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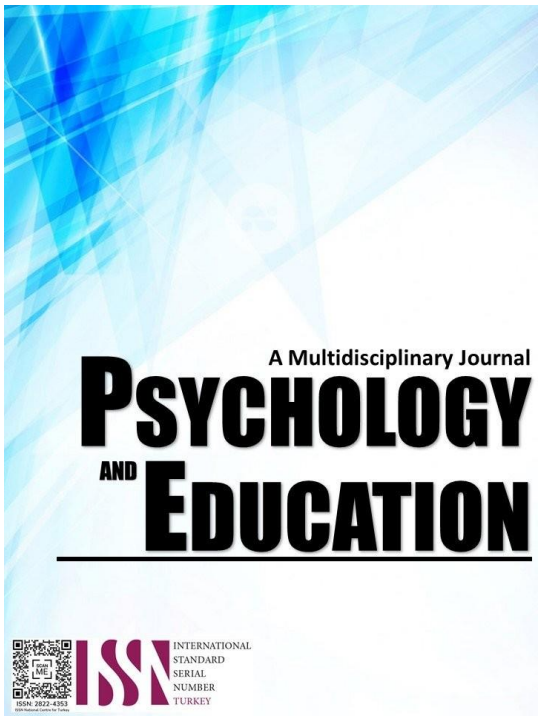

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Research Article

Readiness and Willingness to Perform Basic Life Support of Youth Residents in Selected Areas in Quezon City: Basis for Webinar Program

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Abstract

Basic Life Support is a crucial skill to effectively minimize morbidity and mortality in the community. Empowering the youth to have awareness and knowledge of Basic Life Support is important to have the majority of the population be able to assist victims of out-of-hospital cardiac arrest. A quantitative approach and a descriptive-comparative research design were used in this study to assess the readiness and willingness of the youth population in Quezon City concerning the provision of Basic Life Support. The data was collected through the use of a researcher-made, four-part structured questionnaire. The research locale is three (3) selected barangays in Quezon City in which 385 youth individuals who are within the age cohort of 15 to 24, studying or working, and residing in Quezon City are the respondents. Descriptive and analytic statistics were used to analyze the data. T-tests and ANOVA tests were conducted at the level of significance $\alpha = 0.05$ with a confidence interval of 95%, wherein $p < 0.05$ were considered statistically significant. The respondents' level of knowledge for the components of Basic Life Support, which are divided into three sections: Recognition of Sudden Cardiac Arrest (mean = 191.1), Provision of Cardiopulmonary Resuscitation (mean = 175.87), and Utilization of Automated External Defibrillator (mean = 175.8) are all moderate. Moreover, there is a moderate level of self-efficacy among the youth respondents in selected areas in Quezon City (mean = 2.74). In terms of willingness, the respondents are most willing to administer Basic Life Support to their own family and peers and are least willing to immunocompromised individuals. Age, educational attainment, and training are found to have a significant impact on youth readiness to perform Basic Life Support, whereas gender, marital status, and socioeconomic status have no significance. The results of this study are to be used as a basis for a webinar program. Overall, the study emphasizes the importance of addressing youth BLS readiness and willingness through education, training, and continued experience, resulting in improved ability to respond effectively in emergency situations.

Keywords: *automated external defibrillator (AED), basic life support (BLS), cardiopulmonary resuscitation (CPR), emergency, out-of-hospital cardiac arrest, readiness, willingness, youth*

Introduction

With cardiovascular diseases as the leading cause of death in the Philippines for the past decades until now, sudden out-of-hospital cardiac arrests as the predominant mode of death among Filipinos with heart problems is expected. In 2021, out-of-hospital cardiac arrests comprised approximately 15 percent to 20 percent of deaths worldwide (Castanha, 2021). This data showed a worryingly high number of people that were dying from cardiac arrest before they could reach the hospital. According to Yan et. al (2020), Asian countries have a decreased rate of survival in out-of- hospital cardiac arrest cases with only 22.1 percent compared with North America and Europe, revealing that Asia has lagged behind other continents in adopting bystander CPR. Ischemic heart disorders were the leading cause of death among Filipinos between January to June 2022, accounting for 18.6 percent of overall mortality in the Philippines (Philippine Statistics Authority, 2022). The Philippine Heart Association (2022) revealed that almost 80 percent of out-of-hospital cardiac arrests happen in the presence of a witness, and alarmingly, only 10 percent of those cases received cardiopulmonary resuscitation (CPR) as most bystanders were clueless on what to do or were worried to do CPR incorrectly. In Quezon City, the country's most populous city, approximately 7,000 people died as a result of heart disease in 2019 (Statista, 2022). The ever-increasing number of out-of-hospital cardiac arrest cases was what urged the researchers to choose this topic of study. The researchers have faced familiar losses due to cardiac arrests, which led to untimely demise of family members because of the lack of knowledge of Basic Life Support. As student nurses, the researchers believe that learning Basic Life Support skills can effectively minimize mortality as it triples the chances of survival when done effectively and early enough (Martin, 2022).

It is part of a person's daily life that a variety of unanticipated events, which may be life-threatening,

can occur anywhere at any moment. A case study conducted by the Global Resuscitation Alliance (2019) concluded that one of the reasons why the Philippines faces a low survival rate of out-of-hospital cardiac arrests was due to the lack of community members' knowledge to perform CPR. Mekonnen & Muhye (2020) stated in their study that there is evidence showing that absence of training, inadequate knowledge, and lack of self-esteem are some of the factors causing difficulties to bystanders to provide CPR. A study done by Mohd Sharif et al. (2018) revealed that the youth receive very little education regarding first aid, and thus, there is a pressing need to increase youth education in this matter for them to contribute to a safer community.

To the researchers' knowledge, there were no published studies that assess the readiness and willingness of youth to perform Basic Life Support in Quezon City. For this reason, it was necessary to conduct studies showing the importance of BLS training in the chosen locale. Thus, the goal of this study was to assess the readiness and willingness to perform Basic Life Support of the youth population residing in Quezon City. Moreover, it was designed to assess and measure the youth's readiness and willingness to act in times of emergency. This study also aimed to create an effect through promotion of knowledge and self-efficacy in Basic Life Support, thus enhancing public rescue and efforts in the long run, not only in the community but also the country at large. With the data that were gathered and presented, residents of the said city will be able to create courses of action such as conducting a webinar program for the youth to help diminish the casualties in such emergencies.

The results of this study provide relevant and current information that may be put to use by various roles in society. This study can be used as a source of teaching material for community health nursing to broaden the topic of Basic Life Support in the community. This study also benefits school nurses as this can have an impact on spreading responsibility about Basic Life Support so that the constituents of the school or university are better covered in the event of a medical emergency. The status of Quezon City's youth population on their readiness and willingness to perform Basic Life Support can serve as an influence for the youth, including the medical and non-medical population, to improve knowledge and skills in Basic Life Support. This can also help society by effectively reducing mortality caused by out-of-hospital cardiac arrests, and can also be an important adjunct to Community First Aid Responders. Families can also benefit from this study as this can give them confidence in performing Basic Life Support on their loved ones. The findings not only provide the community information on the youth's preferences in responding to sudden cardiac arrests, but also provide guidelines to the local government unit to plan approaches for community safety and awareness, such as Basic Life Support training for the youth. Moreover, this will also allow educational institutions to anticipate the knowledge and capabilities of the students and work on curricular strategies in learning experiences. With collaborative efforts, the issues consequently can be addressed. Future researchers can also use this study as a reference for research topics related to Youth Readiness and Willingness to Perform Basic Life Support.

