



# "LEVEL OF KNOWLEDGE AND ATTITUDE TOWARDS DIABETES MELLITUS AMONG SELECTED BUSINESS PROCESS OUTSOURCING IN MAKATI"

Alora Fae De Guzman I Anthony Sio | Janna Labine | Julius Pedro | Christina Lugue | Giulian Tabanao | Khali Junatas | Jhames Santos

**Student-Researchers** 

#### Mr. John Christian Espinola

Research Adviser





















Credits to the owner of the pictures















Credits to the owner of the pictures

















## Introduction

- UN Sustainable Development Goals of 2016 on "Good Health and Well Being" (United Nations)
- There is an increase with the number of Filipinos having Diabetes. (Ubial, 2017)
- Philippines is a diabetes hotspot over the Western Pacific Region. (Castillo, 2018)

















# Background of the Study

- 6 million Filipinos have been diagnosed with diabetes. (Castillo, 2018)
- According to International Diabetes Federation, the Philippines Rank 5<sup>th</sup> last 2017 in Western Pacific that has a value of 3,878,747 people with Diabetes.
- Family members of the researchers has a history about diabetes.
- Philippines as the "Call Center Capital of the World" (Mercurio, 2018)

















# Significance of the Study

This study will serve as a basis on:

- To prioritize call center agents health and to help start changing their unhealthy lifestyle.
- To identify the possible factors that could affect call center agents unhealthy lifestyle base on the survey questionnaires.
- To assess the level of knowledge and attitude if they are directly or inversely proportional to each other.
- To discuss the possible ways of informing call center agents about their health by cooperating with NGO's and health care professionals.









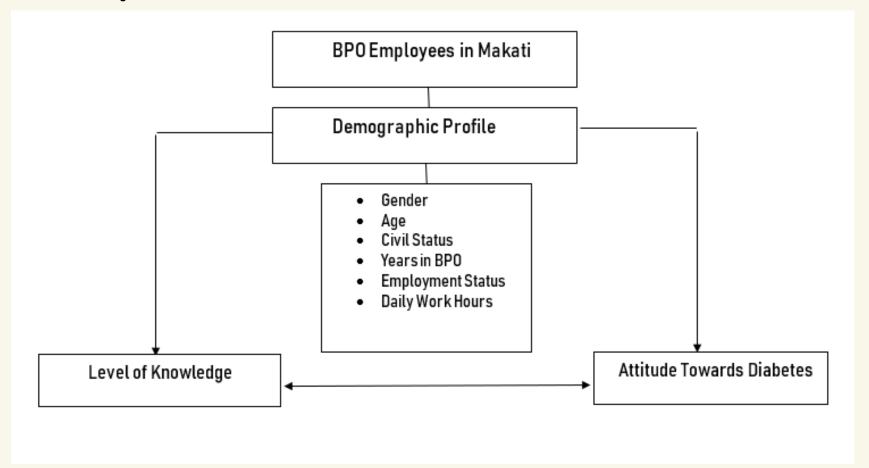








# Conceptual Framework



















## Statement of the Problem

- 1. What is the demographic profile of the respondents?
- 2. What is the level of knowledge towards diabetes among BPO employees?
- 3. What is the difference in the level of knowledge towards Diabetes of BPO employees according to their demographic profile?
- 4. What is the attitude towards diabetes of BPO employees?
- 5. What is the difference in the attitude toward diabetes of BPO employees according to their demographic profile?
- 6. What is the relationship between the level of knowledge and attitude towards diabetes of BPO employees?

















#### Methods

#### Non Experimental Research Design

- Describe the behaviour of the respondents without influencing it in any way.
- Describe, compare, and correlated variables

#### **Purposive Sampling**

- Non-probability sampling where samples are selected based on characteristics of a population and objective of the study.
- Sample size was determined using "G-Power" Software

















#### Instrumentation & Validation

- ☐ Checked and validated by medical experts.
- ☐ Level of Knowledge Towards Diabetes
  - Garcia A. A., Villagomez, E.T., et al (2001)
  - 24-item Likert Scale
- ☐ Attitude Towards Diabetes
  - Evans (2010)
  - 33-item Likert Scale

















#### Statistical Treatment

- Using MS Excel 2016 & IBM SPSS version 2.0
- Descriptive Statistics

Range			Verbal Interpretation (Attitude)	
1	-	1.8	Extremely Negative Attitude	
1.81	-	2.6	Moderate Negative Attitude	
2.61	-	3.4	Neutral	
3.41	-	4.2	Moderate Positive Attitude	
4.21	-	5	Extremely Positive Attitude	

Numerical Rating		g	Verbal Interpretation (Knowledge)	
0.00	-	5.99	Beginner	
6.00	-	11.99	Developing	
12.00	-	17.99	Approaching Proficiency	
18.00	-	23.99	Proficient	
24.00	-	29.00	Advanced	

- Comparative using T Test of Independent Means and Analysis of Variance (ANOVA)
- Correlation using Chi Square and Pearson Moment Correlation









