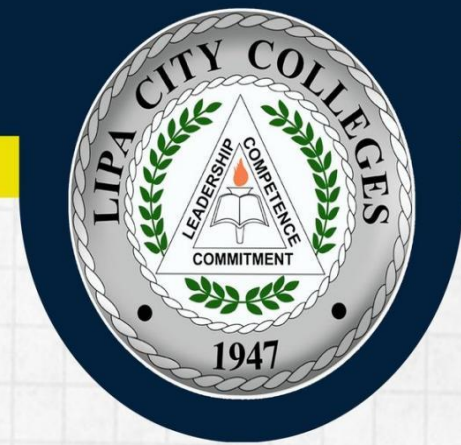


THE JOURNAL OF NURSING RESEARCH



# THE JOURNAL OF NURSING RESEARCH

Lipa City Colleges Official Research Journal  
School Year 2019-2020





**COLLEGE OF NURSING**  
**STUDENT RESEARCH JOURNAL**  
**SY 2019-2020**

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### **INSTITUTIONAL PROFILE**

The earnest and noble desire of the late educators, Ricardo and Marcella Bonilla, was realized when the Lipa Business Institute was founded in July 1947. Its humble origin began with classes held in rented buildings along B. Morada Avenue, Lipa City. With an enrolment initially consisting of 65 students enrolled in a Secondary Course, what would later on become the Lipa City Colleges thus began.

As the population grew bigger on School Year 1948-1949, the administrators decided to acquire a bigger building not far from its former site. This paved the way for the complete Secondary Course and Collegiate Courses such as Liberal Arts, Junior Normal Education, Commerce and One-Year Secretarial Course.

Not to rest on his achievement and ever fueled by hard work and dedication, Mr. Bonilla obtained a more spacious location at G.A. Solis St., Lipa City, where the school is now presently housed. Hand-in-hand with its new edifice and the burning desire to be the first institution in the city to offer three levels of education – elementary, secondary, and tertiary, the name of the school was changed to Lipa City Colleges on its third year of operation at its new site, after which, successes were reaped continuously in the form of increasing population and improving image in the community as a provider of quality education.

The cause to serve the people in the City of Lipa and adjacent towns continued in the succeeding years, prompting the administrators to put up adjacent five-storey and four-storey buildings to house the needed facilities and serve as home to its growing workforce and clientele. The College of Law was opened and a provincial radio station was installed to tap the talent of students with interest in the field of Broadcast Communication.

Today, Lipa City Colleges is entering into a new phase in its history. Replacing the late Mr. Carlos R. Mojares who has made an indelible marks in the institution's

progress, the wife Ms. Glecly B. Mojares is now taking the challenge as the new president with the able assistance of her daughters Ms. Marjorie M. Abiera and Ms. Beverly M. Mendoza, as Vice-Presidents for Finance and Internal Affairs and External Affairs, respectively, and sons-in-law, Dr. Joe Vincent Abiera and Mr. Patrick Mendoza, as Vice-Presidents for Administration and Corporate Affairs and General Services, respectively.

For more than 60 years, the institution has continued to turn its vision and mission into reality, being one of the leading institutions in the region, producing responsible and competent individuals who have started their journey toward a milestone achievement.

Today, Lipa City Colleges is composed of the following departments - College of Business Education and Accountancy, College of Computer Studies, College of Criminology, College of Education and Liberal Arts, College of Computer Engineering, College of Hospitality Management, College of Nursing, High School Department, and the Graduate School.

The accredited status of the institution spawned a different milieu consisting of hardworking faculty and staff exhibiting dynamism and devotion with most of them having successfully obtained graduate and post graduate degrees.

In School Year 2009-2010, the institution was authorized to confer degree in Computer Engineering to serve the individuals who have an immense passion in this field of study which is vital in this age of complexity and modern technology. Part also of the incessant development to meet the demands of the changing times, the institution successfully completed its own swimming facilities. Continuous improvement of facilities and the acquisition of an additional lot where the Annex Building now stands are further testaments of the school's commitment to be the best in the region. Said building houses Computer and Nursing Skills laboratories and the adjacent lots contain provisions for athletics. Add to this are the improved instruction, research, upgraded

laboratory equipment and supplies, increased library collections, more varied and responsive student services, strengthened community involvement as well as the furthering of teacher's qualification and excellence via further studies and trainings. What we now have is Lipa City Colleges at its best and still on its way to outdoing itself by continuously living up to its vision of being a premier provider of higher education.

### **VISION**

Lipa City Colleges is a dynamic provider of quality education. In the spirit of commitment, excellence and service, the institution forms responsible and competent individuals who participate meaningfully in social transformation.

### **MISSION**

Inspired by our vision, Lipa City Colleges will become a leading institution in the region recognized for the quality of its programs and services. With its corps of professionally qualified and committed personnel, up-to-date technology and functional facilities, the institution offers responsive and innovative programs that integrate theory and practice for the holistic development of men and women in the service of God and country.

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**THE OFFICIAL STUDENT RESEARCH JOURNAL OF THE LIPA CITY COLLEGES**

The LCC Student Research Journal (The Official Student Research Journal of Lipa City Colleges) is a peer-reviewed journal which publishes annually original research articles from student researcher and master's thesis.

As an academic publication, the LCC Student Research Journal is primarily dedicated to publish research articles for widest dissemination to scientific community.

The Publication Ethics

As an academic publishing journal, The LCC Student Research Journal maintains the highest ethical standard. The academic publication is dependent on the trust built among the Editorial board, the Institutional Ethics Review Committee, peer reviewers and authors. Each of them has ethical responsibilities to execute the publication process. As part of the publication ethics, it is the responsibility of the Editorial Board to ensure that the articles published are original works of the authors and are not plagiarized or copied from other scholarly works. The Editorial Board shall strongly investigate in coordination with the proper authorities, any accusation of publication misconduct prior to and after publication and to take measures to contact institutions or funders of authors if needed. If evidence of misconduct such as plagiarism and submission of previously-published articles is clearly found, the necessary steps shall be taken to correct the scientific record which means issuing a correction or retracting the articles from circulation. The Institutional Ethics Review Committee is responsible in safeguarding the rights, safety, and well-being of all research participants, weather human or non-human. The following are the policies and ethics of publications for authors, editors and peer reviewers.

