



**SOCIO-DEMOGRAPHIC FACTORS AS DETERMINANTS OF REFERENCE MANAGEMENT
SOFTWARE UTILIZATION BY POSTGRADUATE NURSING STUDENTS OF AFE BABALOLA
UNIVERSITY, ADO-EKITI, NIGERIA**

Olabode T. Fajiwe

University Library,

Afe Babalola University, Ado- Ekiti, Ekiti State, Nigeria

olabodethomas11@gmail.com

Idowu Adegbilero-Iwari*

Science/Scholarly Communication Librarian,

Afe Babalola University, Ado-Ekiti, Nigeria

adegbileroi@abuad.edu.ng

Folashade M. Lawal

Medical Librarian,

College of Medicine and Health Sciences,

Afe Babalola University, Ado- Ekiti, Ekiti State, Nigeria

lawalfm@abuad.edu.ng

Abosede T. Ogunojemite

Pharmacy Librarian,

College of Pharmacy,

Afe Babalola University, Ado- Ekiti, Ekiti State, Nigeria

michealtola@yahoo.com

Abstract

This research work investigated socio-demographic factors as determinants of reference management software utilization by postgraduate nursing students of Afe Babalola University, Ado-Ekiti (ABUAD). Correlational survey design was used and the target population comprised 48 postgraduate nursing students of ABUAD. Total enumeration was used for the study. The research objectives and hypotheses generated were achieved using descriptive statistics of simple percentage, mean, and standard deviation and inferential statistics of Pearson Product Moment Correlation tested at 0.05 level of significance. The result showed that Zotero and Mendeley 12(25.0%) apiece were the two major reference management software postgraduate nursing students of ABUAD were familiar with. The study revealed that socio-demographic factors such as age ($r = .224$) at $p < .05$), gender ($r = .725$) at $p < .05$), program of study ($r = .898$) at $p < .05$) and prior experience ($r = .277$) at $p < .05$) of postgraduate nursing students of ABUAD had significant influence on the intention of using RMS. It is recommended that University management should organize training workshop and seminar for postgraduate students of ABUAD on the use of various types of reference management software.

Keywords: *Socio-demographic; Reference Management Software; Utilization, Postgraduate Students; Nursing Students, Use intention*

Introduction

The nursing profession is dedicated to avoiding disease, promoting and restoring health, and providing care to individuals, families, and communities. Among its various duties are wound care, medicine administration, patient education, patient assessment, and emotional support. The American Nurses Association (2021) defined nursing as the protection, promotion and optimization of health and abilities; prevention of illness and injury; alleviation of suffering through diagnosis and treatment of human response; and advocacy in the care of individuals, families, communities, and populations. The main goal of nursing is to help people of all ages manage illnesses, recover from injuries, and maintain their best possible health. In order to become a postgraduate nursing student, one must first earn a Bachelor of Science in Nursing (BSN) or its equivalent, obtain some nursing experience, and then work toward a Master of Science in Nursing (MSN) or Doctor of Nursing Practice (DNP). Postgraduate nursing students play an essential role in advancing nursing science through research, developing evidence-based practices, and improving patient outcomes.

When conducting research, compilations of the references for the materials read/consulted would be recorded in order to prevent plagiarism. Manual referencing is time-consuming, drudgery-packed and error-prone. Reference management software, as automated alternatives, are effective and efficient for postgraduate nursing students to create local libraries for the purpose of gathering, organizing, and storing references for quick and easy insertion into papers. According to Lonergan (2017), reference management software is a tool that assists researchers in digitally organizing and structuring their sources. Rincón Castillo et al., (2022) defined reference management software as tools that can enhance the quality and accuracy of academic and research works.

Reference management software enables postgraduate nursing students to effortlessly arrange, store, and manage a wide range of sources-including books, journal articles, conference proceedings, newspapers, periodicals, patents, audio recordings, videos, and more. Amrutha et al. (2018) posited that reference management software enables researchers to effectively distribute their research findings with minimal referencing headaches by maintaining a condensed list of references that are available in a variety of forms. In addition to saving time and effort, this can enhance the uniformity and correctness of citations in scholarly research (Lonergan, 2017). Reference management software makes it easier and more effective for researchers to search, save, organize and share their references (Mhokole & Kimaryo 2023).

