

# KNOWLEDGE, ATTITUDES AND PRACTICES SURVEY ON EBOLA VIRUS DISEASE AMONG VIETNAMESE UNDERGRADUATE STUDENTS

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**ABSTRACT:** *The aim of this study was to examine the knowledge, practices and attitudes of undergraduate students towards Ebola virus disease. The study was conducted in the context of Vietnam, with qualitative and quantitative data gained from the participants. Indeed, the study revealed that there was a high knowledge level about Ebola infection among these participants. Some of the factors explaining these results included the backgrounds and expertise of the students. As such, the results concurred with those documented in the previous literature, which contended that there is a direct correlation between individuals' education levels and their knowledge of Ebola. The implication for the national government of Vietnam is that there is a need to embrace mass education to ensure that communities are sensitised to signs and symptoms of the Ebola virus disease. In future, there is a need for research to focus on the efficacy of such mass education in reducing the risk of Ebola infection among communities in Vietnam and other developing countries.*

**Keywords:** *Attitude, Ebola, Knowledge, Practice, Student, Vietnam.*

## INTRODUCTION

In the recent years, undergraduate students have been in news headlines regarding issues from job fitness to transgender bans. However, little attention has been given to the status of the Ebola virus among such students, which is significant, especially with many countries in sub-Saharan Africa experiencing high prevalence rates of Ebola virus disease. In this context, Omoleke, Mohammed and Saidu (2016) suggested that Ebola virus infection rates in these communities may be three to four times higher than the rest of the general population. Compared to the civilian population, it has been documented that students in higher education institutions report infection rates as high as 20% (Spengler et al., 2016). The high prevalence is linked to the experience of war or instability in these African countries' recent pasts. According to Bolanle (2018), these countries include Congo, Rwanda, Uganda, Ethiopia, Mozambique, Zimbabwe and South Africa.

According to Henao-Restrepo et al. (2015), Ebola disrupts patients' and families' daily routines. The trend comes even in the wake of universal access to health education, testing and treatment, advertised by most national systems. The disruptions, as suggested by Nyakarahuka et al. (2017), arise from restrictions on the duties performed, inadequate treatment services and heightened scrutiny, including stigma surrounding medication. This study sought to explore these under-researched disruptions by determining the knowledge, attitudes and practices of undergraduate students in the context of Vietnam. The motivation was to establish some of the strategies that health care personnel could adopt to deal positively with issues around the Ebola

virus epidemic in the developing world. The specific purpose of this study was to explore the daily experiences, interactions and lives of undergraduate students relative to the Ebola virus.

### **Research Questions**

Undergraduate students have been observed to be special group in two main ways: the relative youth of the group and their attitudes, including those that they learn informally while being inculcated in the culture of higher education and those that are intentionally imparted by instructors (Jalloh et al., 2017; Etokidem et al., 2018; Kobayashi et al.,). Peer pressure plays an additional role in the formation of these attitudes. A practical illustrative case in which high importance in responding to diseases is linked to the willingness to accept risk. Off the field, this willingness is critical, as it prompts some students to conform to what the rest of the student body perceives as 'normal.' Thus, this study's research questions were as follows:

1. How do undergraduate students in selected universities in Vietnam comprehend, cope and interact in their daily lives?
2. What are the current Ebola virus policies for communities in Vietnam?
3. How do undergraduate students in Vietnam understand the Ebola virus and its treatment?
4. In what ways do undergraduate students in Vietnam live with the difficulties of and respond positively to the emerging challenges of the Ebola epidemic?

