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Investigating the Information Seeking Anxiety and its Relationship with the Thinking Styles: A Case Study

Sajedeh Akbarzadeh¹, Maryam Kazerani (* Corresponding Author)², Maryam Shekofteh³, Parisa Naseri⁴

Abstract

Objective: The purpose of the present research was to investigate the information seeking anxiety of postgraduate students its relationship with the thinking styles.

Methodology: This applied research was conducted through survey-descriptive method. The research population included 315 postgraduate students at The School of Allied Medical Sciences of Shahid Beheshti University of Medical Sciences. The research samples consisted of 173 postgraduate students studying during 2015-2016 academic years. The research instrument was a questionnaire of information seeking anxiety and the thinking styles.

Findings: The results showed that the extent of information seeking anxiety among most of the students was at the average level. There was a significant difference between both genders in relation with the anxiety barriers related to information resources, and anxiety barriers related to the computer and Internet. The hierarchical thinking style had the highest GPA of 19.23 while the internal thinking style had the lowest GPA of 15.8 which made this style to be in the 12th rank. There was a negative significant relationship between the judiciary thinking style and the information seeking anxiety ($p=0.02$, $r=-0.16$). There was a positive significant correlation between the local thinking with the information seeking anxiety ($p=0.02$, $r=-0.17$), between the conservative thinking style and information seeking anxiety ($p=0.001$, $r=0.31$), and between the monarchic thinking style and the information seeking anxiety ($p=0.01$, $r=0.18$). There was a significant difference between various majors in terms of the barriers related to the computer and Internet ($p=0.001$, $t=4.24$), barriers related to the library ($p=0.001$, $t=3.17$) and the total information seeking anxiety ($p=0.02$, $t=2.36$).

Conclusion: It is a need to revisit the libraries' conducts and the information resources. The students had to identify the factors in the information seeking anxiety and their thinking styles so that they could reduce the extent of their information seeking anxiety.

Keywords: Information Seeking Anxiety, Thinking Styles, Postgraduate Students, Shahid Beheshti University of Medical Sciences, School of Allied Medical Sciences.

Introduction

Nowadays the information seeking behavior of human beings has been intensely affected with the advent of information technologies so that they refer not only to the traditional information seeking contexts such as books and periodicals, but also they seek their needed

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information in a broad dimension from the computer, Internet and other information providing technologies (Adhami, 2004; Bowers, 2010; Kwon, 2008; Mai, 2016; Nadzir & Salim, 2015). Therefore, the information seeking is the core activity of all researchers which bears different levels and depths (Wilson, 2000).

People who have the experience of being in a scientific or academic environment may have encountered one or some types of anxieties such as library anxiety, research anxiety, Internet anxiety, computer anxiety and information seeking anxiety. The information seeking anxiety is “a type of fear or anxiety that a person has while searching for an information in the library, information databases, getting ready to have a research and/or even while thinking on the information search” which may affect the information seeking behavior at any levels (Erfanmanesh, Abrizah, & Noor Harun, 2013). In fact, the information seeking is a process that is begun with the information need of a person and is searched, recovered and evaluated in the various steps through different strategies and is used to provide the needed information (Hamzehei, et al. 2018). In this complex process which is the result of interaction between the researcher and information systems, it is possible that various humanistic, technical and environmental factors affect the positive and negative emotions of the researcher (Marchionini, 1993).

On the other hand, any external anxiety factor may produce or exacerbate the negative feelings such as fear, worry, feeling disability, doubt and anxiety during the process of information seeking whether in the library or electronic environments (Hosseini & Erfanmanesh, 2104; Turcotte, York, Irving, Scholl, & Pingree, 2015). Emphasizing the individual aspects of the researchers, (Kuhlthau, 1991) believed that the emotional feelings such as worry, lack of confidence, anxiety, doubt and confusion influence their information seeking behavior. Variation at the level of awareness among users can bring about many difficulties for the researchers because the visitors of information centers possess different levels of culture, social status and specialized literacy rate. This problem is the start point of having different information seeking behaviors (Rieucan & Giraldeau, 2011).

