

# The Mediating Effect of Information Literacy on the Relationship Between Information Anxiety and Information-Seeking Behavior of Allied Health Students

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**Abstract**— Information anxiety is a growing concern among students as they navigate increasingly complex digital information environments. Although information literacy and information-seeking behavior are recognized as important to academic success, limited studies have examined how information literacy mediates the relationship between information anxiety and information-seeking behavior among allied health students. This study examined the mediating effect of information literacy on the relationship between information anxiety and information-seeking behavior among allied health students in Davao City. Using a non-experimental quantitative research design, the study surveyed 360 allied health students selected through stratified random sampling from higher education institutions in Davao City. Standardized questionnaires measured information anxiety, information-seeking behavior, and information literacy, and data were analyzed using the mean, the Pearson Product-Moment Correlation Coefficient, and mediation analysis. Findings revealed a moderate level of information anxiety and high levels of information-seeking behavior and information literacy. Significant relationships were found among the three variables, indicating that information anxiety, information literacy, and information-seeking behavior are interrelated. Furthermore, information literacy partially mediated the relationship between information anxiety and information-seeking behavior, suggesting that students' information literacy competencies play a key role in how they manage information-related challenges and engage in effective information-seeking. The findings highlight the importance of strengthening information literacy through structured library instruction, training, and academic support to enhance students' ability to locate, evaluate, and use information effectively.

**Keywords**— information anxiety, information literacy, information-seeking behavior.

## I. INTRODUCTION

In today's fast-paced, technology-driven educational environment, access to information has become faster, easier, and more extensive. Students can instantly retrieve vast amounts of information through search engines, online databases, social media, and educational platforms anytime and anywhere (Haleem et al., 2022). However, while access has improved, the ability to effectively locate, evaluate, and use information has not developed at the same pace. Many students continue to struggle with limited search skills and inadequate information literacy, which affects their ability to identify credible and relevant sources (Yu et al., 2024). As a result, students are increasingly exposed to misinformation and unreliable content,

raising concerns about the quality of academic engagement (Mrah, 2022).

These limitations are evident in students' information-seeking behavior, which is essential for academic success. Studies show that students often experience difficulties in formulating keywords, refining search strategies, and selecting appropriate academic sources (Dahlen & Hanson, 2023; Nasir et al., 2024). Without proper training, students tend to rely on convenience-based searching rather than critical evaluation of sources, which weakens the quality of their academic work (Khan, 2020; Marasinghe et al., 2023). These challenges indicate that information-seeking behavior among students remains inefficient and underdeveloped in many academic settings.

Moreover, limited information-seeking skills significantly hinder students' ability to retrieve and use information effectively (Shuhidan et al., 2020). The widespread availability of online information has also encouraged superficial browsing behavior, where students scan search results without critically assessing credibility. As a result, they often experience uncertainty, discomfort, and stress during the search process (Khan et al., 2022), which may lead to the use of inaccurate or biased sources in academic writing (Cross & Gullikson, 2020).

Across different contexts, numerous studies identify common barriers affecting information-seeking behavior, including lack of resources (29%), poor internet access (21%), lack of awareness (25%), and difficulty in searching (25%) (Muruganandham, 2026). In addition, the increasing volume of information contributes to anxiety, confusion, and reduced concentration, which negatively affects students' ability to search for, evaluate, and use information effectively (Adekoya & Akune, 2023). Information overload has also been associated with cognitive fatigue, information anxiety, and difficulties in organizing information (Shahrzadi et al., 2024), as well as broader emotional and cognitive strain among students. For instance, students report feeling overwhelmed when learning new topics, difficulty prioritizing tasks, mental exhaustion, and pressure from time constraints, as well as frequent exposure to excessive information during academic searches (Vicente, 2024). These conditions negatively affect cognitive functioning, reduce academic performance, weaken decision-making, and compromise information-seeking skills (Du Toit & Du Preez, 2026; Shahrzadi et al., 2024), ultimately limiting students' ability to process and utilize information efficiently and make confident research decisions.

On the other hand, effective information-seeking behavior is influenced by several factors, including source quality, search strategies, and information literacy level (Ali & Jan, 2020). In response, libraries and academic institutions have implemented training programs aimed at improving students' information skills and reducing information-related anxiety (Islam, 2023). Strengthening information literacy is therefore

essential in improving students' ability to understand, evaluate, and use information effectively (Yang & Khan, 2023). As a result, effective search behavior enhances academic success by facilitating efficient access to relevant and credible information (Parhamnia & Farahian, 2023).

The fear of missing out on information causes information anxiety and uncertainty, leading to a lack of understanding and poorly organized data. Hence, several pieces of pertinent disciplines and numerous works of literature measure an individual's proficiency and students' information literacy, examining it as a mediating variable influencing the relationship between information anxiety and information-seeking behavior. This quantitative study reviews relevant literature and associates research with connections to the overall research framework. The researcher gathered this data to support the study's objectives and findings.

The information is now a single click away, and this unprecedented ease of access has transformed various aspects of daily life, improved access to education, and facilitated easier communication around the world (Kochkarova, 2023). However, the proliferation and variety of information sources make it more difficult to find reliable and credible information, leading to skepticism about its authenticity (Freiling et al., 2023). Students experience difficulties in selecting and narrowing topics, formulating search terms, and evaluating the credibility of websites and academic sources (Aldousari & Al-Muomen, 2021). To address these challenges, educators and librarians can implement targeted search strategies and information literacy instruction to help students navigate the abundance of sources and reduce their information anxiety (Zhao et al., 2024).

