

# Exploring the Relationship of Writing Strategies in Academic Writing

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## ABSTRACT

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Writing is one of the basic skills that is used and fostered in educating students. In order for students to reach the intended writing level, it needs rewriting again and again. Therefore, it is important for students to know and apply certain writing strategies that can help to ease the process to produce a good piece of writing. This quantitative study is conducted to determine the ESL learners' perceptions on the use of five writing strategies namely; metacognitive, cognitive, social, affective and self regulation writing strategies in academic writing as well as to determine the relationship of all the writing strategies. A five-likert scale survey questionnaire consists of six sections with 27 items distributed to 112 ESL learners at the Centre of the foundation Studies, Malaysia to determine their perceptions on writing strategies. Based on the findings of this study, the majority of the ESL learners employed metacognitive strategy when writing followed by cognitive, self regulation, affective and social. This study also revealed that there are strong relationships between all of the writing strategies. The findings will further assist both ESL educators and ESL learners on understanding writing strategies that can further improve learners' performance in writing.



# 1. INTRODUCTION

## *1.1 Background of Study*

In learning English, acquiring writing skill is considered as not less challenging than reading skill (Dallagi, 2020) and thus tertiary level learners often display much reluctance when it comes to completing writing tasks (Dallagi, 2020). Tertiary learners are expected to develop certain skills such as critical thinking through a correct synthesis of large amounts of information (Roerden, 1997 as cited in Dallagi, 2020, p. 119). Therefore, in order to develop certain skills, it is important for tertiary learners to employ certain writing strategies in order to complete their writing task. Mu (2005) suggested that writing strategies were classified into five main categories namely; rhetorical, metacognitive, cognitive, social, and effective. However, for the purpose of this study, the researchers are putting a higher interest on metacognitive, cognitive, social, affective as well as effort regulation.

The writing strategy employed may vary from one student to another due to the variety of factors that might impact writing processes. Hsiao and Oxford (2002) mentioned that students will apply various strategies in order to assist them in learning English but most studies in the past have identified the most recurrent strategy used is metacognitive strategies. Metacognitive strategy is a strategy developed based on cognitive skills that creates an awareness of learning as a prerequisite for planning, monitoring, controlling, evaluating as well as self-regulating the learning process (Roeschl-Heils, Schneider, & Van Kraayenoord, 2003). Cer (2019) stated that when learners are employing metacognitive strategy, they are able to realize their cognitive and affective proficiency. Affective proficiency is related to a person's beliefs and attitudes towards writing skills and thus learners become aware of their performance level before, while and after they have completed their writing task. Hence, this explains the reason that a majority of ESL learners employed metacognitive strategy in academic writing.

By conducting this study, it will become an eye-opener for ESL educators in understanding the writing strategies employed by ESL learners when writing their academic essay. Not only that, since strategy applied is different from person to another, therefore this study will assist ESL educators in educating and encouraging ESL learners to apply suitable writing strategies that can further help them in overcoming their difficulties in writing, especially in performing academic writing.

## *1.2 Statement of Problem*

Writing is a multifaceted skill that involves cognitive, linguistic, and socio-cultural dimensions. While tertiary education assumes a certain level of writing proficiency, students often face challenges in adapting to the academic discourse and mastering the intricacies of different writing genres (Faizah, et.al., 2023; Bulqiyah, et. al., 2021; Al Khazraji, 2019). By investigating the writing strategies used by the ESL foundation learners, researchers can identify common hurdles, effective practices, and areas that may require additional support. Despite recognising the importance of writing strategies in academic writing, there remains a gap in understanding the nuanced relationship between various writing strategies and their impact on the quality and effectiveness of academic writing outcomes. Previous research by Johnson, et al. (2021) emphasized the necessity of investigating how specific writing strategies are employed across different academic disciplines to inform pedagogical practices tailored to diverse students' needs.

