

Evidence-based decision making when refurbishing a medical library: a shorter way to better decisions?

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Abstract

The question how to use the remaining open space after removing unused shelving gave us the idea to run an evidence-based library project at the Medicine and Dentistry Library at the University in Bergen. The transition from print to electronic literature has resulted in great physical changes in our library. Unnecessary bookshelves had to be removed and we had to decide what to do with the empty space in the library. We used evidence-based practice as a method for better decision making. The different steps during the project were: finding evidence from the literature, gathering information on user needs and preferences, involving our colleagues before making decisions. The results of the project were quite satisfying.

Working evidence-based contributed positively to the decision making process, and we have proven that we can work evidence-based within a short time frame.

Key words: libraries, medical; evidence-based practice; environment design; interior design and furnishings.

Introduction

Like many other libraries, the Medicine and Dentistry Library in Bergen is experiencing the decrease of printed in favour of digital literature. The consequence of e-journals replacing p-journals are many empty shelf-meters – and growing empty physical space in the library. In our case, the question was how we could best re-purpose the new space for our users? Should we, the librarians, make decisions based on what we think would be best for our users – as we had done so often before? We decided instead to use evidence-based library practice for decision making, wondering how many people it would involve and if it could be done within a short timeframe.

Methods

Evidence-based practice and evidence-based librarianship

Evidence-based medicine and evidence-based health care has been an important term in medical libraries for many years. Health care professionals increasingly use this method, and libraries support them at several stages, mainly in literature searching.

However, even if librarians at our library are familiar with evidence-based health care, we had not applied this method in our own daily practice to decision-making on library issues.

Evidence-based librarianship follows the same steps as all evidence-based practice: identifying the problem; finding the evidence; critical appraisal; implementation; evaluating the outcome (1, p. 6). Evidence for decision making on library issues derives from library research, from librarians' experience and practice, and from knowledge about the users' preferences.

Project members

In the beginning of the project, three persons were in charge: in a first meeting, two librarians, working in the Medicine and Dentistry Library on a daily basis, and their section leader, who was responsible for two other libraries in addition to the Medicine and Dentistry Library, decided how the project should be integrated into our daily workflow.

We were eager to work as efficiently as possible and keep the time used for the different steps to a

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minimum. The three members of the project group had a final meeting after the various stages of data collection and literature search, and presented the material at a staff meeting. The following discussion in the staff meeting was meant to involve the other staff at the library in the project, get their ideas and feelings and include these into the gathered information.

Time frame

Doing the work within a short timeframe and integrating it into an everyday working situation was the reason why we kept the project group small and involved the other staff at the Medicine and Dentistry Library at a later point in the project. We put up a strict time schedule of only two months for information gathering. Because of summer holiday and other reasons, there was a break of about half a year before the implementation phase was started. At that time, a new head librarian/local leader of the Medicine and Dentistry Library was to take up her post and likely to be included in the project. Also, the administrative process had started.

Literature searching, user preferences and librarians' experiences

A general search of literature on users' needs and the library's physical space (search terms were: libraries, space utilization, library users, students, study carrels) in databases PubMed, LISTA and Svemed+ was performed by two librarians. The literature search took not more than about four hours, plus individual time to evaluate and read the literature, and resulted in twelve relevant articles. We were interested in user preferences and users' needs. We had some data from an earlier survey from 2009 (2) that we wanted to complement with additional data. Observations were made on how the students used the existing working places in our library, over a couple of average student work days, checking the students' use of computers at the library. We also got one of the dentistry students to post an open question on Facebook, asking her fellow students how the library should use the free space. At the end of the project we also put up a poster in the library's entrance area, depicting different kinds of furnishings, chairs and sofas that the users at the library symbolically could choose between or give us their comments on.

The librarians' expertise is an important part of evidence-based library practice. We have done other refurbishing-projects after removing shelves at the Medicine and Dentistry Library earlier, like establishing our computer room, or setting up tables and chairs for groups of two or three students. In the first case, we needed better teaching facilities and refurbished based only on the library's needs. Any changes in furnishing in the Medicine and Dentistry Library over the years have been positively accepted by the students. In this project, we included our colleagues at the Medicine and Dentistry Library by discussing the project at several occasions and took into consideration their experience and suggestions.