Accordingly, several studies suggest that ineffective information-seeking behaviors contribute to increased information anxiety, as students struggle to assess the credibility of the information they access (Dadaczynski et al., 2021; Wang et al., 2021). Teaching students effective search techniques and critical evaluation skills can mitigate this issue. The lack of resources and weak search strategies further

worsen this condition, making information retrieval more difficult (Yang & Khan, 2023). Students with limited access to academic resources are particularly vulnerable to experiencing heightened anxiety during information searching (Lehman & Miller, 2020). Developing comprehensive search strategies and improving resource accessibility are essential steps to lessen students' information anxiety and enhance their confidence in research tasks.

In addition, ineffective information literacy skills reduce students' confidence in handling academic information, leading to increased information anxiety (Katopol, 2010, cited by Ojo, 2016; Naveed, 2020). Students who lack proper training in information evaluation tend to rely on unreliable sources, which further increase their anxiety levels when dealing with academic tasks (da Silva Cezar & Macada, 2023; Tsa & Wu, 2021). Information overload also intensifies this condition, especially when students are unable to properly access, evaluate, and organize information (Adebamiro & Popoola, 2021). As a result, students with low information literacy are more likely to experience difficulty in managing academic information demands. These findings suggest that information literacy plays a key role in shaping students' emotional responses to information-related tasks.

Thus, the literature on the correlation between information anxiety and information literacy suggests that improving students' literacy will make them competent to analyze information independently and effectively. Information literacy, through practice, allows students to judge the worth and quality of research materials more fairly, which results in less information anxiety (Moghimi & Rickelman, 2021). With proper training, students become better able to evaluate the credibility and relevance of academic sources. Libraries and academic institutions are encouraged to implement structured training programs, workshops, and seminars to strengthen students' information competencies (Adebamiro & Popoola, 2021). These interventions help students develop greater confidence in navigating complex information environments. Overall, strengthening

information literacy may help reduce information-related anxiety among students.

A notable positive association has been identified between information literacy and information-seeking behavior, where students with higher literacy levels demonstrate more effective search strategies (Haider & Ya, 2021). Information literacy enables students to locate, evaluate, and use information more systematically and critically. Correspondingly, this is further emphasized by the need for developing training programs that help students effectively assess and use information in the digital age (Khanum et al., 2021). Students who are information literate are better able to organize their search process and identify relevant academic sources. Therefore, information literacy significantly enhances students' information-seeking behavior.

Furthermore, students with strong information literacy skills tend to demonstrate more confidence in navigating digital information environments. They are better equipped to filter irrelevant content and focus on credible academic materials. Academic libraries play a vital role in supporting this development through structured training programs and learning resources, such as workshops and online tutorials (Tachie-Donkor & Ezema, 2023; Ozor & Toner, 2022). Understanding students' information-seeking behavior is also essential for designing effective library instruction (Gyesi, 2020). Overall, strengthening information literacy contributes to more efficient and purposeful information-seeking behavior among students.

Overall, the literature demonstrates a strong interrelationship among information anxiety, information literacy, and information-seeking behavior. Information anxiety negatively affects students' ability to effectively search and use information, which can hinder academic progress. Information literacy is a key factor in reducing anxiety and improving search behavior, leading to more confident and effective research practices. Moreover, students with higher information literacy demonstrate more effective and confident information-seeking practices. Academic libraries and institutions,

therefore, play an important role in developing these competencies through targeted training programs. Strengthening information literacy may simultaneously reduce information anxiety and enhance students' information-seeking behavior.

Despite this, little is known about how information anxiety, information-seeking behavior, and information literacy interact among allied health students, particularly when information literacy acts as a mediating factor. Existing studies have generally examined these variables separately, focusing on how information anxiety affects searching, how information literacy supports the evaluation and use of information, and how information-seeking behavior reflects students' engagement with academic resources. However, limited empirical evidence clarifies how these factors relate within a single analytical framework, especially in allied health education, where students manage large volumes of academic information under demands for accuracy and efficiency. Localized studies in contexts such as Davao City also remain limited in their exploration of how these variables operate in students' actual experiences. Therefore, this study aims to determine the mediating effect of information literacy on the relationship between information anxiety and information-seeking behavior among allied health students in Davao City.

The study focuses on information anxiety, information-seeking behavior, and information literacy among allied health students in Davao City, with particular emphasis on the mediating role of information literacy. Specifically, it sought to answer the following objectives: First, to ascertain the level of information anxiety in terms of task anxiety, need recognition anxiety, finding anxiety, evaluation anxiety, access anxiety, and usage anxiety. Second, to determine the level of allied students' information-seeking behavior in terms of the sources used, the search strategies employed, the information evaluated, and the information cited. Third, to assess the level of students' information literacy skills in terms of defining information needs, accessing information, utilizing information, and understanding ethical and legal regulations governing information use. Fourth, to

determine the significance of the relationship between information anxiety and information-seeking behavior, information anxiety and information literacy, and information literacy and information-seeking behavior. Lastly, to establish the mediating effect of information literacy on the relationship between information anxiety and the information-seeking behavior of allied health students in Davao City.

Furthermore, the following assertions constitute the study's hypotheses and are linked to the underlying theory, specific research questions, and evidence demonstrating the study's validity. There is no significant correlation between information anxiety and the information-seeking behavior of allied students; between information anxiety and information literacy; or between information literacy and information-seeking behavior. In addition, information literacy has no mediating effect on the relationship between information anxiety and the information-seeking behavior of allied health students in Davao City.

