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Abstract
This study aimed to explore the frequency of library anxiety among the medical students (first year to fourth year) of Khyber Medical College (KMC), one of the oldest medical institutes of Peshawar, Khyber Pakhtunkhwa, Pakistan. Out of 1500 populations of the study, data were collected from 306 students using a convenient sampling technique. The AQAK library anxiety instrument was used to measure the respondents' library anxiety level and significance differences with respect to respondents' gender and their level/year of study. The study found that the respondents' library anxiety level with respect to ''library staff' were little higher than the 'user knowledge'. This study also reported that no significance difference was found between the male and female students with respect to library anxiety. However, the library anxiety mean score for the first-year students were little higher than the final year students. This study has not only filled a gap in the literature with respect to examining the library anxiety of medical students in the study context, but would also help the competent authority and medical librarians to formulate effective strategic plan to overcome the library anxiety level among the medical students, improve library services and provide users education.

Key words: Library Anxiety; Undergraduate Medical Students; Khyber Medical College; User studies; Khyber Pakhtunkhwa, Pakistan

Introduction and background of the study
Academic libraries are playing a central role in supporting academic activities, formal teaching and learning program. One cannot overlook the library role in accelerating learning and research endeavors. Libraries, to a greater extent, affect the students' learning and their overall academic performance by providing access to the needed information resources (Jan, 2016). However, at the same time, students may feel troubled, anxious and fearful, while utilizing library resources

and services. Such undesirable feelings halt them from exploiting library resources completely, because it keeps them away from using the library resources and services, and that is called library anxiety (Jan, Anwar & Warraich, 2016; Mallen, 1986). Mellon (1986) was the first who introduced the term library anxiety. Her study reports that about 75% to 85% students of different grades described their first response to use/visit library in terms of fear and anxiety. She also found that these adverse feelings frequently overwhelmed students to the stage at which they could not use the library efficiently.

Literature has established that library anxiety has always been a barrier for library users in many disciplines (Jan, Anwar & Warraich, 2016, Rehman, Soroya & Awan, 2014). Educational institutions and research organizations might offer students the experience of anxiety called "academic anxiety", which may be different among various students. The library anxiety is named as one of the sources of anxiety. Most library users have diverse levels of library fear, tension and anxiety when they come across the building of a library or its bulky resources. The main reason of this fear is related to the lack of library search skills, lack of skills in the use of ICTs and the difficulties with library staff. All these can bring out unwillingness among the users to use libraries (Jiao & Onwuegbuzie, 1998). It is also defined as, "a*ny negative emotions such as fear, worry, uncertainty, uneasiness, lack of ability and frustration regarding library use, resources, staff and environment*" (Jan, Anwar & Warraich, 2016). This definition has been taken as an operational definition of library anxiety in this study.

Library anxiety will lead users, when presenting at the library, to feel uneasy and uncomfortable and consequently leaving the library before finishing their search for information or feel less interest in library use (Higgins, 2001). Cleveland (2004) found that students with high library anxiety level have 2.5 times less library use as compared to the other students. Similarly, Kampen (2004) reported that 95% of students delay their research work due to library anxiety. All kinds of library users may encounter library anxiety with different levels, among which academic library users have been studied more scientifically (Jiao & Onwuegbuzie, 1998). People related to libraries have felt the need to measure such anxieties quantitatively. Thus, several quantitative tools were developed by library researchers (Carlile, 2007). The first such tool was developed by Bostick in 1992 known as Bostick Library Anxiety Scale followed by Multidimensional Anxiety Scale developed by Kampen in 2004. The latest is the AQAK Scale which was developed by Anwar *et al. (*2012) and his research team.

Khyber Medical College (KMC) is one of the best and the oldest medical institutes in the Khyber Pakhtunwha (KP), Pakistan located at the University of Peshawar campus. Its foundation stone was laid by Ghulam Mohammad, Governor General of Pakistan. This college took start in 1955 with an enrollment of about 50 students. At present KMC registers about 250 students per year. This college now also offers MS/M.Phil level education in almost all basic medical disciplines. KMC is affiliated with Khyber Medical University (KMU) and has well-established medical facilities where courses on different subjects are organized periodically. It has also well-established libraries consisted of one central library and three seminar libraries. Its central library has three portions, which includes lending department, reference department, and the periodical department. The library is equipped with all physical facilities having well-furnished air-conditioned system, carpeted halls, a magnificent building with a rich collection of books and journals in order to meet the students and the teachers' information needs. It has been observed

that library users, especially medical students felt lost, overwhelmed and unable to locate their needed information from the library. The present study, therefore, researched the reasons of library anxiety among undergraduate students of KMC, which is one of the renowned medical colleges in Pakistan. In the present study AQAK Library Anxiety Scale was used to know the overall library anxiety 'level' and assess the differences in library anxiety levels based on gender and study levels among the undergraduate medical students enrolled in KMC Peshawar.

