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Nikica Gardijan
ngardijan@unizd.hr

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Library Anxiety: An Overview of Re-Emerging Phenomena

Nikica Gardijan, MA.
University of Zadar, Croatia
University library
ngardijan@unizd.hr

Abstract:

Since 1986, when library anxiety phenomenon was first mentioned by Mellon, numerous scientific papers have been written on this subject. The main purpose of this paper is to analyse and summarize existing scientific literature regarding library anxiety with a special emphasis on academic libraries.

By thorough review of literature authors reached two conclusions. First one being that library anxiety is a real occurrence among university library users and it impairs academic success and second that library anxiety can be prevented or alleviated by librarians.

In this paper we have listed definitions of library anxiety, scales for measuring library anxiety and practical procedures in prevention and alleviation of library anxiety. This paper could have practical implications for academic librarians, library and information science scholars and students.

Keywords: library anxiety, academic libraries, university students, users' behaviour

Introduction

The term anxiety is primarily used in psychology and describes a state of fear or unease that an individual may experience in certain situations. Anxiety is manifested by subjective and physical characteristic (Rathus, 2000).

Subjective characteristics include fear of a certain situation; fear that something terrible will happen, restlessness and the inability to relax, while physical characteristics are manifested by rapid heartbeat and breathing, increased sweating, high blood pressure and gastrointestinal disorders.

As it can be seen from the definition above, anxiety is a state in which individual is not able to perform tasks or function in a certain situation at an optimal level (Vulić-Prtorić, 2003).

In order to understand the topic of this paper, it is necessary to emphasize the difference between anxiety that occurs as a result of an activity, situation or condition (situational anxiety disorder or situational-based anxiety) and generalized anxiety disorder, which is

defined as a state of permanent anxiety that cannot be attributed to an object, situation or activity (Rathus, 2000).

Library anxiety

In this paper we will deal with the library anxiety that is classified as situational anxiety. This is especially emphasized by Mech and Brooks (1995) and Jerabek, Meyer and Kordinak (2001). These authors concluded that library anxiety is a form of situational-based anxiety and that it cannot be related with generalized anxiety disorder because it occurs only in situations when users contemplate about using the library or use the library at the moment when anxiety occurs.

Before defining library anxiety, it is necessary to provide an insight into the broader context of school/academic anxiety, from which, among other forms of anxieties, library anxiety arises.

School/academic anxiety is defined as a fear of school/academic obligations and it is manifested by academic procrastination (postponement of academic obligations) and feelings of apprehension towards academic obligations, fear of social evaluation of colleagues, constant concern for academic success and fear of teachers and school environment (Hooda & Saini, 2017).

Considering that this paper primarily intends to reach librarians employed in university libraries as well as other university staff we will use the term academic anxiety.

Some authors use the term academic related anxieties or academic anxieties where they, by using plural of the word anxiety, try to emphasize the opinion according to which academic anxiety is actually a set of several different anxieties from which academic anxiety consists of. (Jan, Anwar & Warraich, 2017, 2018).

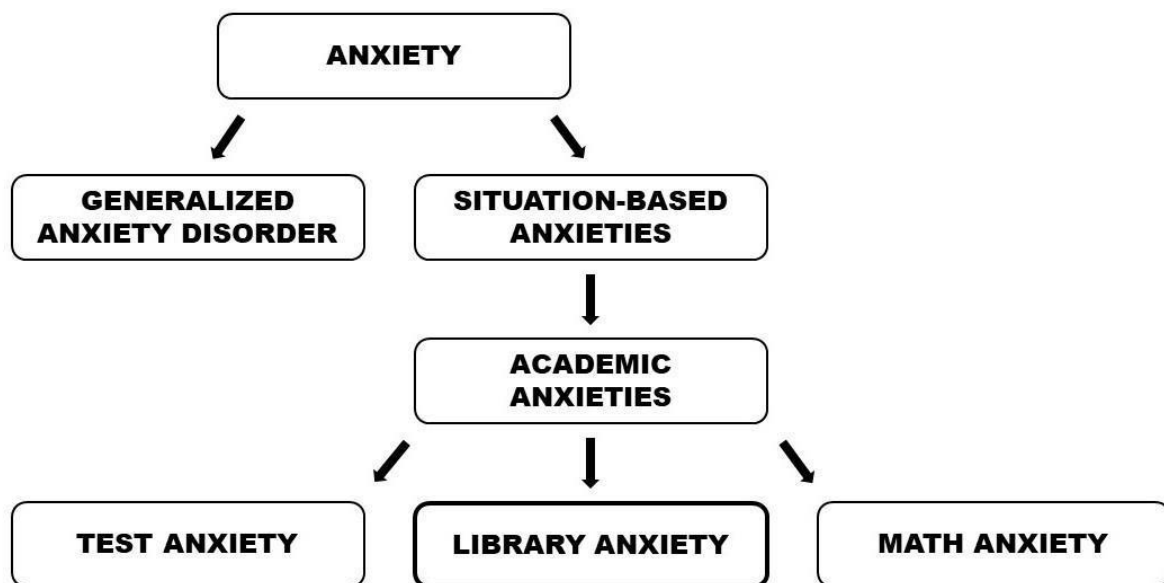
Cassady (2010) uses the term academic anxieties and describes it as a set of anxieties that students may experience in an academic environment.