Research Questions

The goal of this study was to assess the readiness and willingness of youth in Quezon City to perform Basic Life Support. It sought to answer the following research questions:

1. What is the demographic profile of the respondents in terms of:
   1.1. age;
   1.2. sex;
   1.3. marital status;
   1.4. educational attainment;
   1.5. socioeconomic status; and
   1.6. BLS training experience?
2. What is the level of knowledge of the respondents towards Basic Life Support in terms of:
   2.1. Recognition of Sudden Cardiac Arrest (SCA);
   2.2. Provision of Cardiopulmonary Resuscitation (CPR); and
   2.3. Utilization of Automated External Defibrillator (AED)?
3. What is the level of self-efficacy of the respondents in performing Basic Life Support?
4. Which of the following social categories are the respondents open and willing to perform Basic Life Support on?
   4.1. family and peers;
   4.2. strangers;
   4.3. male person;
   4.4. female person;
   4.5. pediatric individual;
   4.6. adult individual;
   4.7. geriatric individual; and
   4.8. immunocompromised individual
5. Is there a significant difference between the respondents' demographic profiles in their readiness to perform Basic Life Support?

6. Is there a significant difference between the respondents' level of self-efficacy in their willingness to perform Basic Life Support?

Methodology

This chapter outlines the quantitative and descriptive research methodologies utilized to conduct this study. It includes the discussion of the research design, research locale, population and sampling, research ethics, research instrument, data collection, and data analysis.

Research Design

A quantitative approach and a descriptive-comparative research design were utilized in this study. According to the USC Libraries (2022), quantitative research focuses on acquiring statistical, numerical, or other quantifiable data and applying it to create generalizations about a population or to describe a particular phenomenon. The researchers utilized a quantitative approach to determine the readiness and willingness of youth residents from Quezon City to perform Basic Life Support. In a descriptive-comparative research design, the researchers consider two existing intact variables for comparison to describe the research sample as they naturally exist (Siedlecki, 2020). With this, the researchers accurately and systematically described and compared a population, situation, or phenomenon based on the respondents' assessment and did not control or manipulate any of the variables (McCombes, 2019).

Research Locale

The research locale are three selected barangays in Quezon City. These three Barangays are all covered by Quezon City's 5th congressional district, bordering the northern enclave of Caloocan. Quezon City is a highly urbanized city which has 171.71 square kilometers of land area and hosts a diverse range of people of all ages and socioeconomic backgrounds (Misachi, 2021). According to the 2022 census, Quezon City is the most populous city in the Philippines, with a population of 3.1 million people (World Population Review, 2022). Aside from the reason that the researchers were currently situated in this city, Quezon City was chosen by the researchers because it is also reported that approximately 7,000 people died in Quezon City in 2019 as a result of heart disease (Statista, 2022). The researchers aim to describe the state of Basic Life Support provision among youth in said city. The study was conducted through face-to-face surveys and online using Google Forms.

Population and Sampling

The study's respondents are youth residents from Quezon City, which has been narrowed down to three specific barangays. The researchers utilized Simple Random Probability Sampling, which is a sampling approach wherein each sample of the same size has an equal probability of being chosen (Russell, 2021). Using this strategy, the researchers were able to statistically measure a subset of people drawn from a larger population in order to approximate a response and generalize from the entire group (Horton, 2022). In contrast to other forms of sampling techniques, simple random sampling is the least biased method (Simkus, 2022). This technique was used to randomly select the respondents based on the criteria of the researchers. The inclusion criteria set by the researchers include individuals who are: (1) included in the age cohort between 15 and 24 years; (2) residing in Quezon City, Metro Manila, Philippines; (3) currently enrolled as a student or working; (4) able to read and understand the English language; (5) willing to participate; and (6) whose parents or guardian have signed the parental and guardian consent if participant is below 18 years of age. The exclusion criteria set by the researchers include individuals who are: (1) younger than 15 years of age and older than 24 years of age; (2) non-residents of Quezon City, Metro, Manila, Philippines; (3) not currently enrolled as a student or working; (4) unable to read and understand the English language; (5) unwilling to participate; and (6) whose parents or guardian refused to sign the parental and guardian consent if participant is below 18 years of age.

To determine the sample size needed, the researchers used Cochran's Formula as a guide since the total population of youth who met the inclusion criteria set by the researchers was too large. Cochran's Formula is considered to be especially useful and appropriate in studies with large or unknown populations (Statistics How To, 2021). It enabled the researchers to calculate an ideal sample size for a desired level of precision. In this formula, the sample size (n) is established. The margin of error (e) is 5% or 0.05. The estimated proportion (p) of an attribute that is present in the population is 50% or 0.5 as this indicates maximum variability. The q in the equation is $1 - p$, which is 0.5. The z -value is extracted from the z -table, and the standard normal deviate corresponding to a 95% confidence level gives us a z -value of 1.96. Therefore, a random sample of 385 youth individuals from any of the three barangays in the research locale who meet the inclusion criteria set by the researchers

is the sample size of this research study.

Research Ethics

The researchers guarantee that this study was carried out in an ethical, appropriate, and professional manner. The research study followed ethical standards in order to protect the dignity, rights, and wellbeing of the research participants. By offering and guaranteeing the participants' rights to anonymity, secrecy, freedom of choice, and informed consent, the researchers were able to preserve their rights. Ethical principles governed the standards of conduct and served as moral guidelines for the researchers in the process of research. The ethical concepts of autonomy, beneficence, nonmaleficence, confidentiality, justice, and integrity were practiced and used in this research study.

Autonomy is the participant's freedom to choose whether or not to participate in a study. Answering the questionnaire was completely voluntary, and everyone was free to exercise their right to refuse. Participants were not coerced into giving consent and participating. The researchers did not offer any incentives or rewards that could unduly influence the respondents to rationally participate and thus free of any undue inducements. In case a participant found the questionnaire too uncomfortable, they were free to withdraw their participation anytime during the process without any penalty or loss of benefits. The researchers respected any decisions made by the participants.

Beneficence means that the researchers' actions must always be in the best interest or for the benefit of the participants. Participants were treated in an ethical manner by making efforts to secure their well-being and protect them from exploitation.

Non-maleficence means to do no harm. Participants of this study were not subjected to potential risks of harm, injury, privacy, or confidentiality during the survey. The researchers ensured that the research study did not cause any form of medical, physical, emotional, or psychological harm to the participants, either intentionally or through omission. Questions involving events of sudden cardiac arrests and provision of Basic Life Support were all purely theoretical and hypothetical. If this, in any case, caused psychological distress, the researchers were obliged to encourage the participants to decline or disregard the survey and inform them that they are free to do so without facing any penalties or consequences. If a respondent required psychological assistance as a result of distress from the research, they were to be immediately referred to the nearest public clinic with the appropriate health professional.

Confidentiality was maintained by safeguarding the data the researchers collected from the respondents. The participants' anonymity was guaranteed by the researchers. All collected data were stored in password-protected folders and were only accessed by the researchers and their statistician, with the participants' knowledge via informed consent. Any copies of the participants' data will be safely discarded once they are no longer required.

Justice is practiced by being equally fair in all aspects of individual treatment. The researchers ensured that the participants were treated fairly, without bias or favors to the researchers' interests.

Integrity, which is the principle that affirms honesty, transparency, veracity, and respect by only stating the truth, was carried in the entire research process. The researchers ensure that this research study was devoid of any forms of dishonesty.