Literature Review

Overview of Library Anxiety Scales: Using Mellon's theory, Bostick (1992) developed a reliable tool for the quantitative measurement of library anxiety. He, after going through several extensive studies, developed an instrument popularly known as the LAS. The instruments consisted of five factors and 43 statements. Due to its validity and reliability, the instrument was used by many researchers in their studies (Collins & Veal, 2004; Van Scoyoc, 2003). Some researchers like Anwar et al., (2004) and Kampen, (2004) is of the opinion that LAS was developed many years ago, and due to the dynamic changes in the library and academic environment, it is now outdated and be replaced with an up-to-date library anxiety scale. Kampen (2004) surveyed PhD scholars to establish and confirm another library anxiety scale called Multidimensional Library Anxiety Scale (MLAS). Due to rapid technological development in libraries, LAS could not serve the purpose well. Therefore, MLAS was developed which was an advanced version of LAS. This scale consisted of six factors with fifty-three statements. Likewise, Anwar, AL-Qallaf & Al-Kandari (2012) also developed an improved version of LAS. This version contained 34 statements. Unfortunately, this version also didn't cover all areas of recent library trends; therefore, soon the need was felt for the development of new and effective library scale which led to the development of AQAK Library Anxiety Scale.

The AQAK Library Anxiety Scale was developed by Anwar et.al in late 2012. They used undergraduate students of Kuwait University as study participants and primarily gathered 1512 library anxiety related statements. These statements were put for discussion before a group of experts. After a thorough discussion, it was finally decided to reduce the number of statements to eighty. After a pilot study, fourteen statements were dropped out due to their irrelevancy. Similarly, in 2nd and 3rd phases 26 more statements were dropped out due to the same reason. After a long and difficult process, a novel library anxiety instrument, having 40 statements was ready which was divided into 5 factors consisting of Library Staff, Library Resources, User Education, Library Environment and User Knowledge.

Library Anxiety: Hassan Ashrafi-Rizi (2014) conducted a study on library anxiety in two different Universities of Iran. He examined the factor affecting library anxiety of all students of Isfahan University of Medical Science (IUMS) and Shiraz University of Medical Science (SUMS). Major findings indicated that students of IUMS scored 2.68 and SUMS scored 2.66, which were found to be above average. Furthermore, there was no such effect of library anxiety on age and gender of the students in IUMS, but in SUMS gender had a meaningful library anxiety effect, while age had no such effect. He recommended that it is essential to acquaint students with academic libraries in the initial stage and suggested regular workshops in information literacy, user education, searching techniques, online information search etc. To familiarize university students with academic libraries, these methods can also be used to reduce their levels of library anxiety

Library anxiety has been the focus of study in many countries of the world, particularly in the developing countries of Asia, but after going to the literature review, it was found that only a few studies have been conducted in Pakistan. For example, Asghar and Bhatti (2017) explored library anxiety amongst university students of the Punjab Pakistan. A Questionnaire was designed by the combination of Bostick's Library Anxiety Scale and Abusin Anxiety and Avoidance Model (SLAAM) for data collection. Participants were 292 post-graduate students and found that library anxiety was not co-related to student's gender, institute and semester of the students. The students felt anxious due to the lack of motivation to use the library. The results indicated the main reasons of non-use of the library by students was non-cooperative behavior of 'library staff', lack of resources, and non-availability of CAS/SDI and abstracting and reference services. The study found no significant difference in the level of library anxiety based on gender. Consequently, Jan, Anwar and Warriach (2016) conducted a study on library anxiety of undergraduate students. They examined the connection between library anxiety, library usage and educational performance using AQAK library anxiety scale. Data were collected from 725 undergraduate students of various disciplines of three different universities, including Engineering, University of Peshawar and Agriculture University Peshawar. The study reported that the students who did not use the library, performed poorly in their studies. They concluded that proper use of library's information resources helps to improve academic performance.