### **Aim and Objectives**

Conflict-stricken areas and developing countries form rich breeding grounds for Ebola virus infection. This makes it essential to establish the nature of daily life among undergraduate students in Vietnam, upon which relevant recommendations regarding issues such as coping mechanisms, emotional and psycho-social support and infrastructural adjustments can be made. The main aim of this study was to explore how undergraduate students in Vietnam comprehend, cope and interact with Ebola in their daily lives. The research objectives were as follows:

- ❖ To describe the current Ebola virus policies for communities in Vietnam
- ❖ To ascertain the manner in which undergraduate students in selected universities in Vietnam understand the Ebola virus and its treatment
- ❖ To determine how undergraduate students in Vietnam live with the difficulties of and respond positively to the emerging challenges of the Ebola epidemic

### **Rationale**

This study was motivated by the lack of information on the daily life experiences of undergraduate students in the majority of previous scholarly studies and public discussions regarding the prevalence of the Ebola virus in developing countries. Indeed, an understanding of the undergraduate students' coping mechanisms was seen as likely to yield insight into the major challenges the students face, upon which feasible solutions could be recommended. The tertiary benefit was seen to be that the study's findings would sensitise healthcare organisations and the national government of Vietnam regarding major infrastructural, emotional, social and psychological supports that could be extended to undergraduate students, especially based on their existing practices, attitudes and knowledge about the Ebola virus disease. In doing so, the study sought to form a foundation for highlighting strategies that could be used to ensure the required level of preparedness for the outbreak of the Ebola virus, while minimising potential stigma on the part of the infected groups and their families and associated communities. The study was also seen to be important for its potential to reveal the undergraduate students' understandings of the condition (Ebola virus) and its treatment. This objective, in turn, could aid in identifying some of the emergent gaps and advocating for sensitisation and monitoring programs that strive to improve the well-being of these students while ensuring that they continue to pursue their higher education with minimal interruption. Overall, the study was conducted to contribute to the existing literature regarding health issues in the undergraduate population of Vietnam, especially as pertains to students' daily life experiences.

## METHODOLOGY

### Research Design

As indicated in above, the main aim of the study was to explore how undergraduate students comprehended in Southern of Vietnam, coped with and interacted with Ebola in their daily lives in Vietnam. As such, an exploratory study was done to collect qualitative and quantitative data from the selected public universities from January to May 2017 in Vietnam. In the study by Antwi and Hamza (2015), it was observed that exploratory studies aim at investigating groups of people, individuals, events or organisations to gain insight into their perceptions about a given phenomenon. Indeed, these studies strive to understand the 'why' and 'how' aspects of issues under investigation, upon which the target population's experiences are discerned and a further understanding of why the participants respond in the manner in which they do is achieved (Bernard & Bernard, 2012). Similarly, exploratory studies apply in situations where the subject being investigated has not been clearly defined or examined in depth. As seen in the scholarly affirmations highlighted in chapter 1, the daily experiences of Ebola-infected individuals, especially undergraduate students, has yet to receive an in-depth analysis, making the use of an exploratory study appropriate.

### Data Collection

This study employed a qualitative technique to collect and analyse the data. Creswell (2013) [JW, 2013 #10] suggested that a qualitative approach leads to the collection of detailed information by providing room for the recording of the participants' behaviours, feelings and attitudes. This method was deemed appropriate for this study because the results were likely to be representative and worth relating to the rest of the target population (regarding the daily experiences of Ebola-infected individuals). While the leading drawback of qualitative research is its application in situations involving small sample sizes (Creswell, 2014), its flexible nature counters this limitation (Denzin and Lincoln, 2017). In this exploratory study, interview was the leading instrument of data collection. In particular, semi-structured interviews were conducted, involving open-ended and closed-ended questions. According to Fox (2014), interviews are advantageous because they lead to new subject areas being revealed by encouraging the interviewees to expand upon their responses; this also leads to research continuity. It has also been documented that interviews in exploratory studies offer valid and reliable data because the researcher remains active, having assumed the role of an active participant. However, Gholamreza and Hasan (2010) cautioned that interviews are dependent on the researcher's skills. Despite this, the merits tended to outweigh the demerits, making the instrument worth employing in this study. It is imperative to note that before data collection, the participants were required to provide informed consent. Approval from the institutional review board in relation to ethical conformity and the senior leaders at the selected universities was also obtained prior to conducting the study.