In addition, Al-Jarrah, et al., (2024) found that learners have positive attitudes towards the implementation of metacognitive as their writing strategies. The findings revealed that students are able to be more autonomous, liberated, and organised in their writing. Similarly, Hanim, et al., (2020) emphasised on the importance of examining the role critical thinking in shaping writing strategies among contemporary students, suggesting a need for updated research methodologies to explore this evolving landscape. This investigation seeks to bridge existing gaps in research and provide practical insights that can enhance writing pedagogy at the tertiary level. Furthermore, a gap identified by Smith and Jones (2023) highlighted the lack of comprehensive studies examining the longitudinal effects of writing strategy interventions on students' academic writing proficiency. Thus, this study seeks to explore and analyse the intricate relationship between writing strategies utilized by students and their academic writing performance, aiming to identify key factors that contribute to successful writing outcomes in academic contexts.

### ***1.3 Objective of the Study and Research Questions***

This study is done to explore ESL learners at one of the Centre of Foundation Studies in Malaysia on their use of writing strategies in academic writing. This study is specifically conducted to answer the following questions;

- 1) How do learners perceive the use of metacognitive strategies in writing?
- 2) How do learners perceive the use of effort regulation strategies in writing?
- 3) How do learners perceive the use of cognitive strategies in writing?
- 4) How do learners perceive the use of social strategies in writing?
- 5) How do learners perceive the use of affective strategies in writing?
- 6) Is there a relationship between all writing strategies?

## **2. LITERATURE REVIEW**

### ***2.1 Writing Strategies***

The exploration of writing strategies in academic writing has gathered increasing attention in educational research as educators and scholars seek to understand the complex dynamics that underlie effective written communication in academic contexts. Recent studies, Al-Jarrah, et al., (2024), have delved into various aspects of writing strategies, shedding light on their role in shaping the quality, coherence, and persuasiveness of academic writing outcomes. Bulqiyah, et. al., (2021), emphasizes the importance of explicit instruction in writing strategies, arguing that effective academic writers are those who possess a repertoire of techniques and approaches for generating, organizing, and revising their written work. They suggest that students can benefit from instruction in pre-writing techniques such as brainstorming, outlining, and concept mapping, as well as strategies for revising and editing drafts to enhance clarity and coherence. In addition, Hanim et al., (2020), emphasised that writing strategies in academic writing has advanced our understanding of the cognitive processes, genre conventions, and instructional approaches that shape effective written communication in educational contexts. Moving forward, continued research efforts aimed at identifying best practices in writing instruction and assessment will be essential for supporting students' development as proficient and confident academic writers.

Al-Jarrah, et al., (2019), conducted research that highlighted the cognitive processes underlying effective writing strategies. Their findings highlight the importance of metacognitive awareness in guiding students' strategic use of writing processes and techniques. As Faizah, et al., (2023)

claimed that efficacy of explicit instruction in writing strategies vital in improving students' academic writing proficiency, their findings also suggest that students who received systematic instruction in writing strategies demonstrated significant improvements in the organization, coherence, and argumentative structure of their written assignments compared to peers who received standard writing instruction without explicit strategy training.

## ***2.2 Past Studies on Writing Strategies***

In understanding the usage of English language among second language learners, writing strategies has been one of the important points of numerous studies. The strategies used by the learners are crucial in determining a successful composition. Valuable insights from these past studies can help the instructors to understand their students better and assist them in planning an effective lesson for their classes.

A study conducted by Chen (2022) highlights the importance of integrating writing strategy training into writing instruction to help the students strategize better and enhance their writing performance. 52 undergraduate students were involved in the study in which all of them have a similar learning background. The instrument used was a mixed method as the respondents were given a questionnaire and were asked to sit for a performance test. The respondents were given a writing strategy instruction before they had their questionnaire and performance test. Before the study, they were perceived as passive recipients of the English language that caused them to have major difficulties in their thinking process making it difficult to generate ideas and structure their writing. Apart from that, the respondents were unaware of the writing problems that they had causing them to perform poorly in their writing task. The findings of Chen's (2022) study revealed that an effective processing of writing has led to positive results. The respondents showed significant increase in the strategies applied which were metacognitive, cognitive and socio/affective. This integration helped them to structure their writing in a more effective way and led to a better performance. This study emphasises on the need for instructors to embed strategy instruction in their lesson especially at the initial stage of writing. The respondents also are suggested to be more aware of metacognitive strategies that can be applied to strengthen their writing performance. Hence, the results of this study has proven the effectiveness of writing strategies instruction in influencing students to produce a quality writing by employing the needed strategies.