Rehman, Soroya and Awan (2014) examined the students' library anxiety of Punjab University, Lahore. Participants were 550 undergraduate students of 1st to 4th semesters from different departments of the University of Punjab, Quaid-e- Azam Campus, Lahore. The study used AQAK Library Anxiety Scale of Anwar et al. The study found no significant difference in the level of library anxiety based on gender. The study further reported that Pakistani students were more library more anxious than the foreign students, and the first semester undergraduate students were slightly high library anxious from 'information resource' and 'library staff' as compared to the fourth semester students. The findings also revealed that the first semester, students also had little high 'user education' anxiety than second and fourth semester undergraduate students.

Zainab (2010) surveyed library anxiety as a psychological barrier that encounter students when they used the library. The population of the study consisted of 51 Sudanese University Students. Data were collected with the help of diary method. The majority of the findings indicated that the library anxiety of the students was divided into five dimensions: (a) Negative Perception toward Library Environment, (b) Negative Perception toward Peer Students, (c) Opposing perception toward Library Staff (d) Opposing perception towards Library Services and (e) Psychological Barrier. The findings indicated that 88.2% felt anxious when they use academic library and 45% students expressed library avoidance behavior. Similar findings were also reported by Karim and Ansari (2017) when they conducted their study on library anxiety for BS students of the University of Malaya.

Jiao, Onwuegbuzie and Bostick (2004) explored the library anxiety of Caucasian-American and Afro-American students. It was a comparative study of the two races about library anxiety. The instrument used in this study was LAS. The study used canonical discriminant analysis technique. This type of technique helps to understand library anxiety dimensions in two different racial groups. The study reported a high level of library anxiety among the Caucasian-American respondents which were found to be associated with all dimensions except mechanical barriers. The findings of the study reported that library anxiety has a racial perspective as well. The result of the study proved that race is an environmental antecedent of library anxiety. Similarly, Jiao

and Onwuegbuzie (1999) studied library anxiety of college students in the United States. They examined the association between library anxiety and trait anxiety. The study used LAS and STAI (State Trait Anxiety Inventory) of Spiel Berger et al. (1968). The study found no association between library anxiety and trait anxiety. The study proposed that LIS professionals and educators should take an action research approach in order to address library users' effective informational needs.

Objectives of the study
Following are the objectives of this study:
- To explore the different 'levels' of library anxiety among KMC students.
- To examine the statistically significant difference among KMC students based on their gender.
- To examine statistically significant difference exists among KMC students based on their year of study.

Methodology
This study used a descriptive survey research method in order to achieve the study objectives. The population of this study consists of 1500 male and female students of KMC enrolled in the first year to final year (five years). A sample of 306 students was selected using Raosoft sample size calculator. The convenient sampling technique was used in this study. The AQAK library anxiety was used in the study, which was especially developed for undergraduate students and having 90% reliability. This scale of forty statements was assembled into 5 factors, *i.e. library staff, informational resources, user knowledge, library environment and user education*. Each of these statements measure library anxiety on a five-point Likert scale formula ranging from 1 to 5 (Anwar, et al., 2012). The criterion used by Ahmad, Ameen and Ullah (2016) has been used for measuring levels of library anxiety based on the mean value/score. Thus a five point Likert type scale having the following labels was used to measure the 'overall' and 'factor-wise' library anxiety of the undergraduate medical students based on a mean score, where 1= No anxiety, 2 = Low anxiety, 3 = Mild anxiety; 4 = Moderate anxiety, and 5=Severe anxiety. Moreover, a demographic portfolio was prepared to collect data from the study participants about their sex, age, and the year of study.

Reliability Analysis of AQAK Library Anxiety Scale: To check the reliability of AQAK scale in the present study, Cronbach's Alpha value was calculated using SPSS 20 which was found to be .84 as shown in table 1. The CA value of the five factors of the AQAK scale in this study were also found good in all its factors advocating that the scale was enough reliable.

Table 1

AQAK Reliability Scores

Information Resources	.528
User Education	.738
User Knowledge	.621
Library Environment	.609
Overall Reliability	.841

Results

Demographic Information: The data presented in Table 2 show that more than half of the respondents were male (54.4%) followed by female (45.6%). The data of year-wise distribution of the respondents shows that 16.3% of the respondents were enrolled in 1st year, followed by 38.1% in 2nd year, 12.1% in 3rd year, 17.2% in 4th year, and 16.3% in the final year.