The concept of anxiety in the process of information seeking was first proposed by Kuhlthau in 1991. He was one of the pioneer theoreticians that his pattern ,as the only information seeking pattern, included not only the physical and cognitive aspects but the emotional and affective aspects of a user (Erfanmanesh, 2011). Since most students need to search and use the information to pass the academic modules, and research patterns and projects as well as the thesis, the most common type of anxiety at the university environment is the information seeking anxiety (Erfanmanesh, Abrizah, et al., 2013). The occurrence of information seeking anxiety among students influences the process of searching information so that they may face problems such as inaccessibility to the information, inability to make decisions and the lack of analysis power (Collins & Veal, 2004). Information seeking anxiety is a psychological barrier for many users which reduces the level of performance and affects negatively the quantity and quality of information seeking process.

For optimal use of information resources and having access to the necessary information, it is necessary to investigate the extent of information seeking anxiety among students in the process of searching information whether in the library or the computer and the

internet. Understanding the condition of information seeking anxiety of students in terms of personal characters helps them to influence the process of searching and having access to the needed information which finally increases the efficiency.

Thinking styles are among the individual characteristics that can play a role in the information seeking anxiety. Thinking styles can promote the improving factors in information seeking anxiety and also increase the attitude about searching and the information process. Improving the scientific rate of a country can be affected by identifying thinking styles as one of the important factors in the education and training and nurturing the future scientific generations of the state as well. Robert Sternberg has named the different methods of people in information processing as the thinking styles (Sternberg & Zhang, 2014; L. f. Zhang & Sternberg, 2002). Sternberg believed that thinking style is the preferred type of thinking. The thinking style is not an ability but it points to the way of using the abilities by a person. Based on his mental self-government theory, Sternberg introduced 13 thinking styles. His basic assumption was that the kinds of existing governments in the world are not random and arbitrary constructions but they are the outer reflections of what happens in the minds of people (Sternberg & Zhang, 2014).

The governing methods of thought on mind are like the common governing methods in the world; thus, the governing methods being presently dominant over the global communities are the results of thinking methods and patterns of people (Jokar, 2006). The thinking style of a person may affect the way he conducts a research and it may also affect their tendency in selecting and executing the fundamental and applied research. The researchers emphasize the use of a research for the improvement of general knowledge whereas other people implement it to resolve their specific problems. If those who are constantly dealing with the education, be aware of their thinking styles, they can achieve the positive and effective results by appropriately designing and orienting the educational activities (Jahanshahi & EbrahimiGhavam, 2006; Lee & Tsai, 2004). One who is dealing with the education of others has to know that the failure and poor performance is always related to the lack of ability but it is often due to the inconsistency of thinking styles with the expectations (Kazu, 2009; Sarvghad, Rezaee, & Masomi, 2011). The thinking style brings about various consequences including research tendency, professional growth and learning.

The thinking style of people entails a special importance, but it has not received enough attention because of being unknown and unawareness of people and due to the fact that the performance of people have always been prioritized (Sternberg & Zhang, 2014). Failures and successes attributed to the abilities are mostly the results of styles whose importance is such great that training thinking styles have been coined (Sarvghad et al., 2010; Farhoush& Ahmadi, 2013). Generally, there are 13 thinking styles that are distinguished in five dimensions including functions, forms, levels, orientations and leanings (Sternberg & Zhang, 2014). The dimension of function includes legislative, executive, and judicial thinking styles. The dimension of forms consists of monarchic, hierarchic, oligarchic, and anarchic forms. The dimension of thinking style levels points to global and local styles. The dimension of orientations includes external, and internal styles. The dimension of leanings includes liberal and conservative styles. As the personal behaviors influence the attitudes and the

information seeking behavior, the thinking styles can affect the increase in the search motivation among people (Ghasemin & Sangari, 2013). Meanwhile, both structures (anxiety and thinking styles) are related to the personality and the anxiety level of people which is subject to the perception or identifying self and conditions; therefore, identifying the styles and training users according to the thinking styles can improve the condition of anxiety among them (L.-f. Zhang, 2009). To this end, the main purpose of the current study was to investigate the relationship between the thinking styles and contextual characteristics with the information seeking anxiety of postgraduate students.