*Authors should:*

- ensure that their work is original
- ensure that the material is taken from other sources (including their own published writing) the source is clearly cited and that where appropriate permission is obtained
- ensure that the work does not infringe on any rights of others, including privacy rights and intellectual property rights
- ensure that their data is true and not manipulated
- safeguard data as their own or that they have permission to use data reproduced in their paper
- adhere to all research ethics guidelines of their discipline.
- contact the Editor to identify and correct any material errors upon discovery, whether prior or subsequent to publication of their work
- ensure that the authorship of the paper is accurately represented, including ensuring that all individuals credited as authors participated in the actual authorship of the work and that all who participated are credited and have given consent for publication

*Editors should:*

- maintain and promote consistent ethical policies for their journals
- oversee and act to enforce those policies as needed in a fair and consistent manner
- ensure the confidentiality of the review process
- exercise the highest standards of personality integrity in their work as editor of the journal, recognizing and planning for instances where they could have a competing interest or the appearance of a competing interest
- work with authors, reviewers, and Editorial Board members as necessary to ensure they are sufficiently advised regarding their journals' ethics and publishing policies and that the journal's stewardship on ethical matters is fair, unbiased, and timely.

*Peer reviewers should:*

- disclose conflicts of interest resulting from direct competitive, collaborative, or other relationship with any of the authors, and avoidance cases in which such conflicts preclude an objective evaluation.
- judge objectively the quality of the research reported and respect the intellectual independence of the authors. In no case is personal criticism appropriate.
- explain and support their judgments in such a way that editors and authors may understand the basis of their comments.
- point out relevant published work that has not been cited by the authors. Any statement that an observation, derivation, or argument had been previously reported should be accompanied by the relevant citation.
- call to the editor's attention any substantial similarity between the manuscript under consideration and any published paper or manuscript submitted concurrently to another journal.
- treat a manuscript sent for review as a confidential document. It should neither be shown to nor discussed with others except, in special cases, to persons from whom specific advice may be sought; in that event, the identities of those consulted should be disclosed to the editor.
- not use or disclose unpublished information, arguments, or interpretations contained in a manuscript under consideration, except with the consent of the author.

The Publication Process

The publication process starts from the time the manuscript is received by the Research Office until the manuscript is peer-reviewed and accepted for publication. The LCC Journal follows the following publication process:

*Step 1. Submission of the Manuscript*

1.1. The author(s) shall submit the manuscript to the Editorial Board following the given institutional publication format.

*Step 2: Preliminary Review by the Editorial Board*

2.1. The manuscript should be reviewed by Editorial Board to ensure that the content, grammar and plagiarism are properly checked.

*Step 3: Peer-Review Process*

All manuscripts that passed the preliminary review by the Editorial Board will undergo the peer-review process. Note that only the manuscript that has the approval of the Editorial Board shall proceed to the review process. The following process applies:

- a. Submission of the manuscript and proof of approval (Peer-Review Form) to the Internal Referee (expert in the discipline).
- b. Author revises the paper according to the Internal Referee’s suggestions.
- c. Re-submission of the revised manuscript by the author to the Internal Referee, until approves.
- d. Endorsement of the reviewed manuscript to the External Referee (expert in the discipline)
- e. Author revises the paper according to the External Referee’s suggestions.
- f. Editor-In-Chief reviews the manuscript if the author follows the External Referee’s suggestions.
- g. Editor-In-Chief sends the manuscript to the External Referee, until approves.
- h. Author sends the final paper to the Institutional Ethics Review Committee for the review of ethical standards.
- h. Editor-in-chief does the final round of the manuscript review.

All manuscripts undergo one or more rounds of review depending on the recommendations of the peer reviewers. After each round, the author(s) must modify their submissions in line with the reviewers’ comments and this process is repeated until the peer reviewers and the Editor are satisfied and the manuscript is accepted for publication.

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## THE ATTITUDE OF BREASTFEEDING MOTHERS

ADRIAN M. GO | MARY ANN M. PEREZ

### ABSTRACT

This study determined the breastfeeding attitude of lactating mothers in Batangas. The researchers framed the variables as it was guided by Kobala's (2016) theory of planned behavior and used the descriptive research design. The research procedure was divided into several phases: the development and validation of the research instrument; identification of the respondents; location of the study; administration of the research instrument and retrieval and analysis of the gathered data. The respondents were the one hundred seven (107) breastfeeding mothers who are randomly identified by the researchers within the Batangas province. They were interviewed and guided by the researchers in answering the questionnaire.

Using percentage, mean, standard deviation, Pearson's correlation and analysis of variance (ANOVA), the statistically analyzed data revealed that majority of the respondents were within the age bracket of 26–30 years old, college graduates, engage in business related work and has a monthly income of P13,000-P17,000. Breast feeding women believes that it is a must for all mothers to successfully complete the breastfeeding program. Furthermore, the attitude breastfeeding women is —very high confirming that the respondents would want to successfully complete the breastfeeding program for their infants. Moreover, the result of the Pearson's correlational test revealed a significant relationship between the breastfeeding attitude of lactating mothers and their age profile. On the other hand, there is no significant relationship between monthly income and breastfeeding attitudes of lactating mothers. The ANOVA results showed no significant differences between the breastfeeding attitude of lactating mothers when the respondents' profiles are grouped according to educational attainment and occupation.

Findings in this study recommends that health professionals are encouraged to develop strategies to enhance breastfeeding attitudes and confidence among lactating mothers.

Keywords: Attitude on Breastfeeding, Lactating Mothers, Profile of Mothers

### INTRODUCTION

Exclusive breastfeeding program is the process by which the infant receives only breast milk. No other liquids or solids are given – not even water – with the exception of oral rehydration solution, or drops and syrups of vitamins, minerals or medicines.

According to World Health Organization (WHO), a newborn must be exclusively breastfed for at least six months. On the 7th month, mothers may opt to introduce solid food to their newborn yet can still continue breastfeeding until two years and beyond. Breast milk is the natural first food for babies, it provides all the energy and nutrients that the infant needs for the first months of life, and it continues to provide up to half or more of a child's nutritional needs during the second half of the first year, and up to one-third during the second year of life.

A great deal of effort is being expended worldwide to promote breastfeeding. Economic trends and not supported formal education about the essence of breastfeeding program for breastfeeding mothers gradually diverted their idea to go into bottle feeding. Breast feeding attitudes refers to the act of understanding the conceptual importance of breast milk has to do with growth and development of an infant. Exclusively, it is innate for breastfeeding mothers to look after the health condition of their infants that can be provided by a complete breastfeeding program.