Table 2

Demographic Characteristics of the Respondents (n=215)

Group	Frequency	Percentage
Gender		
Males	117	54.4
females	98	45.6
Year of study		
1st year	35	16.2
2nd year	82	38.1
3rd year	26	12.1
4th year	37	17.2
Final year	35	16.2

Factor-wise Library Anxiety of the Respondents: The results presented in Table 3 show that the overall mean of the library anxiety score for 306 students is 2.96 with a standard deviation of 0.27. The mean score 2.96 of the library anxiety is closer to 3.0 which is the neutral value on the AQAK library anxiety scale. This score falls in the range of mild anxiety. Thus, it can be concluded that on an average all the undergraduate medical students of KMC possessed a mild level library anxiety.

Table 3

Descriptive Statistics of Overall Library Anxiety (n=215)

Statistics	
Mean	2.96
SD	0.27

The result of the sub factors of library anxiety is given in Table 4. It was found that respondents with a mean score of 3.19 and 3.18 had little high anxiety regarding 'library staff' and 'user education' respectively. On the other hand, the sub factor 'user knowledge' remained the smallest source of library anxiety with a mean score of 2.53. Consequently, the overall result

showed that the sub-factor 'library staff' remained the highest, whereas 'library environment' and 'user knowledge' were the lowest causes of library anxiety.

Respondents' gender-wise library anxiety: The findings in Table 5 show that there was no significance difference between male and female respondents regarding overall library anxiety (m=2.95, SD=0.28 and m=2.96, SD=0.27, respectively) with -215, .159 and p=0.692 scores. Furthermore, it was found that there was no significant difference between respondents' gender and sub-factors of library anxiety (Table 6).

Table 4

Factor-wise Descriptive Statistics for Library Anxiety (n=215)

S.no.	Sub-factors	Mean (std.)
1.	Library staff	3.19 (.40)
2.	User education	3.18 (.52)
3.	Information resources	3.06 (.38)
4.	Library environment	2.92 (.44)
5.	User knowledge	2.53 (.29)

Table 5

Gender-wise Descriptive Statistics for Overall Library Anxiety

Gender	N	Mean	Std. Deviation	Sig.(2-tailed)
Male	117	2.95	0.28	0.692
Female	98	2.96	0.27	

Note: statistically significant (p<.05)

Table 6

Gender-wise Descriptive Statistics for Factor-wise Library Anxiety

S. No	Sub-factor of LA	Gender	Mean(std.)	Sig.(2-tailed)
1	Library staff	Male Female	3.16(.40) 3.23(.40)	.163
2	User education	Male female	3.14(.53) 3.24(.51)	.128
3	Information resources	Male female	3.06(.36) 3.06(.40)	.957
4	Library environment	Male female	2.93(.46) 2.92(.42)	.850
5	User knowledge	Male female	2.55(.30) 2.51(.29)	.336

Note: statistically significant (p<.05)

Respondents' library anxiety levels based on their year of study: Results in Table 7 depicts that the overall library anxiety mean score for the first year students was comparatively higher (M= 2.99, SD = .26) than the final year students (M=2.90, SD= .29). It means that the first year students were more anxious as compared to final year students. The overall mean score for other groups based on year of study was closer to each other showing that, there was minimal difference in respondent's mean score regarding overall library anxiety.

Table 7
Overall Library Anxiety based on Respondents' Year of Study

S.no.	Year of study	Mean (std. Deviation
1.	First year	2.99(.26)
2.	Second year	2.97(.25)
3.	Fourth year	2.95(.30)
4.	Third year	2.92(.29)
5.	Final year	2.90(.29)

Factor-wise library anxiety based on respondents' year of study: Mean score of respondents' years of study was calculated with the sub factors of library anxiety (Table 8). It was found that the mean score of 1st year students (M=3.26, SD =. 42) about *'library staff'* was higher than the final year students (M=3.05, SD=.45), followed by a mean score of 1st year students (M = 3.14, SD =.31) regarding *'information resources'* was little higher than the final year students (M=3.03, SD=. 36). Similarly, the mean score of 1st year students (M=3.21, SD=.52) was higher than the final year students (M=3.03, SD=.53) about *'user education'*. About 'user knowledge' the mean score of 1st year students (M=2.60, SD=.29) was a bit higher than the final year students (M = 2.57, SD=.31) and the mean score of 1st year (M= 2.82, SD=.48) and final year students was (M=2.82, SD=.53) almost the same regarding 'library environment', showing no difference in mean scores. Hence, the results show that the first year students are more anxious than the final year students with regard to 'library staff', 'information resources', and 'user education'.