Results

Gathering knowledge phase

Results from the literature search showed that libraries should provide different types of learning space (3-5). What the users are looking for is "space for concentration, collaboration, contemplation, communication and socialization" (6, p. 106). Massis (7) puts the need for contemplation above all: "The timeless necessity for quiet place is as old (or as new) as the very concept of the library itself" (7, p. 398). The analysis of student preferences for study space, conducted by Applegate (3) showed that traditional carrels, and group study rooms were most used. Soft seating areas with sofas and chairs were the third most popular place.

We found that the results from the literature search were obvious: a library, and especially a university library with many student users, should offer different and varied seating. Also the importance of a quiet space was mentioned. Another crucial argument is the comfort-aspect of seating, or soft seating as Applegate (3) points out. As we have observed most of our regular users in the Medicine and Dentistry Library are students. We know that many of them use the library to read and learn. The regular reading desks and chairs were already in good use, so we opted to focus on the variation and the softness of the seating possibilities.

A user survey from 2009 (2) reflected the findings from the literature and partly from our own observations. Students would like to have more quiet places, but also more places where they can work together in groups. They also said that the

library is a good place for research, studying and learning.

Observations carried out in the Medicine and Dentistry Library during ten days in March 2012 gave a useful input on the use of computers in the library. During those days we counted a total of 325 students. The results were somehow surprising: 5% used their own computer, 35% worked without a computer and 60% used the library's computers. There were more library computers available at any time (out of 53 computers in the library, at no time more than 32 computers were in use simultaneously). This led to the conclusion that we already had enough computers in the library and that we wouldn't need more workspaces with computers. Also the traditional reading desks without computers were not occupied all the time (max 14 places in use out of 30). Again, we could not see that there was an immediate need for even more of the traditional reading desks.

At the same time we got the opportunity to put the question on Facebook (via one of the students) and reach one of the classes of dental students. Within less than 24 hours we got answers from seven students. They mentioned their wishes for massage chairs and comfortable chairs, sofas and more traditional reading desks.

From the librarians' point of view and working experience in the Medicine and Dentistry Library we knew that total silence was not really possible, as sound is carried throughout the rectangular rooms. Most of the study places were individual working places, and not much disturbing noise was caused by individually working students. Also the students themselves wanted to keep it silent and shushed each other when necessary. The computer room with 20 computers at the end of the library room was divided from the library shelves by thin walls and we would always hear the lecturer's voice. The new empty space we were trying to fill with new furniture was situated only about eight meters from the computer room, with three rows of bookshelves between. Therefore, the librarians did not suggest traditional silent reading desks in that area. The librarians have experienced an ever increasing number of working spaces, but also pointed out that all types of places and workspaces are in use. We concluded that soft seating in our library was the most underrepresented kind of seating, and that we

would go for that type of new furniture.

We finally removed the empty shelving and created the open area we wanted to change. We then asked our students directly in the library how they would like to use the new space. We put up flipcharts with pictures of chairs and sofas and asked the students for comments. And they agreed with the results of the project in that soft seating and nice chairs and sofas would be a good idea.

Implementation period

At a staff meeting we discussed the findings with our colleagues at the Medicine and Dentistry Library. We also tried to figure out how we would be able to put newly gained knowledge into everyday practice and how we could use that new knowledge on our users' needs. Literature and observations collected through the evidence-based working method were useful tools in the process of decision making on what we wanted to do with the new area. We were able to bring forward arguments that we wouldn't have had otherwise. Everyone agreed on the decision to buy soft seating furniture.

Despite this fact, the further implementation was not as smooth as expected. The Medicine and Dentistry Library had no budgets of their own and had to involve the central library administration. For our colleagues in the administration and the finance department these ideas of soft seating environment were new and unfamiliar – even if they were based on best evidence. Our request for funding for furniture was therefore met with skepticism. In addition, our library was dealing with a very tight budget, and we knew that we would not get to buy fancy Danish design-chairs (and yet we hoped for it).