Research Questions

How much is the information seeking anxiety of postgraduate students at The School of Allied Medical Sciences of Shahid Beheshti University of Medical Sciences?

What kinds of thinking styles do exist among the postgraduate students at The School of Allied Medical Sciences of Shahid Beheshti University of Medical Sciences?

Research Hypotheses

1. There is a relationship between the thinking style and the information seeking anxiety.
2. There is a significant difference between the information seeking anxiety and contextual characteristics (gender, age, grade, and major).

Literature Review

According to the searches of researchers on the domestic and foreign research, no research has been directly done to investigate the information seeking anxiety and its relationship with the thinking styles. Thus, this research is of its first kind. This part points to the relevant studies in the sense of information seeking anxiety and thinking styles. At first, the projects in Iran and then in the foreign countries are mentioned.

(Ghasemin & Sangari, 2013) conducted *The investigation of relationship between thinking styles and the information seeking behavior among postgraduate students at Fundamental School and Humanistics School at Ferdowsi University of Mashhad*. This survey research included 1532 subjects from which 306 subjects were selected by stratified-random method. They analyzed the data using descriptive statistics (frequency and percentage) and inferential statistics (Pearson correlation coefficient, Fisher's z-test and multiple regression). The research findings showed that there was a positive significant relationship between the thinking styles and the information seeking behavior of higher students at both faculties. Meanwhile, there was a possibility of prediction information seeking behavior in terms of legislative and anarchic styles.

(Erfanmanesh, Abrizah, et al., 2013) carried out *Library anxiety among students of the faculty of education and psychology based on their contextual characteristics*. This survey research with 123 students was conducted using Van Kampen's Multidimensional Library Anxiety Scale. The findings indicated that 79% of students experienced average and high levels of anxiety.

Library and Information Science students showed the lowest level of anxiety, while students of Exceptional Children and Sport Science showed the highest level of anxiety. Male students experienced higher levels of library anxiety than females. Sophomore and junior students showed the lowest and highest levels of library anxiety, respectively. By investigating the eight dimensions of library anxiety, "access to library services" was the highest mean, whereas "anxiety with contact with the library staff" was the lowest mean (Erfanmanesh, Didehghah, & Mohammadi, 2013).

(L.-f. Zhang, 2009) once again investigated *The relationship between the thinking styles of students with their psychological growth in China education system*. The research included 342 students from Nanjing and 117 students from Hong Kong. The research used Sternberg & Wagner Thinking Style Inventory (2nd Ed. by Zhang 2007) and Erikson's Psychological Growth Measurement Inventory. The results showed that external thinking style had positive and significant relationship with the psychological growth but the anarchic style has negative relationship with the psychological growth.

(Omran, 2001) conducted *Library anxiety and internet anxiety among graduate students of University of Pittsburgh*. The results showed that the year of study, grade point average (GPA), number of library instruction sessions attended, gender and age bring about different levels of anxiety. Additionally, the frequency of Internet use affected the extent of Internet anxiety.

Method

This research was an applied one in its type and a descriptive-analytical one in its purpose. The research population included 315 postgraduate students at The School of Allied Medical Sciences of Shahid Beheshti University of Medical Sciences during 2015-2016 academic years. The subjects included 220 female and 95 male students. The students were studying Hematology, Biochemistry, Biostatistics, Medical Imaging, Radiobiology, Medical Informatics and Proteomics. Stratified random sampling was used for taking samples. The major was considered as a class. Then, due to the number of students in each major, the number of samples were considered as compatible with the majors. The total sample size determined 173 subjects using Cochran's formula.