It is on this context that the study was conceptualized, a great deal of successful breastfeeding can be attributed to the attitude of the lactating mothers. Several issues and concerns had been looked into just to justify as to how attitude of mothers may either become a hindrance or a motivation factor towards successful breastfeeding.

It is also the intention of this research to intensify the grounds that positive attitude of Filipino mothers is still based on traditional skin to skin contact between the infant and his mother. Looking into the sides of positive attitude, this research hoped to paved way the rationality of traditional breastfeeding practices of Filipino mothers, specifically in Batangas province, is still intact within the norms of successful breastfeeding program. This can only be seen based on the completion of the program and seeing through the health conditions of the infant. Intentionally, this research is done to determine the attitude of lactating mothers for it to be a foundation of where health care service provider able to tapped their programs to support successful breastfeeding program within the province of Batangas.

## METHODOLOGY

The study employed a descriptive survey method as according to Jackson (2009) participants answer questions administered through interviews or questionnaires. After participants answer the questions, researchers describe the responses given. In order for the survey to be both reliable and valid it is important that the questions are constructed properly. Questions should be written so they are clear and easy to comprehend. Closed-ended questions are easy to analyze statistically, but they seriously limit the responses that participants can give. Many researchers prefer to use a Likert-type scale because it's very easy to analyze statistically. (Jackson, 2009, p. 89)

The main respondents of the study were 107 breastfeeding women randomly identified by the researchers. The researchers interviewed first the mothers chosen as

respondents. They were asked questions that suits the profiling of the study; age, job, educational attainment and their idea about breastfeeding program. After the interview and they were identified as respondents, they were asked to answer the survey questionnaire. It was done on selected commercial establishments in Batangas province that has an existing and functional lactation facility.

## RESULTS AND DISCUSSIONS

**Table 1**  
**Summary Table of Mean and Standard Deviation Values on Attitude Towards Successful Breastfeeding Program**

Attitude towards successful breastfeeding program	M	SD	VI	R
I can make time to breastfeed my baby even when I feel busy.	4.80	0.465	VH	2
I can breastfeed my baby even when I am tired.	4.23	0.831	H	20
I can breastfeed my baby even when I am tired.	4.45	0.648	VH	15
I can schedule my day around the breastfeeding of my baby.	4.04	0.846	H	22
I can breastfeed my baby when I am upset.	3.92	0.837	H	24
I can breastfeed my baby even if it causes mild discomfort.	4.64	0.556	VH	9
I can use a breast pump to obtain milk.	4.43	0.646	VH	16
I can prepare breast milk so others can breastfeed my baby.	4.57	0.568	VH	12
I can find out what I need to know about breastfeeding my baby.	4.61	0.562	VH	11
I can find the information I need about problems I have in breastfeeding my baby	4.48	0.604	VH	13
I know who to ask if I have any questions about breastfeeding my baby.	4.41	0.644	VH	17
I can call a lactation counselor if I have problems breastfeeding.	4.39	0.611	VH	18
I can talk to my healthcare provider about breastfeeding my baby.	4.46	0.619	VH	14
I can breastfeed my baby when my family or friends are with me.	2.45	1.416	MH	25
I can breastfeed my baby around people I do not know.	4.69	0.539	VH	7
I can breastfeed my baby when my partner is with me.	4.62	0.593	VH	10
I can breastfeed my baby without feeling embarrassed.	4.62	0.593	VH	10
I can choose to breastfeed my baby if my partner does not want me to.	4.70	0.518	VH	6
I can choose to breastfeed my baby even if my family does not want me to.	4.66	0.582	VH	8
I can talk to my partner about the importance of breastfeeding my baby.	4.77	0.477	VH	5
I can breastfeed my baby for one year.	3.95	1.232	H	23
I know the importance of skin to skin contact.	4.28	0.698	VH	19
I know the importance of rooming-in.	4.16	0.923	H	21
I know the impact of giving my baby anything other than breast milk for the first 6-months.	4.79	0.435	VH	3
I know that breastfeeding continues to be important event after 6 – months when other foods are given.	4.83	0.367	VH	1
I know the importance of starting breastfeeding as soon as possible after the delivery of my baby.	4.78	0.462	VH	4
<b>Composite mean</b>	<b>4.404</b>	<b>0.668</b>	<b>VH</b>	

Legend: 4.24 – 5.00 – Very High

3.43 – 4.23 - High

2.62 – 3.42 – Moderately High

1.81 – 2.61 - Low

1.00 – 1.80 – Very Low

VI= Verbal Interpretation

Table 1 above presents the response of breastfeeding women’s response on their attitude towards successful breastfeeding program. Top ranking attitude were —I know that breastfeeding continues to be important even after 6 – months when other foods are given, with a mean of 4.38 and SD of 0.376 interpreted as —very high ranked first. It was followed by motivational attitude of —I can make time to breastfeed my baby even when I feel busy, with a mean and SD of 4.80, 0.465; verbally interpreted as —very high. Third rank was the motivational attitude of —I know the impact of giving my baby anything other than breast milk for the first 6-months, with a mean and SD of 4.79, 0.435; verbally interpreted as —very high. On fourth was —I know the importance of starting breastfeeding as soon as possible after the delivery of my baby, with a mean and SD of 4.78, 0.462; verbally interpreted as —very high. Fifth rank was for the motivational attitude —I can talk to my partner about the importance of breastfeeding my baby, with a mean and SD of 4.77, 0.477; verbally interpreted as —very high.

**Table 2**  
**The Relationship of Respondents’ Profile to Breastfeeding Attitude of Lactating Mothers**

Variables	Computed Value (r)	p-value	Decision
Age and Breastfeeding Attitudes	-0.198*	0.41	Significant

Results of the correlation test suggest that there is a significant negative relationship between age (M=30.27, SD=3.89) and breastfeeding attitudes of lactating mothers (M=4.40, SD=.32),  $r=-.198$ ,  $p<.05$ . This implies that respondents’ age has seemingly innate relationship to the breastfeeding attitude of lactating mothers.