Research Instrument

To assess the readiness and willingness of the respondents towards providing Basic Life Support, the instrument utilized in this research study was a researcher-made, four-part structured questionnaire with contents that were primarily based on literature and study findings. The questionnaire consisted of the following parts:

Part I: The first part of the questionnaire investigated the demographic information of the respondents, which included the age, sex, marital status, educational attainment, socioeconomic status, and prior Basic Life Support (BLS) training experience.
Part II: The second part of the questionnaire assessed the level of knowledge of the respondents regarding Basic Life Support. This part was further divided into three (3) sections: (A) Recognition of Signs of Sudden Cardiac Arrest, (B) Provision of Cardiopulmonary Resuscitation, and (C) Utilization of an Automated External Defibrillator. The type of questions corresponds to the topic of each section. Each section included multiple-choice theoretical and hypothetical questions, for which responders had to select just one best answer. This part of the questionnaire contained 35 items: 10 questions for section A, 15 questions for section B, and 10 questions for section C. For each question, correct answers received one point, while incorrect answers received zero points.
Part III: The third part of the questionnaire evaluated

the respondents' current levels of self-efficacy concerning the provision of Basic Life Support. Perceived self-efficacy is an individual's own competence in carrying out a task. Based on this, the researchers defined self-efficacy as respondents' confidence in their ability to perform Basic Life Support in an emergency. This part of the questionnaire consisted of 15 items, each of which used a 4-point Likert scale in each question (4 = Strongly agree, 3 = Agree, 2 = Disagree, 1 = Strongly disagree).

Part IV: The fourth part of the questionnaire explored the respondents' openness and willingness to perform Basic Life Support on different social categories. This part of the questionnaire consisted of 8 items, in which questions were inquiring about their level of willingness to provide Basic Life Support if the out-of-hospital cardiac arrest victim is (1) a family or peer, (2) a stranger, (3) a male person, (4) a female person, (5) a pediatric individual, (6) an adult individual, (7) a geriatric individual, or (8) an immunocompromised individual. A 4-point Likert scale was used in each question (4 = Willing, 3 = Somewhat willing, 2 = Somewhat not willing, 1 = Not willing).

The researchers have constructed their own questionnaire, which indicated the need to conduct a pilot study with a total of 10 participants to determine the validity, which was computed with Cronbach alpha with 0.7 level of significance to measure reliability. The said questionnaire was written in the English language. There was no need to translate the survey questions into the local language as the participant inclusion criteria indicates that respondents must be able to read and understand the English language. The researchers gathered data face-to-face with the use of a survey instrument and electronically with the use of Google Forms. Before completing the survey, consent forms were given to the respondents to verify that their participation was voluntary and that their personal information would remain confidential. The survey questionnaire was validated by experts in the field of study such as emergency or disaster nurses, accredited BLS trainers, and community responders, and a grammarian. The sample size was computed by a statistician.

Data Collection

Following the approval of the panel members and validators, this research study was forwarded to the university's Research Development and Innovation Center (RDIC) and Institutional Ethics Review Committee (EIRC) for approval and issuance of an ethical certificate. The researchers subsequently submitted a letter of consent to the Program Head of the university's College of Nursing for approval of the research survey. In February 06, 2023, the researchers issued letters of permission to the barangay captains of the three research locales in Quezon City to request permission to conduct the study, which were all granted in the same month. However, one barangay did not allow the researchers to physically conduct the survey; instead, the members of the barangay's Sangguniang Kabataan were the ones to disseminate the informed consent and survey questionnaire due to the barangay's COVID-19 restrictions.

In April 29, 2023, the data collection was done through dissemination of the survey questionnaires in which respondents were given sufficient time to accomplish truthfully. This study used both a face-to-face and an online method of data gathering, with online data collection as the priority method as this grants safety, convenience, and timeliness to both the researchers and the respondents. Prior to answering the questionnaire, the researchers provided a brief explanation of the purpose of the survey and asked for the participants' informed consent, confirming that the information they provide will only be used for research purposes. Given that the target respondents are youth, some necessary adjustments were made if they fall under the underage (aged 15 to under 18) category. Thus, the researchers required an informed consent from the respondents' parents or guardians acquiring their permission to participate in the research study, as well as from the underaged respondents themselves. All participation in this research was strictly voluntary. The participants had the option of choosing not to participate. Should the participants agree to participate, they are under no obligation to stay, and may withdraw their participation at any point of the study without facing any repercussions. Since individuals under the age of 18 are considered to be among the vulnerable population, this was to ensure that they were not being exploited. The participants were allowed to contact the researchers to ask questions and obtain additional information about the study, if there were any. Moreover, participants of this study were not subjected to potential risks. Questions involving events of sudden cardiac arrests and provision of Basic Life Support were all purely theoretical and hypothetical. The questionnaire did not ask for the participants' names, so their identities remained private and confidential. The survey took 15 to 20 minutes, and participants were made aware that there are no penalties or repercussions for declining or disregarding the survey.

Throughout the process of this study, the researchers

adhered to the Data Privacy Act 2012, which is the law concerning the "protection of privacy of individuals; regulation of the collection, recording, organization, storage, modification, retrieval, consultation, use, consolidation, blocking, erasure or destruction of personal data; and ensuring that the Philippines complies with international standards set for data protection" (National Privacy Commission, 2022). The duration to collect all the data needed took three weeks. The respondents received a Certificate of Appreciation for their participation after taking the survey. After gathering data from the respondents, the data were counted, collected, and encoded in a Microsoft Excel file. The researchers secured the data for confidentiality and were only accessible to the researchers and the statistician. To protect their right to data privacy, the obtained data were kept in password-protected folders. These then were tallied, interpreted, and analyzed by the researchers. Afterwards, the collected data were deleted, shredded, destroyed, and discarded once they were no longer required.

Data Analysis

After data collection, the researchers proceeded with data organization and tabulation using Microsoft Excel, a spreadsheet software program for data visualization and analysis. Descriptive statistics were utilized to describe the respondents' demographic profile, level of knowledge, self-efficacy, and willingness to perform Basic Life Support on different social categories; and analytic statistics were used to analyze the significant differences among the variables based on the respondents' answers. This means that the qualitative variables were described in terms of frequencies and percentages, whilst quantitative variables were described in terms of means and standard deviations. A statistician carried out the statistical analysis to verify the accuracy and reliability of the study's results using SSPS. Percentages and frequencies were used to describe the respondents' demographic profiles and their openness and willingness to perform Basic Life Support on different social categories. The answers from the respondents' level of knowledge and self-efficacy concerning Basic Life Support were measured using means and standard deviations. These were then classified based on the mean of the scores from questions that utilized a 4-point Likert-scale. Moreover, independent T-tests were used to determine the differences in the respondents' readiness to perform Basic Life Support between those who are aged 15 to 17 and aged 18 to 24, between those who are male and female, and between those who are single and married. One-way ANOVA was used to determine significant differences in the readiness to perform Basic Life Support between respondents' educational attainment, socioeconomic status, and BLS training experience. It was also used to determine significant differences in the willingness to perform Basic Life Support between respondents' level of self-efficacy concerning Basic Life Support. The level of significance used was set at $\alpha = 0.05$.

Results and Discussion

This chapter shows the results of the survey conducted in the study concerning the readiness and willingness to perform Basic Life Support of youth residents in selected areas in Quezon City. A total of 385 respondents in the age cohort 15 to 24 years old completed the questionnaire. The results of the study are presented below through tables and analysis which were based on the identified research questions.

Table 1 displays the demographic profile of the respondents from selected areas in Quezon City. Out of 385 respondents, 300 (77.92%) were among the age cohort 18 to 24 years old, and 85 (22.08%) were 15 to 17 years old. According to the United Nations' (2023) definition, the youth are individuals included in the age cohort between 15 and 24 years, in which the ones who are 18 years old and above are considered as adults, and those below 18 are of minor age. According to Juariah & Purwaningsih (2022), these age groups are characterized as the ones that are easily motivated and quick learners. There are more adult respondents than minor respondents because it is easier to acquire responses from adults as obtaining responses from minor respondents required parental/guardian consents and some parents/guardians refused to do so.