Similarly, Raoofi et al. (2017) emphasised that since writing is a vital skill for the students' academic development, it is imperative to focus on the initial stage of writing that will help the students to organise and structure their composition effectively. However, Raoofi et al. (2017) claimed that the majority of studies available on writing strategies only focus on language learning strategies in general rather than writing strategies used by the second language learners. Thus, his study aims at examining the writing strategies of Malaysian undergraduate students and to identify the differences of writing strategies used based on the students level of proficiency. 314 undergraduate students with English as their second language had participated in this mixed method study that required them to answer a questionnaire and to complete two writing tasks. Based on the findings, participants showed positive results on the usage of writing strategies as the majority of the participants were reported to apply effort regulation strategies followed by metacognitive and social strategy. High proficiency participants were found to use more of metacognitive, cognitive, affective and effort regulation strategies as compared to lower proficiency students. This study has brought attention to the importance of developing the right strategies for second language learners and teachers/instructors play an important role in creating more comprehensible lessons that cater to students especially using social networking sites. By having a modern approach, it can help the learners to boost their writing

skill by applying the appropriate writing strategies. Therefore, this study has highlighted the most applied strategies metacognitive writing strategies and it is normally used by high proficiency students.

Based on the past studies conducted, it can be concluded that writing strategies like metacognitive, cognitive and affective among second language learners need to be integrated into the lesson as it plays a crucial role in assisting learners to comprehend the task and produce a proficient outcome. With the right strategies applied, second language learners will be aware of their writing problems and help them to process and generate ideas effectively.

### 2.3 Conceptual Framework

Figure 1 shows the conceptual framework of this present study on writing strategies in learning writing. Basically, the majority of writers use writing strategies to facilitate their writing process (Rahmat, 2021). Writers will adopt certain strategies during writing and as stated by Raofi et.al (2017), there are five strategies in writing namely; metacognitive, effort regulation, cognitive, social and affective. Apart from this study seeking to understand the ESL learners' perceptions towards the five strategies in writing, this study also aims to explore the relationship of all the writing strategies.

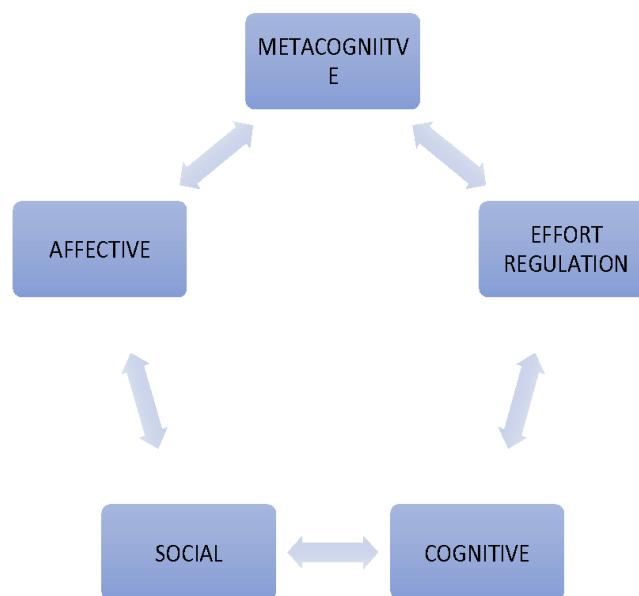


Figure 1- Conceptual Framework of the Study-  
The Relationship of Writing Strategies in Learning Writing

### 3. METHODOLOGY

This quantitative study is conducted to determine the strategies used among ESL learners when performing academic writing tasks. A total of 114 participants chosen using purposive sampling responded to the survey. A 5 Likert-scale survey with 27 items used for the purpose of this study and is rooted from Raofi, et.al (2017) to reveal the variables in Table 1 below. The survey consists of six sections where Section A has three items on demographic profile. As for Section B, it has ten items on Metacognitive, Effort regulation for Section C with four items, six items on Cognitive for Section D and for Section E (Social) and Section F (Affective) consisting of four and three items respectively.

