**All**	**All %**	**Health N=6**	**Health %**
Twitter	76	11.9	2	33.3
Blogs	92	14.4	2	33.3
Listservs	73	11.4	5	83.3
Wikis	22	3.4	2	33.3
LinkedIn	40	6.2	1	16.6
Open courses	66	10.3	3	50.0
Podcasts	35	5.4	2	33.3
Audiobooks	3	0.4		
Other	26	4.1		
No self-directed learning	9	1.4		
Journal and conference papers	115	18.0	5	83.3
Grey literature - reports etc.	81	12.7	3	50.0

Table 4: Respondents participation in self-directed learning

Of the respondents that reported "Other" the activities listed were: "Peer discussions, conferences, committee work, etc.". Many respondents from all areas commented on the diversity of the field of scholarly communication and the lack of time they had in their work roles to pursue self-directed learning, with one health service respondent stating: "This topic area is huge, and while I would like to know more and be more involved, running two libraries on part time hours simply doesn't leave me enough time to engage with the myriad sections of the process". It may also be that as people are longer in their roles they are busier and/or come to know their roles better, as alluded to in the comment about time spent of self-directed learning: "It

varies. When I started my current position, I spent 5-10 hours a week, currently less than 2 a week".

A big difference between health librarians' responses and the responses of all the other participants was that all of the health librarians felt that work in scholarly communication was 'just part of their job' (Table 5). Now we move on to scholarly communications work performed by respondents.

Answer	Count N=200	%	Health N=6	Health %
It interested me	68	34.00%		
It was a promotion	23	11.50%		
I was asked to do so	15	7.50%		
It is just part of my job	83	41.50%	6	100%
Other	11	5.50%		

Table 5: Why move into a role in scholarly communications?

Scholarly communications work reported as part of health librarians' responsibilities

In this brief paper we cannot provide the analysis of the confidence with which health librarians reported they approached their scholarly communication work, as the numbers are just too small for such analysis. We can however, report which scholarly communication tasks were reported as forming a part of respondents' responsibilities. As can be seen from Figure 1, the most common was tasks associated with 'Institutional Repository Management' (5/6 or 83.3%), and 50% (3) were clear that 'Open Access' and 'Assessment and Impact' were their responsibility. None, however, reported that 'Publishing Services' were a clear part of their role, although a small majority (4 of 6 or 66%) were unclear.

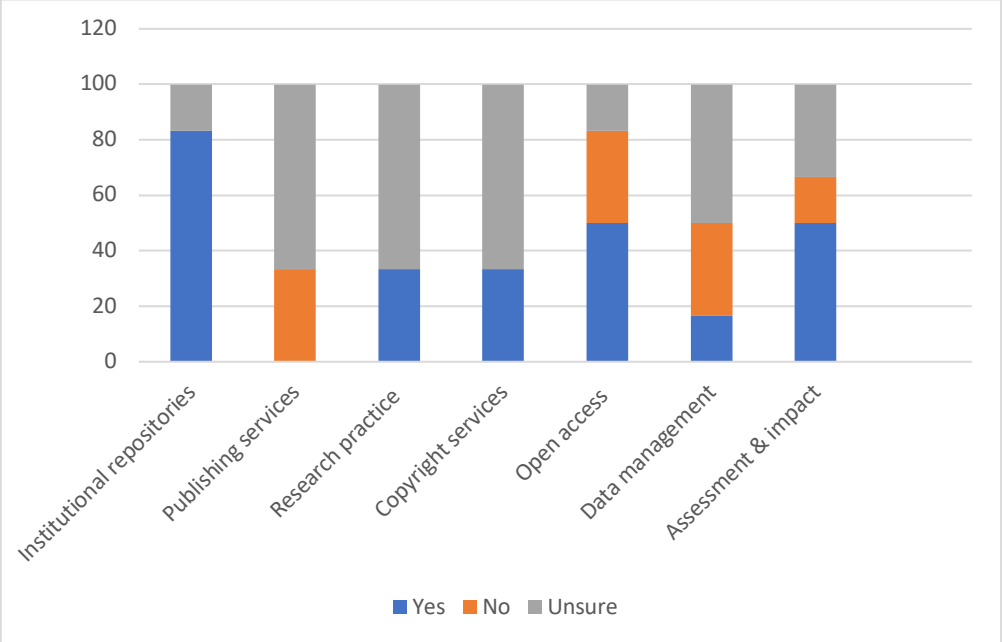

Figure 1: Scholarly communications tasks reported as forming a part of health librarians' responsibilities