For some time we faced confusion and some frustration about the further steps of the project. We were no longer able to recognize who was in charge of the project and its implementation – the project group, the strategic leader, the head of administration or the finance managers, and time flew while we were waiting for clarification about the budgets and type of chairs.

Eventually, we took delivery of a sofa, comfortable chairs and three small tables. The students' favorites were two grey wing chairs where they almost could hide. Together with the old subject catalog the area has an inviting atmosphere (*Figure 1*). The students



Figure 1. *Soft seating at the Medicine and Dentistry Library in Bergen, the “breathing-hole”/“Pustehullet”* (copyright Regina Kűfner Lein)

also like the flexibility of the room, being able to move around the chairs to accommodate larger or smaller groups. Still there was space for more chairs, and we hoped for the next years budget.

Two years with the new furniture

Looking back on the project about two years after the implementation, the conclusion is that the furniture work out as planned. The library users choose this new area when they want to sit down comfortably and read most of the day. We call it the “breathing hole” (Norwegian “Pustehullet”) due to its qualities as a recreational area within the library. Recent observations in our library (February 2016) showed that about 70%-80% of the places are occupied during a normal workday (even more during exam times).

What we have seen is that the quality of the furniture in a library has to be thought about according to everyday use by many different people. Soft seating automatically needs to be cleaned more often than furniture without fabrics or upholstery. Also, static electricity can be a problem when using synthetic materials, and they work like magnets on long hair etc. When furnishing with soft seating, one should take the cleaning services of the institution into consideration in order to make sure hygiene is taken care of appropriately.

Further plans for the area

The faculty of Medicine and Dentistry has decided to transform group rooms adjacent to the library

into a modern skills center for students. Due to lack of space in their area, faculty plans now include a substantial part of the library’s area. Plans are that even more of our shelving will be removed, and instead group rooms will be established. Also, the library’s computer room will be moved to a new area, much of it part of the breathing hole/Pustehullet. The new plans for our library show that we will lose quite a lot of the space that we had gained earlier by removing bookshelves. Due to the faculty’s plans we have to re-think the entire library, and not only the area defined earlier.

The evidence based project still gives us the possibility to use the results in discussions and meetings with both library management and faculty. The architect’s drawings have been remodeled due to our input, which we based on the EBP-project. Soft seating has been requested, and also the need for varied furnishings in the library. Quite a few of our ideas have been taken into consideration in the planning phase. Still, the library will lose about two thirds of the students’ working spaces during the building period (not included all the places that won’t be used due to building noise), and a yet to be confirmed number of places in the new library.

N.B.: the planning phase of the skills-center-project is not yet over, so we do not have the possibility to make further comments on what our library is actually going to be like in future.

Evaluation of the new area and the project

Evaluation is an essential part of the evidence-based working method. However, until now we have not evaluated the new sitting area through a student survey. The first year we still hoped for more furniture as we did not consider that new area for finished. As mentioned in the previous chapter, the faculty had other plans for adjacent areas which also included the library, and therefore we had to put any further acquisition of new furniture on hold for the time being.

As the results of the project at the Medicine and Dentistry Library in Bergen have shown, we were able to keep up to quite a short timeframe, at least in the first phase of information gathering. Especially satisfying was that we could use different methods for user feedback, and the fact that both social media and old fashioned flip-over gave quick responses on users’ needs and preferences. To use

several ways for feedback from users is highly recommended (8, 9).

Few persons were involved in the beginning, which truly was essential for working efficiently in that phase. However, we learned that we should have involved other colleagues from administration and the finance department earlier in the project for smoother implementation of our findings and more realistic expectations of time frame and possible achievement in the project. In our case there were also other external factors like construction and architectural considerations that were not easy (or not at all possible) to overcome.

Conclusions

We found that it in fact is possible to use evidence-based practice in a busy everyday working situation. The additional time we spent working evidence-based was minimal and manageable, and the results can be reused in another context or project.

As a conclusion for this project, and new projects to come, we will have to plan differently, and include relevant people in an earlier phase. We expect this might make the implementation process easier. Overall, we will try to use evidence-based methods more often for decision-making in other projects in our library.

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