Table 1: Distribution of Items in the Survey

Section	Writing Strategy	No of Items	Cronbach Alpha
B	Metacognitive	10	.894
C	Effort Regulation	4	.780
D	Cognitive	6	.828
E	Social	4	.843
F	Affective	3	.769
	Total	27	

Table 1 also shows the reliability of the survey used for this study. The analysis shows a Cronbach alpha of .894 for Section B, .780 for Section C, .828 is the Cronbach alpha for Section D and .843 and .769 for Section E and Section F respectively. Thus, this analysis reveals the instrument used for this study is reliable. Further analysis using SPSS is done to present findings to answer the research questions for this study.

## 4. FINDINGS

### 4.1 Findings for Demographic Profile

Table 2: Percentage for Demographic Profile

Q1	Gender	Male 30%	Female 70%
Q2	Discipline	Science & Technology 51%	Social Science 49%
Q3	Course	Part 1 96%	Part 2 4%

Table 2 presents the demographic profile findings, indicating the distribution of participants across gender, discipline, and course level. The table shows that 30% of the participants were male, while 70% were female. In terms of discipline, 51% of participants belonged to Science & Technology, with the remaining 49% from Social Science backgrounds. Additionally, the majority of participants, 96%, were enrolled in Part 1 courses, with a small portion, 4%, in Part 2 courses.

### 4.2 Findings for Metacognitive

This section presents data to answer research question 1- How do learners perceive the use of metacognitive strategies in writing?

Table 3: Mean for Metacognitive (MWS)

Item	Mean
MWSQ 1 I organize my ideas prior to writing.	4.1
MWSQ 2 I revise my writing to make sure that it includes everything I want to discuss in my writing.	4.3
MWSQ 3 I check my spelling.	4.4
MWSQ 4 I check my writing to make sure it is grammatically correct.	4.3
MWSQ 5 I evaluate and re-evaluate the ideas in my essay.	4.1
MWSQ 6 I monitor and evaluate my progress in writing.	4.1
MWSQ7 I revise and edit an essay two or more times before I hand it in to my teacher.	4.0
MWSQ8 I go through the planning stages in my writing.	4.0
MWSQ9 I go through the drafting stages in my writing.	4.0

MWSQ10 I go through the revising and editing stages in my writing.	4.1
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Table 3 presents the mean scores for metacognitive strategies (MWS) as perceived by learners in their writing process. The findings address the research question regarding learners' perceptions of metacognitive strategy utilization in writing. The respondents reported high mean scores across various metacognitive strategies, indicating strong agreement with statements such as organizing ideas prior to writing (MWSQ1: 4.1), revising to ensure comprehensive content coverage (MWSQ2: 4.3), checking spelling (MWSQ3: 4.4), ensuring grammatical correctness (MWSQ4: 4.3), evaluating and re-evaluating ideas (MWSQ5: 4.1), monitoring and evaluating progress (MWSQ6: 4.1), revising and editing multiple times (MWSQ7: 4.0), going through planning (MWSQ8: 4.0), drafting (MWSQ9: 4.0), and revising/editing stages (MWSQ10: 4.1) of the writing process. These findings suggest that learners value and actively engage in metacognitive strategies to enhance their writing proficiency.

### 4.3 Findings for Effort Regulation

This section presents data to answer research question 2- How do learners perceive the use of effort regulation strategies in writing?

Table 4: Mean for Effort Regulation

Item	Mean
ERSQ1 I write a lot to develop my writing skills.	3.7
ERSQ2 I often work hard to do well in my writing even if I don't like English writing tasks.	3.8
ERSQ3 Even if the writing activities are difficult, I don't give up but try to engage in them.	4.1
ERSQ4 I concentrate as hard as I can when doing a writing task.	4.3

Table 4 displays the mean scores for effort regulation strategies (ERS) as perceived by learners in their writing skills, addressing research question 2 regarding learners' perspectives on effort regulation strategy application in writing. The findings suggest that participants generally embrace effort regulation strategies to enhance their writing proficiency. Participants expressed a moderate agreement with statements such as engaging in extensive writing to refine skills (ERSQ1: 3.7) and exerting effort despite personal preferences for writing tasks (ERSQ2: 3.8). Moreover, participants demonstrated a stronger commitment to persevering through challenging writing activities (ERSQ3: 4.1) and maintaining high levels of concentration during writing tasks (ERSQ4: 4.3). These findings imply that learners recognize the importance of effort regulation in achieving writing goals, even in the face of difficulties, underscoring the value they place on diligent practice and focused attention in their writing skills and strategies.