This study is anchored on Kuhlthau's Information Search Process (ISP) model, which explains how individuals experience information-seeking as a process involving cognitive, emotional, and behavioral stages. The model suggests that information-seeking is not purely a technical activity, but a dynamic process influenced by uncertainty, anxiety, and the development of understanding across six stages: initiation, selection, exploration, formulation, collection, and presentation (Fainburg, 2009). In the context of this study, the ISP model provides a comprehensive explanation of how information anxiety may emerge during the information search process and how information literacy skills can support students in effectively navigating and completing their information-seeking tasks.

Moreover, Kuhlthau's ISP model (1991) further emphasizes that information literacy instruction and intervention play a critical role in guiding learners through the information-seeking process. It highlights that students' cognitive, emotional, and behavioral

states influence how they search for and use information, suggesting that effective information literacy training can reduce uncertainty and improve search outcomes (Caffrey et al., 2020). This model supports the present study by explaining how information anxiety (IV) may affect information-seeking behavior (DV), and how information literacy (MV) may assist students in managing uncertainty and improving their search process.

This study is further supported by Wurman's theory of information anxiety, which explains that information anxiety arises when there is a gap between what individuals know and what they believe they need to know. According to this theory, information overload, lack of understanding, and difficulty accessing or interpreting information contribute to feelings of confusion, frustration, and reduced confidence in dealing with information (Naveed & Anwar, 2022). Wurman's theory directly supports the concept of information anxiety in this study and explains how excessive or insufficient information may negatively influence students' ability to seek and use information effectively.

Finally, another supporting theory is Dervin's Sense-Making Theory (1998) which explains how individuals actively construct meaning from information by bridging gaps between their current situation and desired understanding. The theory emphasizes that information-seeking is a problem-solving process in which individuals use strategies to make sense of information and apply it to their needs (Dervin, 1998). This theory supports the dependent variable by explaining how students navigate information challenges and develop strategies to manage uncertainty during the search process. It also highlights the importance of adaptive behaviors in responding to information needs in complex environments.

The conceptual framework includes key concepts, variables, relationships, and assumptions guiding a study. It offers a theoretical foundation and serves as a lens for analyzing and interpreting data. Often grounded in existing theories or models, it structures the research by identifying variables, shaping

questions, and informing the methodology and data analysis. Conceptual frameworks can appear in written or visual forms. They may also be taxonomic, categorizing phenomena without showing relationships, or mathematical, expressing relationships with equations (Singh, 2023).

Figure 1 illustrates the study's three variables: information anxiety (independent variable), information-seeking behavior (dependent variable) and information literacy (mediating variable). Information anxiety is the independent variable encompassed through its six indicators: task anxiety, which refers to the uncertainty experienced when understanding or initiating information-related tasks; need recognition anxiety, which refers to the difficulty in identifying the specific information required to accomplish a task; finding anxiety, which refers to the challenges encountered in locating relevant information sources and developing effective search strategies; evaluation anxiety, which refers to the uncertainty associated with assessing the credibility, accuracy, and quality of information and its sources; access anxiety, which refers to the difficulties experienced in obtaining needed information despite extensive searching; and usage anxiety, which refers to the challenges involved in understanding, integrating, and applying retrieved information effectively (Naveed & Anwar, 2022).

Furthermore, Information-seeking behavior, it was adapted from Timmers and Glas (2010) and is measured through four indicators: sources used, search strategies used, evaluation of information, and referring to information. Sources used refer to the information resources accessed by students. Search strategies used pertain to the methods employed to locate information efficiently. Evaluation of information involves assessing the credibility, relevance, and quality of information sources and referring to information related to the ethical, legal, and appropriate use of information.

Likewise, information literacy is the mediating variable and involves defining information needs, accessing information, utilizing information, and ethical and legal use of information, which was taken

from Tosuncuoglu and Kucukler (2019). Defining information needs refers to students' ability to identify and clarify the specific information they require for academic tasks. Accessing information refers to locating and retrieving relevant information

effectively. Utilizing information involves evaluating, synthesizing, and applying it appropriately. Ethical and legal use of information refers to adherence to citation standards, intellectual property rights, and responsible information practices.

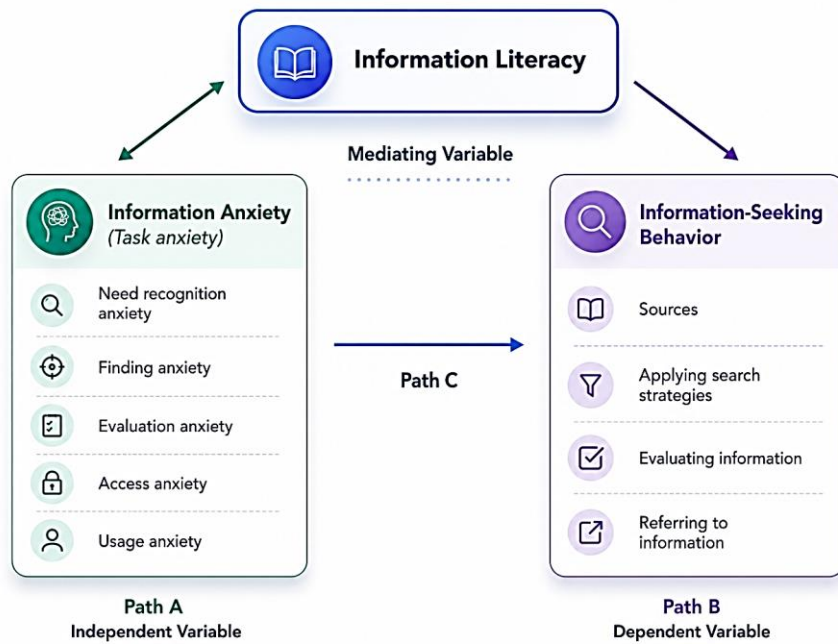


Fig 1. Conceptual Paradigm of the Study

Exploring this topic is significant because it highlights the potential impact of understanding how allied health students navigate information-related challenges in academic environments, inspiring educators, librarians, and administrators to recognize their vital role in fostering student success. The study may provide valuable insights into the role of information literacy in shaping students' information-seeking behavior and managing information anxiety. The findings may inform the development of educational and library-based initiatives that promote effective information use, support academic success, and strengthen information literacy practices among allied health students in Davao City.