With reference management software, postgraduate nursing students of ABUAD can locate pertinent literature, store papers and their bibliographic metadata in a personal database for future access, and include citations and references in their writing according to a preferred citation style. Postgraduate nursing students of ABUAD have access to a variety of reference management software programs, including Citation Machine, Endnote, Mendeley, RefWorks,

and Zotero. They need RMS it makes research easier, saves time, guarantees proper citations, and promotes organization, all of which are critical for both academic achievement and career advancement. Although postgraduate nursing students of ABUAD may find reference management software difficult, this may be due to the lack of training, technophobia, poor ICT infrastructure, lack of the necessary skills and knowledge on how to apply RMS in their work, lack of awareness, and frequent changes and updates to the software. Students' familiarity and socio-demographic characteristics may also impact how proficient they are at using reference management software for their research work.

Familiarity is a cognitive ability to apply the knowledge gained through experiences with objects. According to Gafoor (2012), familiarity is defined as knowledge of a particular thing. ABUAD postgraduate nursing students must be familiar with reference management software (RMS) in order to conduct thorough research, avoid plagiarism, and acknowledge sources, all of which will improve their academic integrity and research skills. Additionally, familiarity with RMS allows for the efficient organization, citation, and sharing of research materials, which ultimately improves the quality and accuracy of academic work and saves time. Writing academic papers, reports, dissertations, theses, and other types of publications is made simple and quick for ABUAD postgraduate nursing students who are familiar with reference management software such as Citation Machine, EndNote, Mendeley, RefWorks, and Zotero. Concurrently, reference management software will help researchers save time, maintain consistent references, and be able to keep track of what they have read if they are familiar with the software.

Intention is the amount of effort one is willing to exert to attain a goal. Specifically, technology use intention also seen as behavioural intention is "a user's conscious plan or readiness to use a technology in the future" (Venkatesh, Thong & Xu, 2012). Reference management software (RMS) is intended to help postgraduate students organize their bibliographies and citations, expedite their research, and enhance the precision and effectiveness of their academic writing. It also makes cooperation easier and ensures that citation formats are followed.

Socio-demographic factors refer to the characteristics and attributes of a population or group of people based on their social and demographic factors. These factors include age, gender, program of study and prior experience. Age is a measure of time and is used to indicate the experience, maturity, and development of a person. Age has a direct bearing on the individual's experience and knowledge about reference management software. In this computer era, it is strongly believed that younger individuals have high levels of ICT literacy and usage, including reference management software for their research works. Gender, on the other hand, is a factor that refers to the state of being male or female. Although society believed that men are more technologically inclined than women, this belief deserves to be properly validated. Other socio-demographic factors are program of study and experience, which the researchers believe they can influence the use of reference management software by postgraduate nursing students of ABUAD. Programs of study influence the perceived value and necessity of reference manager tools, while experience shapes familiarity and comfort of postgraduate nursing students with reference management software. It is therefore paramount to analyze the socio-

demographic factors of postgraduate nursing students of ABUAD in relation to the utilization of reference management software for scholarly research.

Statement of the Problem

Researchers no longer have to spend time manually entering citation elements like title, author, and publication date because reference management software can automatically extract and populate these details from internet databases. Researchers, including postgraduate nursing students, can arrange and keep all cited references in one convenient spot by using reference management software. It helps them to quickly generate citations while writing medical papers, assignment, reports, dissertation/theses, or any other documents. Despite the substantial advantages that reference management software offers to researchers, especially ABUAD postgraduate nursing students, it has been observed by researchers that lack of information and communication technology skills, lack of internet connectivity, and unreliable power supply, lack of awareness of the software, lack of training, poor ICT infrastructure, frequent changing of the software may hinder the utilization of reference management software by postgraduate nursing students of ABUAD. At the same time, the familiarity and socio-demographics of postgraduate nursing students of ABUAD may hinder the effective utilization of the software. If ABUAD postgraduate nursing students are not familiar with the software, they may find it very difficult to collect, store, and organize references while conducting effective research for their assignments, dissertations, theses, and academic writing. At the same time, socio-demographics of postgraduate nursing students of ABUAD, such as gender, age, experience, and program, may determine whether to use the reference management software or not. Therefore, this research work is set out to investigate socio-demographic factors as determinants of reference management software utilization by postgraduate nursing students of ABUAD.