Research Tools

Information Seeking Anxiety Questionnaire

To measure the information seeking anxiety, Erfanmanesh, Abrizah and Karim's information seeking anxiety were used (Erfanmanesh, Abrizah, et al., 2013). The questionnaire had been used in other studies, as well (Chowdhury & Gibb, 2009; Erfanmanesh, 2011, 2012; Kashi, 2015). To calculate the total scores of respondents, the scores of positive items were inversed and then the mean of respondents' anxiety was calculated. The questionnaire included 47 items and the scoring method was Likert's five scale. The total score varied from 47 to 235. The higher scores indicated the high information seeking anxiety. This scale was composed of six main factors including barriers related to information resources (14 items), barriers related to computer and the Internet (6 items), barriers related to library (11 items), barriers related to

information seeking (5 items), technical barriers (6 items), and barriers related to topic selection (5 items). The questionnaire of information seeking anxiety was standard in terms of validity and reliability.

Questionnaire of Thinking Styles

To determine the type of thinking styles, Sternberg and Wagner's Thinking Styles Questionnaire was used. This questionnaire (Sternberg, 1997) had been implemented in many researches at the national and international levels (Ghasemin & Sangari, 2013; L.-f. Zhang, 2009). The original version of questionnaire included 104 questions and 13 sub-tests (Sternberg, 1997). Due to the variety of questions, a shortened version of questionnaire including 65 questions and 13 sub-tests was used (Ghasemin & Sangari, 2013). The scoring method was Likert style, from 1 to 5. In this questionnaire, each 5 questions evaluated 13 types of thinking styles. Thus, the total score varied from 65 to 325. The 13 thinking styles were described in five dimensions: functions including legislative, executive and judicial; forms including monarchic, hierarchical, oligarchic and anarchic; levels including global and local; orientations including internal and external; and leanings including conservative and liberal. Broad studies were taken in the sense of questionnaire's validity and reliability. In these studies, the reliability coefficient of sub-tests was reached 0.556 for executive style and 0.88 for the global style, with a mean of 0.78 (Fathollahi, 2005; Ghasemin & Sangari, 2013). To analyze the validity of structure, a factor analysis was conducted. The reliability of sub-tests were analyzed for several periods for which 0.93 was archived for the last time (Fathollahi, 2005).

Research Findings

The participants of research were 63% female and 37% male, out of which 75.1% were in the 20-30 age range and 24.9% were in the 31-40 age range. The total number of 68% of subjects were studying Master of Science, 30% of them were studying Ph.D, 20.8% of students were studying biostatistics had the highest frequency, and 6.4% of them were studying biochemistry, had the lowest frequency. The highest rate of respondents were M.Sc.

To have the amount of information seeking anxiety, the mean and standard deviation was calculated. The results showed that the average anxiety had the highest frequency for all types of information seeking anxiety and total information seeking anxiety. The barriers related to the computer and the Internet (72.3% at average) and barriers related to the information search (60.7% at average) had the lowest frequency. For all types of information seeking anxiety and total information seeking anxiety, more than 70% of students mentioned medium, severe and highly severe anxiety.

The GPA and standard deviation were calculated for thinking styles. The results showed that the hierarchical thinking style had the highest GPA of 19.23. The internal thinking style had the lowest GPA of 15.8, at 12th rank. It is worth noting that both monarchic and oligarchic had GPA of 16.84, the 9th rank.

In the following, the relationship between thinking styles and information seeking anxiety was analyzed. First, Kolmogorov–Smirnov test was utilized to check the normality of

research variables. The results showed that the research variables were normal ($P>0.05$). Table 1 reported the correlation between the thinking styles and information seeking anxiety.

Table 1. Correlation Coefficient (R) between Thinking Styles and Information Seeking Anxiety