Most authors who studied academic anxiety conclude that students who experience this type of anxiety tend to have poorer results and are more prone to academic procrastination than peers who do not experience academic anxiety (Hen & Goroshit, 2014).

Academic procrastination is defined as a voluntary postponement of activities related to learning and fulfilling academic obligations despite the fact that postponement will further worsen the end result. This postponement occurs to more than 70% of students (Hen & Goroshit, 2018).

Conclusion stated above is confirmed by Jiao and Onwuegbuzie (2002) by arguing that library anxiety is one of the most common forms of academic anxiety that most students experience in one period of schooling.

The illustration below shows the hierarchical relationship between situational and academic anxieties and library anxiety.



The problem of students' fear of the library was first documented by Constance A. Mellon after she conducted library study at the University of East Carolina in the United States of America and concluded that 75 to 85% of the 6,000 students surveyed expressed feelings of fear and anxiety when they needed to use the library (Mellon, 1986).

After two years of research, Mellon concluded that students repeatedly experience feelings of fear, discomfort, helplessness, insufficient knowledge, and loss and shame when thinking about using the library or while using it. Linking the results of her research with the already

known concepts of mathematical and exam anxiety, Mellon coined the term library anxiety (Mellon, 1986).

Although she does not provide an exact definition, Mellon mentions feelings of fear, discomfort, helplessness, lack of knowledge, loss and shame. All future definitions of library anxiety are based on these Mellon's findings (Mellon, 1986).

Mellon cites four fundamental factors that students point to as sources of library anxiety:

1. Amazement by the size of the library
2. Ignorance of the organization of the library and disorientation in the library space
3. Lack of self-confidence at the beginning of the research
4. Fear of seeking help from a librarian (Mellon, 1986.)

Mellon also suggests the possibility of paying attention to the occurrence of library anxiety and its prevention in courses dealing with information literacy by pointing out to students that feelings of fear, insecurity, frustration and doubt are an integral part of the process of seeking information (Mellon, 1986).

Kuhltau (1988) developed a six-stage Information Search Process and concluded that feelings of fear, uncertainty and frustration are natural occurrence during the information retrieval process. Kuhltau had also cited Mellon (1986) while setting the theoretical framework for ISP and in consequent study concluded that feelings of fear and uncertainty reach their peak in the early stages of the information process when students have vague ideas about the topic they are researching (Kuhltau, 1991).

Comparing the results and conclusions of these three papers, we can say that Kuhltau in 1988, and especially in 1991, confirmed the theoretical framework of library anxiety set by Mellon in 1986, reaching the same conclusions when talking about feelings of fear, insecurity and lack of self-confidence during the information process (Mellon, 1986; Kuhltau, 1988, Kuhltau 1991).

Following the work of Constance A. Mellon, which is considered as the first formal study on library anxiety (Van Kampen, 2004), the interest of other scientists in researching this phenomenon has been induced.

Mech and Brooks were exploring library anxiety phenomenon at two occasions and defined it as a form of situation-based anxiety that occurs when a library users contemplate about using the library and library services or when they uses them.

Furthermore, Meech and Brooks argue that the occurrence of library anxiety does not depend on students' academic abilities and that it is possible to record the occurrence of library anxiety in excellent students (Meech & Brooks, 1995) as well.

The most prolific researchers of library anxiety, Qun G. Jiao and Anthony Onwuegbuzie, who have published more than twenty scientific articles on library anxiety (Vernon, Evans & Frissen, 2016), defined library anxiety at two occasions; first as an uncomfortable feeling or emotional disposition experienced in a library setting, which has cognitive, affective, psychological and behavioural ramifications (Jiao, Onwuegbuzie & Lichtenstein, 1996) and later as a feeling of discomfort and concern that occurs in the library environment and is manifested by physical, cognitive and social characteristics. Physical characteristics include rapid heartbeat, rapid and intermitted breathing, elevated blood pressure and facial flushing, while cognitive and social characteristics include feelings of fear, frustration, and helplessness (Jiao & Onwuegbuzie, 1997).

From the definitions above, it is evident that Jiao and Onwuegbuzie also considered library anxiety as a form of situational-based anxiety and by this Jiao and Onwuegbuzie have confirmed conclusions previously made by Mech and Brooks (1995) and Jerabek, Meyer and Kordinak (2001).

Shoham and Mizrachi (2001), during their research among Israeli students, also concluded that library anxiety is a form of situational-based anxiety.

High levels of library anxiety are characterized by feelings of fear, tension and discomfort that result in confusion within the physical space of the library, (e.g. when searching for books or magazines, anxious users may overlook a system of instructions and signs or misinterpret them (Keffer, 1993), hesitate to seek help from librarians (Kuhltau, 1991) or give up the search for information before achieving required result (Jiao & Onwuegbuzie, 1997).