**Table 3**  
**Relationship of Respondents’ Age to the Breastfeeding Attitude of Lactating Mothers**

Variables	Computed Value (r)	p-value	Decision
Monthly Income and Breastfeeding Attitudes	-0.134	0.169	Not Significant

On the other hand, there is no significant relationship between monthly income (M=14,857.24, SD=5603.59) and breastfeeding attitudes of lactating mothers (M=4.40, SD=.32),  $r=-.134$ ,  $p>.05$ .

**Table 4**  
**Difference Between Breastfeeding Attitudes of Lactating Mothers when Grouped According to Educational Attainment**

Educational Attainment	Breastfeeding Attitudes		F-value F (2,104)	p-value	Decision
	M	SD			
High School Graduate	4.40	0.26	0.726	0.486	Not Significant
College Graduate	4.42	0.33			
With Masters’ Units	4.24	0.42			

Results of analysis of variance revealed that there are no differences in breastfeeding attitudes of lactating mothers when they are grouped according to their educational attainment,  $F(2,104) = .726$ ,  $p>.05$ .

**Table 5**  
**Difference between Breastfeeding Attitudes of Lactating Mothers when Grouped According to Occupation**

Occupation	Breastfeeding Attitudes		F-value F (4,102)	p-value	Decision
	M	SD			
Housewife	4.30	0.40	1.484	0.213	Not Significant
Education	4.38	0.34			
Healthcare	4.52	0.16			
Business	4.47	0.25			
Industry	4.37	0.32			

Results of analysis of variance revealed that there are no differences in breastfeeding attitudes of lactating mothers when they are grouped according to their

occupation,  $F(4,102) = 1.484$ ,  $p > .05$ . It can be gleaned upon the ANOVA tests that breastfeeding attitudes of lactating mothers is not significantly affected by their occupation. It was very evident that lactating mothers' attitude about milk consumption of their infants is important regardless of their job. That work-related factors do not affect the need of the skin to skin contact between infant and mother during feeding time.

## CONCLUSION

Based from the findings, the following are concluded;

1. Majority of the respondents were within the age bracket of 26 – 30 years old, college graduates, engage in a business-related work and has a monthly income of P13,000 - P17,000.

2. Breastfeeding women believes that it is a must for all mothers to successfully complete the breastfeeding program. The best practice to do this is to always do breastfeeding. Furthermore, the attitude breastfeeding women is —very high| confirming that the respondents would want to successfully complete the breastfeeding program for their infants.

3. Moreover, the results of Pearson's correlational test show significant relationships between the age and attitude towards successful breast feeding of lactating mothers and no significant relationship to their monthly income. ANOVA results shows no significant differences between attitude towards successful breast feeding of lactating mothers to their educational attainment and occupation.

## RECOMMENDATION

Based from the foregoing conclusions, the following are recommended;

1. Findings in this study recommends that health professionals are encouraged to develop strategies to enhance breastfeeding attitudes and confidence among lactating mothers.

2. Results of this study also recommends that all breastfeeding mothers must educate themselves about the importance of completion of breastfeeding program.

3. Results in this study also recommends to have a standardized local policy in Batangas province to promote a successful breastfeeding program among women.

4. Further researchers also provide an idea to intensify the findings in this study by conducting a similar research and do an action plan to intensify the results of the baseline information.

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**PREDICTORS OF PERFORMANCES IN THE PHILIPPINE NURSE  
LICENSURE EXAM AMONG LIPA CITY COLLEGES TEST-TAKERS  
BATCH 2013-2017**

ABIGAIL P. BUGAY | MAE P. BUGAY | ARSELLE ANNE C. DOMINGO

**ABSTRACT**

This study's main focus is to assess the predictors of Nursing Licensure Exam results of LCC nursing graduates from 2013-2017. These predictors are limited to the profile of the research participants such as age during the time of examination, gender, civil status, general weighted average, grade in OJT and board exam results.

The research participants of this study were the nursing graduates of Lipa City Colleges from the year 2013-2017 who took the Nurse Licensure Exam. They were called the research participants since the researchers did not have a direct contact with them and they were not asked to respond to a survey questionnaire. The researchers obtained their data from the Nursing Department and employed necessary desk review process to come up with the data they needed for the completion of the study. This research employed the purposive sampling since the researchers selected only the graduates who took the licensure exam for the period of 2013-2017 and whose general weighted average and OJT grades are available to obtain. A request to conduct the study was sought from the Nursing Department of Lipa City Colleges for the retrieval of necessary information of the Nursing graduates from 2013-2017. The researchers selected only the research participants who have the complete details of profile they need such as age during the time of examination, gender, civil status, general weighted average, grade in OJT and nursing board exam results.

According to the findings of the study, this study aimed to determine the profiles of the selected participants who took the licensure examination for nurses from the year 2013 to year 2017. They were all graduates of Lipa City Colleges. Majority of the participants took the licensure examination at the age between 21-23 years old. Most of

the participants were female. The participants were still single during the time of examination but there were few who were already married. The participants got a GWA of 2.01 – 2.50 and most of them got a grade of 2.25 in their on-the-job training. More than 1/3 of the participants failed in the licensure examination for nurses.

As a result, civil status profile and grade in on-the-job training predict the board exam result.

Keywords: board exam results

**INTRODUCTION**

The Philippine Nurse Licensure Examination is a 500-item multiple-choice exam to test basic nursing level competency which considers the objectives of the nursing curriculum, the broad areas of nursing and other related disciplines and competencies. It is held every June and December annually in various public schools throughout the Philippines. The test subjects include Basic Foundation of Nursing and Professional Nursing Practice, Community Health Nursing and Care of Normal and High Risk Mother and Child, and Care of the Clients with Physiologic and Psychosocial Alterations (Parts A, B, and C). The test items are assessed regularly for validity and reliability. To pass the examination, an examinee must obtain a general average of at least 75 percent with a rating of not below 60 percent in any of the five test subjects (Arugay, 2014).

However, the nursing board exam results reveal that on the average, only almost half of the examinees but not more than 50% are passing in the NLE. Considering the batch year 2013 the Professional Regulation Commission (PRC) announced that 16,219 out of 37,887 or 43.82% passed the exam given by the Board of Nursing in the cities of Manila, Baguio, Cagayan de Oro, Cebu, Dagupan, Davao, Iloilo, Laoag, Legazpi, Lucena, Nueva Ecija, Pagadian, Pampanga, Tacloban, Tuguegarao and Zamboanga for the June 2013 Nursing Licensure Examination. However, for the second half of examination dated

December 2013, the professional regulation commission (PRC) announced that 10, 977 out of 35,475 or 30.94% passed the nurse licensure examination, showing that there is a huge percentage drop of passing by almost 13 percent.