Hesse-Biber and Leavy (2011) noted that interviews are disadvantageous due to high cost and amount of time required relative to the reporting, feedback, analysis, transcription and interviewing processes. However, the ability to support accurate screening counters these demerits, making the interview technique applicable and reliable (Merriam & Tisdell, 2015). Punch's study (2013) suggested that accurate screening was a merit associated with interviews, arising from active listening when the interviewer conducts face-to-face interviews, deducing the accuracy of the responses received from the interviewees. Given that the exploratory research gains full control when interviews are conducted and the participant responses received via narratives, interviews are advantageous because they aid in keeping focus (Saunders, Lewis & Thornhill, 2012).

### Population and Sampling

In this study, the inclusion and exclusion criteria were set in such a way that the participants were expected to be undergraduate students from public universities in Vietnam. The participants were also expected to have stayed in the country for a significant period. The latter criterion aided in ensuring that the interviews focused on an experienced group that was well placed to discern issues regarding daily experiences related to Ebola in the Vietnamese context. From the perspective of sampling, the study employed purposive and convenient sampling procedures. The entry person was a member of the medical personnel serving the selected universities as doctors. Thus, these gatekeepers were the lead personnel responsible for inviting the students to participate in the study. According to Antwi and Hamza (2015) and Savin-Baden and Major (2013), purposive samples constitute non-probability samples, whose selection is dependent on population characteristics and study objectives. Thus, the researcher's judgment shapes the selection of the unit being

investigated. It is also worth noting that the main goal of purposive sampling is focusing on specific population features or interests, which was determined to suit the main aim and objectives of this study (Bernard & Bernard, 2012). In this case, purposive sampling was appropriate because the focus was on undergraduate students. Advantages of the selected sampling approach include the provision of room for outcome generalisation, proper representation, avoidance of irrelevant items and an intensive study. Similarly, purposive sampling is economical and promises accurate results (Creswell, 2013). Some of the drawbacks associated with this sampling procedure include potential personal bias, lack of equal opportunity and unsuitability in research contexts with large samples (Creswell, 2014).

### **Data Analysis**

Prior to the analysis of data, the participants' behavioural cues and verbal information were summarised and classified based on the objectives of the study, as well as the emerging themes. In turn, the narrative analysis technique was applied to gain insights from the results obtained. Therefore, data coding aided in the establishment of similarities between the participants' responses before presenting the emerging themes. In doing so, the narrative analysis technique formed a foundation for determining whether parallels could be drawn between the primary data obtained and the assertions in the previous literature regarding the daily experiences, knowledge, practices and attitudes of undergraduate students towards the Ebola virus in Vietnam, as well as such students' awareness of the disease and available treatment options. Denzin and Lincoln (2011) highlighted that the narrative analysis technique focuses on the words that the interviewees use, the potential overlap characterising the words of the interviewees, sections that the interviewees emphasise and the order in which the interviewees use select words.

### **Limitations and Delimitations**

Given that a survey approach was used while applying semi-structured interviews to collect data, mixed outcomes accrued. Some of the potential drawbacks associated with this approach included potential intervention and interference by the researcher that could prompt the interviewees to respond in certain ways, the possibility of misinterpretations and misunderstandings in situations where the interview questions were not clear and possible social desirability bias in Vietnam, a multicultural context. Purposive sampling, as well as resource and time constraints, further indicated that the study focused on a relatively small sample size, which threatened to compromise the results' potential for generalisation to the rest of the target population or sampling frame. To counter these drawbacks, various steps were implemented. For instance, misunderstandings and misinterpretations were avoided by clearly formulating the interview questions. Regarding the danger of social desirability bias, the clarity of the interview questions eliminated as much as possible the researcher's intervention and interference with subjective terms that could lead the interviewees to respond in certain ways.

### **Ethical Issues**

From an ethical perspective, informed consent was secured before undertaking the study. In addition, the undergraduate students were informed about the voluntary nature of participation, as well as the freedom to withdraw from participation, especially if they felt uneasy or uncomfortable as the interview sessions proceeded. The participants were also informed about the sensitive nature of the subject being investigated and the possible psychological distress that may emerge. Ethical conformity was further achieved via participant anonymity through coding the participants' personal details and data privacy measures by using passwords for electronic data and secure cabinets for print information.

