ORIGINAL ARTICLE

Relationship and Impact of Information Seeking Anxiety and Personality Traits on Health Information Seeking Behavior during COVID-19

NAILA ISHTIAQ[1], AISHA ARSHAD BUTT[2], AYSHA SIDDIQI[3]
[1]Deputy Librarian, Lahore Medical & Dental College, Lahore
[2]Senior Registrar, Operative Dentistry, Lahore Medical & Dental College, Lahore
[3]Lecturer, Directorate of Library Affairs, King Fahad Hospital Aqarbiya, Imam Abdul Rahman Bin Faisal University, Kingdom of Saudi Arabia
Correspondence to Naila Ishtiaq, E-mail: naila.ishtiaq@gmail.com

ABSTRACT

Background: During covid-19 period not only general public was victim of anxiety besides all medical professional also face anxiety and change their Information seeking behaviour according their personality. Curiosity is in human nature with the easy access to internet the new horizon to information has been opened. People searching trends have shown that they are interested in health risk to health treatment for their health related problems.

Aim: In this study examined the influences of anxiety (ISA) and Personality traits (PT) on health information seeking behaviour (HISB) among the Doctor, paraprofessional and final year medical students who are frontline worker during pandemic situation.

Methodology: The study adopted survey method with non-probability convenience sampling to collect statistical. Questionnaires werefiled from 313 participants by utilizing convenient sampling and analyzing the data through SPSS.

Results: The result showed that significant relation between personality traits, information seeking anxiety and health information seeking behaviour. In medical library user PT has significant impact on HISB (p<.05), (AVG_PT=.002) and ISA has impact on HISB but it is not significant in medical professional (β -.070) value shows ISA has negative impact on HISB.

Practical implication: This study will be beneficial for information professionals, health care workers, policy makers and administrators to access of information resources in hybrid format.

Conclusion: Medical professional's plays an important role in our society. They work hard and served the nation during pandemic situation. Anxiety is natural phenomena to every person. So medical professional also feel anxietybut the medical profession demands its professionals to stay cool, calm and free of anxiety by having analytical and cognitive skills, in order to fulfill the needs of their profession. This research helps to understand that ISA has no significant impact on HISB while PT has significant impact on HISB.

Keywords: Information Anxiety, Health information seeking behaviour, Personality Traits

INTRODUCTION

Curiosity is in human nature. With the easy access to internet the new horizon to information has been opened. People searching trends have shown that they are interested in knowing health; risk factors to health and treatment for their health related problems.(1)Describe health information seeking behavior as verbal as well as nonverbal behavior of gaining, clarification and confirmation or in-depth knowledge about some specific situation. According to(2)HISB plays a vital role in approaches to solve the problem. In seeking behavior there is a contribution of personality trait.so HISB refers to the ways in which people seek information about their health.it has emerged as an important issue within the transforming medical environment and rise of medical consumers. Thus the person who exhibitsa behavior to gain knowledge regarding their health is known as health information seeking behavior.

The term "health information seeking behaviour" (HISB) refers to any manual and computer-based actions that a healthcare professional engages in to suit their professional or research needs[3].

Anxiety has been defined by several researchers as a mood or state characterized by uneasiness and somatic symptoms of tension in which almost every individual anticipates facing danger or misfortune. According to[4]anxieties is a cardinal pervasive and persistent characteristic of information search.

Information seeking anxiety is the feeling of apprehension for not being able to find the current and relevant information[5].

There are five components in psychology that influence particular personality characteristics. The following are the five major factors: **Openness to experience**: a willingness to absorb a wide range of experiences; **Extraversion**: being gregarious, active, and talkative; **Agreeableness**: being kind, sympathetic, and willing to assist; **Conscientiousness:** is being coordinated, trained, meticulous, smart, and cautious.

Neuroticism: is being characterized by a proclivity to worry, vulnerability, and temperamental behavior (6). Personality qualities are essential because they influence how people obtain information.

In this study big 5 model was used as tool to check the relationship between personality traits (PT) and information seeking anxiety (ISA) and its Impact of health information seeking behaviour (HISB).

The influence of the Corona virus outbreak has radically shifted the way of peopleliving including the lives of Youngsters. Educational institutions have been closed, and all type of activities got suspended, the traditional health information services also became limited, hang outs, socializing is highly discouraged.

