# Public Librarian's Readiness in Providing Health Related Information

## Chang, Yun-Ke<sup>1</sup>; Ketut Dharma Adiputra<sup>2</sup>; Lim De Yang<sup>3</sup>

Wee Kim Wee School of Communication and Information Nanyang Technological University, Singapore

**Abstract:** Librarians today are not only expected to take care of books but in fact govern all types of access pertaining to information. The public also regarded libraries as the preferred choice to satisfy their information needs on health-related issues. The reported study attempts to gauge the level of readiness and identify factors that are relevant to perceived readiness that public librarians possess and investigate relationships between respondents' characteristics to determine their levels of readiness and intention in providing health information to the public. Our data suggest that self-efficacy and attitude factors contribute the most to determine public librarians' readiness to provide health information.

Keywords: Health Information Service, Public Library, TPB, Readiness, Librarian

## Introduction

Traditionally, books have been the main source of information transfers as other mediums were not readily available; librarians have been regarded as the "gatekeeper" to knowledge (Skymer & Amidan, 1992). As the society and technology grew, the container of information is no longer restricted to books and the explosion of information has led to innovation of many other information mediums being created. The roles of librarians have been constantly changing to cater to this progression and so are public expectations of librarians. In a survey done in 1994, it was found that health is the topic of highest interest to the public and also suggested that majority of the public regarded libraries as the preferred choice to satisfy their information needs on health-related issues. (Deering & Harris, 1996). Despite fast growth of the internet, which eventually became the preferred choice when sourcing for information, public librarians remain as the most trusted source of health-related information (Harris et al., 2010).

Received: 1.4.2012 / Accepted: 20.9.2012 ISSN 2241-1925

© ISAST



However, the current public libraries seem to be inadequately equipped and librarians are ill-prepared for provisioning of health-related information to the public. Most of the public libraries did not cater a specialized section or information centre for health-related information (Wood et al., 2000) and librarians sometimes provide inaccurate information to critical health illnesses and most often stereotype these illnesses to a particular lifestyle (Emery, 1989). It was also reported that the articles stored in the library were often outdated and irrelevant to the current outlook of the medical field (Dorsch, 2000). Librarians and users agree that public libraries should be an extension of the medical industry to fill information gaps which health practitioners or caregivers are unable to meet. Nevertheless, librarians often face frustration in providing a one-stop information service for library users due to lack of training and time-constraining policies (Harris et al., 2010), and most staff end up directing library users back to their physicians or medical providers (Baker et al., 1998).

Research conducted by McDermott and Quint (2002), Banks et al. (2005), and Harrison and Beraquet (2010) mentioned that librarians in health sectors are expected to have good communication skills, both in oral and written form, using various forms of media such as face-to-face, phone, and emails. To communicate effectively is important because librarians need to interview library patrons regarding their information need so that librarians are able to point the patrons toward relevant resources. The research findings also mention that librarians should be adept at selecting and vetting books and electronic resources and be cognizant of ethical principles related to information usage. McDermott and Quint (2002) stated that conducting medical programs as additional responsibilities that librarians are required to do.

Even though there are several studies that provide evidence of public librarians involvement in health information provisioning (e.g. Emery,1989; Baker et al., 1998; Wood et al., 2000) and the difficulties that arise when public librarians serve health-related questions (Wood et al., 2000; Linnan et al., 2004; Harries et al., 2010), there seems to be few studies done to investigate factors that affect level of readiness among public librarians in serving health-related questions. The result of the investigation would allow manipulation of these relevant factors to improve public librarians' readiness in health information provision that would lead to improvement of public library service quality.

### **Literature Review**

From research by Hesse et al. (2005) and Harris et al. (2010), it is evident that physicians and public libraries remain among most trusted source of information. Given the abundant of sources of health information, keeping up is not an easy thing to do, especially for rural health practitioners who tend to make less use of journals and online databases and seem to rely more on public libraries for their information needs (Dorsch, 2000). Surveys carried out by Deering et al. (1996) and Wood et al. (2000) indicate that health information is among the most popular topics of information requested by library patrons. This

has made public libraries play increasingly important role, providing reliable service both to health practitioners and lay people.