On the sex profile, a large number of respondents surveyed are females with 224 (58.18%) respondents, and males with 161 respondents (41.82%). The respondents were mostly women as females are more active with the use of social media than men, which corresponds with the prioritized manner of data collection which is answering through an online questionnaire. A 2020 data showed that the global sex ratio of women in the Philippines was 49.78 percent and that females are expected to account for almost half of the total population as women, on average, live longer than men (Ritchie & Roser, 2020).

Table 1. *Demographic Profile of the Respondents*

Demographic Profile	*Frequency / Count*	*Percentage*
Age		
15-17 years old	85	22.08%
18-24 years old	300	77.92%
Sex		
Male	161	41.82%
Female	224	58.18%
Marital Status		
Single	381	98.96%
Separated	0	0.0%
Widowed	0	0.0%
Married	4	1.04%
Divorced	0	0.0%
Educational Attainment		
Primary (Elementary)	0	0.0%
Secondary (Junior and Senior High School)	130	33.77%
Tertiary (College or Vocational)	245	63.64%
Postgraduate	10	2.60%
Socioeconomic Status		
Below P10,957	126	32.73%
Between P10,957 - P21,194	71	18.44%
Between P21,194 - 43,828	91	23.64%
Between P43,828 - P76,669	56	14.55%
Between P76,669 - P131,484	27	7.01%
Between P131,484 - P219,140	8	2.08%
P219,140 and above	6	1.56%
BLS Training Experience		
Webinar and/or seminar	38	9.87%
Classroom setting	60	15.58%
Training without certificate of completion	10	2.60%
Professional training with certificate of completion	14	3.64%
Multiple Experience	76	19.74%
No	187	48.57%

Regarding marital status, most of the respondents surveyed are single with the frequency of 381 (98.96%), and only 4 respondents (1.04%) are married. The majority of the respondents are single because the age cohort 15 to 24 are young and are usually students. This is supported by Ortiz-Ospina & Roser (2020), stating that there has been a large decline in marriages among young people in many countries for two reasons: one, a growing proportion of the youth are refusing marriage; and two, the youth are increasingly preferring to marry later in life.

On educational attainment, the majority of the respondents surveyed have tertiary education with the frequency of 245 (63.64%). Table also showed a frequency of 130 (33.77%) for secondary education, and 10 (2.60%) for postgraduate. According to an article seen in CPR Select (2022), young people are an avid audience to learning regardless of sex, civil status, or level of educational attainment. The respondents are predominantly between the ages of 18 and 24, and this age group is typically enrolled in tertiary education. Education at higher levels, such as secondary or tertiary education, is becoming increasingly significant in today's world as the majority of the population are college graduates or higher (Philippine Statistics Authority, 2022).

On socioeconomic status, the majority of the respondents receive a household income of below P10,957, which has a frequency of 126 (32.73%). On the other hand, the household income which has the lowest frequency is P219,140 and above with only 6 (1.56%) of respondents. The socioeconomic status of Filipino families are identified depending on their monthly income. The Philippine Institute for Development Studies (2022) stated that the low economic class have a greater proportion of the population in the Philippines because they have larger families compared to the other social classes. Considering that the majority of the respondents are students, their socioeconomic status is likely to be low due to them being unemployed. Those who receive less household income have less access to BLS training, especially in rural areas and developing countries (Ssewante et al., 2022; Ismail et al., 2019).

Lastly, in terms of Basic Life Support training experience, 187 out of 385 (48.57%) respondents answered "No." This indicates that there is a huge lack of Basic Life Support training opportunities among the youth in Quezon City. On the other hand, 60 (15.58%) of the respondents answered that they have received Basic Life Support education in a classroom setting, and 38 (9.87%) received one through webinar and/or seminar. It can also be noted that 76 (19.74%) of the respondents received Basic Life Support training through multiple experiences including webinar and/or seminar, classroom setting, training without certificate of completion, and/or professional training with certificate of completion. It was stated in a study by Ssewante et al. (2022) that the reason why there is a lack of provision of Basic Life Support to the victims of sudden cardiac arrest is because of the general inadequacy of formal BLS training and refresher courses. Kose et al. (2020) and Dobbie et al. (2018) had studies that revealed that BLS training increases a

person's willingness to administer Basic Life Support when needed.

Table 2. *Levels of Knowledge*

Knowledge	*Level*	*Interpretation*
Recognition of Cardiac Arrest	191.1	Moderate Knowledge
Provision of Cardiopulmonary Resuscitation	175.87	Moderate Knowledge
Automated External Defibrillator	175.8	Moderate Knowledge

Table 2 summarizes the levels of knowledge of the respondents for the components of Basic Life Support, which are divided into three sections: Recognition of Sudden Cardiac Arrest (SCA), Provision of Cardiopulmonary Resuscitation (CPR), and Utilization of Automated External Defibrillator (AED). Based on the results, all sections have a moderate level of knowledge. The respondents' knowledge on the provision of Cardiopulmonary Resuscitation (CPR) and utilization of an Automated External Defibrillator (AED) shows moderate knowledge, but have a lower score than the first component, with mean scores of 175.87 and 175.8, respectively. This aligns with a prior study by Ahmad et al. (2018) who concluded in their research that youth comprehension and familiarity with Basic Life Support is inadequate and needs improvement. While there are areas for growth, having moderate knowledge regarding the components of Basic Life Support is still inadequate to be able to successfully minimize mortality in the community caused by out-of-hospital cardiac arrests. As stated by Alfakey & Alkarani (2021) in their study, those who have knowledge about Basic Life Support are better in handling health emergencies than those who do not have knowledge.

It can be noted that the component Recognition of Sudden Cardiac Arrest (SCA) obtained the highest mean score at 191.1. This means that the respondents found this component of Basic Life Support as the easiest one to learn compared with the performance of cardiopulmonary resuscitation (CPR) and the utilization of an Automated External Defibrillator (AED). According to Subki et al. (2018), the earliest detection of a sudden cardiac arrest as early as possible ought to be the first aim of Basic Life Support education to have the provision of cardiopulmonary resuscitation (CPR) and utilization of an automated external defibrillator (AED) be done. Recognizing the signs of a sudden cardiac arrest must be maintained to be taught among the youth as sudden cardiac arrests can happen anytime and anywhere. This is to reduce morbidity and mortality among victims of out-of-hospital cardiac arrests.

Table 2.1. *Levels of Knowledge in terms of Recognition of Sudden Cardiac Arrest*

Questions	*Correct*	*Wrong*	*Interpretation*
Q1 What is the most common unobservable or unseen warning sign of a sudden cardiac arrest in male adults?	283	102	High Knowledge
Q2 What is the most common unobservable or unseen warning sign of a sudden cardiac arrest in female adults?	176	209	Moderate Knowledge
Q3 Who is most likely to experience a sudden cardiac arrest?	324	61	High Knowledge
Q4 What condition is NOT a risk factor for sudden cardiac arrest?	221	164	Moderate Knowledge
Q5 An observable indicator that a person had a sudden cardiac arrest include:	202	183	Moderate Knowledge
Q6 An observable indicator that a person had a sudden cardiac arrest include:	151	234	Moderate Knowledge
Q7 An observable indicator that a person had a sudden cardiac arrest include:	139	246	Moderate Knowledge
Q8 A sudden cardiac arrest occurs when:	156	229	Moderate Knowledge
Q9 What are the signs that characterize child cardiac arrest?	127	258	Low Knowledge
Q10 What is the most common cause of sudden cardiac arrest in children?	132	253	Moderate Knowledge
Overall	191.1		Moderate Knowledge

Table 2.1. establishes the respondents as having moderate knowledge when it comes to recognizing a sudden cardiac arrest, having an overall mean score of 191.1. It was found in a study by Vu et al. (2022) that the inability to recognize the signs of cardiac arrest is one of the primary causes why bystanders are unable to provide Basic Life Support to a victim of out-of-hospital cardiac arrest. It can be seen that the lowest correct response was obtained for Question 9 with only 127 respondents, resulting in an interpretation of low knowledge; and that the next lowest correct response was obtained for Question 10, with only 132 respondents. Both of these questions inquired about sudden cardiac arrests among children. Most identify sudden cardiac arrests with old age; therefore, most are unaware that sudden cardiac arrests also occur in children, which is likely why the respondents scored poorly on the said items. This indicates that there is a need for further education surrounding sudden cardiac arrest among children or infants. According to the Cancer Therapy Advisor (2019), the signs that

characterize a pediatric cardiac arrest are suspended breathing and lack of response to verbal or physical stimuli. Congenital heart abnormalities are the leading cause of sudden cardiac arrest in children (Simon's Heart, 2022).