Furthermore, high level of library anxiety reduces existing skills and makes it more difficult to acquire new ones needed to develop information literacy (Jiao & Onwuegbuzie, 1997).

Correlation between library anxiety and information literacy was pointed out by Battle (2004), Kwon, Onwuegbuzie and Alexander (2007) and Birch (2012).

All these authors concluded that user education, based on teaching and developing critical thinking, which is an integral part of information literacy, reduces library anxiety. This is confirmed by Gross and Latham (2007) and Kwon (2008) who developed a model of the relationship between critical thinking skills and library anxiety.

Based on conducted quantitative research, Jiao and Onwuegbuzie concluded that, users who feel physical and/or emotional discomfort when using the library feel the same level of library anxiety regardless of the complexity of the task they came to the library with. According to Onwuegbuzie, Jiao and Bostick, the users feel the same level of library anxiety whether they just return the borrowed title or come to the library due to a complex information query (Onwuegbuzie, Jiao & Bostick, 2004).

Both Mellon (1986) and Kuhltau (1991) agree with this conclusion and also argue that the complexity of the task the users want to perform in the library does not correspond with the level of library anxiety that users feel.

The first comprehensive scientific monography on library anxiety was published by Jiao, Onwuegbuzie and Bostick in 2004 in which they define library anxiety as a feeling of discomfort or emotional disposition that occurs in a library environment and has cognitive, affective, physiological and behavioural consequences (Jiao, Onwuegbuzie & Bostick 2004).

Jiao, Onwuegbuzie, and Bostick (2004) see library anxiety as part of a continuum with people with a high degree of library anxiety at one end and people who show no signs of library anxiety at the other end.

Users with a high level of library anxiety describe their use of the library as a distinctly negative experience (Flitosos, 1992) doubting their ability to use the library, they are reluctant to ask questions to librarians and feel emotions of shame and worry (Onwuegbuzie, Jiao & Bostick, 2004).

Given the hesitation that such users feel towards talking about their problem, teachers and librarians sometimes overestimate their skills by misinterpreting their silence as the sign of their ability to find what their need even though it is just the opposite (Jacobson, 1991).

Non-anxious library users are at the other end of the imagined continuum and they are characterized by completely opposite characteristics. Such users use the library as a place to learn and socialize with friends, feel free to ask librarians for help, and cope better with the obstacles they encounter during the information process (Onwuegbuzie, Jiao & Bostick, 2004).

Jiao and Onwuegbuzie (2002) claim that for most students the ability to use the library, library services and information resources is vital to achieve and maintain a high level of academic achievement and their research shows that about 95 percent of undergraduate students in the United States often procrastinate due to difficulties associated with library anxiety while that figure drops to 60 percent at graduate level (Onwuegbuzie & Jiao, 2000).

An important predictor in whether an individual will develop library anxiety is played by self-confidence and self-perception, which Jiao and Onwuegbuzie (2002) also point out, arguing that students who feel library anxiety consider their colleagues much more skilled in using the library and perceive themselves as unskilled and less valuable.

This shows the connection between emotional intelligence and the possibility of developing various forms of academic anxieties, including library anxiety, so McAfee (2018) writes about the feeling of shame that occurs in people who feel library anxiety, providing a thorough insight into the emotional component of library anxiety.

Hosseini, Khosravi and Jahromi (2014) conducted a study on the relationship between emotional intelligence and library anxiety amongst Iranian students and concluded that students with a high level of emotional intelligence feel less library anxiety than their colleagues whose emotional intelligence is not so developed.

Based on research conducted among Korean students by Eui-Kyung Oh (2012), Vernon, Evans and Frissen (2016) examine the relationship between personality traits and library anxiety among undergraduate students and Black (2016) concludes scientific review paper by stating that encouraging fact could be that reviewed literature suggests that relatively quick and simple social and psychological interventions can significantly improve users' attitudes towards learning and seeking help.

Over the years, numerous researchers have shown interest in researching library anxiety. Among others, significant scientific papers on library anxiety have been written by Bostick (1992), whose work will be discussed in the next chapter, Keffer (1993), Shoham and

Mizrachi (2001), Van Kampen (2004), Cleveland (2004), Noor and Ansari (2010), Swigon (2011), Lawless (2011), McPherson (2015), Konstantions-Anastasios, Provata and Vraimaki (2015), Holmes-Ramirez and Biglu, Ghavami and Dadashopur (2016), Shehata and Elgllab (2019), Mohammed, Moda Yerima and Ahmed (2019) while the most recent scientific paper regarding the library anxiety is written by Lund and Walston in June 2020.

Heather Carlire (2007) writes a review scientific paper on library anxiety with special emphasis on the role of information service in the library in the prevention and reduction of library anxiety.

Carlire covers a twenty-year period of library anxiety research (1986-2006) and makes a valuable contribution to future researches by reviewing the existing literature and especially by tabulating library anxiety researches published so far by listing the number of original scientific articles, qualitative and quantitative research and used research methods.