Regarding their additional role in providing reliable health information, public librarians have expressed their concern. Harris et al. (2010) suggest that limitation of time a public librarian has as an inhibiting factor to provide quality service. They also mention that public librarians have no special knowledge or training and seem unaware of significant health information resources which limit their ability to interpret reliability of health information. This lack of knowledge has caused public librarians to exercise care when referring patrons to information source to avoid directing patrons to inaccurate, redundant, or contradictory information (Emery, 1989; Wood et al., 2000).

The current study attempts to investigate factors that influence public librarians readiness to provide health information to patrons. It is necessary to include various aspects in the measurement, such as whether public librarians understand the reason for the task, their new role and responsibilities, and how the task will affect their organization. The confidence in the leadership of their management and whether they feel they have necessary resources should also be taken into consideration. As this study is closely related to behavior intention, we consider the Theory of Planned Behavior (TPB) that has been widely used to predict behaviors.

According to TPB, although an individual has strong intention to perform a behavior, the performance of the behavior is still influenced by non-motivational factors such as availability of necessary resources and opportunities (Ajzen, 1985). A central factor in the TPB is intention to perform a given behavior. Intentions are assumed to capture the motivational factors that influence behavior and indicate how hard people are willing to make effort. TPB postulates three factors that influence intention: attitude, subjective norms, and perceived behavioral control.

Attitude. Attitude refers to degree to which a person believes the outcome of the behavior, which can be positive or negative. A series of interviews conducted by Baker et al (1998), Harris et al. (2010), Linnan et al. (2004), and Wood et al. (2000) revealed a positive attitude that librarians hold about providing health information to public. However, according to statement issued by Medical Library Association and Consumer and Patient Health Information (1996), librarians should avoid suggesting diagnoses and recommending particular health procedures. Many studies also stated that many librarians were not yet comfortable providing reference assistance to patrons because of concerns about providing invalid information and possibly intruding privacy (Baker et al., 1998; Harris et al., 2010; and Rothstein, 1993).

<u>Social Norm</u>. Subjective norm reflects the perceived opinions of referent others and the pressure that individuals feel to comply with their expectation. Difficulties people in general have in judging reliability of information from various sources puts greater expectation on librarians to participate in health information provisioning (Baker et al., 1998; Harris et al., 2010; Hardiker et al., 2011; Hesse et al., 2005). In Harris et al. reported that public librarians who took part in the survey indicated that they feel moral responsibility to provide

trustworthy information, to be able to listen to problems people are having, and to spend some time to render assistance. In the library settings, the expectations from their professional association, patrons, colleagues and management should be the source of subjective norm.

Behavior control. Previous studies also identified several internal and external factors that hampered public librarians from providing health information to library patrons (Baker et al., 1998; Harris et al., 2010; Maden-Jenkins, 2010; Linnan et al., 2004; Wood et al., 2000). Librarians reported that they have low level of confidence to answer such topic because they do not have medical or clinical knowledge background and no trainings were given to them which impedes their ability to determine useful resources, to evaluate conflicting resources, both in house and online. Besides those internal factors, the research surveys also indicated that the libraries often impose restriction on maximum amount of time librarians should spend to serve their patrons which influences librarians' intention to serve health-related problems. Material availability and currency have also been reported as additional factors that affect their intention.

A control belief refers to a perception of the availability of skills, resources, and opportunities that an individual holds to realize the behavior.

The research model. Based on our discussion on factors that influence intention to perform behavior above, we decided to perform measurements in 6 dimensions: attitude, subjective norms, descriptive norms, self-efficacy, resource facilitation, and perceived readiness.

In order to meet the objectives of the current study, we propose the following research questions.

- RQ1 To what extent is attitude held by public librarians related to their readiness to provide health information?
- RQ2 To what extent does social norms correlate to public librarians' readiness to provide health information?
- RO3 Is there any relationship between internal and external control to public librarians' readiness to provide health information?
- RQ4 Is there any relationship between readiness to provide health information with years of experience as public librarian?
- RQ5 Is readiness to provide health information related to having disciplinary background in health science or formal training in health information provision?
- RQ6 Is confidence in library management's support related to readiness to provide health information?

#### Methodology

We administered online survey to public librarians in Singapore. The survey contains items that assess each factor that contributes to how ready public librarians think themselves in providing health information. The questionnaire consists of 42 questions, and other demographic information. All items were measured using 7-point Likert scale (strongly disagree – strongly agree) except attitude measures which are on semantic differential scale for clarity. All measures are scored in unipolar fashion. The questions for attitude, as recommended by Ajzen (2002), measure both experiential (such as harm – benefit the public, bothersome – rewarding to me) as well as instrumental (such as decrease – increase library service, harm – benefit my career) components.