Objectives of the Study

The main purpose of this research work is to investigate the socio-demographic factors serving as determinants of intention to use reference management software by postgraduate nursing students of ABUAD. Specifically, the research work tends to:

- i. find out the types of reference management software postgraduate nursing students of ABUAD are familiar with.
- ii. find out whether postgraduate nursing students of ABUAD have the intention to use RMS
- iii. determine the relationship between the age of the postgraduate nursing students of ABUAD and intention to use RMS
- iv. determine the relationship between the gender of the postgraduate nursing students of ABUAD and intention to use RMS
- v. determine the relationship between the programme of study of postgraduate nursing students of ABUAD and intention to use RMS

- vi. determine the relationship between the prior experience of the postgraduate nursing students of ABUAD and intention to use RMS

Hypotheses

- H₀₁: There is no significant relationship between the age of the postgraduate nursing students of ABUAD and intention to use RMS
- H₀₂: There is no significant relationship between the gender of the postgraduate nursing students of ABUAD and intention to use RMS
- H₀₃: There is no significant relationship between the program of study of postgraduate nursing students of ABUAD and intention to use RMS
- H₀₄: There is no significant relationship between the prior experience of the postgraduate nursing students of ABUAD and intention to use RMS

Review of Related Literature

According to Cambridge University Press (2017), a postgraduate is a person who has completed one degree and is pursuing a more advanced degree at a university. According to Council on Higher Education (2013), postgraduate nursing students are those pursuing more advanced nursing degrees, such as honors, master's, and doctoral degrees on levels 8- 10 of the National Qualification Framework (NQF). Postgraduate nursing students are the driving force behind nursing science research in addition to being the future healthcare professionals (Abuhammad et al., 2019). Nurses provide direct care to their patients on a daily basis, so they know which approaches work well and which need adjusting. Postgraduate nursing students need to be confident in conducting effective research and have an ability to think critically, apply knowledge and skills, and provide expert, evidence-based nursing care (NMC, 2018).

In the past, references were written on file cards and kept in mailboxes. With the advent of ICT, reference management software has emerged to help scholars easily organize their bibliographies, references, and citations. Reference management software's primary function, according to Setiani et al. (2021), is to cite sources correctly to give proper credit for authors' work and prevent plagiarism. According to Amrutha et al. (2018), RMS was created to assist writers in keeping track of all of their references, no matter how many they may have. Reference management software will help postgraduate nursing students of ABUAD to cite appropriately the books, journal articles, conference proceedings, newspapers, magazines, patents and audio recording consulted for their write up.

Types of Reference Management Software

There are several types of RMS that postgraduate nursing students of ABUAD can use to collect, organize, and generating bibliographies in their academic writing, reports, assignment, article publications and dissertation/theses. Some of them are Endnote, Mendeley, RefWorks, Zotero, CiteULike, and Citation Machine. Tremblay and Walker (2019) identify Zotero, Mendeley, EndNote, and RefWorks as the most common Reference Management Software. Reference Manager and Zotero. Ivey and Crum (2018) grouped reference management software into EndNote, Mendeley, RefWorks and Zotero. Some of them are free while others are purchased. Holland (2016) addressed both free and purchased reference management software. According to him, Endnote, Reference Manager, Papers2, and RefWorks are paying for reference management software, while Mendeley and Zotero are free with certain limitations. Also, Mendeley, Read Cube, and Zotero are known as open-source citation reference managing tools that are freely downloadable online (KKaur & Dhindsa, 2016), while EndNote software, Reference Manager, RefWorks, and Papers (Mac) require purchase before installation and hence belong to a paid category (Holland, 2012).

Familiarity of Postgraduate Nursing Students of ABUAD with Reference Management Software

Familiarity of postgraduate nursing students with reference management software refers to the degree of recognition that the students have with the reference management tools. Familiarity is directly related to experience with the software and is a critical factor in the usability of reference management software which can be influenced by the perceptions of the postgraduate nursing students of ABUAD. For individuals who are familiar with ICT, this software is easy to use. Amrutha, et al., (2018) looked into the different kinds of reference management software that University of Kerala researchers use. The results showed that the majority of researchers were aware of reference management software and familiarized with Mendeley's free desktop edition. Also Lonergan (2017) survey results indicated that faculty preferring Zotero over the library supported RefWorks. The findings also revealed that postgraduate nursing students had strong intention to be using reference management software because it serves various purposes for them.