In order to understand what work comprised the most reported (five of six respondents, 83.3%) scholarly communication role; it was that of 'Institutional Repository Management', the surveyed tasks included:

- Collect, store, and preserve researcher, staff, and student intellectual output
- Knowledge of and ability to apply publisher policies on deposit
- Knowledge of and ability to apply metadata schemata
- Knowledge of and experience with repository solutions
- Ability to develop policies
- Reporting statistics in support of outreach and education

These roles, especially metadata, policy development and collecting & storing research output, have been traditional library roles for a long time. In the comments section of the question on institutional repositories one respondent stated: "The organisation is not very engaged, I look after our intellectual property because it needs to be done. No resource allocation."

Conversely roles in 'Publishing Services' which comprises:

- Knowledge of and experience with publishing platforms
- Knowledge of and experience with the full life cycle of publishing
- Knowledge and experience with minting identifiers
- Possess a basic knowledge of relevant metadata schemata
- Provide technical support
- Perform system administration and programming
- Collect and disseminate assessment metrics

are more emerging roles for librarians which may account for no health services librarians reporting this work as forming a part of their responsibility (the majority were unsure). Of the entire cohort of respondents, Publishing Services was also the least reported area of responsibility (see Figure 2). This is potentially because there is not a generally agreed understanding of what comprises roles in 'Publishing Services'.

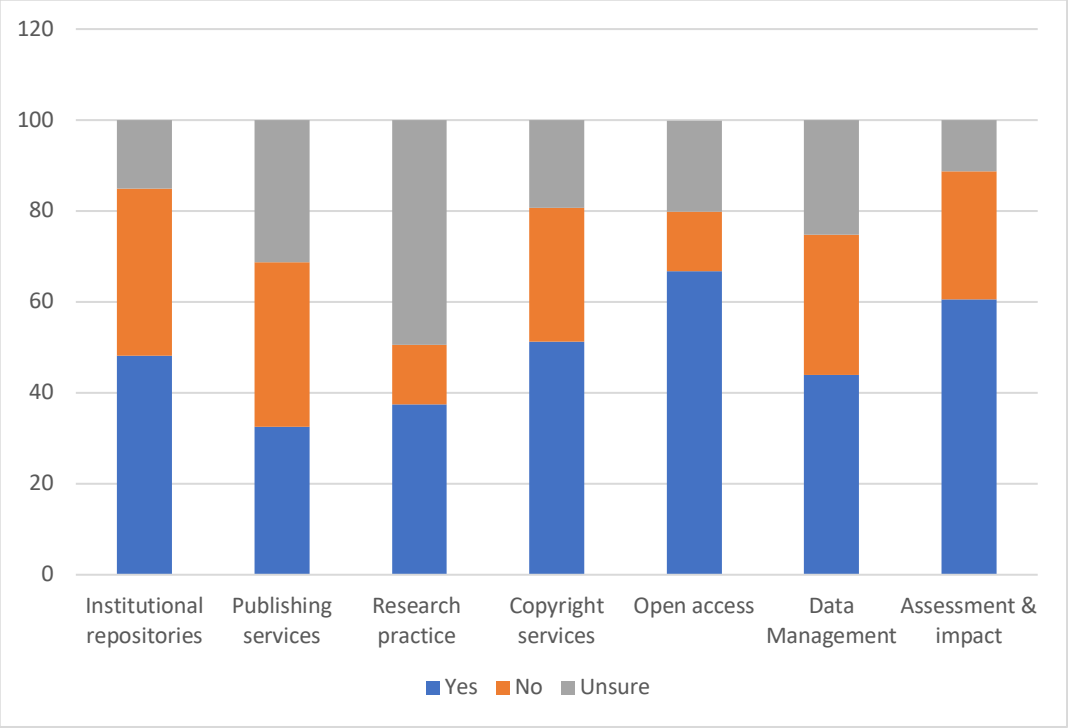

Figure 2: Scholarly communications tasks reported as forming a part of all respondents' responsibilities

Referring back to Figure 1, a majority of health service respondents reported that they were unsure if 'Publishing Services', 'Research Practice' and 'Copyright Services' were a part of their role. This may be related to the varied and complex roles of hospital and health librarians. Hospital and health services libraries are often small. According to a 2011 report 20% of hospital libraries were one person libraries and 47% had two to five staff members (Hallam et al., 2011). While 2011 is some time ago, these numbers are unlikely to have changed dramatically. Small staff numbers in libraries serving large organisations is likely to indicate workplaces where people do a wide variety of work and there is less specialisation than in, for example, a university library which may have tens or hundreds of staff and more specialisation may be evident. As this research was only investigating one aspect of their varied role, their scholarly communication responsibilities, that may account for the high levels of uncertainty about whether emerging areas of scholarly communication were a part of their role.