#### Results

Cronbach's alpha values for each construct in our research model are tested. All our constructs' consistencies are above the threshold value of 0.7, which indicates the reliability of our instrument.

48 Public librarians who participated in our study are the ones who serve library patrons. Out of 48 participants, 31 (64.6%) of them are female. More than half of the respondents claimed they have masters degree(64.6%), 9 persons (18.8%) holds bachelor degree, 3 persons holds diploma, and the rest do not have library nor knowledge management background. 22 of them (45.8 percent) are between 31-40 years, 15 (31.3 percent) are between 21-30 years, and 11 of them are between 41-60 years. Experience-wise, the majority of our participants fall in 10 year-or-more (16 persons) and 1-to-5-year group (14 persons). Almost all of our participants are in charge in public service (40 persons), 3 persons are in charge in reference tasks, 2 in library operations and management, and 3 in children's library services.

Table 1. Descriptive statistics of constructs, n=48

	Mean	SD
Attitude	4.4762	.99862
Subjective Norms	3.3958	1.06045
Descriptive Norms	3.5833	1.21554
Self-Efficacy	3.9236	.98088
Resource Facilitation	3.6302	.99732
Readiness	4.0104	1.0223

For our questionnaire, we use scale from 1-7 for all constructs with 1 represents strong disagreement and 7 represents strong agreement. On average our participants express slight disagreement to neutral in each measurement category (Table 1).

There is moderate to relatively strong positive relationship between our independent variables (attitude, social norms, self-efficacy, and resource facilitation) and our dependent variable (readiness to provide health information). We summarized our findings as the followings.

There is moderate correlation between attitude and readiness to provide health information (r=.500, p<.01). This means that the more positive public librarians view the outcome of providing health information, the more ready they are to provide health information.

There is moderate correlation between subjective norms and readiness to provide health information (r=.650, p<.01). Public librarians who are more compliant to expectation of their patrons, peers, supervisors, and professional association tend to be more ready to provide health information than those who are not.

There is moderate correlation between descriptive norms and readiness to provide health information (r=.650, p<.01). Provision of health information by other libraries positively correlates with public librarians' readiness to answer health-related queries.

There is strong correlation between self-efficacy and readiness to provide health information (r=.812, p<.01). Intuitively, this makes sense as the more public librarians think they are capable of answering health-related enquiries, the more ready they are to provide health information.

There is strong correlation between resource facilitation and readiness to provide health information (r=.759, p<.01). Our survey shows that resource facilitation such as books, training, and moral support is positively related to readiness to provide health information.

To determine how well the independent variables in our research model (attitude, subjective norms, descriptive norms, self-efficacy, and resource facilitation) predict the dependent variable (readiness to provide health information), we conducted multiple regression analysis, shown in table 2.

Table 2. With tiple regression analysis, $n=+6$ . $p<.00$ ;			
Dependent variable = readiness to provide health information			
Independent variables	Standardized beta	t-values	
Attitude	.226	2.655*	
Subjective norms	018	134	
Descriptive norms	.125	.921	
Self-efficacy	.540	4.199**	
Resource facilitation	.180	1.336	

Table 2. Multiple regression analysis, n=48. \* p < .05, \*\* p < .001

From table 2, we found only attitude and self-efficacy are statistically significant predictors to readiness to provide health information.

We conducted one-way ANOVA to determine if years of experience as public librarians are correlated to their readiness to provide health information. We did not find significant relationship between years of experience as public librarians and their readiness to provide health information. Similarly, independent sample t-tests indicated that disciplinary background in health science and formal training in providing health information does not contribute to readiness to provide health information, either.

In our survey, confidence in management support is scored from 1 to 7, with 1 represents no confidence and 7 represents high level of confidence. We decoded participants' responses into three categories: not confident, neutral, and confident. Responses which score less than 4 are placed in 'not confident'

category, those with score more than 4 are placed in 'confident' category, and the rest are placed in 'neutral' category. We conducted one-way ANOVA test to determine whether there is difference in level of readiness across the three categories. From our analysis, we only found statistically significant difference between 'not confident' group and 'neutral' group, with 'neutral' group tends to score better in readiness to provide health information than 'not confident' group.