During Covid-19 era People were mostly relying on social media and other sources of news, due to diversity in the information, their cognitive and emotional states have changed or shifted. During the COVID-19 outbreak, we also discovered that mass media, print media, and other Internet sources, such as corporation websites, newspaperand magazine, websites played a critical role in acquiring information[7,18,19,20,21,22,23].

This study will investigate the relationship of health information seeking anxiety and personality traits in Medical Library user during COVID-19 outbreak and its Impact on health information seeking behavior.

METHODOLODY

The study conducted on medical library users which comprised of medical college final year students, paramedical staff and professional doctors. Convenience sampling technique was adopted. The questionnaire was adapted with the help of the already available literature of three different tools for HISB use Ellis model of information seeking behavior (ISB) starting: Chaining: Browsing: Monitoring: Differentiating: Extracting: verifying: Ending forms the overall part of Information seeking behavior for PT used big five personality traits inventory "Perceived Effect of Personality Traits on Information Seeking Behaviour of Postgraduate Students in Universities in Benue State, Nigeria" for personality traits

part(8)and ISA scale was adapted from(Erfanmanesh, Abrizah, &Karim, 2012)Sample size for the current study was calculated as 220 medical professional.

After finalizing the instrument and expert review pilot testing was done for checking reliability and validity of plot study indicated 90% reliability. The high value of alpha coefficient of each subscale PT (α=0.93), ISA (α=.090), HISB (α0.68) and for overall instrument indicated the acceptable reliability. Data collectedthrough Google form for virtual access and print questionnaires face to face meeting. The collected data was analyzed by using the SPSS version 20. To find Impact and relationship of each the HISB, PT and ISA the researcher conducted descriptive. Pearson correlation was applied to measure relationship between HISB, PT and ISA and regression analysis was performed to measure the impact.

RESULTS

The ratio of male and female participant is half in data 149 of the respondents were male i.e.49.7% and 151 were female that is 50.3%. The second demographic variable is distribution of population according to five age groups. Data reported that more than half of the respondents belonged to the age of 20-39, i.e. 68.3% of the total population. That shows the mostly young professionals willing to contribute the research as 23.7% were lying between the age group 40-49 years and a minimum number of respondents (8%) ware above 50 years.The last demographic variable was type of profession. Data in Table 4.1 showed that 32% of the respondents were doctors, 34% were Para professionals and 34% were MBBS final year students.

Table 4.1: Demographics

	F	%age
Gender		
Male	149	49.7%
Female	151	50.3%
Age group		
20-29 years	130	43.3%
30-39 years	75	25.0%
40-49 years	71	23.7%
50 or more years	24	8.0%
Designation		
Doctor	96	32.0%
Para Professional	102	34.0%
Student	102	34.0%
Total	300	100%

Personality Traits: Library users, descriptive statistics were found. The frequency of different personality traits is mentioned in the following table.**Extroversion Affect**: As for as extroversion affect is concerned, it is clear from the table above that respondents were not supporting this trait. They neither seem to be out going (M=3.36; SD=1.24) in their information seeking behaviors (ISB) nor they seemed sociable (M=3.41; SD=1.16), confident (M=3.54; SD=1.16), talkative (M=3.44; SD=1.08) and enthusiast (M=3.46; SD=1.11) in seeking information. But they somehow seemed energetic in the Behavior to seek information.

Table 4.2a: Personality traits (PT) of Medical Library Users

Extroversion Affect	n	Deviation
I am outgoing in information seeking behaviors	3.36	1.242
I am sociable in information seeking	3.41	1.169
I am strongly confident in information seeking	3.54	1.160
I am full of energy in information seeking	3.61	1.059
I am talkative in information seeking	3.44	1.082
I show a lot of enthusiasm in information seeking	3.46	1.110

Note. Strongly agree=5, Agree=4, Uncertain=3, Disagree=2, strongly Disagree =1

ConscientiousnessAffect: Conscientiousness trait is commonly associated with awareness. It is the state of being well informed, organize, having self-control and a good characteristic of time planning. Being diligence is at the heart of this trait. The present

study measured the conscientiousness trait of respondents and found out that they showed perseverance (M=3.75; SD=.99) mostly in the process of information seeking which make them able to complete (M=3.78; SD=.95) the process in due detail. They are organized in their doing (M=3.69; SD=1.0) and have the quality of endurance (M=3.67; SD=1.0).