The next lowest correct response was obtained for Questions 7 and 6, with only 139 and 151 respondents, respectively. Both of these questions inquired about the observable indicators that a person had a sudden cardiac arrest. The general population typically believes that sudden cardiac arrest only occurs when a person collapses because that is its most obvious presentation. Since the absence of pulse and breathing is less obvious than a body collapsing, it is not surprising that the respondents are less aware of it. Aside from loss of consciousness, victims who experience a sudden cardiac arrest also display observable indicators such as the absence of pulse and breathing (Mayo Clinic, 2021).

On the other hand, Question 3 was the item which obtained the highest correct responses with 324 respondents, resulting in an interpretation of high knowledge. This demonstrates that most of the respondents have a general idea on men being the ones who are most prone to experiencing a sudden cardiac arrest. According to Yow et al. (2022), heart disease tends to develop earlier in men than in women, making men especially at risk for sudden cardiac arrests.

As seen in Table 2.2., the respondents have an overall moderate knowledge about the provision of Cardiopulmonary Resuscitation (CPR), having an overall mean score of 175.87. The lowest correct responses were obtained for Question 7 with only 27 respondents and Question 9 with only 54 respondents, both resulting in an interpretation of low knowledge. These questions inquired about the proper hand position and the correct depth when performing chest compressions on an adult victim. The general population understands that cardiopulmonary resuscitation (CPR) is the act of pumping a victim's chest but typically ends their learning with this because they believe that that action is sufficient when, in reality, knowing the technicalities such as proper hand positioning and correct depth when performing chest compressions is also important. The American Safety & Health Institute (2020) stated that, positioning the heel of one hand in the middle of the chest on the breastbone and placing the heel of the second hand directly on top of the first, with arms straight, is the correct hand position to do chest compressions in adults as this places the pressure on the heart to keep blood circulating. According to the Red Cross (2021), 5 cm to 6 cm is the adequate depth of compression needed on an adult victim as any deeper may damage internal organs, and any shallower may not be enough to pump blood effectively throughout the body.

Table 2.2. *Levels of Knowledge in terms of Provision of Cardiopulmonary Resuscitation (CPR)*

Questions	*Correct*	*Wrong*	*Interpretation*
Q1 Given this situation, what is the first thing you should do?	133	252	Moderate Knowledge
Q2 What should you instruct the girl to do while you assess the victim?	279	106	High Knowledge
Q3 You will need to assess the victim before performing cardiopulmonary resuscitation (CPR). The following is included in the assessment of the unresponsive adult, EXCEPT:	154	231	Moderate Knowledge
Q4 How should you open an airway in an unconscious adult victim?	263	122	High Knowledge
Q5 What is the maximum time should you spend checking for breathing?	211	174	Moderate Knowledge
Q6 Which pulse should you check to assess circulation of an unresponsive adult?	264	121	High Knowledge
Q7 When performing cardiopulmonary resuscitation (CPR) on an adult, how should you position your hands for compressions?	27	358	Low Knowledge
Q8 What speed of chest pumps should you aim for?	231	154	Moderate Knowledge
Q9 What is the correct depth of chest compressions on an adult victim?	54	331	Low Knowledge
Q10 How many chest pumps and breaths are there in each cycle of cardiopulmonary resuscitation (CPR)?	226	159	Moderate Knowledge
Q11 Which of the following must be done to deliver effective rescue breaths?	217	168	Moderate Knowledge
Q12 Which of the following is important to note to deliver effective and correct compressions?	170	215	Moderate Knowledge
Q13 What should you do if you feel a rib break when	100	285	Low Knowledge

performing chest compressions?			
Q14 When should you stop doing cardiopulmonary resuscitation (CPR) on a victim?	181	204	Moderate Knowledge
Q15 The following are how cardiopulmonary resuscitation (CPR) helps when a person goes into cardiac arrest, EXCEPT:	128	257	Low Knowledge
Overall	175.87		Moderate Knowledge

The next lowest correct responses were obtained for Question 13 with only 100 respondents and Question 15 with only 128 respondents, both resulting in an interpretation of low knowledge. This implies that there are only a few people who are knowledgeable about the correct action to take when a rib breaks during chest compressions, and how CPR helps a person during cardiac arrest. The fear of hurting the victim or causing further injuries to the victim is likely to be the reason why the respondents were not aware that continuing chest compressions despite the rib breaking is critical to the victim's survival. According to an article from First Support CPR & First Aid Training (2021), it is crucial to continue compressions at the same rate and depth to ensure that blood is flowing to the vital organs, and ceasing resuscitation efforts could result in death. The respondents may also have reduced cardiopulmonary resuscitation's (CPR) purpose to waking the victims up from consciousness. Centers for Disease Control and Prevention (2021) explained that cardiopulmonary resuscitation mimics how the heart pumps, thus helps keep oxygen-rich blood flow throughout the body.

On the other hand, it can be noted that the highest correct response was obtained for Question 2 with 279 respondents, resulting in an interpretation of high knowledge. For this item, a scenario was given wherein the respondents found themselves as a passerby in an occurrence of an out-of-hospital cardiac arrest involving an adult male. This reveals that most of the respondents are knowledgeable regarding what other bystanders should do while a responder assesses the victim as this is common knowledge. According to Barrell, A. (2020), if an individual is not responding, the first thing to do is to call EMS or ask a bystander to call one before performing CPR. Due to the bystander effect, people will assume that someone else will do it. But when one specifically points at someone to do it, it ensures that the EMS is called while a responder performs Basic Life Support.