### 4.4 Findings for Cognitive

This section presents data to answer research question 3- How do learners perceive the use of cognitive strategies in writing?

Table 5: Mean for Cognitive (CWS)

Item	Mean
CWSQ1 I use memorized grammatical elements such as singular and plural forms, verb tenses, prefixes and suffixes, etc, in my writing	4.0
CWSQ2 I put newly memorized vocabulary in my sentences.	3.9
CWSQ3 In order to generate ideas for my writing, I usually engage myself in brainstorming.	4.3

CWSQ4 I use different words that have the same meaning.	4.0
CWSQ5 I use my experiences and knowledge in my writing.	4.3
CWSQ6 I try to use effective linking words to ensure clear and logical relationship between sentences or paragraphs	4.3

Table 5 illustrates the mean scores for the use of cognitive strategies writing by the students. The analysis indicates that most of the students perceive the use of cognitive skills by using 3 methods which are; engaging themselves in brainstorming, using their experience and knowledge in the writing as well as using effective linking words (M: 4.3). This is followed by students who tend to use memorized grammatical elements and synonyms in their writing (M: 4.0). Lastly, a rather small mean score (M: 3.9) indicates that the students put newly memorized vocabulary in their sentences as the cognitive strategies in writing.

#### **4.5 Findings for Social**

This section presents data to answer research question 4- How do learners perceive the use of social strategies in writing?

Table 6: Mean for Social (SWS)

Item	Mean
SWSQ1 In order to generate ideas for my writing, I usually discuss the writing topic with a friend or classmate.	3.7
SWSQ2 After revising and editing my essay thoroughly, I ask a friend or my classmate to read and comment on it.	3.4
SWSQ3 I try to identify friends or classmates whom I can ask for help in my writing.	3.8
SWSQ4 When I have trouble writing my essay, I try to do it with my classmates or friends.	3.6

Table 6 presented the result of the use of social strategies in writing used by the students. Based on the table, the majority of the students perceived the use of social media by identifying their friends or classmates who can help them in writing (M: 3.8). This is followed by ‘usually discuss the writing topic with a friend or classmate in order to generate ideas for their writing (M: 3.7). Apart from that, the results also revealed that the students do the essay with their classmates or friends whenever they have trouble in writing (M: 3.6) and finally, small mean scores (M: 3.4) indicates that ‘they ask friends or classmates to read and comment on their writing after they revised and edited the essay thoroughly.

#### **4.6 Findings for Affective**

This section presents data to answer research question 5- How do learners perceive the use of affective strategies in writing?

Table 7: Mean for Affective (AWS)

Item	Mean
AWSQ1 I try to write an essay in class with confidence and ease.	3.8
AWSQ2 I try to relax whenever I feel afraid of writing.	4.0
AWSQ3 I encourage myself to write even when I am afraid of making mistakes	4.4

Table 7 indicates the result on how the learners perceive the use of affective strategies in writing. Majority of the students encourage themselves to keep on writing even though they feel afraid of making mistakes (M: 4.4) while some of them try to be relaxed whenever they



feel afraid of writing (M:4.0). However, only a small number of the students try to write an essay in class with confidence and ease as the affective strategies in writing (M: 3.8).

#### 4.7 Findings for Relationship between all Writing Strategies

This section presents data to answer research question 6-Is there a relationship between all writing strategies? in order to determine if there is a significant association in the mean scores between all writing strategies. The data is analysed using SPSS for correlations. Results are presented separately in table 8 below.