The study aligns with Sustainable Development Goal (SDG) Number 4, which aims to provide inclusive and equitable quality education and to promote lifelong learning opportunities for all. This goal seeks to ensure

equal access to affordable vocational training, eliminate gender and wealth disparities, and achieve universal access to higher education quality (Hossain et al., 2023). Additionally, conducting this study will contribute to Sustainable Development Goal (SDG) Number 9, which supports innovation by promoting resilient infrastructure development, advancing technological progress, and encouraging sustainable industrial practices that foster inclusive growth (Küfeoğlu, 2022). SDG 9 highlights the significance of innovation-driven development through the integration of emerging technologies, improved access to information systems, and enhanced knowledge-based skills that boost efficiency and productivity across sectors.

Furthermore, the findings of this study may benefit allied health students by providing insights into how information anxiety influences their ability to seek,

evaluate, and use academic information, as well as how information literacy can support more effective academic engagement. Educators and faculty members may use the results to improve instructional strategies that strengthen students' information literacy competencies. Librarians and Library and Information Science (LIS) practitioners may use the findings to design or enhance information literacy programs, training activities, and student support services. Academic administrators and policymakers may also use the study to strengthen institutional support systems and integrate information literacy initiatives into academic programs.

Also, the results may contribute to future research by providing empirical evidence on the relationships among information anxiety, information-seeking behavior, and information literacy. The study may serve as a reference for researchers investigating similar variables in different educational contexts, populations, or disciplines. It may support the development of future information literacy initiatives and related research endeavors.

## **II. METHODS**

### **A. Research Respondents**

The study surveyed 360 students enrolled in allied health programs at Higher Education Institutions (HEIs) in Davao City, particularly at Davao Doctors College, Brokenshire College, and University of Mindanao. The total combined student population across the three institutions was 5,616. Using the Raosoft sample size calculator, a representative sample size of students was determined. Prior to the conduct of the study, 30 randomly selected students participated in pilot testing to establish the reliability and validity of the survey instrument. The study commenced in August 2025.

The research employed stratified random sampling by dividing the population according to institution and randomly selecting respondents from each subgroup. This sampling technique ensured that each institution was fairly represented, minimized sampling bias, and enabled accurate representation and meaningful analysis of specific subgroups within the population. Stratification also ensured that each subgroup was

adequately reflected in the study, allowing for more precise inferences and reliable insights across different segments of the population (Adams & McGuire, 2023). The sample size was proportionally distributed among the participating institutions as follows: 137 students from Davao Doctors College, 114 students from University of Mindanao, and 109 students from Brokenshire College.

The researcher utilized a set of standards as inclusion criteria. First, respondents were enrolled in an undergraduate allied health program. Second, respondents were affiliated with a member institution of the Davao Colleges and Universities Network (DACUN) that offered allied health programs. Third, respondents had provided informed consent before participating in the study. Students enrolled in non-allied health programs and those from DACUN institutions that did not offer allied health programs were excluded from the study. Participants were also given the option to withdraw from the study at any point, and their data were deleted upon request to uphold ethical considerations. The researcher adhered to strict privacy and confidentiality protocols to protect the participants' identities and personal information.

The study was conducted in the Davao Region, also known as Region XI, located in the southeastern part of Mindanao. The region comprised the provinces of Davao del Oro, Davao del Norte, Davao del Sur, and Davao Oriental, with Davao City serving as the regional center. The locale was selected because it hosted several higher education institutions offering allied health programs, making it appropriate for examining students' information literacy, information anxiety, and information-seeking practices.

### **B. Materials and Instrument**

The research questionnaires were drawn from various authors and modified to meet the study's requirements. The questionnaire and its corresponding authors were: information anxiety (33-item from Naveed & Anwar, 2022); information-seeking behavior (46-item from Timmers & Glass, 2010); and information literacy (29-item from Tosuncuoğlu & Küçükler, 2019). Three expert panels and one external panel examined and

ensured content relevance and standardization. The validation process yielded an overall mean rating of 4.75, indicating a very high level of validation.

Responses were measured using a 5-point Likert scale. Scores ranging from 4.20 to 5.00 were interpreted as "Very High," indicating that the measured behaviors were always manifested. Scores ranging from 3.40 to 4.19 were interpreted as "High," indicating that the behaviors were often manifested. Scores ranging from 2.60 to 3.39 were interpreted as "Moderate," indicating that the behaviors were sometimes manifested. Scores ranging from 1.80–2.59 were interpreted as "Low," indicating that the behaviors were seldom manifested, while scores ranging from 1.00–1.79 were interpreted as "Very Low," indicating that the behaviors were never manifested.

Thirty representative respondents also completed a pilot test for the questionnaire. This action was taken to ensure dependability and authenticity. The pilot testing produced an overall reliability coefficient of 0.952, indicating excellent internal consistency.