In this part of the paper we explained the origin of the term library anxiety and how it was coined, defined academic and library anxiety and gave an overview of the most important researches conducted on library anxiety. Furthermore, we explained how library anxiety manifests and listed the main sources of library anxiety.

In the next part we will provide an overview of the scales for measuring library anxiety and list the most important quantitative researches on library anxiety.

Measuring library anxiety

After Mellon's conclusion in 1986 that students experience emotions of fear, uneasiness and apprehension when using the library or when contemplating about using the library and named this phenomenon library anxiety, there was a need to develop a tool to credibly measure the level of library anxiety among library users. Actually, Mellon's work sets the theoretical framework of a theoretical nature on library anxiety but makes no suggestions on how library anxiety could be measured.

Jacobson (1991) conducted a semi-experimental study exploring the differences between genders when using computers in libraries and for the purposes of the research developed the first scale for measuring library anxiety.

Jacobson developed seven-point Likert scale instrument divided into four four-statement scales as follows:

- library anxiety
- computer anxiety
- using computers for library research anxiety
- general interest in using computers for library research

According to Jacobson, this scale was created in order to measure students' level of confidence and sense of well-being in using libraries, computers, and computers for library research.

Furthermore, Jacobson found created scale to be highly reliable considering Cronbach Alpha factor ranged from 0.725 to 0.992 (Jacobson, 1991).

Although Jacobson attributes the peculiarities characteristic for library anxiety to only four out of sixteen statements in created scale, Anwar et al. (2011) concluded that in fact twelve out of sixteen statements refers to library anxiety.

Jacobson did not pursue the research of library anxiety any further, but never the less, the created scale can be considered a precursor to all future scales for measuring library anxiety despite not remaining in permanent use.

As a part of PhD dissertation, Sharon Lee Bostick (1992) designed a study to determine whether a quantitative tool can be developed to accurately and adequately measure the construct of library anxiety.

Bostick concludes that library anxiety is multidimensional construct composed out of different interrelated categories.

Based on these conclusions, Bostick created and validated scale for measuring library (*Library Anxiety Scale or LAS*). LAS consist of 43 statements divided into five factors and it is designed as a five points Likert scale instrument.

Statements are divided into four following categories each of which corresponds to one of the components of library anxiety:

- barriers with staff – users perceive the library staff as intimidating, unapproachable and too busy to help (15 statements, CA 0.90)

- affective barriers – users regard their skills of using the library and its services as inadequate (low level of self-confidence, users regard themselves as incompetent or less valuable in comparison to colleagues who have more skills in using the library and its services) (12 statements, CA 0.80)
- comfort with the library - how comfortable and welcome the users feels in the library environment (8 statements, CA 0.66)
- knowledge of the library – how well the users are acquainted with the library space (rooms layout, locations of information desks, location of certain book sections etc.) (5 statements, CA 0.62)
- mechanical barriers – level of users’ skills regarding the use of technology in the library such as computers, printers, copy machines etc.) (3 statements, CA 0.60)

From the components above, it is evident that Bostick (1992) was guided by the characteristics of library anxiety that Mellon (1986) listed when determining the components of library anxiety.

Total Cronbach’s alpha coefficient for Bostick LAS is 0.80 which confirms the satisfactory internal consistency of the scale, while Pearson’s correlation coefficient between the five categories is 0.74, which shows that there is a medium strong correlation. On the basis of these values, Bostick considers the scale valid (Bostick, 1992).

From the previously written analysis of the Bostick scale, it can be seen that only three claims refer to the technological component of library anxiety, i.e. technological barriers, which is slightly more than six percent of the total number of claims.

This very fact is the reason why some researchers have declared the scale created by Bostick obsolete and tried to modernize it by expanding the fifth component or create new, up-to-date scales for measuring library anxiety.

Development of World Wide Web and uprising of Internet made the fifth component of the Bostick scale anachronistic. Progress made in evolvement and availability of information technology and resources has dramatically changed all information activities, i.e. the ways we gather, organize, store, keep, search and browse information (Saracevic, 2007).

Taking into account this conclusion, and after electronic catalogues, computer databases, digitized and digitally born books and social networks entered the daily use of librarians and users, it is clear that the technological component of library anxiety research tools had to be

updated in line with new technologies and trends that place libraries increasingly in virtual space in addition to the physically tangible space.

Shoham and Mizrachi (2001) have translated original LAS into Hebrew and reduced the number of items from 43 to 35 to make the scale better reflect cultural differences between the USA and Israel.