Intention of Using of Reference Management Software by Postgraduate Nursing Students

Intention is a strong determination to use particular software. It represents users' conscious plan or readiness to use a particular technology in the future (Neves et al., 2025). Postgraduate nursing students may tend to use reference management software if they feel the software will be useful for them and they feel it is easy to use. Postgraduate nursing students of ABUAD may have strong or weak intention in using reference management software for the organization of their citations. Strong intention may be due to the efficiency and organization benefits derived from using the software and weak intention may be due to the lack of familiarity/awareness, technical issues and lack of interest in using the reference management software for their academic writing and research work. Postgraduate nursing students use reference management software for various reasons. Francese (2012) posited that postgraduate students

have been using RMS to support their academic research works in citation and referencing. A study by Madhusudhan (2016) at University of Delhi revealed that seventy eight percent of the respondents used RMS for research works including thesis/dissertation and project works, followed by those who used for literature review (40%), while (32%) use them to complete seminar presentations/ assignments and (17%) for articles.

Socio-demographic Factors of Postgraduate Nursing Students of ABUAD and Intention to Use Reference Management Software

Age and the Intention of Using Reference Management Software by Postgraduate Nursing Students

Age can be defined as the amount of time that has passed since a person's birth or as the length of time they have been alive. Several studies have been conducted on the age of an individual as it affects utilization of technology. Mhokole and Kimaryo (2022) studied how University of Dares Salaam postgraduate students used reference management software. According to the findings, the majority of study participants are young people, aged 31 to 40, with those in the 21 to 30 age range coming in second. Additionally, research has shown that the degree of RMS use varies by age group. Joyous and Paul (2016) conducted a study on social factors that influenced the use of ICT in Agriculture extension in Southern Africa. Their study revealed that there was the influence of age on the use of ICT by young members of staff than the older ones. Findings of their study went further to reveal that staff within the age range of 21 -40 were more capable of using ICT than those within every other age group.

Gender and the Intention of using Reference Management Software by Postgraduate Students Nursing

According to WHO (2015) gender refers to the socially constructed roles, behaviour attribute and practices that any given society considered to be appropriate for men and women. Wiklund in Emmanuel and Benake-Ebiele (2012), posited that gender is viewed as a social phenomenon with a basic social structural ordering of men and women in society. When it came to technology use, women favored social cooperation, contextual knowledge, and personal identity, whereas men's preferences were based on individual effort and competition. Rangaswamy (2021) carried out a study titled "Researcher's Perception on Zotero and Mendeley Reference Management Tools: A Study," which involved sampling one hundred and seventy researchers, of whom one hundred and fifteen (67.6) were men and fifty five (32.4) were women. This demonstrated that there were more men than women utilizing reference management software and applications. Mhokole and Kimaryo (2022) investigated a study on reference management software use by postgraduate students at the University of Dares Salaam. The results indicated that there were comparatively more male respondents (53.8%) than female respondents (46.2%).

Programme of Study and the Intention to Use Reference Management Software by Postgraduate Students Nursing

Intensive research and writing may facilitate postgraduate nursing students' use of reference management software for their academic writing, dissertation and theses. The higher-level academic work demands efficient organization, citation management, and collaboration, making RMS an essential tool. In-depth study, lengthy theses and dissertations, and research paper publication are all requirements for postgraduate nursing students. Mhokole and Kimaryo (2022) studied how University of Dares Salaam postgraduate students used reference management software. The findings showed that postgraduate students from Master's programs participated at a higher rate than those from PhD and postgraduate diploma programs. Adeyemi et al. (2020) investigated a study on faculty members' perceptions of reference management software usage and awareness. The results indicated that eleven (11.2%) of the respondents had a bachelor's degree, fifty six (57.1%) had a master's degree, and thirty one (31.6%) had a doctorate. Rangaswamy and Babu (2021) conducted a survey titled 'Researcher's Perception on Zotero and Mendeley Reference Management Tools: A Study'. Data were collected from one hundred and seventy researchers at a different academic level. Among the respondents, forty nine (28.8%) were Ph.D. research scholars, twenty six (15.3%) were faculty pursuing research, ten (5.9%) were faculty guiding or supervising researchers and eighty one (50%) were postgraduate students.

Prior Experience and the Intention to Use Reference Management Software by Postgraduate Students Nursing

The prior experience of postgraduate nursing students has may enable them to use reference management software to organize research, create citations, and manage bibliographies. Experience establishes if they plan to employ reference management software or not. Joseph et al., (2023) investigated teacher enthusiasm of ICT utilization: its implication in teaching and learning of mathematics. The result indicated that there were no statistically significant difference on the enthusiasm of ICT Utilization in junior secondary schools based on the difference in years of teaching experiences among teachers ($F(3-232)=802, p>0.05$). According to the study by Rangaswamy and Babu (2021), 37 (31.1%) of respondents have used RMS's for more than 2 years, followed by members who used them in the past 1-2 years. Some of the researchers (26.1%) have only used the RMS for six months to a year.