## **RESULTS**

Table 1 shows the demographic characteristics of participants in the study. Most of the participants whose responses were received were aged between 20 and 24 years, as shown in the table above. Given the study's inclusion and exclusion criteria by which the objective was selecting and collecting data from an experienced population, it can be inferred that these members were better placed to discern issues surrounding the aim and objectives of this study, further contributing to the outcome validity and reliability. The table above reveals that the majority of participants whose responses were received for analysis were male. Particularly, the male participants accounted for 59.5% of the responses that were received, while female participants accounted for 40.5% of the responses that were returned for analysis and interpretation. However, it is notable that the

number of males versus female participants (22 vs. 15) was not significant in terms of the content of the participant interviews, implying that the role of gender was unlikely to affect the results obtained by this study.

**Table 1:** Demographic characteristics of participants in the study.

Characteristic	Frequency or number of the participants	Percentage	Valid percentage	Cumulative percentage
<b>Age of the participants</b>				
20–24	8	21.6	21.6	21.6
25–29	3	8.1	8.1	29.7
30–34	17	45.9	45.9	75.7
35–39	9	24.3	24.3	100.0
Total	37	100.0	100.0	
<b>Gender of the participants</b>				
Male participants	22	59.5	59.5	59.5
Female participants	15	40.5	40.5	100.0
Total number of participants	37	100.0	100.00	
<b>For how long you have lived in Vietnam?</b>				
1–10 years	25	67.6	67.6	67.6
11–20 years	12	32.4	32.4	100.0
Total	37	100.0	100.0	

Asking the participants to indicate their length or duration of stay in Vietnam was imperative to ensure that the study collected data from an experienced population, as such students were likely to be better placed to understand the lived experiences of people with Ebola, especially in terms of their knowledge, attitudes and practices. Looking at the results above, it was evident that the majority of the participants had lived in Vietnam for a period ranging from 1 to 10 years (accounting for 67.6%), followed by those who had stayed in the region for a period ranging from 11 to 20 years (12 participants, accounting for 32.4% of the responses received). Based on the two categories of participants' duration living in Vietnam, it was evident that this study relied on an experienced population, which underscored the reliability and validity of the findings. The table below summarises these findings in relation to the age and gender of the participants, as well as the number of years that the participants had stayed in the country (at the time of study).

Concerning the parameter of knowledge, the participants were asked about signs and symptoms of Ebola. Thirty-five percent of the participants failed to indicate the correct responses, with 22% failing to understand some of the signs and symptoms with which Ebola is associated. The rest of the participants (43%) identified the correct signs and symptoms of Ebola. Notably, the difference between male and female participants' responses was not statistically significant. In relation to the attitude of the undergraduate students, the majority of the participants (48%) stated that their occupation was likely to put them at risk for Ebola infection, but their career was unlikely to pose risk to a similar degree or magnitude. Thirty-three percent of the participants pointed out the risk for Ebola infection as that which was likely to arise from travelling to Ebola-affected areas, with the majority of these respondents preferring herbal treatment. The study unearthed the undergraduate students' practices regarding the Ebola virus disease. From the results, 57% of the participants selected the correct choices regarding Ebola-related preventive practices. Regarding this parameter, more male participants chose the correct answers than female participants (63% vs. 37%, respectively). Thus, it was inferred that most of the undergraduate students understood Ebola preventive practices, but the factor of gender played a moderating role.

## CONCLUSION

In summary, this study revealed high knowledge levels about Ebola infection. Some of the factors that could explain the results included the backgrounds and expertise of the students. Hence, the results concurred with those documented in the previous literature that contended a direct correlation between individuals' education levels and knowledge of Ebola. The implication for the national government of Vietnam is that there is a need to embrace mass education to ensure that communities are sensitised to signs and symptoms of the disease. In future, there is a need for research to focus on the efficacy of such mass education in reducing the risk for Ebola infection among communities in Vietnam and other developing countries.

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## CONFLICTS OF INTERESTS

The authors have no conflicts of interests to declare.

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