Shoham and Mizrachi do not state the criteria by which they have determined which claims they will omit. Shoham and Mizrachi name this modified scale for measuring library anxiety H-LAS (*Hebrew-Library Anxiety Scale*). H-LAS is divided into seven categories which Shoham and Mizrachi name factors:

- staff factor - refers to how users perceive librarians and whether they find them approachable (CA 0.75)
- knowledge factor - refers to how users rate their own library and library services use skill (CA 0.77)
- language factor – refers to the level of discomfort among users when required to search and use learning materials written in English language (CA 0.76)
- physical comfort factor – refers to how much physical space of the library affects the pleasure of the user’s stay in the library (CA 0.60)
- library computer comfort factor – do the users perceive computers in library as reliable and what is the quality of the instructions for their use (CA = 0.51)
- library policies/hours factor – refers to library hours and other regulations that may affect users (CA = 0.45)
- resources factor – refers to the level of users certainty that they will find resource they need in the library (CA = 0.52)

Authors state that the research of Israeli undergraduate students concluded that library anxiety exists among respondents even though there are no cases of extreme anxiety and that respondents experience the highest level of library anxiety when searching and reading literature in a foreign language (Shoham & Mizrachi, 2001).

Anwar et al. (2004) concluded that due to cultural and economic differences between countries, it is necessary to create a separate scale for different cultural group and developed K-LAS (*Kuwait-Library Anxiety Scale*) that consisted out of 34 items divided into four categories. In comparison to Bostick’s scale, Anwar et al. dropped nine statements: four

relating to personal safety because safety was not a problem at Kuwait University, three relating to mechanical barriers because Kuwait University libraries use magnetic token-operated copying machines and change machines are not needed, one relating to confusion in the library because it was considered to involve much more than library and one relating the space in the library because university library buildings are new and have more than enough space (Swigon, 2011).

K-LAS is divided into four factors:

- staff approachability (CA = 0.91)
- feelings of inadequacy (CA = 0.79)
- library confidence (CA = 0.78)
- library constrains (CA = 0.71)

According to Swigon (2011), Anwar et al. (2004) modified the placing of more than 40% of statements in order to improve Cronbach's alpha value of the scale.

While researching library anxiety among doctoral students, Van Kampen (2004) concluded that the original scale for measuring library anxiety created by Bostick is outdated because at the time of creating original LAS the Internet was not widely used, information about users' feelings during the information process were scant and database searches were limited to the physical space of the library.

Van Kampen creates a modernized multidimensional scale for measuring library anxiety (*Multi-dimensional Library Anxiety Scale*) based on Bostick's LAS.

M-LAS is a five points Likert scale instrument consisted out of 54 items divided into six categories:

- comfort and confidence when using the library (CA = 0.86)
- information search process and general library anxiety (CA = 0.87)
- barriers concerning staff (CA = 0.73)
- importance of understanding how to use the library (CA = 0.79)
- comfort level with technology and how it applies to the library (CA = 0.73)
- comfort level wile inside the library building (CA = 0.74)

Results obtained by Van Kampen show that respondents do feel library anxiety and that the level of library anxiety reaches its peak during the first and third phases of the information process developed by Kuhltlau (1988, 1991).

Erfannamesh (2011) used M-LAS developed by Van Kampen while examining library anxiety among Iranian students. Also, Efrannamesh, Abrizah and Abdul Karim (2012) developed and validated information seeking anxiety scale.

Following the conclusions from 2004, Anwar et al. (2011) created AQAK scale in order to measure library anxiety among Kuwaiti students. AQAK scale is consisted out of 40 statements divided into five categories:

- information resources (CA = 0.72)
- library staff (CA = 0.84)
- user knowledge (CA = 0.77)
- library environment (CA = 0.75)
- user education (CA = 0.62)

According to Anwar et al. (2011), Cronbach alpha factor is 0.90 and given the obsolescence of the original LAS scale, authors suggest that researchers from the Arabian Peninsula use AQAK scale while researching library anxiety in their countries.

Other quantitative research on library anxiety in which the authors used modified scales to measure library anxiety includes Swigon (2011) who examined library anxiety among Polish students and developed the P-LAS (*Polish-Library Anxiety Scale*), Song et al. (2014) modified original LAS and created C-LAS (*Chinese-Library Anxiety Scale*) and lastly, Konstantinos-Anastasios et al. (2015) examined the library anxiety of Greek undergraduate students and developed the G-LAS (*Greek-Library Anxiety Scale*).

In addition to the aforementioned quantitative research in which researchers used modified scales, other authors also conducted theoretical researches on library anxiety.

Van Scoyoc (2003) examined library anxiety among the USA students, Lawless (2011) among Canadian, Husaini et al. (2012) among Indonesian, McPherson (2015) among New Zealand and Shehata and Elgllab (2019) among Egyptian and Saudi students.

At the end of this chapter, we can conclude that the original scale for measuring library anxiety, despite the evident obsolescence of the fifth component related to the use of technology in the library, is still the most used tool in quantitative library anxiety research.

It is evident that there is a need to develop new, modernized national scales for measuring library anxiety with regard to the development of information technology and cultural and economic differences between countries, but the author's opinion is that all possible new scales should be based on the original scale created by Sharon Bostick 1992.

Shoham and Mizrachi (2001) also corroborate this opinion and point out that their research confirmed the high reliability of the original scale for measuring library anxiety.