Methodology

Research Design

Correlational research design was adopted for this research work because it enabled the researchers to examine the relationship between socio-demographic factors (such as age, gender, program of study and prior experience) and the intention to use reference management software by postgraduate nursing students of ABUAD. The population comprised 48 postgraduate nursing students and total enumeration sampling technique was adopted for the study. The instrument used for data collection was a structured questionnaire. The

instrument was divided into two (2) sections, A and B. Section A dealt with the postgraduate nursing students familiarity with reference management software with 11 items. Section B dealt with the intention to use reference management software by postgraduate nursing students of ABUAD with 4 items rated on a five Likert scale points of Strongly Agree (5), Agree (4), Neutral (3), Disagree (2) and Strongly Disagree (1). All the data gathered were analyzed with Statistical Package of Social Sciences (SPSS) version 20. The research objectives raised were answered using descriptive statistics of mean and standard deviation. The research hypotheses formulated were analyzed using inferential statistics. Pearson Product Moment Correlation was used to analyze hypotheses and all the hypotheses formulated were tested at 0.05 level of significance.

Results of the Findings

Objective 1: What are the Types of Reference Management Software ABUAD Postgraduate Nursing Students are Familiar with?

Table 1.1: Familiarity of ABUAD Postgraduate Nursing Students with RMS

Category	Frequency	Percent (%)
Zotero	12	25.0
Zotero; Mendeley	7	14.6
Zotero; Papers	1	2.1
BibTex	5	10.4
Mendeley	12	25.0
Mendeley;EndNote	2	4.2
Papers	2	4.2
Readcube	1	2.1
Citavi	2	4.2
Endnote	2	4.2
Paperpile	2	4.2
TOTAL	48	100.0

Source: Researchers Field Survey, 2025

Table 1.1 indicated the familiarity of postgraduate nursing students of ABUAD with reference management software. 12 (25.0%) of postgraduate nursing students were familiar with Zotero and Mendeley, 5(10.4%) were familiar with BibTex, 2(4.2%) were familiar with Mendeley; EndNote; Papers, Citavi, Endnote and Paperpile. It could be deduced from the table that Zotero and Mendeley 12(25.0%) were the two major reference management software the postgraduate nursing students of ABUAD were familiar with.

Objective 2: What are the intentions of postgraduate nursing students of ABUAD in using reference management software?

Table 1.2: Intention to Use Reference Management Software

Item	Statement	SA	A	N	D	SD	Mean \bar{x}	Std Dev
1.	I intend to continue using reference management software	23	24	1	0	0	4.45	0.54
2.	For my studies/research, I would use management software	21	24	3	0	0	4.38	0.61
3.	I will continue to use reference management software	18	24	6	0	0	4.38	0.67
4.	Because of the responsibilities that reference management software offer, I plan to approach my next studies more effectively	26	20	1	1	0	4.46	0.65

Weighted average: 4.42

Decision rule: Mean (\bar{x}) \geq 2.50 is acceptable

Source: Researchers Field Survey, 2025

Table 1.2 revealed the intention to use reference management software by postgraduate nursing students. All the items had the mean scores above the accepted cut off point of 2.50. This implied that the students have the intention to continue using reference management software (\bar{x} = 4.45), the respondents will use reference management software for their studies/research (\bar{x} = 4.38), they will continue to use reference management software (\bar{x} = 4.38) and reference management software offers the respondents plan to approach the next studies more effectively (\bar{x} = 4.46). It can be deduced from the finding that postgraduate nursing students of ABUAD had strong intention to continue to use reference management software for their academic work with a very high weighted average (\bar{x} = 4.42)

Testing of Hypotheses

H₀₁: There is no Significant Relationship between Age of the Postgraduate Nursing Students of ABUAD and the Intention to Use Reference Management Software

Table 1.3: Age and Intention to Use Reference Management Software by Postgraduate Nursing Students of ABUAD

Variable Category	Freq (%)	\bar{x}	SD	N	R	Sig.
Age 20 -30	4	8.3	3.04	0.94	48	.224**
31- 40	8	16.7				.001
41- 50	18	37.5				
50 and above	18	37.5				
Intention to Use RMS		14.21	1.61	48		

****Correlation is significant at the 0.01 level (2-tailed).**

Source: Researchers Field Survey, 2025

The table 1.3 indicated the age of the respondents in which 4(8.3%) of the postgraduate students were 20 -30 years of age; 8(16.7%) were 31 – 40 years of age and 18(37.5%) were 41 – 50 years of age; and 51 and above. The table also shown that there was a positive and significant relationship between the age of the postgraduate nursing students of ABUAD and the intention of using RMS ($r = .224$) at $p < .05$. Thus, null hypothesis was rejected. Hence, there was a significant relationship between the age of the postgraduate nursing students of ABUAD and the intention to use RMS.