By the year 2014 the Professional Regulation Commission (PRC) announced that a total of 11,225 out 29,188 or 38.6% passed the NLE on June 27, 2014, and by the second half dated November 2014, the same commission announced that 15,292 out of 26,690 or 57.29% passed the NLE nationwide. On batch year 2015, it was found out that 9, 707 out of 17 891 or 54.26% of the first batch of examinees passed the NLE while 5,875 out of 12,869 or 45.65% of the second batch of examinees passed NLE which was held on December 2015.

Batch 2016 first batch examinees left a record of 6,183 out of 14,184 or 43.59% passers while second batch examinees left an almost 4% improved rate of passers with 6,836 out of 14,322 or 47.73% passing the exams. Meanwhile, for 2017, 3,882 out of 11,176 or 34.73% examinees passed the exams held last June 2017 while 5,875 out of 12,869 or 45.65% passed the exams held in November 2017.

Lipa City Colleges, an institution also offering a nursing course. In the June 2013 nursing board examination, the percentage of LCC passers is only 8% and it dropped down by 5% in June 2014, with only 3% board exam passers. On November 2014, LCC retained the 3% board exam passer. May of the year 2015, Lipa City Colleges posted an impressive 61.54% passing rate which is way above the performances in the prior years. However, it dropped down by 11.54% in the following months, with only 50% from 61.54% passing rate in the November 2016 NLE. Meanwhile, in June 2017, LCC got a 100% passing rate in November 2017 which is far better than the results in June 2017 of 50%.

There are so many factors that are believed to influence the performance of examinees in a board exam as attested by wide collection of research studies. One of the predictors of licensure exam is the grade point average or GPA when they were in college.

On the contrary, there are also studies attesting that the students' performance in their licensure examination is not significantly related to their Final Academic Grade, Comprehensive Achievement Exam, and Comprehensive Nursing Achievement Test. Similarly, the National Council Licensure Examination for Registered Nursing revealed that academic factors are strong predictors for nursing board exam success. Stress and highly negative emotions inversely correlate with Nursing Board Exam success. Speaking English as a first language showed high correlation with results, while other nonacademic factors such as age, gender and ethnicity showed varying results. All these factors have implications for nursing programs' practices and students.

Internship or Practicum is one of the requirements to complete the nursing course that might influence the results of board exam. The internship program as stipulated in CHED Memorandum order of 2017, No. 104, is meant to provide students with the opportunity to complement their formal learning with practical knowledge, skills and desirable attitude. In one of the studies about the different factors that contribute to exam results, it was found out that the internship can contribute to the ratings of board exams, thus, internship as an experiential learning to students is very important to get prepared for the nursing licensure exam.

The researchers decided to embark in this type of study because they believe how important it is for the nursing graduates and for the institution to achieve commendable results in the Nursing Licensure Exam. The researchers are hopeful that this study will be an avenue for the institution specifically the Nursing Department to enhance the instruction by introducing the necessary innovations in teaching. Furthermore, this study is also an avenue to make the Nursing students realize that the learning process is a two way communication and partnership between teachers and students. The effort of the teachers to give their best in instruction is vain if the students will not perform their part in empowering themselves.

Moreover, the demands of nurses everywhere in the world never stop. As long as there are patients to care for, the nursing profession is also active. However, this is a profession that sustains life, thus there is a high demand for professional nurses. Therefore, it is very important for every institution offering Nursing course to take into consideration the production of high percentage of professional nurses. Hence, this study is not aiming to benefit the Lipa City Colleges but the whole nation. The researchers believe that this study can contribute to the body of knowledge that can be a platform in future research endeavors.

**METHODOLOGY**

This study used the descriptive and correlation methods of research since it aims to assess the predictors of Nursing Licensure Exam results of LCC nursing graduates from 2013-2017. These predictors are limited to the profile of the research participants such as age during the time of examination, gender, civil status, general weighted average, grade in OJT and board exam results.

Descriptive research, according to Aranda, 2011 describes data and characteristics about the population or phenomenon being studied. It answers the questions, who, what, where, when and how. In this research, the said method is used to describe the existing child protection policy. It is believed that descriptive research is the applicable process to be utilized. Laygo (2009), on the other hand, emphasized that a correlation research aims to discover or establish the existence of a relationship, association or interdependence between two or more aspects of situation.

**RESULTS AND DISCUSSIONS**

**Table 1**  
**Analysis of Profiles of Participants and their Nursing Board Exam Results**

Profile	B Coefficient	p-value	Exp(B)	Interpretation
Gender	-1.238	.252	.290	Not Significant
Civil Status-married	-3.366	.017	.035	Significant
Age	-.673	.103	.214	Not Significant
GWA	1.378	.467	3.967	Not Significant
Grade in OJT ojtotooOJT	3.65	.006	38.467	Significant
<i>Chi-square value: 23.271 (p-value = .026)</i>				
<i>Cox and Snell R Square: (0.321)</i>				

This only shows that the profile of the participants can predict the board exam result. However, detailed analysis revealed which profiles of the respondents are significantly associated with the nursing board exam. Results revealed that the civil status of the participants can be significantly associated with the nursing board exam results as attested by a p-value of 0.017 which is less than 0.05. It is also revealed that the grade in the on-the-job training program can also be significantly associated with the nursing board exam results as attested by a p-value of 0.006.

Further analysis led to a conclusion that married examinees are less likely to pass the examination as attested by a B coefficient of -3.366. The Exp(B) attests that married examinees can be .035 times more likely to fail in the examination compared to those examinees who are still single. Table 2.2 reflects the cross tabs between nursing board exam results and civil status.

**Table 2**  
**Cross Tabulation of Civil Status and Results of Nursing Board Exam**

Civil Status	Results				TOTAL
	Passed	Percentage	Failed	Percentage	
Single	33	62%	20	38%	53
Married	2	40%	5	60%	7
<b>TOTAL</b>	<b>35</b>		<b>25</b>		<b>60</b>

As shown, out of 53 examinees who were still single during the time of examination, 33 of them or 62% passed the exam while 20 of them or 38 percent failed in the aforementioned exam. On the other hand, 2 out of 7 married examinees or 40% passed the exam while 5 or 60% failed the exam.