Table 2.3. *Levels of Knowledge in terms of Utilization of Automated External Defibrillator (AED)*

Questions	*Correct*	*Wrong*	*Interpretation*
Q1 What does an automated external defibrillator (AED) do?	235	150	Moderate Knowledge
Q2 How does an automatic external defibrillator (AED) help a person who is in cardiac arrest?	216	169	Moderate Knowledge
Q3 An automatic external defibrillator (AED) has been connected and advises that a shock should be delivered to the patient. What should you do?	229	156	Moderate Knowledge
Q4 Where should an automatic external defibrillator (AED) be placed on an adult victim?	209	176	Moderate Knowledge
Q5 Where should an automatic external defibrillator (AED) be placed on an infant victim?	161	224	Moderate Knowledge
Q6 What is the correct order in utilizing an automatic external defibrillator (AED)?	155	230	Moderate Knowledge
Q7 Use automatic external defibrillator (AED) only when victims have the following three clinical findings, EXCEPT:	211	174	Moderate Knowledge
Q8 The following are conditions that negatively affect the use of an automatic external defibrillator (AED), EXCEPT:	77	308	Low Knowledge
Q9 Before using an automatic external defibrillator (AED), make sure that the chest is clean by doing the following, EXCEPT:	79	306	Low Knowledge
Q10 If the automatic external defibrillator (AED) determines a shock is needed, the following should be done when delivering shock, EXCEPT:	186	199	Moderate Knowledge
Overall	175.8		Moderate Knowledge

Table 2.3. shows that the respondents have an overall moderate knowledge in terms of utilization of an Automated External Defibrillator (AED), having a mean score of 175.8. This denotes that there is a need to better educate the youth in its use, as the utilization of an automated external defibrillator (AED) until emergency medical services (EMS) arrive is one of the components of Basic Life Support (Ssewante et al., 2022). Pranata et al. (2020) did a study and discovered that only a few respondents had seen AEDs be used in public and that most believed that they could not use one. The lowest correct responses were obtained for Question 8 with only 77 respondents and Question 9 with only 79 respondents, both resulting in an interpretation of low knowledge. These questions inquired about the conditions under which an AED

should not be used. According to a training workbook provided by the Department of Health (2018), an AED should not be used on a person who is in contact with water. An AED should not also be used in a moving vehicle as movement may affect the analysis. It is also important that the chest is completely dry and free of hair before placing the AED pads. Flammables such as gasoline and alcohol should not be around when using an AED (Rowan-Salisbury School System, 2021).

The next lowest correct responses were obtained for Question 6 with only 155 respondents and Question 5 with only 161 respondents. These questions inquired about the correct order in which an AED should be utilized and the proper placement of AED pads on an infant victim. The utilization of automated external defibrillators (AED) in Basic Life Support is uncommon among the general public, being the most likely reason why these questions earned the lowest scores as most people do not have access to an AED and therefore have less opportunities to learn it. According to Alvich (2021), a responder should turn on the AED as soon as they have checked the victim and the surroundings. Then, properly place the pads on the patient so that the equipment can analyze the patient's heart rhythm and clear the victim. Afterwards, a shock should be delivered as indicated and proceed to giving CPR again. Moreover, the proper placement of AED pads on infant victims should be one pad in the center of the victim's chest and the other in the center of their upper back (AED Leader, 2021).

On the other hand, Question 1 had the highest number of correct responses with 235 respondents. This implies that the majority of the respondents are aware or have a general idea of what automated external defibrillators (AED) are used for. An AED is a battery-powered device that examines the heart's rhythm, warns the provider if a shock is needed, and delivers an electrical impulse to the heart to bring back its regular rhythm (National Heart, Lung, and Blood Institute, 2022).

Table 3 displays the list of statements that are related with one's self-efficacy concerning the provision of Basic Life Support, with a total mean score of 2.74 which shows an overall moderate level of self-efficacy among the youth respondents in selected areas in Quezon City. The null hypothesis is consequently rejected. In comparison, Chun et al. (2021) reported in their study that their youth respondents from Metro Manila classified themselves as somewhat confident in performing CPR. According to Pei et al. (2019), self-efficacy is an individual's belief in one's competence to conduct a procedure and is one of the factors used to assess the impact of BLS training on real-world outcomes. It is also important to note that self-efficacy is not the quality of the actual performance, but rather the individual's self-perceived capabilities. Self-efficacy is also positively correlated with willingness as those with a level of self-efficacy that is higher are shown to have more willingness to learn Basic Life Support compared to those with a level of self-efficacy that is low (Pei et al., 2019; Yoon et al., 2019).

Table 3. *Levels of Self-efficacy*

Statement	*Mean*	*SD*	*Likert Interpretation*	*Qualitative Description*
1. I can give aid to anyone (i.e., family, friends, strangers, adult, child, infant, etc.) having a sudden cardiac arrest when the opportunity presents itself.	2.63	0.86	Agree	Moderate level
2. I am confident that I will be able to recognize if someone is having a sudden cardiac arrest.	2.66	0.79	Agree	Moderate level
3. I know how to examine if a person is unconscious by tapping their shoulders and loudly saying, "Are you okay?" to verify the person's state.	2.98	0.84	Agree	Moderate level
4. I am confident that I am able to notice the signs if an airway is blocked.	2.66	0.82	Agree	Moderate level
5. I am confident that I am able to locate a person's pulse to determine circulation.	3.01	0.79	Agree	Moderate level
6. I can identify first whether the area to perform Basic Life Support (BLS) is safe or not for both the victim and myself.	2.73	0.87	Agree	Moderate level
7. I will be able to immediately call or instruct someone to call the Emergency Medical Service (EMS) upon witnessing and responding to a sudden cardiac arrest victim.	3.21	0.75	Agree	Moderate level
8. I am well informed with the sequential steps of Basic Life Support (BLS).	2.68	0.82	Agree	Moderate level
9. I can demonstrate the focused assessment following the Airway, Breathing, and Circulation (ABC) principles.	2.57	0.86	Agree	Moderate level
10. I am able to perform chest compressions with right body positioning and correct compression rate and depth.	2.56	0.87	Agree	Moderate level
11. I understand that when the Emergency Medical Services	3.23	0.84	Agree	Moderate level

(EMS) arrive, I will let them handle the situation and report the procedures I have provided.				
12. I know how to correctly place the pads and use the Automated External Defibrillator (AED) without interrupting cardiopulmonary resuscitation (CPR).	2.39	0.92	Disagree	Low level
13. I can accurately perform Basic Life Support (BLS) in a calm, focused, and quick manner in an emergency situation concerning out-of-hospital cardiac arrest.	2.56	0.84	Agree	Moderate level
14. I understand the differences in procedures between pediatric cardiopulmonary resuscitation and adult cardiopulmonary resuscitation.	2.67	0.86	Agree	Moderate level
15. I am confident that my knowledge and skills in performing Basic Life Support (BLS) could help an individual experiencing a cardiac arrest before Emergency Medical Services (EMS) arrive.	2.61	0.88	Agree	Moderate level
Overall	2.74	0.84		Moderate level

It can be seen that statements 12 (*I know how to correctly place the pads and use the automated external defibrillator without interrupting cardiopulmonary resuscitation.*), 13 (*I can accurately perform Basic Life Support in a calm, focused, and quick manner in an emergency situation concerning out-of-hospital cardiac arrest.*), 10 (*I am able to perform chest compressions with right body positioning and correct compression rate and depth.*), and 9 (*I can demonstrate the focused assessment following the Airway, Breathing, and Circulation or ABC principle.*) are the ones with the lowest mean scores with 2.39, 2.56, and 2.57, respectively. This indicates that there is a lack of self-confidence among the youth of Quezon City when it comes to correctly placing AED pads; accurately performing Basic Life Support in a calm, focused, and quick manner; performing chest compressions with right body positioning and correct compression rate and depth, and; demonstrating assessment following the ABC principle. On the other hand, statement 11 (*I understand that when the Emergency Medical Services arrive, I will let them handle the situation and report the procedures I have provided.*) obtained the highest mean score with 3.23. One can note that this statement is considered to be the easiest and an information that is general public knowledge.