H₀₂: There is no Significant Relationship between gender of the Postgraduate Nursing Students of ABUAD and the Intention to Use Reference Management Software

Table 1.4: Gender and Intention to Use Reference Management Software by Postgraduate Nursing Students of ABUAD

Variable Category	Freq (%)	\bar{x}	SD	N	R	Sig.
Gender Male	4	8.3	1.92	0.28	48	.725**
Female	44	91.7				.000
Intention to Use RMS		14.21	1.61	48		

****Correlation is significant at the 0.01 level (2-tailed).**

Source: Researchers Field Survey, 2025

Table 1.4 indicated the gender of the postgraduate nursing students of ABUAD in which 4(8.3%) of the respondents were male while 44(91.7%) were female. It could be deduced from the table

that the numbers of female sampled were more than that of male postgraduate students. The table also indicated that there was a positive and significant relationship between the gender of the postgraduate nursing students of ABUAD and the intention of using RMS ($r = .725$) at $p < .05$. Thus, null hypothesis was rejected. Hence, there was a significant relationship between the gender of the postgraduate nursing students of ABUAD and the intention to use RMS.

H₀₃: There is no Significant Relationship between program of study of the Postgraduate Nursing Students of ABUAD and the Intention to Use Reference Management Software

Table 1.5: Program of Study and Intention to Use Reference Management Software by Postgraduate Nursing Students of ABUAD

Variable	Category	Freq (%)	\bar{x}	SD	N	R	Sig.
Program of Study	Masters	19 39.6	2.19	0.98	48	.898**	.003
	Mphil	1 2.1					
	PhD	28 58.3					
Intention to Use RMS			4.21	1.61	48		

***Correlation is significant at the 0.01 level (2-tailed).*

Source: Researchers Field Survey, 2025

Table 1.5 revealed that 19(39.6%) of the postgraduate students were Masters, 1(2.1%) was Mphil and 28(58.3%) were PhD students. It could be deduced from the table that the numbers of PhD students sampled were more than that of Masters and Mphil students. The table also indicated that there was a positive and significant relationship between the program of study of the postgraduate nursing students of ABUAD and the intention of using RMS ($r = .898$) at $p < .05$. Thus, null hypothesis was rejected. Hence, there was a significant relationship between the program of study of the postgraduate nursing students of ABUAD and the intention to use RMS.

H₀₄: There is no Significant Relationship between prior experience of the Postgraduate Nursing Students of ABUAD and the Intention to Use Reference Management Software

Table 1.6: Prior Experience and Intention to Use Reference Management Software by Postgraduate Nursing Students of ABUAD

Variable	Category	Freq (%)	\bar{x}	SD	N	R	Sig.
Prior experience	No experience	11 22.9	1.96	0.65	48	.277**	.002
	Low experience	28 58.3					
	High experience	9 18.3					
Intention to Use RMS			4.21	1.61	48		

***Correlation is significant at the 0.01 level (2-tailed).*

Source: Researchers Field Survey, 2025

Finally, table 1.6 revealed that 11(22.9%) of postgraduate nursing students of ABUAD had no experience of reference management software, 28(58.3%) had low experience and 9(18.8%) of the students had high experience of reference management software. It could be deduced from the table that the students who had low experience in using reference management software were more than that of students with no and high experiences. The table also shown that there was a positive and significant relationship between the prior experience of the postgraduate nursing students of ABUAD and the intention of using RMS ($r = .277$) at $p < .05$. Thus, null hypothesis was rejected. Hence, there was a significant relationship between the prior experience of the postgraduate nursing students of ABUAD and the intention to use RMS.

Discussion of Findings

Findings revealed that Zotero and Mendeley were the two major reference management software postgraduate nursing students of ABUAD were familiar with. The findings were in line with Amrutha, Kumar, and Kabir (2018) who looked into the different kinds of reference management software that University of Kerala researchers use. The results showed that the majority of researchers were aware of reference management software and that most of them utilized Mendeley's free desktop edition. Also Lonergan (2017) survey results indicated that faculty preferred Zotero over the library supported RefWorks. The findings also revealed that postgraduate nursing students had strong intention to be using reference management software because it serves various purposes for them. The findings were in line with Francese (2012) who posited that postgraduate students have been using RMS to support their academic research works in citation and referencing.