Table shows that the respondents of the present study who are medical library users are well conscious in the process of information seeking process to keep them up to date and to cater to the changing situations in the medical field.

Table 4.2b: Personality traits(PT) of Medical Library Users

Conscientiousness Affect	Mean	Std. Deviation
In information seeking process		
I like keeping things in order	3.69	1.070
I am neat and tidy in my doings	3.77	.959
I make sure things are done	3.78	.955
I am perseverance in getting things done	3.75	.995
Other people count on me	3.21	1.156
I endure to get things done	3.67	1.048

Note. Strongly agree=5, Agree=4, Uncertain=3, Disagree=2, Strongly disagree =1

Agreeableness Affects: This specific trait demonstrates about preferring others over your own needs and being empathetic. The Table 4.4 reported that medical professionals treat others with respect (M=4.00;SD=.90), and are focused (3.85;SD=1.1) in their information seeking process. They also help others in completing their tasks (M=3.96;SD=.94), and are compassionate enough in their working (3.64;SD=.94).

Table 4.1 c: Personality traits (PT) of Medical Library user (n=300)

Agreeableness Affects	Mean	Std. Deviation
During information seeking process		
I am compassionate	3.64	.946
I treat others with respect	4.00	.901
I am focused	3.85	1.102
I Help others in getting things done	3.96	.942
I prefer to have others take charge	3.68	1.115

Note. Strongly agree=5, Agree=4, Uncertain=3, Disagree=2, strongly disagree =1

Openness to Experience Affects: The people belonging this trait are imaginative, creative, and inventive, embrace unusual ideas and are adventurous. The table above shows that respondents exhibit certain qualities like curiosity about different things (M=3.73; SD=1.0), being ingenious in doing different things (M=3.40; SD=1.1), fascinated by art, music and culture (M=3.71; SD=1.0), and giving value to art and beauty (M=3.70; SD=1.0). These traits make them creative and inventive. They persist self - control (M=3.71; SD=1.0) which make them rule over their emotions and are not easily carried away. That's why they don't get upset easily (M=3.52; SD=1.0).This particular trait helps to make them more creative and innovative in the process of information seeking.

Table 4.1d: Personality traits (PT) of Medical Library user N=300

Openness to Experience Affects	Mean	Std. Deviation
During information seeking process		
I am curious about different things	3.73	1.052
I find ingenious ways of doing things	3.40	1.199
I am often fascinated by art, music and literature	3.71	1.032
I am not easily upset	3.52	1.074
I value art and beauty	3.70	1.055
I like to keep my emotion under control	3.71	1.044

Note. Strongly agree=5, Agree=4, Uncertain=3, Disagree=2, strongly disagree =1

Neuroticism Affects: This particular trait is related to emotional instability which affects their behaviors by not being persistent to certain tasks. Mood swings make them irregular in their behaviors. As for as the results of the present study are concerned, it was observed that respondents are argumentative (M=3.74; SD=.98), worrisome (M=3.52; SD= 1.1), tense (M=3.49; SD=1.1) and rude (M=3.46; SD=1.1). They are also moody (M=3.49; SD=1.0) in their

behaviors. However, sadness (M=3.28; SD=1.1) state didn't captured their state of mind to the extent that it may affect their behaviors

Table 4.1e: Personality traits (PT) of Medical Library user N=300

Neuroticism Affects	Mean	Std. Deviation
During information seeking process:		
I can be tense	3.49	1.143
I sometimes argument	3.74	.988
I am sometimes sad	3.28	1.184
I worry a lot	3.52	1.132
I am sometimes rude	3.46	1.107

Table 4.2: Information Seeking Anxiety

Information Seeking Anxiety (ISA)	Mean	Std. Deviation
I feel Stress from unpredictable or uncertain world events, like a pandemic"	2.65	1.154
I feel frustrated when Information not full fill my needs	2.76	1.076
I feel anxious when receive Rumors, and fake information during information seeking process	2.82	1.132
I feel anxious when retrieved information is not up-to-date	2.82	1.049
I feel anxious when resources found abandons of irrelevant information during information seeking process.	2.84	1.064
Making judgment to evaluate the authentic source for true information making anxious.	2.86	1.071
I am worried about not being able to find the necessary.	3.02	1.175
I feel frustrated when I use computer for seeking information resources.	3.04	1.230
I am embarrassed that I don't know to find information resources.	3.09	1.172
When seeking for information, I usually experience anxiety and frustration.	3.10	1.153
I don't feel comfortable using online resources when I search information.	3.23	1.272