Table 8: Correlation of all Writing Strategies

		Correlations				
		METACOGNITIVE	EFFORT	COGNITIVE	SOCIAL	AFFECTIVE
METACOGNITIVE	Pearson Correlation	1	.652**	.703**	.470**	.577**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001
	N	114	114	114	114	114
EFFORT	Pearson Correlation	.652**	1	.594**	.555**	.686**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001
	N	114	114	114	114	114
COGNITIVE	Pearson Correlation	.703**	.594**	1	.515**	.564**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001
	N	114	114	114	114	114
SOCIAL	Pearson Correlation	.470**	.555**	.515**	1	.533**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001
	N	114	114	114	114	114
AFFECTIVE	Pearson Correlation	.577**	.686**	.564**	.533**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	
	N	114	114	114	114	114

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

According to Jackson (2015), coefficient is significant at the .05 level and positive correlation is measured on a 0.1 to 1.0 scale. Weak positive correlation would be in the range of 0.1 to 0.3, moderate positive correlation from 0.3 to 0.5, and strong positive correlation from 0.5 to 1.0. Table 8 shows there is an association between;

- (a) metacognitive and effort regulation ( $r=.652^{**}$ ) thus revealing a strong positive correlation.
- (b) effort regulation and cognitive components ( $r=.703^{**}$ ) thus revealing a strong positive correlation.
- (c) cognitive and social components ( $r=.470^{**}$ ) thus revealing a moderate positive correlation.
- (d) social and affective components ( $r=.577^{**}$ ) thus revealing a strong positive correlation.
- (e) effective and metacognitive components ( $r=.577^{**}$ ) thus revealing a strong positive correlation.

## 5. CONCLUSION

### *5.1 Summary of Findings and Discussions*

The present study aims to determine the writing strategies used by ESL learners at one of the Centre of Foundation studies in Malaysia as well as to investigate the correlation between all of the five writing strategies while performing their academic writing. In general, based on the findings, ESL learners adopt different writing strategies and the most applied strategy is metacognitive followed by cognitive strategy, effort regulation strategy, affective strategy and social strategy when they are writing their academic essay. This finding is similar to a study conducted by Chen (2022) that among writing strategies applied by students were metacognitive, cognitive and socio/affective. These strategies are believed to help students to perform better in their writing since they need to go through the process of writing from the initial stage until the production of the final product.

Apart from that, by utilizing the metacognitive and cognitive writing strategy, students are able to develop their critical thinking-skills. This is due to the fact that they need to be critical during every stage of writing in order to produce a good piece of academic writing (Kazemian et. al., 2021) The ESL learners also applied cognitive strategy by including their experience and knowledge in writing. Applying this strategy particularly has shown significant results in improving their attitudes towards their writing ability. Similar findings in a study conducted by Al-Jarrah et al., (2018) that metacognitive and cognitive strategies in writing are able to assist learners to study and learn writing effectively and make them become better writers.

However, the least strategy applied by ESL learners is social strategy. Similar finding revealed in a study conducted by Tran (2021) that first year English majors at Van Lang University employed social strategy in learning writing at a moderate level although they did ask help from their teachers, friends, or other online sources to overcome the lack of ideas, vocabulary or even preparing an outline for writing. This study also revealed that there is a strong correlation between all of the writing strategies except for cognitive and social strategy that revealed a moderate relation. Hence, it shows that a majority of the ESL learners employed more than one writing strategy.

### *5.2 Pedagogical Implications and Suggestions for Future Research*

Writing is indeed the toughest skill to acquire for ESL learners. Therefore, ESL learners will experience various difficulties in writing and it is crucial for ESL educators to assist them by using the right approach and strategies when writing (Baharudin et al., 2023). The findings of this research may benefit most of the language educators on teaching methods and strategies in the writing classroom. The suitable writing strategies applied by ESL learners will help them to become better writers. Therefore, it is important for ESL educators to train their learners and provide them with opportunities to improve their writing by employing various writing strategies that can improve their writing ability.

Future researchers can consider replicating this study and further elaborating in multiple research contexts such as looking at significant differences between language learning strategies used in terms of genders as well as other factors such as motivation and social background. It is also recommended that the results be verified with other research instruments as well as conducting further investigations into effectiveness of the five writing strategies on students' writing performance.

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## AUTHORS' CONTRIBUTION

FB carried out the literature review and performed some of the data analysis sections. NHLR completed the abstract, introduction, objectives, designed the conceptual framework, discussed the methodology and concluded the study. AHMH wrote and refined the literature review section. Carried out the introduction and literature review sections. SAS refined the data analysis section. All authors involved in the data collection and the analysis of the data. All authors read, edited and approved the final manuscript.

## CONFLICT OF INTEREST

None declared

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