Van Kampen (2004) explicitly states that despite its shortcomings, the multidimensional scale for measuring library anxiety (M-LAS) is based on the original Bostick (1992) library anxiety scale.

Alleviating library anxiety

It is proven that certain number of university libraries users feel library anxiety.

Consequently, it is necessary to determine in what ways anxiety can be reduced or completely overcome. In addition to psychosocial factors (Black, 2016), library anxiety can be induced or diminished by factors that librarians can directly influence.

First of all, library can intimidate users by its appearance, size and complexity (Mellon, 1986; Ansari, 2009). The users' perception of the library building and the library collection gained from the initial visit can later affect how often users use the library and library services.

Users who experience library anxiety during their first visit to the library will generally use the library less than users who have not had such an experience (Onwuegbuzie, Jiao & Bostick, 2004).

A clear and informative system of instructions and signs, logical organization of the physical space of the library, guided tours, virtual tours and quality, informative and accessible printed or online library guides and leaflets are the most important tools with which librarians can work to prevent and alleviate library anxiety arising from users' perception of the physical space of the library and a lack of understanding of the services the library offers.

Furthermore, bearing in mind that the development of information literacy and critical thinking skills in users reduces the possibility of developing library anxiety (Jiao and Onwuegbuzie, 1997) and that library anxiety prevents the development of information literacy (Mellon, 1986; Kuhltau, 1988, 1991; Vidmar, 1998; Battle, 2004; Gross & Latham, 2007; Carlire, 2007; Kwon, 2008; Brich, 2012) it is necessary to systematically implement quality educational programs aimed at enabling individuals to recognize the need for information, find it, critically evaluate and finally use the obtained information.

The benefits of a user education are twofold:

1. users become information literate and can use the acquired skills not only in the library but also in meeting all other information needs
2. the implementation of educational programs in the library has been proven to reduce library anxiety (Van Scoyoc, 2003)

In the introduction to this chapter, we have listed two basic factors that influence the development of library anxiety in users, and these are:

- disorientation in the physical environment of the library and insufficient knowledge of the library fund and services
- lack of search techniques knowledge and use of the information sources

Since the information services include direct staff assistance, advice to readers, development of signposts, guides, delivery of selected information from information sources, distribution of information in accordance with anticipated user needs or interests and ensuring access to electronic information (Sečić, 2006), we can conclude that librarians employed in the

information service bear most of the responsibility in designing and implementing procedures that serve to prevent and alleviate library anxiety.

Library anxiety prevention and alleviation through user guidance

Preventing and alleviating library anxiety through user guidance involves procedures that librarians can take to ease users' navigation through the library space, facilitate communication at the user-librarian level and present the library as a comfortable and friendly place where the needed information will be provided by friendly and professional librarians.

Signage and physical environment

Considering that a significant number of library buildings are not purpose-designed, users often do poorly in the library physical environment and thus feel frustrated, which can result in increased library anxiety.

Lighting, furniture arrangement, collection organization, location of information desks, system of signs and instructions for users, level of reading rooms comfort as well as space for group work and quality ventilation system directly affect the positive or negative first impression of users and can reduce or increase library anxiety (Onwuegbuzie, Jiao & Bostick, 2004).

Of all the user guidance procedures stated above, the sign and instruction system is among the most important. From the first moment users find themselves in the library, they need clear signs and instructions on how to get where they want to go. If they don't know what they are looking for or how to find the requested information, it is important that they know where they can search for help or get instructions they need.

Quality system of signs and instructions gives users a sense of security and orientation in the library space. Consequently users' feeling of "wandering" decreases and thus self-confidence increases.

System of signs and instructions serve librarians to instruct users, warn them, or point out to something that librarians consider important. Also, the system of signs and instructions helps to prevent and/or overcome library anxiety that arises as a result of negative perception of the library space and at the same time provides quality information to users who are reluctant to seek help from librarians.

According to Davinson (1980), librarians should keep in mind that a quality system of signs and instructions reduces the number of orientation questions.

Also, it is important to pay attention to the choice of furniture and its placement.

Research shows that anxiety increases the physical distance between people, and two users, unless they know each other, will very rarely sit on the same side of the table (Onwuegbuzie, Jiao & Bostick, 2004).

Considering this fact, it is necessary to provide personal space to users in which they will feel comfortable and undisturbed.

For example, rectangular tables are more suitable for study reading rooms, where users have a clearly defined personal space, while oval tables are recommended for group work and discussions.

Library tours

Although the development of information technologies has greatly changed the way libraries and library services operate, the library still remains and survives primarily as a physical space in which library materials are stored, catalogued, preserved and made available for use. Consequently, in addition to using a system of signs and instructions that users read and interpret, librarians provide users with guided and self-guided library tours.

Oling and Mach (2002) concluded that despite the possibilities of virtual walks through libraries made possible by the advancement of information technology, the most popular way to tour a library is still a traditional guided tour.

Libraries also offer self-guided tours with printed materials or audio recordings, as well as virtual tours.