Note. Most Frequently=5, Frequently=4, Occasionally=3, Rarely=2, Never =1

Table 4.3: Health Information Seeking Behaviour (HISB)

Health Information Seeking Behaviour	Mean	Std. Deviation
I need health information for Entertainment		1.003
I am able to **tell high quality** health resources	3.46	.955
I feel **confident** in using information to make health decisions	3.48	.969
I know **how to use** the Internet to answer my question about health	3.52	.962
I find health information to change my behaviors	3.59	.966
I have the skills I need to **evaluate** the health resources	3.59	.874
I know how to **use the health information** I find on the Internet to help me	3.63	.911
I know **where** to find helpful health resource	3.66	.871
I know **how** to find helpful health resource	3.67	.881
I need health information for Preparation for your desired career goal/position	3.68	.890
I need health information for learn the lectures	3.68	.875
I need health information for Reading/writing/presenting papers	3.69	.815
I need health information for general awareness	3.72	.839
I find health information for knowledge or curiosity.	3.74	.853
I need health information for updating knowledge	3.74	.813
I can easily find or select doctor or healthcare facility when I feel ill	3.76	.968
I need health information for solution of any pandemic situation	3.81	.865
I search health information when being diagnosed with a new medical condition.	3.88	.863
I found health information when I noticing new symptoms or change in my health.	3.89	.904

Note. Strongly agree=5, Agree=4, Uncertain=3, Disagree=2, strongly Disagree=1

Information seeking anxiety is the feeling associated to the state of failure of not being able to properly interpret information due to certain reasons. This may be caused due to abundance of information or not being able to find authentic information because

of a lot of fake information. This feeling hinders the process of information seeking.

As for as the present study is concerned, the next objective was to find out the status of information seeking anxiety of medical library professionals. From the above table it is demonstrated that participants feel stressed (M=2.65; SD 1.1) from uncertain situation like pandemic. They become anxious and frustrated (M=2.82; SD=1.1) when information turned out to be fake, irrelevant or not current. Occasionally they become worried of not being able to evaluate information (M=2.86; SD=1.0) and trust it. Respondents get worried (M=3.02; SD=1.1) when do not find needed information which also make them frustrated (3.04; SD=1.0) and embarrassed (M=3.09; SD=1.1).

According to above mentioned data respondents of the present study feel anxiety and frustration (M=3.10; SD=1.1) due to lack of skills to find relevant information.

This part of questionnaire is based on Ellis model of information seeking behaviorStarting: Chaining: Browsing: Monitoring: Differentiating: Extracting: verifying[9]: HISB Respondents of the study use health information for Entertainment (M= 3.46; SD=1.003). They can find high quality health resources (M= 3.46; SD=.955) but are not sure about that.They are confident in the use of internet to get the answer of their health related questions (M= 3.52; SD=.962). And if they find health information that has an effect on their behavior (M= 3.59; SD=.966), however, they also not able to evaluate the health resources. Overall data shows that medical professional doesn't relay internet and don't have expertise to search, Evaluate Extract and verify the authentic sources.

Table 4.4: Relationship between personality traits information seeking anxiety and health information seeking behaviour.
Relationship Between PT, ISA & HISB

Correlations		AVG_ISA	AVG_HISB	AVG_PT
AVG_ISA	Pearson Correlation	1	-.070	.023
	Sig. (2-tailed)		.225	.687
	N	300	300	300
AVG_HISB	Pearson Correlation	**-.070**	1	.174**
	Sig. (2-tailed)	.225		.002
	N	300	300	300
AVG_PT	Pearson Correlation	.023	.174**	1
	Sig. (2-tailed)	.687	**.002**	
	N	300	300	300

According to research objective researcher find the relationship between personality traits (PT), information seeking anxiety (ISA) and health information seeking behavior (HISB. The three traits are significantly related to each other. Information seeking anxiety and health information seeking behavior has negative correlations which demonstrate that increase in anxiety effects health information seeking behavior negatively. Similarly, personality traits are positively correlated with HISB.
Research objective: impact of personality traits on information seeking anxiety.

