The effect of hospital proximity and numbers of students on reference service in medical school libraries

By Guynneth T. Heaton, B.A., B.L.S., M.L.S.
Director of Library Outreach
Robarts Library
University of Toronto
130 St. George Street
Toronto, Ontario
Canada M5S 1A5
heaton@library.utoronto.ca

BACKGROUND

Many factors can influence the level of reference service activity. A survey of U.S. and Canadian academic medical schools was carried out to examine the effect of two variables on reference service. One variable was the proximity of a medical school library to a hospital. The second variable was the number of students admitted to the medical school. A literature search revealed no previous studies relating either the proximity of a hospital or the number of medical students enrolled to the number of reference questions received at medical school libraries.

METHOD

A questionnaire was sent in November 1993 to all 147 academic medical school libraries in the United States and Canada. Address labels were obtained from the Association of Health Science Library Directors and verified in Medical School Admission Requirements [1]. Hospital libraries were included only if they were the main medical school library. One hundred three questionnaires were returned, for a response rate of 70%. Given the high response rate, the data can be considered reliable, although further studies on other factors affecting reference service are required before firm conclusions can be drawn.

The data were keyed into DBASE IV and analyzed with Statistical Analysis System (SAS). Not all libraries responded to all the questions. The questionnaire was published in another article [2].

The hypotheses examined in the study were:

- Academic medical school libraries with a hospital in close proximity receive more reference service questions than do other libraries. "Close proximity" was defined to mean that the hospital was in the same building or physically attached to the library building.
- The number of students at the medical school affects the number of reference service questions received by academic medical school libraries.

OBSERVATIONS

Asked whether a hospital was in the same building or physically connected to the library, forty-six libraries (47%), checked "yes" while fifty-two (53%) reported "no."

The NPAR1WAY procedure (which can test the relationship between factors with yes or no answers and quantifiable factors) was used to test the relationship between the close proximity of a hospital and the numbers of questions received. The Wilcoxon probability values shown in Table 1 revealed no relationship, suggesting that hypothesis 1 may be false.

The number of first-year students was used instead of the total number in medical school to reflect the size of the medical student body because first-year numbers were more readily available. Among the responding libraries, the minimum reported for first-year medical students was 32, and the maximum was 280.

A Spearman Correlation Test (which examines the relationship between two quantifiable factors) was used to examine the relationship between the number of students and the volume of questions received. A probability value of .05 or less is considered significant. The results showed a significant relationship, indicating hypothesis 2 may be true (see Table 2).

The relationship was especially significant for reference questions that had a p-value of .0042. The minimum number of reference questions received was 313 and the maximum was 78,770.

DISCUSSION AND CONCLUSIONS

Results of the study suggest that the close proximity of a hospital may not affect the numbers of questions received at a medical library, while the number of medical students may affect the level of service required. However, numerous factors could affect the number of questions received that were not considered in this research.

A library manager, upon learning that the proximity of a hospital does not appear to affect the reference work load, might be well advised to cite other factors as justification for additional reference equipment or staff. Factors such as public access and type of curriculum might be more appropriate. While the proximity of a hospital may not affect the numbers of questions received through the reference service, it might affect other services such as interlibrary loan, which was not a subject of this research.

Managers planning reference services would do well to remember that numbers of medical students may affect the numbers of questions received. Large numbers of students might call for a high priority to be placed on reference services under certain circumstances, but other factors also need to be considered.

Factors causing students to use library services fre-
quently might include the existence of classrooms and laboratories in the same building as the library, or placement in the library of anatomical specimens and computer-aided instruction. Public access and service to faculty in fields other than medicine could also increase the number of questions received.

The results of this study may be helpful to library managers who plan to start or re-engineer reference services. Further research on related topics also could be useful. Such investigations could examine the effects on reference service of various combinations of factors, such as hospital proximity combined with public access and curriculum type, or the number of students and curriculum type combined with the proximity to the library of classrooms and anatomical specimens.

REFERENCES


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