On these small figures a higher percentage of health services librarians than academic librarians are actively participating in 'Scholarly Publishing', notably 50% (N=3) have been authors, peer reviewers and editors. The percentages are much lower for the full cohort of participants (See Table 6). In the comments field for this question one health respondent reported that they had participated in advanced literature searching repeatedly and received no recognition for this, when they felt their contribution should have received some acknowledgement. We take this to refer to participation in the systematic review process and note that this issue has

also been raised recently in the literature in academic libraries as well. Librarians' participation in the systematic review process is time consuming and requires expertise. One university library reported that co-authorship is required for participating librarians offering premium consulting and search services (Russell & Muir 2020) based on the criteria for authorship as defined by the International Committee of Medical Journal Editors (ICMJE) (2019). Another reported increasing interest in systematic reviews from library users and the development of their own library's charter which specifies either acknowledgement or co-authorship depending on a number of criteria including hours invested (Luca & Ulyannikova, 2020).

Answer	**Count N=241**	**%**	**Health N=6**	**Health %**
Authoring	75	31.12%	3	50.0
Peer review	41	17.01%	3	50.0
Editorial board	15	6.22%	1	16.6
Editing	29	12.03%	3	50.0
Have not participated in the scholarly publication process	63	26.14%	1	16.6
Other (please specify)	18	7.47%	1	16.6

Table 6: Participation in the scholarly publication process.

Conclusion

Examining the health librarian's responses, we note that the challenges brought about by working in smaller libraries are clearly evident. Not only does this mean that scholarly communication work is just one aspect of a very diverse role, it also reflects the reality that health librarians cannot spend too much time on any one aspect of their role, and they often would not have the time nor the staff back up to take time for lengthy professional development courses out of the work place. This is despite, in the words of one health librarian, that professional development is "an absolute must to stay current in health librarianship environment", just as it is in evolving roles in scholarly communication. One conclusion to draw from this is that it would be wise to consider a wide range of formats and options when developing professional development on emerging roles for librarians in scholarly communication.

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Appendix 1 – Data used in Figures 1 and 2

Q12a- Are any Institutional Repository Management tasks part of your responsibilities?

Answer	Count	%	Health N=6	Health %
Yes	77	48.13%	5	83.3
No	59	36.88%		
Unsure	24	15.00%	1	16.6
Total	160	100.00%		

Q13a - Are any Publishing Services tasks part of your responsibilities?

Answer	Count	%	Health N=6	Health %
Yes	52	32.50%		
No	58	36.25%	2	33.3
Unsure	50	31.25%	4	66.6
Total	160	100.00%		

Q14a - Are any Research Practice tasks part of your responsibilities?

Answer	Count	%	Health N=6	Health %
Yes	60	37.50%	2	33.3
No	21	13.13%		
Unsure	79	49.38%	4	66.6
Total	160	100.00%		

Q15a - Are any Copyright Services tasks part of your responsibilities?

Answer	Count	%	Health N=6	Health %
Yes	82	51.25%	5	83.3
No	47	29.38%	1	16.6
Unsure	31	19.38%		
Total	160	100.00%		

Q16a - Are any Open Access Policies and Scholarly Communication Landscape tasks part of your responsibilities?

Answer	Count	%	Health N=6	Health %
Yes	107	66.88%	3	50.0
No	21	13.13%	2	33.3
Unsure	32	20.00%	1	16.6
Total	160	100.00%		

Q17a - Are any Data Management Services tasks part of your responsibilities?

Answer	Count	%	Health N=6	Health %
Yes	70	44.03%	1	16.6
No	49	30.82%	2	33.3
Unsure	40	25.16%	3	50.0
Total	159	100.00%		

Q18a - Are any Assessment and Impact Metrics tasks part of your responsibilities?

Answer	Count	%	Health N=6	Health %
Yes	97	60.62%	3	50.0
No	45	28.13%	1	16.6
Unsure	18	11.25%	2	33.3
Total	160	100.00%		