**Table 3**  
**Cross Tabulation of Gender and Results of Nursing Board Exam**

Grade	Results				TOTAL
	Passed	Percentage	Failed	Percentage	
1.75	5	100%	0	0	5
2.00	9	60%	6	40%	15
2.25	14	64%	8	36%	22
2.50	4	40%	6	60%	10
2.75	3	38%	5	62%	8
<b>TOTAL</b>	<b>35</b>		<b>25</b>		<b>60</b>

Further description presented by table 3 reveals that all those who got 1.75 in their OJT passed the examination. Likewise, 9 out of 15 examinees who got 2.00 also passed the exam. They represent 60% of the total participants who got 2.00. Moreover, 14 (64%) out of 22 participants who got 2.25 in their OJT passed their exam as well. However, 6 (60%) out of 10 who got 2.5 failed in the exam while 5 (62%) out of 8 who got 2.75 in their OJT also failed in the exam.

## CONCLUSIONS

From the summarized findings, the following conclusions were drawn.

1. Although the nursing profession is dominated by females, it can be concluded that male participants in this study exhibited better performance in the licensure examination compared to female participants. Furthermore, participants who were single during the time of examination exhibited higher percentage of passing rate compared to

married ones. Indeed, the percentage of LCC students who failed in the nursing board exam is alarming and should be addressed by the institution.

2. Higher general weighted average is not a guarantee that a nursing student can pass the licensure examination. However, a nursing student who has higher grade in On-the-Job training is more likely to pass the licensure examination.

## RECOMMENDATIONS

1. Although the students have completed the academic requirements of BS Nursing, the Nursing department should implement a policy regarding the students who are qualified to take the board exam. Aside from intensive review program, the department should also introduce other programs that can cater the research-based needs of the examinees. The institution should have a marketing strategy that can capture more male aspirants of nursing profession to remove the stigma about male nurses. The nursing department should have a curriculum that offers expanded opportunities of learning to married students. The students that are married and not married should a lot adequate time to understand the concepts of nursing in regardless of their Civil Status, This can be done through System Review, System Attend Review Classes and taking the initiative to study well. Their curriculum should not be exactly the same like that of the students who are single and have no conflicts with their schedule of studying.

2. The administrator should add more updated teachers to its current faculty hoster who are more updated with the current trends and development in nursing. Classroom-based activities should integrate the necessary skills learned by students in their On-the-job training. Redesign the On-the-job training syllabus and include more monitoring and assessment procedures. Their students during their OJT should be provided with Authentic Base Assessments and activities where they can apply nursing concepts in real life. The nursing department should engage more in research studies that

analyze the outcome of the nursing board exam and recommend a framework to improve the resu

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**SELF-MANAGEMENT PRACTICES AMONG DIABETICS IN LIPA CITY**

BABYLEN S. DIVINAGRACIA | LIZETTE A. FORTUS

**ABSTRACT**

The primary focus of the study was to assess the Diabetes Self-Management Practices in terms of Diet, Medical Therapy, Medication and Feet Check and Physical Activity and the constraints encountered by patients with Diabetes in implementing Self-Management Practices. This study is anchored on Self-Care Theory developed by Orem and Social Learning Theory by Bandura.

The respondents included 30 patients who diagnosed with Diabetes as endorsed by Local Health Care units. The study used a mix of adopted and self-made questionnaire from previous studies. The primary source of the data of the study is from the responses given by the respondents, while the secondary sources of data are from foreign and local literatures, journals and research. The data were statistically treated with Mean, and Chi-Square.

According to the findings of the study, majority of the respondents belongs to the age of 55-64, female, have Type 2 Diabetes, with the sugar count ranging from 130-157mg/dl, diagnosed from 0 to 10 years and earns 5,000-10,000 monthly. Additionally, some of the respondents were not able to control their Diet, follow Medical Therapy and even do their Physical Activities. This is due to a number of factors that affect their planning especially during occasions, parties and socialization that attracts patients with Diabetes to eat what they want. Likewise, the respondents see buying foods appropriate to their diets to be difficult and barriers in implementing self-management practices. The self-management practices are significantly related to age, sugar count and years diagnosed. While constraints in implementing self-management practices, it is significantly related to age of the respondents.

The study also found some aspects on Self-Management Practices employed by patients with Diabetes to be lacking, therefore, the researchers have proposed a Self-

Management Plan Journal that will serve as both guide to patients and health care providers by taking note of their physical activity, dietary intake, blood glucose and emotional status.

Keywords: Self-Management, Diabetes, Self-Management Practices

**INTRODUCTION**

World Health Organization (2012) estimates that more than 346 million people worldwide have Diabetes Mellitus. This number is likely to more than double by 2030 without any intervention. Almost 80% of diabetes deaths occur in low and middle-income countries. In the Philippines, based on the International Diabetes Federation Atlas (2017), there were mentioned that about 5 million were diabetics whereas the country had ranked 5<sup>th</sup> among Western Pacific countries, behind China, Indonesia, Japan and Thailand. Castillo (2018) concluded that the growing number of diabetics in the Philippines had caused the large money spent on dialysis in diabetic patients with end-stage kidney disease. PhilHealth (2017) had recorded P8 billion, spent on assisting patients undergoing dialysis where majority of the patients are diabetics. In the same IDF statistics, around 50,000 diabetic Filipinos died in 2017 due to diabetes related complications like heart attack, stroke, and kidney and heart failure. And it was further forecasted that if no actions were done to prevent the alarming trend, the prevalence of diabetes is expected to soar to 20 percent by year 2045 where more than 100,000 Filipinos would be dying every year due to its complications (Castillo, 2018).

In a study by Mayer-Davis (2017) it was found the increasing number of incidences of type 2 diabetes between 2002 and 2012. Using population-based analyses, for kids between 10 and 19, they found that there was 4.8 percent annual increase in the incidence of type 2 diabetes. Likewise, a report from Blue Cross Shield found that diabetes impacts the risk of premature death and disease severity is growing for miller who are 18-34 years old. In the Philippines, on the 8<sup>th</sup> Nutrition Research

Institute Survey of 2013, the prevalence of high fasting blood glucose based on the World Health Organization criteria of >125mg/dL for individuals above 20 years old was recorded to have an increase of 0.6% totalling to 5.4%.