The advantage of self-guided library tours is that with the help of available printed materials or audio recordings, users can determine the pace at which they will tour the library, stay in a

particular location longer than they would during a guided tour, and return to previously passed location if they conclude that they missed something important to see.

The main disadvantages of self-guided tours are the users' inability to ask questions that might otherwise be asked during the librarian-guided tour.

Also, printed or audio materials, no matter how informative and well-made they are, can never replace the effect of interpersonal communication of librarian and users.

Furthermore, bearing in mind that for organizing independent library tours with audio guides it is necessary to provide adequate electronic equipment, it can be concluded that the organization of such services requires certain financial expenses that most libraries cannot afford.

The development of information technologies to today's level provides libraries with the possibility of organizing virtual walks or tours. With the help of consecutive photos and videos, librarians are able to provide users with a detailed insight into the library space without the need for physical presence of users.

The advantages of virtual tours over traditional guided tours and self-guided tours with the help of printed or audio materials are multiple:

1. In order for the users to use the possibility of a virtual tour of the library, they do not have to be physically in the library space or during the working hours of the library
2. The possibility of a virtual tour of the library expands the circle of potential library users since it does not matter where the users are, but only adequate IT equipment and a stable Internet connection are important for the virtual tour
3. Users whose library anxiety is so severe that they avoid coming to the library at all, can, with the help of well-designed and informative virtual tours, partially alleviate the existing library anxiety

Disadvantages of virtual tours are the impossibility of interpersonal communication between librarian and users, the necessity of owning or accessing quality IT equipment and a stable Internet connection, the lack of pedagogical component related to personal reference to certain features of the library collection and services, complexity and cost of production.

Printed and online guides

Quality system of signs and instructions, comfortable working atmosphere, logically organized space, adequate furniture arrangements and library tours led by a professional and friendly librarian are just some of the procedures that can be carried out in order to prevent and alleviate library anxiety among users.

Printed leaflets, brochures, and guides are often neglected at a time when users mostly rely on the Internet to try to find information despite being proven to help prevent and reduce library anxiety. Onwuegbuzie, Jiao and Bostick (2004) point out that straightforward provision of such materials about library can help alleviate initial library anxiety.

Information leaflets, brochures and guides should contain detailed information about the library such as: opening hours, telephone numbers and e-mail addresses, list of library services, number of user computers, printers, scanners, microfilmed readers and copying machines, information concerning the library fund, information on available databases etc.

Users should be able to find such materials at the entrance to the library or at the central information desk. According to Kelly (2013), some libraries avoid printed materials justifying that with limited funds and decide to publish all information and guides on their websites. DiPrince et al. (2016) claim that websites can only increase the feeling of library noise to new or anxious users. Term library noise is defined by Keffer (1993) as an overwhelming flood of phone numbers, emails, addresses, tags, instructions and indexes bewildering to new users.

Atlas (2005) claims that no website can do for users what a skilled librarian can i.e. to help users understand what they want to know.

Metter and Willis (1993) concluded that quality library handbook saves librarians time by providing users with general information.

The main advantage of electronic guides over printed ones, as well as for virtual tours over guided tours is that users can access them anywhere and anytime, and that electronic guides have a wider reach to potential users than printed ones.

This claim is supported by Castro-Gessner, Chandler and Wilcox (2007) who conducted a study at Cornell University in 2007 when an analysis of Internet addresses (IP Protocol) led to

the conclusion that most readers of the Cornell University Library online guide are people who are not affiliated with Cornell University.

Lastly, library guides can reach users whose library anxiety is so severe that they would never voluntarily access the information desk or participate in education (DiPrince et al, 2016).

Library anxiety prevention and alleviation through reference service

The most important and effective way to prevent library anxiety is a direct contact between librarians and library users, given that in this type of communication with users, where library anxiety is noticeable, communication takes place on a personal level and thus librarian ensures full commitment to one user and their problem.

Librarians at the information desk are usually the ones who make the initial contact with users and thus also represent the person with whom users first come into contact after entering the library.

Librarians should be empathetic, accommodating and professional, and with their way of verbal and non-verbal communication, must let users know that they have the time, knowledge and will to respond to any information request (ALA, 2008).

Depending on these skills, the information desk will be perceived as a barrier between users and the library or it will serve as a point where users overcome certain psychological and other barriers and use the library properly (Onwuegbuzie, Jiao & Bostick, 2004).

According to Westbrook and DeDecker (1993), librarians should do a great deal more to encourage questions from users despite the fact that two studies, focused on users interaction with librarians at reference desk, suggested that users are reluctant to asking questions (Massey-Burzio, 1998 ; Martin & Park, 2010).

Muszkiewicz (2017) states that simple orientation program can help alleviate library anxiety among users and that users judge warmth of the librarian before competence (Fiske, Cuddy & Glick, 2006).

Personal contact factor is also pointed out by Van Scoyoc (2003) who compared the views of students who were taught bibliographic instruction by librarian to those who learned it via computer-assisted instruction. Students who were taught by a librarian reported significantly

less level of library anxiety concerning library staff than their colleagues who attended computer-assisted instruction.