Furthermore, a study by Madhusudhan (2016) at University of Delhi revealed that (78%) of the respondents used RMS for research works including thesis/dissertation and project works, followed by those who used for literature review (40%), while (32%) use them to complete seminar presentations/ assignments and (17%) for articles. The finding also revealed that there was a significant relationship between the age of the postgraduate nursing students of ABUAD and the intention to use RMS. This finding is in line with Joyous and Paul (2016) who conducted a study on social factors that influenced the use of ICT in Agriculture extension in Southern Africa. Their study revealed that there was the influence of age on the use of ICT by young members of staff than the older ones. The finding also indicated that there was a significant relationship between the gender of the postgraduate nursing students of ABUAD and the intention to use RMS. This finding is in line with Mhokole and Kimaryo (2022) investigated a study on reference management software use by postgraduate students at the University of Dares Salaam. The results indicated that there were comparatively more male respondents (53.8%) than female respondents (46.2%). The study revealed that there was a significant difference between the mean score of male and female in technology usage. He observed that female perform slightly higher than men did.

The finding also revealed that there was a significant relationship between the program of study of the postgraduate nursing students of ABUAD and the intention to use RMS. This finding is in line with Adeyemi et al., (2020) who investigated a study on faculty members' perceptions of reference management software usage and awareness. The results indicated that 11 (11.2%) of the respondents had a bachelor's degree, 56 (57.1%) had a master's degree, and 31 (31.6%) had a doctorate. At the same time, Mhokole and Kimaryo (2022) studied how University of Dares Salaam postgraduate students used reference management software. The findings showed that postgraduate students from Master's programs participated at a higher rate than those from PhD and postgraduate diploma programs.

The result also indicated that there was a significant relationship between the prior experience of the postgraduate nursing students of ABUAD and the intention to use RMS. This finding contract the result of Joseph et al., (2023) who investigated teacher enthusiasm of ICT utilization: its implication in teaching and learning of mathematics. The result indicated that there were no statistically significant difference on the enthusiasm of ICT Utilization in junior secondary schools based on the difference in years of teaching experiences among teachers ($F(3-232)=802, p>0.05$).

Conclusion

The study concluded that the major reference management software postgraduate nursing students of ABUAD were familiar with were Zotero and Mendeley. Furthermore, postgraduate female students were using reference management software for their research work than male counterpart. The number of PhD post graduate students using reference management software was higher than the number of Masters and Mphil postgraduate students.

Finally, the study concluded that postgraduate students used RMS for thesis/dissertation and project works, seminar presentations/ assignments, article writing, etc. Based on the hypotheses tested, it was concluded that socio-demographic factors such as age, gender, programme of study and prior experience had significant relationship with the intention to use RMS by postgraduate nursing students of ABUAD.

Recommendations

Based on the above findings, the following recommendations were made that:

- i. University management should organize training workshop and seminar for postgraduate students of ABUAD on the use of various types of reference management software.
- ii. Librarians should be creative, knowledgeable and skillful in order to help postgraduate students to use reference management software for their research works taking cognizance of their socio-demographic characteristics.

References

- Abuhammad, S. , Hatamleh, R. , Howard, K. , & Ahmad, M. M. (2019). Correlates and Predictors of Stigmatization of Patients With Mental Illness Among Nursing Students. *Journal of Psychosocial Nursing and Mental Health Services*, 57, 43–51. 10.3928/02793695-20180907-01
- Adeyemi, I. O., Sulaiman, K. A., & Akanbi, L. M. (2020). Awareness and usage of reference management software: Perspectives of faculty members of University of Ilorin Nigeria. *Insaniyat: Journal of Islam and Humanities*, 4(75–153).
- American Nurses Association. (2021). *Nursing: Scope and standards of practice* (4th ed.). American Nurses Association.
- Amrutha, R. V., Kumar, K. S., & Kabir, S. H. (2018). Use of reference management software among science research scholars in University of Kerala. *Indian Journal of Information Sources and Services*, 8(1), 54-57.
- Cambridge University Press (2017). TheOxford Dictionary, from <http://dictionary.cambridge.org/dictionary/english/postgraduate>
- Council on Higher Education (2013). Higher education qualification sub-framework, Council of Higher Education, Pretoria.
- Emmanuel, E. B. and Benake-ebide, C. E., 2012. Gender differences in information seeking behaviour of undergraduate students in some Universities in Nigeria. *Library and Information Practitioner (LIP)*, 5(1&2), 396- 411
- Francesse, E. (2012). The usage of reference management software (RMS) in an academic environment : A survey at Tallinn University. In G. A. Giannakopoulos & D. P. Sakas (Eds.), *Advances on Information Processing and Management*,1, 293–296. <http://eprints.rclis.org/16975/>
- Gafoor, K. A. (2012). *Considerations in measurement of awareness*. National Seminar on Emerging Trends in Education, 1–6. <https://doi.org/10.13140/2.1.2109.2643>
- Holland, M. (2016). Reference management software for students, researchers and academic. *Journal of Paramedic Practice*, 4(8), 484-487.
- Ivey, C., & Crum, J. (2018). Choosing the right citation management tool: Endnote, Mendeley, Refworks, or Zotero. *J Med Libr Assoc*, 106(3), 399 403. <https://doi.org/10.5195/jmla.2018.468>
- Joyous, S. T. and Paul, F. M., (2016). Social factors that influence use of ICT in agricultural extension in Southern African. *Journal of Agriculture.*, 6 (15), 1-10