Diabetes is a disease that occurs when a person's body doesn't make enough of the hormone insulin or can't use insulin properly. There are 2 types of diabetes. Type 1 diabetes occurs when your body's pancreas doesn't produce any insulin. Type 2 diabetes occurs when the pancreas either doesn't produce enough insulin or your body's cells ignore the insulin. American Diabetes Association (2004) further explained that diabetes is associated with complications such as cardiovascular diseases, nephropathy, retinopathy and neuropathy, which can lead to chronic morbidities and mortality. Following a healthy meal plan can help keep the blood glucose level, blood pressure and cholesterol. Diabetes and diet are always connected as blood glucose levels are easily influenced by what you eat, how much you eat and when you eat. Making changes in what to eat and drink can seem challenging at first but it may find it easier to start with small changes and get help from family, friends and health care team.

Regular exercise is a special advantages to patient with diabetes. It can improve the body sensitivity to insulin and help manage the blood sugar levels and it also help prevent or delay diabetes from developing. During a physical activity, active muscles use up sugar as a source of energy and helps to prevent sugar from building up in the blood. People with diabetes are at greater risk for developing limb threatening ulcers or wounds. The problem is often worsened by nerve damage which occurs in half of all people with diabetes and diminishes their ability to feel pain. They need to check their feet often because cuts and other injuries to the foot could lead to infection and, in extreme cases, make it necessary to amputate.

Medicines can be prescribed based on many factors, including the type of diabetes the person has, his blood glucose level at the time of diagnosis, as well as any other health conditions may have

Uncontrolled diabetes may lead to complications especially when blood glucose levels increase the risk of heart attack or stroke. People with diabetes are also vulnerable to damages in eyes, kidneys, feet and nerves (Shafer, 2017).

On the 2014 and 2015 report of WHO, there are about 8.5% of adults aged 18 years and older had diabetes where 1.6 million cases of death were recorded. In Center for Disease Control and Prevention National Diabetes Statistics Report 2017, 30.3 million people have diabetes where 9.4% belongs to US population. Castillo (2018) concluded that the growing number of diabetics in the Philippines had caused the large money spent on dialysis in diabetic patients with end-stage kidney disease. The increasing number of cases health institutions and agencies struggle to give recommended level of diabetes care. With the health care services and system differing from one country to another, there's always a constant reminder that there's always a need for solution for this. Studies have reported that strict metabolic control can delay or prevent the progression of complications associated with diabetes (Shrivastava, et.al, 2013; UKPDS, 1998; Ohkubo, et. al, 1995). On Pacheco and Jimeno study (2015) mentioned that the Philippines often have limited resources to cope with the disease. T2DM is seen to develop at a younger age, usually a decade earlier than Caucasians; young onset diabetes is increasing at alarming rates. As diabetes starts early in life, this brings with it an associated increase in morbidity and mortality and a lifetime risk of cardiovascular disease. This was clearly shown in the CANDI Manila study where newly diagnosed adult T2DM patients (mean age of 50 years) showed high prevalence of diabetic complications and cardiovascular risk factors, at the apparent onset of their DM diagnosis.

On Castillo (2017) article, he said that with proper education, the diabetic patient realizes that once diagnosed with definite diabetes, though it's a lifelong problem requiring lifelong treatment, it's not a death sentence. It can be adequately controlled to prevent complications, and the patient feels more at ease with the disease. Diabetics can still live

normal and healthy lives compared to non-diabetics. In fact, for some, being diagnosed with diabetes could even be a blessing in disguise.

Funnell and Anderson (2004) a self-management plan for patients with diabetes needs to be designed to fit their priorities, goals, resources, culture and lifestyle. Further, to manage diabetes successfully, patients must be able to set goals and make frequent daily decisions that are both effective and fit their values and lifestyles, while taking into account multiple physiological and personal psychosocial factors. Intervention strategies that enable patients to make decisions about goals, therapeutic options, and self-care behaviors and to assume responsibility for daily diabetes care are effective in helping patients care for themselves. According to Shrivastava, et. al (2013), self-care in diabetes has been defined as an evolutionary process of development of knowledge or awareness by learning to survive with the complex nature of the diabetes in a social context. Because the vast majority of day-to-day care in diabetes is handled by patients and/or families, there is an important need for reliable and valid measures for self-management of diabetes.

“If we act now, we may be able to check in this rise in the diabetic population, and the education is the answer,” said Dr. Litonjua on his interview on an article by Castillo (2018). Providing individuals with information and awareness of the disease regarding the causes, effects and management of diabetes would help prevent the increasing number of diabetic patients. In this study, the researcher aimed to assess the Self-Management Practices among Diabetics in Lipa City to ensure that they are aware of their specific health risks for developing the complications of diabetes that will lead to supporting individuals in developing their own diabetes management plan.

## METHODOLOGY

The study utilized Quantitative Approach in the form of descriptive research to determine Awareness on Self-Management on Diabetes in Lipa City Batangas. The

researchers used descriptive research where information was collected and used to obtain information concerning the current status of the phenomena to describe what exists with respect to variables or conditions in a situation. The sampling technique used in choosing respondents was convenience sampling where in those who were only available during the conduct of the study were asked to answer the questionnaire.

## RESULTS AND DISCUSSIONS

**Table 1**  
**Self-Management Practices of Diabetics in Lipa City in terms of Diet**

	<b>Indicator</b>	<b>Mean</b>	<b>Interpretation</b>
1.	I am able to adjust my eating plan when ill	3.03	Agree
2.	I am able to follow a healthy eating pattern when I am away from home	2.56	Agree
3.	I am able to adjust my eating plan when I am away from home	2.56	Agree
4.	I am able to follow a healthy eating pattern when I am on holiday	2.34	Disagree
5.	I am able to follow a healthy eating pattern when I am eating out or at a party	2.31	Disagree
6.	I am able to adjust my eating plan when I am feeling stressed or anxious	2.47	Disagree
<b>General Weighted Mean</b>		<b>2.55</b>	<b>Agree</b>

Legend: 4.00-3.51 Strongly Agree; 3.50-2.51 Agree; 2.50-1.51 Disagree; 1.50-1.00 Strongly Disagree

Table 1 shows the Self-Management Practices of Diabetics in Lipa City in terms of Diet which obtained a general weighted mean of 2.55 interpreted as Agree. Results of the conducted survey shows that the indicator, “I am able to follow a healthy eating plan when I am eating out or at a party,” and “I am able to follow a healthy eating pattern when I am on holiday,” obtained a low mean of 2.31 and 2.34, respectively. This implies that the respondents have the difficulty of following their diet whenever they are eating outside or attending party and at the same time, during holidays.