### ***C. Data Gathering Procedure***

Formal letters requesting permission to conduct the study were submitted to the administrators of the selected institutions' universities and colleges. Approval from these authorities was obtained before data collection commenced to ensure ethical clearance and institutional compliance. Upon approval, the researcher administered the questionnaires using printed copies and online platforms such as Google Forms. The researcher personally facilitated and monitored the distribution and retrieval of questionnaires to ensure completeness and accuracy of responses. Participants were informed about the purpose of the study, the voluntary nature of their participation, and the confidentiality of their responses. The data collection process lasted for two months. After retrieval, all responses were carefully tabulated, encoded, organized into tables, and prepared for statistical analysis and interpretation.

### ***D. Data Analysis Procedure***

This study employed a descriptive-correlational research design to examine the levels of information literacy, information anxiety, and information-seeking

behavior among graduate students and to determine the relationships among these variables. Descriptive-correlational research is appropriate for investigating characteristics of a population and identifying associations among variables in their natural settings without manipulation (Pandey et al., 2023). Furthermore, mediation analysis was utilized to examine the relationships among the predictor, mediator, and criterion variables and to determine whether the mediator significantly influenced the relationship between the predictor and criterion variables (Nikmohamed et al., 2023).

Data collection was conducted over a period of two months. Prior to the administration of the survey instruments, the questionnaires underwent expert validation and pilot testing to establish their validity and reliability. Revisions were made based on the validators' recommendations, and a statistician evaluated the pilot test results.

After the completed questionnaires were retrieved, responses were checked, coded, organized, and tabulated for analysis. The data were then subjected to statistical treatment and interpretation. Based on the findings, conclusions were drawn, and recommendations were formulated to address the study's objectives.

### ***E. Ethical Considerations***

This study strictly adhered to ethical guidelines to protect participants' rights and maintain the integrity of the research process. Prior to data collection, the research protocol, survey instruments, and informed consent forms were reviewed and approved by the University of Mindanao Ethics Review Committee (UMERC), ensuring compliance with institutional ethical standards and the Philippines' Data Privacy Act of 2012 (Republic Act No. 10173). Consequently, an ethics certificate (Certification No. UMER-2025-383) was issued on May 7, 2026, confirming the study's compliance with ethical requirements.

Participants were fully informed about the purpose of the study, their role, and the handling of their data before participation. Informed consent was obtained before administering the survey, and participation was voluntary. Respondents were free to withdraw at any

time without penalty, and their decision did not affect their relationship with the researcher or the institution. Confidentiality and anonymity were strictly maintained throughout the study. All data were securely stored using password-protected devices, encrypted files, locked storage for printed documents, and secure online platforms. Identifiable information was removed to ensure anonymity. Data will be retained for 2 years after completion of the study and securely disposed of thereafter by permanently deleting digital files and shredding physical documents.

### III. RESULTS AND DISCUSSION

#### *Level of Information Anxiety*

Table 1 shows that respondents had an overall mean score of 3.30, indicating a moderate level of information anxiety. Among the specific dimensions, task anxiety ( $M = 3.51$ ) and finding anxiety ( $M = 3.46$ ) both fall under the high category. In contrast, recognition ( $M = 3.19$ ), access anxiety ( $M = 3.35$ ), evaluation anxiety ( $M = 3.27$ ), and usage anxiety ( $M = 3.03$ ) are all within the moderate range. These aforementioned results indicate that students occasionally experience anxiety and confusion by receiving too much information, difficulty in dealing with large volumes of information obtained during their academic task and exposure to multiple sources.

These results suggest that allied health students experience greater difficulty during the early stages of information processing, particularly when identifying academic tasks and locating relevant sources. The elevated scores on tasks and finding anxiety suggest that students may struggle to translate academic requirements into effective search strategies, which can affect how efficiently they retrieve scholarly materials (Clarín et al., 2025).

Meanwhile, the moderate levels observed in other dimensions indicate that students have some adaptability in accessing, evaluating, and using information, although these processes are not entirely free of difficulty. This pattern reflects partial competence in managing academic information, with challenges that are still present but not consistently severe (Awasthi & Gulati, 2025; Leliana et al., 2021).

Such difficulties may still contribute to inefficient information handling, especially when students are exposed to large volumes of digital content (Vinueza-Fernández et al., 2025).

Overall, the results imply that while students are not overwhelmed at all stages of information processing, they are particularly vulnerable at the initial stages of searching and defining information needs. The results support the idea that strengthening information literacy skills may help reduce uncertainty and improve students' confidence when dealing with academic resources (Moghimi & Rickelman, 2021; Riftianti et al., 2024).

The findings are consistent with Information Anxiety Theory, which explains that anxiety arises when individuals feel unable to effectively manage or interpret available information (Wurman, 1989). Prior studies further suggest that structured training and library support programs can help reduce these difficulties by improving students' search and evaluation skills (Bala et al., 2023; Mercado-Sierra & Northam, 2023, 2023; Blocksidge & Primeau, 2024; Bharti et al., 2025).

#### *Level of Information-seeking behavior*

Table 2 below presents the overall mean of 3.66, interpreted as a high level of information-seeking behavior among respondents. Across the indicators, students received high ratings for evaluating information ( $M = 3.80$ ), applying search strategies ( $M = 3.78$ ), and referring to information ( $M = 3.76$ ). However, the use of information sources recorded a comparatively lower mean of 3.29, interpreted as moderate.

The findings underscore that while students exhibit strong competencies in evaluating, applying, and referring to information, their comparatively lower engagement with using various information sources suggests that they are accessing only a narrow selection of sources rather than seeking information from a wide array of available options. This result shows that students depend mainly on limited or familiar sources rather than implementing a comprehensive search strategy.