- Kaur, S., & Dhindsa, K. S. (2017). Comparative study of citation and reference management tools: Mendeley, Zotero and ReadCube. *Proceedings of 2016 International Conference on ICT in Business, Industry, and Government, ICTBIG 2016*, 1–5. <https://doi.org/10.1109/ICTBIG.2016.7892715>
- Madhusudan, M. (2016). Use of online citation tools by students and research scholars of department of library and information science, University of Delhi. *DESIDOC. Journal of Library and Information Technology*, 36(3), 164–172. doi:10.14429/djlit.36.3.9428.
- Mvula, D. (2023). Awareness of Reference Management Software for research Writing Activity by University Teachers. *Library Philosophy and Practice (e-journal)*. 7755. <https://digitalcommons.unl.edu/libphilprac/7755>
- Neves, C., Oliveira, T., Cruz-Jesus, F., & Venkatesh, V. (2025). Extending the unified theory of acceptance and use of technology for sustainable technologies context. *International Journal of Information Management*, 80, 102838.
- Nursing and Midwifery Council (NMC) (2018) Realising professionalism: Standards for education and training Part 1: Standards framework for nursing and midwifery education. NMC, London. Available at: <https://www.nmc.org.uk/globalassets/sitedocuments/standards-of-proficiency/standards-framework-for-nursing-and-midwifery-education/education-framework.pdf>
- Osmani, M., Mza, R., Ahmad, B. A., & Arif, A. S. (2016). Reference management software (RMS) in an academic environment: a survey at a research University in Malaysia. *Journal of Theoretical and Applied Information Technology*, 88(1), 135-144.
- Rangaswamy, B. & Babu, R. H. (2021). Researcher's Perception on Zotero and Mendeley Reference Management Tools: A Study. *Library Philosophy and Practice (e-journal)*. 5935. <https://digitalcommons.unl.edu/libphilprac/5935>
- Rincón Castillo, A. G., Pacori Paricahua, E. W., Pacori Paricahua, A. K., Prado Lopez, H. R., Huayta-Meza, F. T., Rojas León, C. R., Hadi Mohamed, M. M., Bustinza Cabala, J. L., Castro Pérez, L. A., Rivera Mansilla, E. B., Tito Lipa, J. P., & Arias-González, J. L. (2022). Bibliographic Reference management: The Role of Technological Appropriation in Students. *Eurasian Journal of Educational Research*, 2022(100), 133–157. <https://doi.org/10.14689/ejer.2022.100.010>
- Saka, K. A., (2014). An assessment of gender as a predictor of ICT use by library personnel in Malaysia. *International Journal of Applied Technologies in Library and Information Management*, 3 (3), 25-35.

- Setiani, N., Aditya, B. R., Wijayanto, I., & Wijaya, A. (2021). A study on awareness of bibliographic management software for the academic writing activity in higher education. *Journal of Physics: Conference Series*, 1823(1), 012035.
<https://doi.org/10.1088/17426596/1823/1/012035>
- Tremblay, P., & Walker, T. P. (2019). Reference-management software. In *aguide to the scientific career* (pp. 577–590). Wiley. <https://doi.org/10.1002/9781118907283.ch65>
- Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS quarterly*, 157-178.
- WHO, (2015). Gender definition fact sheet. Retrieved from <http://www.who.int/mediacentre/factsheets/fs403/en/>