**Table 2**

**Self-Management Practices of Diabetics in Lipa City in terms of Medical Therapy**

Indicator	Mean	Interpretation
1. I am able to check my blood sugar if necessary	3.06	Agree
2. I am able to correct my blood sugar when the sugar level is too high	2.97	Agree
3. I am able to correct my blood sugar when the blood sugar is too low	2.88	Agree
4. I am able to keep my weight under control	2.41	Disagree
5. I am able to visit my doctor every three months to monitor my diabetes.	2.81	Agree
<b>General Weighted Mean</b>	<b>2.83</b>	<b>Agree</b>

Legend: 4.00-3.51 Strongly Agree; 3.50-2.51 Agree; 2.50-1.51 Disagree; 1.50-1.00 Strongly Disagree

Table 2 presents the Self-Management Practices of Diabetics in Lipa City in terms of Medical Therapy which obtained a general weighted mean of 2.83 interpreted as Agree. The indicator, “I am able to keep my weight under control,” obtained the lowest mean of 2.41 interpreted as Disagree.

**Table 3**

**Self-Management Practices of Diabetics in Lipa City in terms of Medication and Feet Check**

Indicator	Mean	Interpretation
1. I am able to examine my feet for cuts	2.66	Agree
2. I am able to take my medications as prescribed	3.13	Agree
3. I am able to adjust my medication when I am ill	3.00	Agree
<b>General Weighted Mean</b>	<b>2.93</b>	<b>Agree</b>

Legend: 4.00-3.51 Strongly Agree; 3.50-2.51 Agree; 2.50-1.51 Disagree; 1.50-1.00 Strongly Disagree

Table 3 shows the Self-Management Practices of Diabetics in Lipa City in terms of Medication and Feet Check. It can be seen that it obtained a general weighted mean of 2.93 interpreted as Agree. According to the results, the indicator, “I am able to examine my feet for cuts,” obtained the lowest mean of 2.66 interpreted as Agree.

**Table 4**

**Self-Management Practices of Diabetics in Lipa City in terms of Physical Activity**

Indicator	Mean	Interpretation
I am able to take enough exercise, for example walking the dog or riding the bicycle	2.41	Disagree
I am able to take more exercise if the doctor advises me to do so	2.72	Agree
When taking more exercise, I am able to adjust my eating plan	2.63	Agree
<b>General Weighted Mean</b>	<b>2.58</b>	<b>Agree</b>

Table 4 presents the Self-Management Practices of Diabetics in Lipa City in terms of Physical Activity which obtained a general weighted mean of 2.58 interpreted as Agree. The indicator, “I am able to take enough exercise, for example walking the dog or riding the bicycle,” obtained the lowest mean of 2.41 interpreted as Disagree.

**Table 5**

**Constraints Encountered by Diabetics in Implementing Self-Management**

Indicator	Mean	Interpretation
1. Due to limited budget, it is hard to buy foods appropriate for my diet.	2.81	Agree
2. It is expensive to buy artificial sweeteners.	2.84	Agree
3. Since I can't eat what I really want, I become more depressed.	2.47	Disagree
4. I was able to become more positive due to the support and help I get from health providers.	2.88	Agree
5. My family supports me emotionally to get through the diabetes self-management.	2.94	Agree
6. The medicines I needed to take are expensive.	2.84	Agree
<b>General Weighted Mean</b>	<b>2.80</b>	<b>Agree</b>

Legend: 4.00-3.51 Strongly Agree; 3.50-2.51 Agree; 2.50-1.51 Disagree; 1.50-1.00 Strongly Disagree

Table 5 shows the Constraints Encountered by Diabetics in Implementing Self-Management obtaining a general weighted mean of 2.80 interpreted as Agree. Most of the results show that patients are emotionally supported by their family and other health providers as seen on indicator “My family supports me emotionally to get through the diabetes self-management” after obtaining the highest mean score of 2.94 (Agree) followed by “I was able to become more positive due to the support and help I get from health providers,” which obtains the mean score of 2.88 (Agree).

This implies that social support does not pose as a constraint to the patients with diabetes. Hence, the results which shows how foods, sweeteners, and medicines are perceived to be expensive by the respondents are more of constraints to them. This is similar to the results of the study by Chan, et.al (2015) that discussed how preparing and accessing to appropriate food is a barrier to patients with diabetes together with the limited budget they have.

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## CONCLUSIONS

After variables are assessed, analyzed and interpreted, the following conclusions are drawn by the researchers based on the findings of the study:

1. On the profile of the respondents' majority belongs to the age of 55-64, female, have Type 2 Diabetes, with the sugar count ranging from 130-157mg/dl, diagnosed from 0 to 10 years and earns 5,001-10,000 monthly.

2. It is concluded that some of the respondents were not able to control their Diet, follow Medical Therapy and even do their Physical Activities. This is due to a number of factors that affect their planning especially during occasions, parties and socialization that attracts patients with Diabetes to eat what they want.

3. The respondents see buying foods appropriate to their diets to be difficult and barriers in implementing self-management practices.

4. The respondents' age, sugar count and years diagnosed are significantly related to Self-Management Practices especially with Physical Activity. While age is significantly related to Constraints in Implementing Self-Management Practices.

5. On the proposed Self-Management Plan, it is in form of a journal that can be used by both patients and health care providers monitoring their physical activity, dietary intakes, blood glucose levels and even their emotional status.

## RECOMMENDATIONS

The following recommendations offered by the researcher based on the findings and conclusion of the study:

1. It is recommended to conduct seminars and weekly or monthly Zumba exercises to frequently motivate patients with Diabetes and discuss the importance of controlling dietary intakes and their weight.

2. It is recommended that with the cooperation of the academe, health centers, practitioners to extend the proposed Diabetes Self-Management Plan Journal to patients to help them monitor their eating habits, blood glucose levels, and their emotional status.

3. It is recommended to develop an online Self-Management Plan Journal that would make it easier for both patients and health care providers to monitor their status in real-time manner.

4. It is recommended that another study parallel to this be conducted on a different local or in a wider range of respondents.

5. There is a need for proposed Diabetes Self-Management Plan Journal.

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