As it is pointed out by Carlire (2007) and Brown (2011), the first step into prevention and alleviation of library anxiety is its acknowledgment and, although some authors consider it inefficient and obsolete, (Bell, 2007) reference desk still remains as a focal point in preventing and alleviating library anxiety.

Library anxiety prevention and alleviation through instruction

One part of the user frustration stems from the cognition that certain information is available in the library either in print (book, magazine) or in electronic form (on-line catalogue, database) but they do not know how to find it. Lack of searching and information evaluating skills can cause a sense of inferiority and impaired self-confidence among users and such users may begin to feel reluctant to use the library.

If the procedures by which users can be taught the adequate use of information sources are not carried out in time, such feelings can turn into library anxiety. Knowledge, affective, information search process and user education factors are pointed out as a vast part of library anxiety construct (Bostick, 1992; Shoham & Mizrachi, 2001; Van Kampen, 2004; Anwar et al., 2004). The most straightforward and effective way to prevent or alleviate library anxiety that occurs as a result of lack of searching, evaluating and proper information usage skills are bibliographic instructions that have been proven to reduce library anxiety and improve information literacy (Mellon, 1986; Kuhltau, 1988, 1991; Vidmar, 1998; Battle, 2004; Gross & Latham, 2007; Carlire, 2007; Kwon, 2008; Brich, 2012).

Although library instruction is offered in all types of libraries, they have a particularly important point in academic libraries since the academic success of students directly depends

on the skill of using library and information sources (Jiao & Onwuegbuzie, 2002).

Taking this into consideration, universities have implemented library or bibliographic instruction sessions or courses in their curricula (Van Scoyoc, 2003). These courses can be elective or compulsory and in most cases they are credit-bearing (Jardine, 2018).

Bearing in mind that progress made in evolvement and availability of information technologies and information resources has dramatically changed all information activities (Saracevic, 2007), it goes without saying that the nature and models of bibliographic instructions has changed as well.

Traditional bibliographic instructions are being augmented, or in some cases, replaced entirely by computer based instructions (Van Scoyoc, 2003).

Although technology has been a driving force for changing the nature and model of bibliographic instructions, concerning library anxiety, the best way to prevent and alleviate library anxiety through bibliographic instructions is when they are led by a librarian. Before, during and after librarian-led bibliographic instruction session, users can ask questions, ask for additional explanations and share their insight, something that is not possible during computer-led session.

Vidmar (1998) reported that students who were exposed to short 10-20 minutes pre-session before bibliographic instruction session felt better about the library and librarians.

Kracker (2002) studied the effects of a 30 minute presentation of Kuhltau's Information Search Process (ISP) and found that 30 minute presentation can significantly increase awareness of emotional states and affective aspects associated with research and thus reduce users' anxiety.

Van Socyoc (2003, p. 337) has found that "students who took part in bibliographic instruction led by library staff member reported significantly less overall library anxiety compared to a

control group who did not participate in either bibliographic instruction or complete computer-based tutorial.”

From the examples stated above, it is clear that computer bibliographic instruction, no matter how well designed they are, can't replace bibliographic instructions led by a skilled librarian, especially when we take into consideration that discovery systems, on which computer based bibliographic instructions rely heavily, may not be as intuitive as we think (Dahlen et al. 2020).

Finally, human interaction is necessary and not even the best computer can replace it (Katz, 1992).

Conclusion

With this paper, we once again tried to sensitize the scientific community to the problem of library anxiety among academic libraries users.

A thorough review of scientific literature has unequivocally proven that library anxiety is a real occurrence and that it has a negative impact on the physical and emotional well-being of users and as well on their academic success.

Library anxiety is feeling of discomfort and concern that occurs in the library environment and is manifested by physical, cognitive and social characteristics. Physical characteristics include rapid heartbeat, rapid and intermitted breathing, elevated blood pressure and facial flushing, while cognitive and social characteristics include feelings of fear, frustration, and helplessness (Jiao & Onwuegbuzie, 1997).

Library anxiety can be measured by library anxiety scales developed first by Jacobson (1991) and later by Bostick (1992), Shoham and Mizrachi (2001), Anwar et al. (2004), Van Kampen (2004) and Swigon (2011).

Authors concur with the conclusion given by Anwar et al. (2004) according to which every country should develop its own library anxiety scale in order to reflect cultural and economic differences between countries.

Most important procedures in alleviating and reducing library anxiety among users are:

- Acknowledging library anxiety
- Education of librarians on library anxiety phenomenon and symptoms of its manifestation so that librarians can recognize library anxious users in a timely manner and act to prevent or alleviate library anxiety
- Provide adequate and user-friendly physical layout of the library (lightning, furniture, reading rooms, ventilation etc.)
- User guidance (signage, printed and on-line library guides, library tours)
- Proactive reference service
- Bibliographic instruction sessions

Lastly, the uttermost important role in prevention and alleviation of library anxiety is the role of the librarian.

Friendly, communicative and skilled librarian is a key factor in prevention and alleviation of library anxiety.

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