Information Seeking Anxiety / Thinking Styles	Result	Information Resources	Computer and Internet	Library	Searching Information	Technical barriers	Topic selection	Total Information Seeking Anxiety
Legislative	R	-0.05	-0.16*	-0.03	-0.13	-0.12	0.03	-0.09
	P	0.49	0.03	0.63	0.08	0.09	0.64	0.22
Executive	R	0.18*	-0.008	0.03	0.02	0.12	-0.16*	0.16
	P	0.01	0.91	0.69	0.76	0.10	0.03	0.08
Judicial	R	-0.16	-0.14	-0.03	-0.18*	-0.14	0.09	-0.16*
	P	0.02	0.05	0.61	0.01	0.05	0.19	0.02
Global	R	-0.10	-0.06	-0.17*	-0.06	-0.04	-0.09	-0.12
	P	0.16	0.39	0.02	0.40	0.54	0.22	0.09
Local	R	0.21**	0.008	-0.16*	0.05	0.09	0.13	0.17*
	P	0.004	0.92	0.03	0.50	-0.12	-0.02	-0.11
Liberal	R	-0.07	-0.11	-0.02	-0.16*	-0.12	-0.02	-0.11
	P	0.33	0.14	0.70	0.03	0.10	0.74	0.14
Conservative	R	0.30**	0.12	0.24**	0.25**	0.20**	0.27**	0.31**
	P	0.001	0.09	0.001	0.001	0.007	0.001	0.001
Hierarchical	R	-0.03	-0.08	-0.02	0.19*	-0.09	-0.05	-0.08
	P	0.66	0.28	0.72	0.01	0.20	0.46	0.26
Monarchic	R	0.13	0.16*	0.06	0.17*	0.18*	0.19*	0.18*
	P	0.06	0.02	0.39	0.02	0.01	0.01	0.01
Oligarchic	R	0.12	0.06	0.03	0.11	0.11	0.13	0.12
	P	0.09	0.42	0.65	0.13	0.13	0.07	0.10
Anarchic	R	0.008	0.06	0.02	-0.03	-0.02	0.05	0.01
	P	0.91	0.43	0.73	0.67	0.77	0.50	0.84
Internal	R	0.01	0.07	0.04	-0.01	-0.05	0.009	0.01
	P	0.84	0.36	0.58	0.84	0.45	0.90	0.85
External	R	-0.01	-0.13	-0.09	-0.10	-0.02	0.03	-0.06
	P	0.82	0.08	0.23	0.18	0.75	0.68	0.41
Total	R	0.09	-0.04	0.03	-0.04	0.009	0.12	0.04
	P	0.22	0.58	0.66	0.54	0.90	0.10	0.51

* $P<0.05$, ** $P<0.01$

According to Table 1, there was a negative and significant correlation between the judicial thinking style and the information seeking anxiety ($p=0.02$, $r=-0.16$). There was a positive and significant correlation between the local thinking style and the information seeking anxiety ($p=0.02$, $r=0.17$), between the conservative thinking style and the information seeking anxiety ($p=0.001$, $r=0.31$), and between the monarchic thinking style and the information seeking anxiety ($p=0.01$, $r=0.18$). There was no significant correlation between other thinking styles and the total information seeking anxiety.

To analyze the difference between the information seeking anxiety and major, ANOVA test was used. The results showed that there was a significant difference in barriers related to the computer and internet ($p=0.001$, $t=4.24$), barriers related to the library ($p=0.001$, $t=3.17$), technical barriers ($p=35$, $t=11.1$) and total information seeking anxiety ($p=0.02$, $t=2.36$) between different majors. On the other hand, there was no a significant difference in barriers related to the information resources ($p=0.35$, $t=1.11$), barriers related to the search ($p=0.21$, $t=1.37$), and barriers related to the topic selection ($t=1.86$, $p=0.07$) between different majors.

Independent t-test was used to investigate the difference between the extent of information seeking anxiety and contextual characteristics.

Table 2. Mean and Standard Deviation of Information Seeking Anxiety in Terms of Gender and Independent t-test

	Gender	No.	Mean	Standard Deviation	T	p-value
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Barriers related to the information resources	Female	109	10.3	0.660	2.42	0.01
	Male	64	83.2	0.750		
Barriers related to computer and internet	Female	109	20.4	0.530	-2.60	0.01
	Male	64	30.2	0.680		
Barriers related to library	Female	109	45.2	0.480	0.21	0.82
	Male	64	43.2	0.440		
Barriers related to information search	Female	109	37.2	0.710	0.01	0.98
	Male	64	36.2	0.810		
Technical Barriers	Female	109	41.2	0.770	-0.28	0.77
	Male	64	45.2	0.850		
Barriers related to topic selection	Female	109	66.2	0.680	1.24	0.21
	Male	64	25.2	0.740		
Total Information Seeking Anxiety	Female	109	2.65	0.51	0.74	0.45
	Male	64	2.59	0.56		