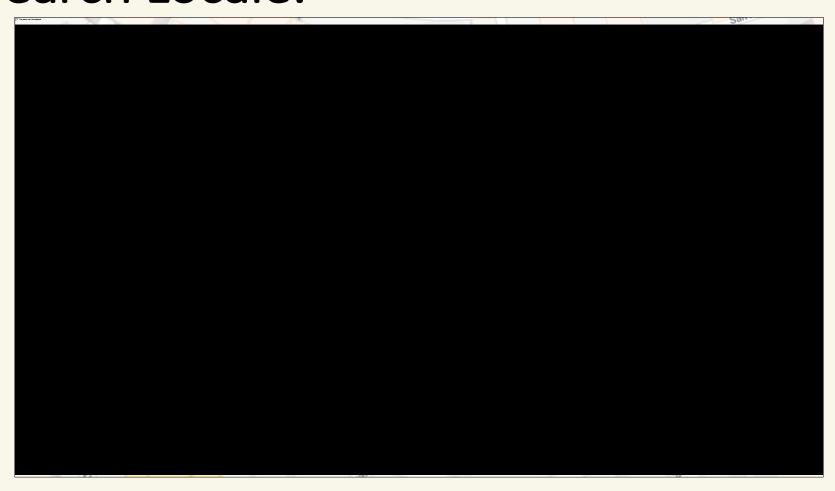








## Research Locale:



















# Results (SOP #1)

- 4 BPO Companies with a total of 334 respondents.
- Philamlife Tower Makati =15.27%; Teleperformance Makati =
  25.15%; Convergys Makati =28.14%; Telus International Philippines
  =31.44%
- Male =44.3%; Female =55.7%
- Age varies from 18 years old as the youngest and 62 years old as the oldest.
- Single =80.8%; Married =18.9%; Others =0.03%
- 0-41 years working
- 2-12 Daily Work Hours
- Contractual =11.7%; Probationary =9.3%; Regular =79%

















# Results (SOP #2)

- BPO employees working in Makati has a Approaching Proficiency (50%) level of knowledge when it comes to diabetes
- Eating too much sugar and other sweet foods is a cause of Diabetes with a total of 295 respondents answered it correctly (88.3%).
- Shaking and sweating are signs of high blood sugar with a total of 72 respondents answered it correctly. (21.6%)

















# Results (SOP #3)

Demographic Profile	P-value	Verbal Interpretation
Gender	.099	No significant difference
Age	.041	Significant difference
Civil Status	.737	No significant difference
Years in BPO	.167	No significant difference
Daily Work Hours	.241	No significant difference
Employment Status	.058	No significant difference

















# Results (SOP #4)

- The attitude of the BPO employees that answered the survey got a level of *Moderately Positive* (77.8%).
- Health care professionals who treat people with Diabetes should be trained to communicate well with their patients ( $\bar{x}$ =4.65), **Extremely Positive**.
- People who do not need to take insulin to treat their their diabetes have a pretty mild disease,
   Moderately negative. (x=2.50)

















# Results (SOP #5)

Demographic Profile	p-value	Verbal Interpretation
Gender	.088	No significant difference
Age	.346	No significant difference
Civil Status	.213	No significant difference
Years in BPO	.747	No significant difference
Daily Work Hours	.012	Significant difference
Employment Status	.006	Significant difference

















# Results (SOP #6)

#### Level of Knowledge on Diabetes \* Attitude Towards Diabetes Crosstabulation

Count					
		Attitude Towards Diabetes			Total
		Neutral	Moderately	Extremely	
			Positive	Positive	
	Beginner	1	4	1	6
I and a CIV a soule decree	Developing	12	70	3	85
Level of Knowledge on Diabetes	Approaching Proficiency	28	124	15	167
	Proficient	3	53	6	62
	Advance	0	9	5	14
Total		44	260	30	334

• With p-value of .004, this shows that there is a *significant correlation* between the level of knowledge and the attitude towards diabetes among selected BPO Employees in Makati.

















# Results (SOP #6)

 At 0.05 level of significance and with r-value of .270, this shows that there is a significant *low positive correlation* between the scores on level of knowledge and weighted mean on the attitude towards diabetes among selected BPO Employees in Makati.

















## Conclusions

- BPO employees have a habit to eat sugary foods before and after their job. (UP Population Institute, 2010)
- The reason why the respondents had much knowledge about this is because of the definition and cause of diabetes. (Tan, 2015)
- Most diabetes are caused by specific genetic defects, environmental factors and infections. (American Diabetes Association, 2017)
- Gender does not affect who may acquire diabetes.
- As a person gets older, the risk of diabetes becomes greater.
- Longer working hours means less time spent in doing physical activities.

















#### Recommendations

- NGO's must provide different kinds of seminars to BPO companies, due to the increase of BPO employees acquiring the disease.
- Health care providers and doctors must prepare all the necessary medications they need to help in giving aid to diabetes. They must know the current situation of call center agents in BPO companies, specifically in Makati. They should visit some companies and provide check-ups for the employees every year.

















Figureshintness	- LYCEUM OF THE PHILIPPINES UNIVERSITY	To the school or 10 k diploped.
	MANILA · MAKATI · BATANGAS · LAGUNA · CAVITE · DAVAO	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
	!	
To determine the design		