#### **Discussion & Conclusion**

From the analysis above, we are able to conclude that librarians are most ready to provide health-related information services when they believe that they have the capability in doing so or there are benefits from doing so. This means that despite whether their supervisors, colleagues, patrons, or other libraries are expecting them to do it, librarians are not as concerned or willing to perform health-related information services when they do not actually believe they can do it or if they think the outcome from providing health information is not good. Although our calculation shows that self-efficacy is the most important predictor of readiness to provide health information, in our opinion self-efficacy does not stand on its own. People become confident that they are able to do something through training and exposure. Likewise, public librarians become confident that they are capable of providing health information by attending training, gaining knowledge on how to vet health information sources, and applying the skills they learn. In other words, resource facilitation factor still indirectly influences readiness to provide health information through selfefficacy factor. Resource facilitation accounts for around 60% variance in selfefficacy. Besides resource facilitation factors that include an assessment of availability of time, resources and support given affecting librarians' readiness of health information provisioning, further researches can also investigate if other factors such as monetary and career progression rewards, analyzing more possibilities in instilling greater motivation to do so.

### References

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), Action-control: From cognition to behavior (pp. 11-39). Heidelberg: Springer.

Ajzen, I. (2002). Constructing a TpB questionnaire: Conceptual and methodological considerations. Retrieved August 9, 2011.

Baker, L. M., Spang, L., & Gogolowski, C. (1998). The provision of consumer health information by Michigan public librarians. *PUBLIC LIBRARIES-CHICAGO-PUBLIC LIBRARY ASSOCIATION-*, *37*, 250-255.

Banks, M. A., Cogdill, K. W., Selden, C. R., & Cahn, M. A. (2005). Complementary competencies: public health and health sciences librarianship. Journal of the Medical Library Association, 93(3), 338.

Deering, M. J., & Harris, J. (1996). Consumer health information demand and delivery: implications for libraries. *Bulletin of the Medical Library Association*, 84(2), 209.

Dorsch, J. L. (2000). Information needs of rural health professionals: a review of the literature. *Bulletin of the Medical Library Association*, 88(4), 346.

Emery, M. W. (1989). The Responsibility of Librarians for Collecting and Making AIDS Materials Available.

Hardiker, N. R., & Grant, M. J. (2011). Factors that influence public engagement with eHealth: A literature review. *International Journal of Medical Informatics*, 80(1), 1-12.

Harris, R., Henwood, F., Marshall, A., & Burdett, S. (2010). Ifm not sure if that is what their job is consumer health information and emerging ihealthwork roles in the public library. *Reference and User Services Quarterly*, 49(2), 239-252.

Harrison, J., & Beraquet, V. (2010). Clinical librarians, a new tribe in the UK: roles and responsibilities. Health Information & Libraries Journal, 27(2), 123-132.

Hesse, B. W., Nelson, D. E., Kreps, G. L., Croyle, R. T., Arora, N. K., Rimer, B. K., & Viswanath, K. (2005). Trust and sources of health information. *Arch Intern Med*, 165(22), 2618-2624.

Linnan, L. A., Wildemuth, B. M., Gollop, C., Hull, P., Silbajoris, C., & Monnig, R. (2004). Public librarians as a resource for promoting health: results from the Health for Everyone in Libraries Project (HELP) librarian survey. *Health promotion practice*, *5*(2), 182.

Maden-Jenkins, M. (2010). Healthcare librarians and the delivery of critical appraisal training: barriers to involvement. *Health Information & Libraries Journal*, 28, 33-40.

McDermott, I. E., Quint, B. E. (2002). *The Librarian's Internet Survival Guide: Strategies for the High-Tech Reference Desk.* Information Today. 1-2.

Medical Library Association and Consumer and Patient Health Information System (1996). The librarian's role in the provision of consumer health information and patient education. *Bull Med Libr Assoc*, 84(2), 238.

Rothstein, J. A. (1993). Ethics and the role of the medical librarian: health care information and the new consumer. *Bulletin of the Medical Library Association*, 81(3), 253.

Skymer, D., & Amidan, D. N. (1992). Creating the Knowledge Based Business. *Business Intelligence*.

Wood, F. B., Lyon, B., Schell, M. B., Kitendaugh, P., Cid, V. H., & Siegel, E. R. (2000). Public library consumer health information pilot project: results of a National Library of Medicine evaluation. *Bulletin of the Medical Library Association*, 88(4), 314