Table 8
Factor-wise Library Anxiety based on Respondents' Year of Study (N=215)

Factors of LA	Year of study	Mean(std.)
Library staff	First year	3.26(.42)
	Second year	3.22(.36)
	Third year	3.13(.40)
	Forth year	3.23(.41)
	Final year	3.05(.45)
Information resources	First year	3.14(.31)
	Second year	3.05(.40)
	Third year	3.09(.39)
	Forth year	3.04(.41)
	Final year	3.03(.36)
	First year	2.60(.29)

User knowledge	Second year	2.52(.28)
	Third year	2.50(.32)
	Forth year	2.47(.28)
	Final year	2.57(.31)
Library environment	First year	2.82(.48)
	Second year	3.00(.36)
	Third year	2.87(.39)
	Forth year	3.00(.47)
	Final year	2.82(.53)
User education	First year	3.21(.52)
	Second year	3.25(.50)
	Third year	3.15(.52)
	Forth year	3.18(.56)
	Final year	3.03(.53)

Discussions

The findings of this study concluded that the medical students of KMC had a mild level of library anxiety related to overall five factors. This finding supports the finding of Rehman, Soroya and Anwar (2014), who found that undergraduate students felt mild library anxiety. This finding also confirmed the finding of Anwar *et al*. (2004), who reported that 72% of students in Kuwait experienced mild anxiety. This finding was consistent with the findings of Jan, Anwar and Warriach (2016). They reported that a majority (72.1%) of the respondents experienced mild library anxiety. The finding regarding overall library anxiety was not in line with the findings of Jan, Anwar and Warriach (2016), who found male students were more anxious than females. This finding has also disagreed with Jiao and Onwuegbuzie (1997) results, who stated that male students had a high level of library anxiety than females. However, this study confirms Rehman, Soroya and Anwar (2014) study, who reported that there was no difference between respondents' gender and library anxiety scores among the undergraduate students. Moreover, the results of this study disagree with the findings of Jan, Anwar, and Warriach (2016), who reported that male students scored higher than female respondents for 'information resources' and 'library staff'. However, this finding is in the line with the finding of Rehman, Soroya and Anwar (2014), who found that there was no gender-based difference for various factors of library anxiety among the undergraduate students in the study context.

The findings of the present study did not match with the findings of Mizrachi and Shoham (2015), who found statistically significant difference between library anxiety and respondents' year of study. The results of the present study are not consistent with the findings of Rehman, Soroya and Anwar (2014), who reported a significant difference in the level of library anxiety based on the level of study (semester-wise). They stated that the students of 1st semester had significantly higher 'user education' anxiety than 2nd semester and 4th semester students. This seems to be the result of the lack of interaction between the library staff and the students, as well as the lack of information literacy programs. International research has identified concerns about the high levels of depression and anxiety among medical students studying in private or public sector medical colleges. The fact is that the present era is the era of information technology and libraries are moving fast in adopting these technologies. Such changes in libraries make the users' library anxious and with this information in hand, it becomes a fact that library anxiety is also prevalent amongst undergraduate medical students.

Conclusion and Recommendations

The current study aimed to explore the library anxiety phenomena among the undergraduate medical students of KMC, Peshawar and found that they had mild library anxiety. The findings for overall library anxiety also indicated that the female students were more anxious than male students. Factor-wise library anxiety findings indicate that they were more anxious for *'library staff'* than other factors. The possession of mild library anxiety among the students may be the result of lake of library instruction programs and or communication gap between the library staff and students. Consequently, this possession of library anxiety can also impact other areas such as library avoidance or non-use of library resources effectively, resulting in poor academic achievements of the students. Further, this study reported that the first year students were more anxious as compared to the final year students. Thus, this study concludes that for the effective utilization of library resources and better academic performance, the students should be free from library anxiety. Based on these findings, this study recommends that the librarians of medical institutes should organize information literacy and orientation programs for medical science students, which will not only result in the improvement of user education but will also serve as a source of reducing students' anxiety. Similarly, the authority should plan effective strategies for bridging the gap between library staff and medical students. Library staff should be trained in organized library collection in such a way that could attract medical students towards using these resources. The teaching staff of medical institutions should assign the students' library related tasks so that they could use the library resources for their information needs. Moreover, trainings on personality development and effective communication skills should be given to library staff so that they could facilitate library users more effectively and efficiently. Further research should be conducted to investigate others factors that affecting medical students' library anxiety.

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