Table 4.5: Impact of personality traits on information seeking anxiety.
PT & ISA Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
Constant	2.823	.270		10.43	.000
AVG_PT	.030	.074	.023	.403	.687
Dependent Variable: AVG_ISA					
There are three types of user Doctor, Paraprofessional, and final year medical student they also called young doctors and all in medical professional, data show that personality traits has no significant impact on information seeking anxiety (α>.05)					

Research objective Impact of information seeking anxiety on HISB of medical libraries user. Impact of information seeking anxietyon health information seeking behaviour.

Table 4.7: ISA &HISB Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
Constant	3.789	.104		36.526	.000
AVG_PT	-.042	.034	-.070	-1.216	.225

a. Dependent Variable: AVG_HISB

Data shows that information seeking anxiety has impact on health information seeking behaviour but it is not significant in medical professional according this data but β -.070 value shows ISA has negative impact on HISB

PT&HISB Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
Constant	3.193	.158		20.271	.000
AVG_PT	.131	.043	.174	3.052	.002

Dependent Variable: AVG_HISB

Personality traits has significant impact on HISB (*p<.05*), (AVG_PT = .002) there is a change in behaviour with the change in personality traits.

DISCUSSION

In the current study the Health information seeking anxiety and personality traits contributing in health information seeking behavior has been determined. The HISB score "chaining" score was higher among the medical professionals.It was observed that medical professional doesn't rely internet and don't have expertise to search, Evaluate Extract and verify the authentic sources. They were more interested in COVID related health information seeking[10]. Accourding to Zhaofemale professional were usually seeking health information from social media whereas male were taking it from web pages and encyclopedias[11]. These results are supported by our study.

Study shows that there is no significant impact of personality traits on information seeking anxiety (P>5) (AVG_PT.687). Most of medical professional showed the traits of agreeableness and conscientiousness. And extroversion traits has neutral affect that vary situation to situation. Previous literature reveals that participants with high conscientiousness have high performance in health seeking behavior(12). The participants were from health profession and health professionals have habit of continuous learning and information seeking. Medical resources should be available and accessible for medical students, faculty, and staff. Majority of participant's preferred print and electronic resources for their research work, education and classes[18,19,20,21,22].

In ISA part result shows that medical professional occasionally feel anxiety and shortly they overcome it. Data shows that doctors, final year student and paraprofessional behave in same pattern. So personality traits have no significant Impact on ISA[13]. Analyzed and found out that personality trait and most anxiety disorders are strongly related. They claim personality traits such as high neuroticism, low extraversion, and personality disorder traits are at least risk factors for certain anxiety disorders.

Remission from panic disorder is usually associated with the partial "normalisation" of personality traits. Anxiety disorders in childhood can have an impact on personality development.

According to this research data medical library user feel anxiety when they face unpredictable situation like pandemic and shows that ISA has impact on HISB P>.05 But the β= -.070 is in negative which shows that a negative relation exist between the two variables. Musarezaie N[14] found that health anxiety was a significant predictor of HISB components. On the contrary, the components of the needs for health information were directly related to the components of the goal of seeking health information. Furthermore, the components of information need, the variety of health information sources, the timing of referrals to

health information sources, the purpose of seeking health information, and the reasons for contacting the library were all directly related to information seeking anxiety.

This study's found the significance impact of personality trait patterns on information-seeking behaviour.Personality traits has significant impact on HISB because value of PT is (P<.05) (AVG_PT = .002) so health information seeking behavior change according personality traits

In the similar manner, previously it has also been observed that internet efficacy plays a role of mediator between internet experience and seeking behaviour, whereas health anxiety mediated between information seeking behaviour and neuroticism[15]. In our study the anxiety level was in mild range therefore the personality traits were found to be contributing a factor on HISB.

Previous research findings suggest that information seeking behaviour is related to personality traits, implying that psychological mechanisms other than cognitive skills are involved[16,17].

CONCLUSIONS

In the current study the Health information seeking anxiety and personality traits contributing in health information seeking behavior has been determined. In the current study no significant difference in study variables score were observed regarding medical profession. Except the PT score on HISB that has significant impact (*p<.05*) "chaining" score was higher among female than male. It was observed that the female with children or people having old members in the family were more interested in COVID related health information seeking[10]. In another study female usually seek health information from social media whereas male were taking it from web pages and encyclopedias[11].