*Table 2. Level of Information-Seeking Behavior*

Indicators	Mean	SD	Interpretation
Sources	3.29	0.52	Moderate
Applying search strategies	3.78	0.67	High
Evaluating information	3.80	0.64	High
Referring to information	3.76	0.72	High
<b>Overall</b>	<b>3.66</b>	<b>0.56</b>	<b>High</b>

The findings suggest that while allied health students demonstrate competence in handling information once it has been located, their engagement in exploring a wide range of sources remains limited. In particular, the moderate score for information sources suggests a tendency to rely on familiar or easily accessible sources rather than systematically broaden their search scope. The findings indicate that students have limited exposure to diverse academic materials and that their research output is less in-depth. On the other hand, the high scores in evaluating information and applying search strategies indicate that students are generally capable of organizing and analyzing information effectively. They appear to possess functional skills in filtering relevant content and using structured approaches during the search process, which are essential components of academic research behavior (Tachie-Donkor & Ezema, 2023).

These findings align with previous literature suggest that students often develop stronger evaluative and procedural search skills compared to exploring behaviors. Humbhi et al. (2022) note that information seekers may follow structured steps in gathering and processing data but may still exhibit limitations in maximizing the diversity of available resources. Similarly, Parissi et al. (2023) emphasize that students typically adopt systematic approaches when resolving information problems, although the breadth of sources consulted may vary depending on their level of training and exposure.

From an academic support perspective, these results highlight the importance of strengthening students' ability to navigate multiple databases and scholarly platforms. Ogo and Uchendu (2024) stress that understanding students' information behavior is essential in designing effective academic support

systems, particularly in library instruction and research assistance services. In addition, Khanum et al. (2021) emphasize the need for structured training programs that enhance students' ability to locate and evaluate digital information critically.

#### *Level of Information literacy*

Table 3 indicates that respondents had an overall mean score of 3.83, indicating a high level of information literacy. When broken down, identifying information needs recorded the highest mean (M = 3.87), followed closely by awareness of ethical and legal regulations in information use (M = 3.85). Accessing information also received a high rating (M = 3.82), while utilizing information obtained the lowest mean (M = 3.77), though still considered high, suggesting students use information well but can still improve. In summary, students demonstrate the ability to identify, access, assess, and use information.

Research reveals that students possess key information literacy skills in defining, finding, and using information. These skills are critical for academic success, lifelong learning, critical thinking, and problem-solving (Goodsett & Schmillen, 2022; Tarbiyati & Riady, 2025).

In the digital age, information literacy helps students locate information efficiently, assess its relevance and accuracy, and apply it ethically in academic work (Tarbiyati & Riady, 2025).

The findings align with other studies show that students with these skills achieve better research outcomes and assignments. They are also less likely to plagiarize, as their understanding of citation practices and ability to evaluate information critically helps reduce misinformation (Muti & Geroy, 2025).

**Table 3. Level of Information Literacy**

Indicators	Mean	SD	Interpretation
Defining information need	3.87	0.73	High
Accessing information	3.82	0.72	High
Utilizing information	3.77	0.75	High
Ethical and legal regulations in information usage	3.85	0.78	High
<b>Overall</b>	<b>3.83</b>	<b>0.71</b>	<b>High</b>

But the findings indicate that allied students have competencies in information literacy, but their ability in synthesizing and using information needs to be strengthened. Hence, libraries need to proactively implement comprehensive training on resource use, citation, plagiarism prevention, and the ethical use of information, to ensure the success and ability of students to adapt to changing environments in the world (Dar & Mushtaq, 2025).

### Correlation Analysis of the Variable

Significant connections between information anxiety, information literacy and information-seeking behavior are shown by the correlation analysis of the variables in Table 4. The relationship between information

anxiety and information-seeking is 0.216 with a p-value of less than 0.001 and therefore the null hypothesis is rejected. This indicates a weak but statistically significant positive correlation. Students with higher information anxiety were more likely to report higher levels of information-seeking behavior, suggesting that anxiety may be associated with efforts to reduce uncertainty.

Moreover, supporting literature affirms this relationship. Studies have shown that individuals who frequently engage in information-seeking activities, particularly online, may experience heightened information anxiety due to excessive, unclear, or conflicting information (Wang et al., 2024).

**Table 4. Correlation Analysis of the Variables**

Pair	Variables	Correlation Coefficient	p-value	Decision on Ho
IV and DV	Information Anxiety and Information-seeking behavior	0.216	< .001	Reject
MV and DV	Information Literacy and Information-seeking behavior	0.782	< .001	Reject
IV and MV	Information Anxiety and Information Literacy	0.114	< .003	Reject

Similarly, previous studies suggest that information-seeking behavior may occur as individuals attempt to manage uncertainty and regain control when experiencing overwhelming information situations (Charpentier et al., 2022).

The association between information anxiety and information-seeking behavior when undergoing information uncertainty or overload, students exhibit information-seeking as a way of reducing anxiety or avoidance to information overload (Soroya et al., 2021).

Moreover, the correlation between information literacy and information-seeking behavior is 0.782,

with a p-value of less than 0.001 resulting in rejecting the null hypothesis.

The positive correlation indicates that the higher the students' information literacy skills the effective information-seeking behavior they have.

On the other hand, studies have shown that information literacy skills are strongly and have positive correlation with information-seeking behavior, as individuals with higher literacy levels are more capable of locating, evaluating, and effectively using information resources, leading to improved academic success and lifelong learning (Florescu, 2023; Tachie-Donkor & Ezema, 2023).