Table 4. Willingness to perform Basic Life Support on different social categories

	Frequency and percentage			
Social Category	*Willing*	*Somewhat willing*	*Somewhat not willing*	*Not willing*
Family and peers	195 (50.65%)	141 (36.62%)	33 (8.57%)	16 (4.16%)
Strangers	138 (35.84%)	163 (42.34%)	57 (14.81%)	27 (7.01%)
Men	145 (37.66%)	160 (41.56%)	60 (15.58%)	20 (5.19%)
Women	167 (43.38%)	141 (36.62%)	58 (15.06%)	19 (4.94%)
Pediatric individuals	144 (37.40%)	141 (41.30%)	67 (17.40%)	33 (8.57%)
Adult individuals	152 (39.48%)	159 (37.92%)	51 (13.25%)	23 (5.97%)
Geriatric individuals	138 (35.84%)	146 (37.92%)	73 (18.96%)	28 (7.27%)
Immunocompromised individuals	119 (30.91%)	163 (42.34%)	70 (18.18%)	33 (8.57%)

Table 4 demonstrates the youth respondents' willingness to perform Basic Life Support on various social categories. Being open to a behavioral opportunity while at the same time having behavior be influenced by social situations are what constitutes an individual's willingness. According to Becker et al. (2019), the general population's impression of out-of-hospital cardiac arrest victims influences the willingness of the youth to perform Basic Life Support. For instance, concerns regarding familiarity, gender, age, and fear of acquiring infection and causing further injury to the victim can all have a negative impact on the willingness of the youth to carry out Basic Life Support.

The social category that obtained the highest percentage of willingness to administer Basic Life Support on is family and peers, with 50.65% *willing* and 36.62% *somewhat willing*. This has a similar finding with the study conducted by Park & Jun (2018) in which most of their respondents showed willingness to provide CPR on their family member with cardiac disease. This finding is also supported by Dainty et al. (2022) in which it was stated that the probability of a bystander providing CPR on a family member was 85% compared to a stranger. Other studies (Birkun & Kosova, 2018; Jarrah et al., 2018) also found the same result in which the vast majority of their respondents expressed willingness to provide CPR if the victim is a friend or a family member. On the other hand, 35.84% of the respondents answered that they are *willing* to

provide Basic Life Support to strangers, and 42.34% answered that they are *somewhat willing* to do so. This figure is similar to the findings of a study conducted by Mao et al. (2021), which discovered that just 34.1% of their respondents shared willingness to perform CPR to strangers.

The social category that obtained the next highest percentage of willingness to administer Basic Life Support on is women with 43.38% *willing* and 36.62% *somewhat willing*. In comparison, 37.66% of the respondents answered that they are *willing* to provide Basic Life Support to men, and 41.56% answered that they are *somewhat willing* to do so. This finding contradicts the conclusion made by Dainty et al. (2022) about how male victims of sudden cardiac arrests have an increased likelihood of receiving Basic Life Support in public locations compared with female victims.

Furthermore, the table also reveals a precision of percentages among social categories concerning age groups in terms of willingness to provide Basic Life Support. For adult individuals, 39.48% of the respondents answered that they are *willing*, and 41.30% answered that they are *somewhat willing*. For pediatric individuals, 37.40% of the respondents answered that they are *willing*, and 36.62% answered that they are *somewhat willing*. For geriatric individuals, 35.84% of the respondents answered that they are *willing*, and 37.92% answered that they are *somewhat willing*. This highlights the respondents' willingness to save lives through provision of Basic Life Support regardless of age. In addition, adult victims being more likely to receive Basic Life Support from bystanders than those of pediatric and geriatric age groups is also true in some studies (Yi Ern et al., 2020; Karuthan et al., 2019). While this is the case, it can also be observed that pediatric and geriatric social categories are among the ones that have the highest percentage of *not willing*, with 8.57% and 7.27%, respectively. These findings are related to those of Becker et al. (2019), in which it was found that causing further injury, fragility, and lack of knowledge and skills were the top concerns regarding performing Basic Life Support on geriatric and pediatric victims.

Lastly, immunocompromised individuals is the social category with the lowest percentage of *willing* responses, with 30.91%, and the highest percentage of *not willing* responses, with 8.57%. This is consistent with the findings of several studies (Philippine Heart Association, 2022; Dainty et al., 2022; Zaayman, 2020; Yi Ern et al., 2020; Grunau et al., 2020) stating that the fear of personal health safety concerning the risk of the risk of infection transmission is the primary explanation for the decrease in willingness to conduct CPR since the COVID-19 outbreak began.

Table 5. *Difference between demographic profiles in the readiness*

		T-Test		
Variables	*T-test value*	*P-value*	*Interpretation*	*Decision*
Age	-2.414	0.016	Significant	Reject Ho
Sex	0.906	0.366	Not Significant	Accept Ho
Marital Status	1.454	0.147	Not Significant	Accept Ho
		ANOVA		
Variables	*F-value*	*P-value*	*Interpretation*	*Decision*
Educational Attainment	5.849	0.003	Significant	Reject Ho
Socioeconomic Status	0.482	0.822	Not Significant	Accept Ho
BLS Training Experience	5.968	0.000	Significant	Reject Ho

In Table 5, the differences between the respondents' demographic profiles in their readiness to perform Basic Life Support are shown. A P-value of 0.05 or less indicates that the result is significant, whereas a P-value greater than 0.05 indicates that the result is not significant. Using the T-test, the age profile has a T-test value of -2.414 with a P-value of 0.016, indicating that there is a significant difference between the age of the respondents in their readiness to perform Basic Life Support, leading to a decision to reject the null hypothesis. Older respondents are mostly in higher levels of education and have a more mature outlook on life such as having the flexibility to change and adapt and a willingness to learn from experiences, which adds to their readiness and makes them more likely to give aid than those who are younger. However, this result is in contrast to the studies of Alfakey & Alkarani (2021) and Hasegawa & Hanaki (2023) in which it was found that there is no relationship between the provision of Basic Life Support and the age of the participants.

In terms of the sex, a T-test value of 0.906 with a P-value of 0.366 shows that there is no significant difference between the respondents' sex in their readiness to perform Basic Life Support, leading to a decision to accept the null hypothesis. In today's age,

both men and women are now inclined to give aid in emergencies which results from an improvement in the gender disparities surrounding the provision of education among young men and women. This discovery is similar with the findings of a study conducted by Khashaba et al. (2021) in which no significant difference between sex and readiness involving Basic Life Support was found. However, this is in contradiction with prior research studies by Wingen et al. (2022) and Mao et al. (2021) in which it was found that young males are less likely to perform CPR, whereas women are more willing to provide assistance in an event of a health emergency. On the other hand, it is found in a study by Krammel et al. (2018) that the male population has a higher likelihood to initiate Basic Life Support compared to the female population.

Regarding marital status, a T-test value of 1.454 with a P-value of 0.147 shows that there is no significant difference between the respondents' marital status in showing readiness to perform Basic Life Support, leading to a decision to accept the null hypothesis. Since the respondents are of young age, this reflected on the results. The respondents of this study are youth and most of them are students which means marriage is not a priority, and does not affect their readiness to perform Basic Life Support. This is in contrast with the findings of the study by Huang et al. (2019) in which it was found that married people are more likely to know how to perform CPR correctly than those who are single as they are more willing to learn BLS to be able to save their loved ones in case of cardiac arrest situation.

Using the ANOVA Test, the educational level has an F-value of 5.849 with a P-value of 0.003, meaning that there is a significant difference between the respondents' educational attainment in their readiness to perform Basic Life Support, leading to a decision to reject the null hypothesis. Respondents with higher levels of educational attainment are more knowledgeable and ready than those who only completed with lower levels since they are more likely to be provided with BLS education or have participated in BLS training programs as Basic Life Support is included in the curriculum of some courses in tertiary level. Jarrah et al. (2018), Huang et al. (2019), and Yan et al. (2020) discovered that participants with tertiary levels of education are more likely to have knowledge about CPR because they are more likely to have previously participated in CPR training courses than those with lower levels, leading to a higher level of readiness and willingness to perform Basic Life Support.