Medical professionals are motivated and improved their information seeking behaviour by getting research-based information while it's available in Libraries or online.

Study shows that most of medical libraries user have same personality and behave same pattern, when they feel anxiety they search information and quickly overcome this situation.

Conflict of interest: Nothing to declare

REFERENCES

1. Conley JM, O'barr WM. Rules versus relationships: The ethnography of legal discourse. University of Chicago Press; 1990.
2. Halder S, Roy A, Chakraborty PK. The influence of personality traits on information seeking behaviour of students. Malaysian J Libr Inf Sci [Internet]. 2010 [cited 2020 Dec 24];15(1):41–53. Available from: https://www.researchgate.net/publication/228759830_The_influence_of_personality_traits_on_information_seeking_behaviour_of_students/citations
3. Lambert SD, Loiselle CG. Health information-seeking behavior. Vol. 17, Qualitative Health Research. 2007. p. 1006–19.
4. Naveed MA, Ameen K. A cross-cultural evaluation of the psychometric properties of Information Seeking Anxiety Scale in Pakistani environment. Malaysian J Libr Inf Sci. 2017;22(3):35–51.
5. Erfanmanesh M, Abrizah A, Abdul Karim NH. The prevalence and correlates of information seeking anxiety in postgraduate students. Malaysian J Libr Inf Sci. 2014;19(2):69–82.
6. Diener E, Lucas RE, Cummings JA. 16.1 Personality Traits. University of Saskatchewan Open Press; 2019.
7. Soroya SH, Farooq A, Mahmood K, Isoaho J, Zara S e. From information seeking to information avoidance: Understanding the health information behavior during a global health crisis. Inf Process Manag. Pergamon; 2021 Mar 1;58(2):102440.
8. Nunes A, Limpo T, Lima CF, Castro SL. Short scales for the assessment of personality traits: Development and validation of the Portuguese Ten-Item Personality Inventory (TIPI). Front Psychol. 2018;9(APR).
9. Ellis J, Mullan J, Worsley A, Pai N. The Role of Health Literacy and Social Networks in Arthritis Patients' Health Information-Seeking Behavior: A Qualitative Study. Int J Family Med. 2012;2012:1–6.
10. Zhao X, Fan J, Basnyat I, Hu B. Online health information seeking using "# COVID-19 patient seeking help" on Weibo in Wuhan, China:

descriptive study. J Med Internet Res. JMIR Publications Inc., Toronto, Canada; 2020;22(10):e22910.

11. Dodd RH, Dadaczynski K, Okan O, McCaffery KJ, Pickles K. Psychological wellbeing and academic experience of university students in Australia during COVID-19. Int J Environ Res Public Health. MDPI; 2021;18(3):866.

12. Al-Samarraie H, Eldenfria A, Dawoud H. The impact of personality traits on users' information-seeking behavior. Inf Process Manag. Elsevier Ltd; 2017 Jan 1;53(1):237–47.

13. Brandes M, Bienvenu OJ. Personality and anxiety disorders. Curr Psychiatry Rep. 2006;8(4):263–9.

14. Musarezaie N, Samouei R, Shahrzadi L, Ashrafi-Rizi H. Prediction of health information-seeking behavior components based on health anxiety among users of public libraries. J Educ Health Promot. Wolters Kluwer Medknow Publications; 2019 Dec;8(1).

15. Lagoe C, Atkin D. Health anxiety in the digital age: An exploration of psychological determinants of online health information seeking. Comput Human Behav [Internet]. Elsevier Ltd; 2015;52:484–91. Available from: http://dx.doi.org/10.1016/j.chb.2015.06.003

16. Ingwersen P. Cognitive perspectives of information retrieval interaction: Elements of a cognitive IR theory. J Doc. Aslib; 1996;52(1):3–50.

17. Kuhlthau CC. A principle of uncertainty for information seeking. J Doc. MCB UP Ltd; 1993;49(4):339–55.

18. Conley JM, O'barr WM. Rules versus relationships: The ethnography of legal discourse. University of Chicago Press; 1990.