Lastly, the correlation between information anxiety and information literacy was positive and statistically significant, with a correlation coefficient of 0.114 and a p-value of 0.03, leading to the rejection of the null hypothesis. This weak positive correlation suggests that students experiencing higher levels of information anxiety may also demonstrate slightly higher information literacy skills when managing information-related difficulties.

This relationship may indicate that students who encounter information challenges develop strategies to navigate information environments better.

Previous research suggests that enhanced information literacy helps students analyze, evaluate, and apply information independently, which may support more effective research practices (Yang & Khan, 2023). With stronger information literacy skills, students may become more confident and competent when engaging in complex digital information environments.

Therefore, the relationship between information anxiety and information literacy may contribute to more effective information-seeking behavior through improved information-related skills (Moghimi & Rickelman, 2021).

### **Direct and Indirect Effects of X and Y**

The direct and indirect influence of Information Anxiety (IV) on Information-Seeking Behavior (DV) through the mediator of Information Literacy presented in Table 5.

The direct relationship between information anxiety and information-seeking behavior that adjusts information literacy is also significant (Effect = 0.1012,  $p < .001$ , 95% CI [0.0573, 0.145]).

These findings demonstrate that information anxiety has a significant direct effect on information-seeking behavior even when controlling information literacy.

Information literacy acts as a mediator between information anxiety and information-seeking behavior, meaning that information anxiety influences information-seeking behavior indirectly through its effect on information literacy.

The indirect effect is 0.0708, and the 95% bootstrap confidence interval [0.0142, 0.1299] does not include zero, confirming that this mediation effect is statistically significant. Thus, information literacy partially mediates the connection between information anxiety and information-seeking behavior.

In conclusion, the findings support a partial mediation model, where information anxiety influences information-seeking behavior both directly and indirectly through information literacy.

The direct pathway (effect = 0.1012) is slightly stronger than the indirect pathway (effect = 0.0708), so information literacy accounts for only part of the overall relationship.

The significance of the direct effect means that information anxiety impacts information-seeking behavior on its own, in addition to its influence through information literacy.

### **Mediation Analysis of Three Variables**

Figure 2 illustrates the mediation exploration of the relationships between information literacy, information anxiety and information-seeking behavior.

A mediation test was conducted to test the three variables, and the effects were calculated by the impact size to show that they were all statistically significant at the 0.01 level, meaning the partial mediation. Coefficient and standard error of information anxiety with information literacy is 0.1598 and 0.0630 respectively.

The path from Information Literacy to Information-seeking behavior has a coefficient of 0.4432 with an SE of 0.0186. The direct path from Information Anxiety to Information-Seeking Behavior has a coefficient of 0.1012 with an SE of 0.0223.

This indicates that though information literacy partially describes how information anxiety impacts information-seeking behavior, the continuing component is mediated by the other factors.

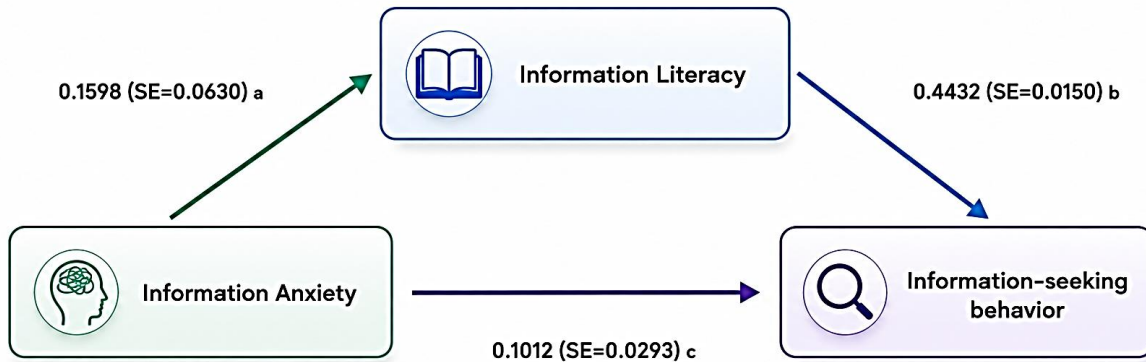


Figure 2. Med graph showing the mediation analysis

Information anxiety directly influences information-seeking behavior, but it also indirectly affects it through information literacy. Partial mediation occurs when an independent variable influences a dependent variable both directly and indirectly through a mediating variable (Ledermann et al., 2025). In this study, the correlations reported here are statistically significant, indicating that information literacy reflects the relationship between information anxiety level and information-seeking response, though other intervening variables may exist.

Information literacy plays a key role in shaping students' information-seeking behavior by enhancing their ability to locate, evaluate, and effectively use information, thereby supporting academic success and lifelong learning (Tachie-Donkor & Ezema, 2023). Similarly, information literacy programs have been shown to strengthen students' information-seeking skills and improve their overall research behavior (Austria, 2026). These findings are further supported by studies demonstrating that information literacy partially mediates the relationship between information anxiety and information-seeking behavior, helping students manage anxiety and engage more effectively in academic information use (Moghimi & Rickelman, 2021; Naveed, 2020; Zhao et al., 2024). The results also highlight the multifaceted role of information literacy in reducing stress, confusion, and frustration associated with information overload. In this regard, academic libraries play a crucial role in strengthening students' competencies

through structured training and instructional support (Liu et al., 2025).

At the same time, other factors such as motivation, prior knowledge, and coping strategies also influence how students seek and apply information, demonstrating that information literacy is a key but not exclusive mediator in this process (Tachie-Donkor & Ezema, 2023; Valmores & Acedera, 2024). These findings emphasize the significance of enhancing allied health students' information literacy skills to reduce the harmful effect of information anxiety and improve their information-seeking behavior.