In terms of socioeconomic status, the ANOVA test showed an F-value of 0.482 with a P-value of 0.822 reveals no significant difference between the respondents' socioeconomic status in their readiness to carry out Basic life Support, which leads to a decision of accepting the null hypothesis. This is because most of the respondents are students who are supported by their parents and do not have a source of income yet to have their socioeconomic status affect their readiness. While it was revealed in a study (Uny et al., 2022) that BLS training courses being expensive was the most significant barrier to learning CPR, other studies (Dobbie et al., 2018; Fratta et al., 2018) also discovered that many are willing to receive training in CPR, despite their level of education and income, as the likelihood of performing CPR was unaffected by household income.

Lastly, the respondents' BLS training experience has an F-value of 5.968 with a P-value of 0.000 using the ANOVA test, which indicates that there is a significant difference in readiness to conduct Basic Life Support between the participants who have previous BLS training and have no prior BLS training, leading to a decision to reject the null hypothesis. Prior BLS training experience affects an individual's readiness to provide Basic Life Support compared to those who do not have prior BLS training experience since they already have an idea on the right actions to take. The results held true with studies by Sturny et al. (2021), and Schmoker (2021) in which it was found that young people who had previously been trained in BLS improved and scored consistently higher in readiness in performing Basic Life Support. Similarly, in their study, Alfakey and Alkarani (2021) found that students with previous BLS training reported a greater sense of capability in administering Basic Life Support than students with no prior experience. This indicates that experience gained through training is one of the factors that can affect an individual's readiness to perform Basic Life Support (Juariah & Purwaningsih, 2022).

Table 6. *Difference between the levels of self-efficacy in the willingness*

Variable	*F-value*	*P-value*	*Interpretation*	*Decision*
Level of Self-efficacy	38.84	0.000	Significant	Reject Ho

Table 6 displays the difference between the respondents' level of self-efficacy in their willingness to perform Basic Life Support. Using the ANOVA

Test, in order to reject the null hypothesis, the p-value must be less than 0.05. An F-value of 38.84 with a P-value of 0.000 means that there is a significant difference between the respondents' level of self-efficacy in their readiness to perform Basic Life Support. This indicates that respondents with a high self-efficacy are more willing or more likely to perform Basic Life Support in real life situations than those with low self-efficacy as they are more confident in their abilities. In this study, self-efficacy is the perceived ability or the confidence of the respondents to perform an action or procedure. Self-efficacy has a strong influence on willingness to provide Basic Life Support in the occurrence of out-of-hospital cardiac arrest (Wati et al., 2021). Self-efficacy was discovered as the strongest predictor of whether a person will administer first aid (Pei et al., 2019). These findings are supported by Huy et al. (2022), who found that young people whose level of self-efficacy is high are more inclined to give aid as compared to those with a low level of self-efficacy, who are more hesitant to do so. In addition, Yoon et al. (2019) concluded in their study that self-efficacy considerably affects one's performance in Basic Life Support as it is positively correlated with willingness.

Conclusion

To educate the youth on Basic Life Support is said to be a good way to reach different parts of the community as they are almost always present in different settings such as homes, schools, churches, outdoor parks, or malls. For this reason, educating the youth with Basic Life Support is a way to widen the reach of a community's area so that victims of out-of-hospital cardiac arrests will be given immediate aid. This study aimed to measure the youth's readiness and willingness to perform Basic Life Support. As a final observation, youth in selected Quezon City barangays have a moderate level of knowledge-readiness and self-efficacy-willingness, highlighting the importance of providing the youth with comprehensive BLS education and training to further bridge the gap between their readiness and willingness to perform Basic Life Support. The youth's knowledge of sudden cardiac arrests, cardiopulmonary resuscitation (CPR), and automated external defibrillators (AED) may be moderate, but is lacking in important aspects that might considerably alter the results of Basic Life Support performance. While there are areas for growth, having moderate knowledge regarding the components of Basic Life Support is still inadequate. This is because in order to effectively prevent mortality among victims of out-of-hospital cardiac arrests in the community, one should be fully equipped with knowledge and skills. As an example, the youth are aware of the first few steps of Basic Life Support but are unaware of the specifics such as proper positioning and correct depth of chest compressions, which are critical information that could either save or further endanger the victim's life. Additionally, improving the youth's self-confidence in performing Basic Life Support in such training should also be a focus as education increases confidence, especially in emergency situations where people may be hesitant or anxious. While some may express a willingness to learn or perform Basic Life Support, this does not necessarily imply that individuals are trained or sufficiently equipped to perform CPR in real-life situations. While willingness to learn and intention to perform BLS are both positive indicators, proper training and education are required to translate willingness into effective action. Besides adding BLS training to the school curriculum, BLS training should also require different approaches and principles that will empower students' individual perception of their skill. In terms of social categories, most of the youth are willing to administer Basic Life Support to their own family and peers. Most of them have a fear of contracting diseases as they are least willing to administer Basic Life Support to immunocompromised individuals. Regarding the demographic profile of the youth, the researchers conclude that age, educational attainment, and BLS training experience have a significant difference in their readiness and that sex, marital status, and socioeconomic status have no significant difference in their readiness to perform Basic Life Support.

The implementation of this study can benefit families, communities, educational institutions, local governments, and society as a whole as this can significantly reduce morbidity and mortality in the community. Educational institutions can incorporate Basic Life Support training into their school curriculum or offer extracurricular programs that teach students essential life-saving skills; communities can organize webinars, seminars, workshops, or awareness campaigns to educate the public, including the youth, regarding the significance of Basic Life Support and provide opportunities for hands-on practice; and local governments can play an important role by enacting policies that mandate or elicit BLS training. Society will benefit as well, by equipping the youth with the necessary knowledge and skills for Basic Life Support, the morbidity and mortality rate for out-of-hospital cardiac arrest will be reduced.

Based on the study findings and conclusions, the

following recommendations are suggested. (1) The youth should be provided with comprehensive training programs about Basic Life Support (BLS) since moderate knowledge alone regarding Basic Life Support is still insufficient in reducing the mortality among the victims of out-of-hospital cardiac arrests. (2) Families, particularly those with a family member who is at a higher risk of experiencing sudden cardiac arrest, should enroll in Basic Life Support training because they are the ones who spend the most time together, especially at home. (3) Educational institutions should incorporate the Basic Life Support (BLS) course into the basic to tertiary education curriculum to strengthen the knowledge, skills, readiness, and willingness of the youth. Basic Life Support should be required as a core skill for all students, chiefly those in allied health sciences courses, to provide them with the knowledge of dealing with medical emergencies. Knowledge of Basic Life Support must always be honed and be practiced through continuous exposure through training and application. For this reason, regular training and refresher courses are recommended. (4) The community should take advantage of the youth's interest and willingness to learn by implementing webinar programs using this study's findings as guidelines as the youth should be encouraged to actively participate in Basic Life Support education to gain knowledge and skills. (5) Community health nurses can use this study to advocate for more Basic Life Support training, particularly among youth, who are eager to learn but lack access and opportunities to do so. (6) Community health workers should host webinar and/or seminar programs to promote awareness about the significance of Basic Life Support and to improve the skill set required to conduct it. (7) The local government should implement more Basic Life Support (BLS) training programs since there is a huge lack of Basic Life Support training opportunities among the youth in Quezon City. In addition, BLS training should become affordable and accessible to the youth, especially in deprived communities. After training, trainees should be issued with a certificate or card to authenticate that they are a certified BLS provider. The local government should also include the development of the participants' self-efficacy in BLS training programs to improve their willingness to conduct Basic Life Support in an event of a sudden cardiac arrest. (8) Future researchers may use the results of this study as a reference for future related research studies. It is recommended to conduct data collection through face-to-face surveys to gather even more reliable data. They may expand their scope to produce more accurate results since this study only includes three selected barangays in Quezon City.

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