According to Table 2, there was a significant difference between both genders for the variable of information resources anxiety ($P=0.01$, $T=2.42$) and the anxiety related to the computer and Internet ($P=0.01$, $T=-2.60$). The mean of information resources anxiety was higher for the women rather than the men. The mean of anxiety related to the computer and Internet was higher for the men than women. No significant difference was evaluated for both genders in the sense of other barriers and total information seeking anxiety ($P=0.45$, $T=0.74$).

To analyze the differences between the extent of information seeking anxiety and age, the participants were first divided into two age ranges of 20-30 and 31-40. Then, t-test was used for the independent groups for comparison of both groups. According to the results, no significant difference was investigated between two age ranges in terms of information resources anxiety ($P=0.32$, $T=0.99$), anxiety related to the computer and Internet ($P=0.45$, $T=-0.74$), anxiety related to the library ($P=0.80$, $T=-0.24$), anxiety related to the information search ($P=0.41$, $T=0.82$), anxiety related to the technical barriers ($P=0.66$, $T=0.44$), anxiety related to the topic selection ($P=0.34$, $T=0.94$), and the total information seeking anxiety ($P=0.55$, $T=0.58$).

Table 3. Mean and Standard Deviation of Information Seeking Anxiety in Terms of Grade and T-test

	Grade	No.	Mean	Standard Deviation	T	p-value
Barriers related to the information resources	Master	118	3.04	0.65	1.21	0.22
	Ph.D.	55	2.90	0.80		
Barriers related to computer and internet	Master	118	2.20	0.58	2.01	0.04
	Ph.D.	55	2	0.64		
Barriers related to library	Master	118	2.44	0.42	-0.23	0.81
	Ph.D.	55	2.46	0.54		
Barriers related to information search	Master	118	2.42	0.74	1.51	0.13
	Ph.D.	55	2.24	0.74		
Technical Barriers	Master	118	2.49	0.80	1.56	0.12
	Ph.D.	55	2.29	0.78		
Barriers related to topic selection	Master	118	2.62	0.70	0.48	0.62
	Ph.D.	55	2.57	0.71		
Total Information Seeking Anxiety	Master	118	2.66	0.49	1.31	0.19

According to Table 3, there was a significant difference between both grades for the barriers related to the computer and Internet ($P=0.04$, $T=2.01$).

No significant difference was seen between two grades in terms of information resources anxiety ($P=0.22$, $T=1.21$), anxiety related to the library ($P=0.81$, $T=-0.23$), anxiety related to the

information search ($P=0.13$, $T=1.51$), anxiety related to the technical barriers ($P=0.12$, $T=1.56$), anxiety related to the topic selection ($P=0.62$, $T=0.48$), and the total information seeking anxiety ($P=0.19$, $T=1.31$).

To analyze the difference between the extent of information seeking anxiety and major, ANOVA test was used.

The results indicated that there was a significant difference in barriers related to the computer and internet ($p=0.001$, $t=4.24$), barriers related to the library ($p=0.001$, $t=3.17$), technical barriers ($p=0.35$, $t=11.1$) and total information seeking anxiety ($p=0.02$, $t=2.36$) between different majors. On the other hand, there was not a significant difference between different majors for barriers related to the information resources ($p=0.35$, $t=1.11$), barriers related to the search ($p=0.21$, $t=1.37$), and barriers related to the topic selection ($t=1.86$, $p=0.07$).

Discussion and Conclusion

A massive amount of information resources cause that people confront a variety of information from every side and situation. But, when they do not know how to and with what tools use these information, they unconsciously feel anxiety. The present research indicated that hierarchical, legislative and external thinking styles were the three first styles whereas the anarchic, global and internal thinking styles were the last ranks of thinking styles with the least mean. The surveys indicated that no research was found to rank the thinking styles among people; thus, no parallel research was reported with the results of present research.