#### IV. CONCLUSION AND RECOMMENDATION

The findings of the study reveal that task anxiety emerged as the type of information anxiety sometimes experienced by allied health students. This means that students show high difficulty in defining or not knowing where to start in the search process. Moreover, the ability to identify, locate and select necessary sources of information is evident among the students. This suggests that while students experience certain challenges in managing information, they possess fundamentals skills needed to navigate academic resources effectively. Hence, libraries strengthening their information literacy programs may contribute to reducing information anxiety and increasing confidence and competence in handling information-related tasks.

In the same way, students exhibit high competence in critically evaluating information and applying

effective search strategies, enabling them to recognize the difference between reliable academic sources and unreliable/biased sources. Their ability to refer to retrieved information shows that they effectively ask and use relevant content to support academic tasks. These findings indicate that students possess well-developed skills in assessing and applying information to deliver quality academic work. Nevertheless, the moderate result for sources used or the approaches students use to gather information reveals that their engagement with diverse and scholarly resources is varying, as they directly search at web search engines or AI-generated content when searching for information and only rarely use peer-reviewed journals and scholarly databases. This implies that libraries need to strengthen students' awareness and consistent use of credible academic sources among students to enhance their overall information-seeking skills.

Furthermore, students exhibited a high level of information literacy, an indication that they were equipped with the foundational competencies needed to navigate today's digital age. This explains that they can evidently define their information needs and articulately exhibit awareness of moral and legal guidelines in the use of information. In addition, they can identify important concepts, use resources effectively, even in the process of seeking information, and use effective search techniques. Besides that, students demonstrate flexible use across various platforms, indicating that they know how to locate credible sources and evaluate their reliability. These statements indicate that allied health students possess the ability to manage diverse information sources and resources effectively, demonstrating critical, responsible, and competent skills within an evolving environment.

The finding exhibited a significant correlation between the studied variables, as established by the findings and conclusion. The above data reveals that information literacy, information anxiety and information seeking behavior are statistically significantly correlated with each other. Thus, based on the data analyzed, confirmed that information anxiety affects information-seeking behavior both

directly and indirectly through information literacy. The indirect pathway is meaningful but smaller than the direct effect. This implies that once students feel anxious and do not know how to start the search process it pushes them to develop literacy skills, thereby improving their information-seeking behavior. Additionally, the study findings were supported with the theory by Kuhlthau's Information Search Process, Wurman's Information Anxiety Theory, and Dervin's Sense-Making Theory.

Information anxiety is commonly undertaken to hinder students' information-seeking behavior but, the evidence demonstrates that it is not necessarily so. Although anxiety may be present, it can also encourage students to build their information literacy skills, becoming more effective in ability to locate, evaluate, and apply information effectively. Information Literacy is the key leverage point; it has the strongest effect on information-seeking behavior, suggesting that interventions to improve literacy will greatly enhance students' ability to seek and use information effectively. This shows that emotional issues do not necessarily hinder performance, especially when students have the skills and coping strategies to handle them. Overall, the findings indicate that the students are susceptible to emotional and cognitive factors emphasizing a need to entrench anxiety in order to create a more robust information literacy.

Based on the findings and conclusions made in the preceding section, the following recommendations are suggested. Since allied health students demonstrated a moderate level of information anxiety, particularly in usage anxiety, need recognition anxiety, evaluation anxiety, and access anxiety, libraries should continue to strengthen programs that enhance students' information literacy and research skills. Need recognition anxiety and access anxiety may be addressed through continuous library efforts to provide guided instruction, hands-on workshops that focus on identifying appropriate keywords and search terms. So, students can easily identify the information they need and efficiently access relevant resources from academic databases. Moreover, developing training sessions and workshops on evaluating the

credibility of information sources, tutorial videos on proper citation practices to prevent plagiarism, and awareness of ethical and responsible information use. Librarians should also promote additional activities, such as comparing multiple sources and applying evaluation criteria, to strengthen students' critical thinking skills in assessing the quality and reliability of information. A guided exercise in which students are required to search for and compare information from library databases and open-access sources such as Google Scholar or other reputable online platforms, and to evaluate it based on credibility, accuracy, relevance, and bias.

Next, although the level of information-seeking behavior among allied health students is considered high, particularly in evaluating information, applying search strategies and referring to information. Libraries should create orientation programs and develop structured learning activities that guide students in accessing and selecting credible academic sources. Additionally, libraries can create discipline-specific references and infographics to open access references to make sure that the students utilize credible sources and databases. Also, include hands-on workshops, guided tutorials and consultation services on the use of online public access catalogs and library databases to ensure they utilize and access reliable resources.

At the same time, librarians must develop training and workshops on the use of Boolean search, advance search and how to narrow search terms. In coordination with faculty members and college deans, librarians need to require the participation of all students, especially new users, in library orientations and database training sessions to ensure they effectively access and use library resources.

Lastly, considering that the level of information literacy was evaluated as always by the allied health students. To maintain students' literacy competencies, libraries should conduct regular training sessions and workshops on effective search strategies, lateral reading and ethical use of information to avoid plagiarism. Likewise, libraries must intensify research assistance consultations to help allied health students

navigate complex topics, refine research questions and locate credible databases. Moreover, conduct training on the appropriate use of search terminology and develop library guides that help with essential tools and tutorials that teach them. Additionally, librarians can teach students to cross-reference multiple sources and digital tools making sure the sources they use are consistent, not biased and credible. Likewise, Higher Education Institutions are encouraged to integrate and embed information literacy instruction into the curriculum.

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