19. Halder S, Roy A, Chakraborty PK. The influence of personality traits on information seeking behaviour of students. Malaysian J Libr Inf Sci. 2010;15(1):41–53.

20. Lambert SD, Loiselle CG. Health information-seeking behavior. Vol. 17, Qualitative Health Research. 2007. p. 1006–19.

21. Naveed MA, Ameen K. A cross-cultural evaluation of the psychometric properties of Information Seeking Anxiety Scale in Pakistani environment. Malaysian J Libr Inf Sci. 2017;22(3):35–51.

22. Erfanmanesh M, Abrizah A, Abdul Karim NH. The prevalence and correlates of information seeking anxiety in postgraduate students. Malaysian J Libr Inf Sci. 2014;19(2):69–82.

23. Diener E, Lucas RE, Cummings JA. 16.1 Personality Traits. University of Saskatchewan Open Press; 2019.

24. Soroya SH, Farooq A, Mahmood K, Isoaho J, Zara S e. From information seeking to information avoidance: Understanding the health information behavior during a global health crisis. Inf Process Manag. 2021 Mar 1;58(2):102440.

25. Nunes A, Limpo T, Lima CF, Castro SL. Short scales for the assessment of personality traits: Development and validation of the Portuguese Ten-Item Personality Inventory (TIPI). Front Psychol. 2018;9(APR).

26. Ellis J, Mullan J, Worsley A, Pai N. The Role of Health Literacy and Social Networks in Arthritis Patients' Health Information-Seeking Behavior: A Qualitative Study. Int J Family Med. 2012;2012:1–6.

27. Zhao X, Fan J, Basnyat I, Hu B. Online Health Information Seeking Using "#COVID-19 Patient Seeking Help" on Weibo in Wuhan, China: Descriptive Study. J Med Internet Res. 2020;22(10):e22910.

28. Dodd RH, Dadaczynski K, Okan O, McCaffery KJ, Pickles K. Psychological wellbeing and academic experience of university students in Australia during COVID-19. Int J Environ Res Public Health. 2021;18(3):866.

29. Al-Samarraie H, Eldenfria A, Dawoud H. The impact of personality traits on users' information-seeking behavior. Inf Process Manag. 2017 Jan 1;53(1):237–47.

30. Brandes M, Bienvenu OJ. Personality and anxiety disorders. Curr Psychiatry Rep. 2006;8(4):263–9.

31. Musarezaie N, Samouei R, Shahrzadi L, Ashrafi-Rizi H. Prediction of health information-seeking behavior components based on health anxiety among users of public libraries. J Educ Health Promot. 2019 Dec;8(1).

32. Lagoe C, Atkin D. Health anxiety in the digital age: An exploration of psychological determinants of online health information seeking. Comput Human Behav. 2015;52:484–91.

33. Ingwersen P. Cognitive perspectives of information retrieval interaction: Elements of a cognitive IR theory. J Doc. 1996;52(1):3–50.

34. Kuhlthau CC. A principle of uncertainty for information seeking. J Doc. 1993;49(4):339–55.

35. Jabeen M, Shahjahan M, Farid G. Information Dissemination during COVID-19 Pandemic among Postgraduate Allied Health Sciences Students in Pakistan. Pakistan Journal of Medical & Health Sciences. 2022;16(11):366-.

36. Shahjahan M, Jabeen M, Farid G. Information Providing in COVID-19 by Health Professionals in Pakistan. Pakistan Journal of Medical & Health Sciences. 2022 Dec 12;16(10):641-.

37. Farid G, Zaheer S, Khalid A, Arshad A, Kamran M. Evaluating Medical College Lib Guides: A Usability Case Study. Pakistan Journal of Medical & Health Sciences. 2022 Aug 26;16(07):461-.

38. FARID G, NIAZI AK, MUNEEB M, IFTIKHAR S. Attitude towards Utilization of e-Resources of Medical Images among Health Care Professionals.

39. Farid G, Iqbal S, Iftikhar S. Accessibility, Usage, and Behavioral Intention of Print Books and eBooks by Medical Students. Library Philosophy and Practice. 2021:1-25.

40. Farid G, Abiodullah M, Ramzan M. A comparative study of information seeking behaviors of medical faculty working in government and private run medical colleges. International Journal of Information Management Science. 2013;2(1):17-24