The highest hierarchical thinking style showed that many students were interested in arranging their aims in a hierarchical sense and many of them were trying to prioritize their goals. To determine the difference of thinking styles, the students at The School of Allied Medical Sciences were studying in different majors, age, gender and culture and each factor can play a striking role in the diversity of thinking styles.

By analyzing the relationship between the information seeking anxiety and the thinking styles, the results indicated that there was a negative and significant relationship between the judicial thinking style and the information seeking anxiety. There was a positive and significant correlation between the local, conservative and monarchic thinking styles and the information seeking anxiety. On the other hand, there was no significant correlation between other thinking styles and the information seeking style. No parallel research with this research was found; but it was parallel with Ghasemi & Sangari's research in which there was a relationship between the thinking style and the information seeking behavior and the legislative and anarchic styles can predict the information seeking behavior. In the case of negative and significant relationship of judicial thinking style, it could be said that this thinking style needed more analysis and higher creativity and concentration (Sternberg, 2001). When a person encounters anxiety, he has less concentration on the issues rather than the source of anxiety and tries to reduce his anxiety so that he goes toward the thinking styles that have framework and do not need creativity and thinking. Thus, there is less chance of happening more creative and analytical thinking styles. Therefore, the extent of judicial thinking style decreases as the information seeking anxiety exists and this thinking style may happen more if there is no anxiety.

To explain the positive relationship between the local, conservative, and monarchic thinking style with the information seeking anxiety, the characteristics of anxious people could be pointed. Anxiety makes a person more conservative and avoids change and evolution. The person tries to evade the ambiguous and complex situations and does not want to face the ambiguous and unfamiliar affairs in the life or work to avoid anxiety (Powell & Enright, 2015). An anxious person becomes more self-willed and tries to reduce his anxiety fast and does not wait to hear others' opinions and interchange the ideas as well. Thus, the anxiety takes away his creativity and freedom and may turn towards the local, conservative and monarchic thinking styles.

By analyzing the difference of information seeking anxiety among students in terms of their major, the results showed that there was a significant difference in terms of barriers related to the computer and Internet, barriers related to the library, technical barriers and total information seeking anxiety for the various majors. On the other hand, there was no significant difference in terms of barriers related to the information resources, barriers related to the information search and barriers related to the topic selection for the various majors.

(Erfanmanesh, Didehghah, et al., 2013) reported the lowest rate of anxiety for the librarianship students and the highest rate of anxiety for the majors of exceptional children and physical education. Specifically, (L.-f. Zhang, 2009) the study also showed that the external thinking style with a significant correlation between mental growth, while negative thinking style anarchy relationship. (Omran, 2001) stated that the frequency of use of the Internet on the anxiety of influence.

In the present research, the highest mean of anxiety allocated to barriers related to the computer and Internet, barriers related to library, technical barriers and total information seeking anxiety for the librarianship, medical imaging and proteomics students. It could be stated, since the librarianship students had higher information literacy, they were more skilled for the acquisition of information and so forth rather than the students of other majors. It was expected their information seeking anxiety was less than non-librarianship students but knowing the information itself causes more anxiety among librarianship students. As they had much more information about a library and read the conditions of a standard library, they had higher expectation of the libraries of universities. When they face a paradox between the available situation and the conventions, they felt higher anxiety in contrast to other students whom they did not have enough information about a desirable and standard library. The students of medical imaging and proteomics needed up-to-dated information and modern tools as well to acquire the information. Lack or defect of tools could bring about higher anxiety in terms of technical barriers.

In general, the results demonstrated that the universities should redefine the libraries and information resources. The librarians and information agents should improve their information seeking skills, find the students' anxiety factors, and help them to choose the right way. On the other hand, the students should increase their information literacy and skills for acquisition of information so that they do not experience information seeking anxiety and can choose their research topics correctly and use the authentic information resources.

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