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"Underlying Health Conditions Five"
Revisiting the Analyses of Underlying Health Conditions One, Two, Three, and Four among Minorities' Children in Southwest Houston, Texas and the Roles Parents Play to Complicate the Inabilities to Control Them Especially with COVID-19's Effects

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ABSTRACT

This quasi-experimental quantitative project's research study revisited the relationship between multidiscipline approaches in addressing the issues associated with children between the ages of 7 and 18 weights, obesity, BMI, and their parental physical, mental, social, and overall parental involvements or lack of involvements in their children's health wellbeing outcomes. The study questioned the outcomes by analyzing the population/patients, intervention/indicator, comparator/control, with no pediatric obesity educational program, outcomes such as ***impact the dietary habits, and time for over a period of 4 weeks in six months (PICOT). The project study employed the roles of parental in-activities, activities, and possibly "out of control" parental supervisions as indicators. The project study used a single "case study" to collect data statistics using Child Feeding Questionnaire (CFQ) survey instrument developed by Birch et al. (2007). The project's study investigated 40 children/parents using ANOVA to analyze pretests versus posttests, and scorecards. The project's study found that there were statistically significant differences correlations between dependent and independent variables in pretests versus posttests in 5tables and 6 figures.*** *The project's study recommends that collective collaborations between physicians and multidiscipline healthcare practitioners is needed in addressing some of the resolvable issues associated with children's weights, obesity, BMI, and blood sugar levels A1C was way to proactively manage their underlying health conditions. The study recommends that a longer time study should be conducted as to identify how long and how sustainable the parents and the children are committed the process.* ***This study suggests that future studies should limit their items of analyses to not more than 1 to 2 items; however, items 9 or 10 will be addressed in this follow-up sixth data statistics analyses outcomes project's study.*** *The project's study concludes that if all the above itemized recommendations among others, are carefully implemented by the parents*

and their children, they should be able to reduce pre-existing health conditions which are tied to the mortality rates of COVID-19's effects. ***The study sums that if all the recommendations are proficiently implemented, we should be able to maintain and possibly gain some sustainable positive social changes in their children and parents health wellbeing in the future to come.***

KEYWORDS: Child Feeding Questionnaire (CFQ), PICOT, BMI, Weight, Height, Obesity, Overeating, Blood Sugar Levels, A1C, Underlying Conditions, Out-of-Control Children, Watching TV At Will, Eating Habits in Schools, CORONAVIRUS, COVID-19, Minorities, COVID-19' Effects, and Healthy 2020

INTRODUCTION

According to Kisavi-Atatah, Atatah, Branch-Vital, Laws, and Opusunju (2020), in their initial investigative (**Underlying Health Conditions One**) and Kisavi-Atatah et al. (2020). (**Underlying Health Condition Two**) as well as (Underlying Health Condition Three) by Atatah et al. (2020);

> The purpose of this quasi-experimental quantitative research study was to examine the relationships between children overeating habits and in activities with their weight gains and Body Mass Index (BMI) blood sugar A1C levels associated with minorities in Southwest Houston, Texas. This study investigated 15 associative items; but only the first two items were analyzed in this study due to the overwhelming database statistics it generated after the initial analyses. However, additional items such as item 3 to 15 will be addressed in the follow-up studies in the future. This study collected some monthly samples from 20 volunteered participates. Since the issues associated with CORONAVIRUS or COVID-19 has become prevalence among minorities in general, this study intends to shed some lights on minorities between the ages of 6 to 18 years children and the roles their parents may play or not play to control their weight gains and BMI blood sugar A1C levels collectively.

This follow-up quantitative research study will concentrate on items numbers 7 alone; along with some brief areas in COVID-19 overall implications (see Atatah et al., 2020 pp. 89-90 for more).

Above all, underlying conditions among minorities looked into data statistics that were fundamentally different from then singularly investigations and explorations of this current research study due to the overwhelming data statistics generated in one research study (see underlying conditions 1, 2, 3, & 4 for more).

LITERATURE REVIEWED

The literatures reviewed in this study remained consistent with the previously reviewed literatures because the only new data statistics being analyzed in this study is to investigate and explore different roles parent and their children play as to manage their BMI effectively, efficiently, proficiently, and proactively (see underlying condition 1, 2, 3, & 4 for more).

This study longevity quasi-experiment research study continued to use the same literature reviewed because the components, complexities, and applications remain the same. The only significant changes in the follow-up research study are to measure item 7 of the raw data statistics collected from this pre-tests and post-tests quasi-

experimental research study (see Kisavi-Atatah et al., 2020; Kisavi-Atatah et al., 2020; Atatah et al., 2020; Atatah et al., 2021 for more).

The American Heart Association (2017) approximates those one out of every ten children are either overweight or obese. According to the same report, the prevalence of childhood obesity has more than tripled over the last three decades, with the health problem surpassing drug and substance abuse to become the number one childhood health concern. The excess weight places the children at the peril for development of serious health problems like diabetes, heart disease and asthma. Being overweight/obese in childhood is associated with a risk of obesity-related comorbidities in adulthood, adverse psychological problems, huge societal expenses and premature morbidity and mortality (see Grigorakis et al., 2016; foster et al., 2017; Fonvig et al., 2015; Fidelix et al., 2015 for more).

Childhood obesity predisposes children to other serious chronic and acute health problems, hence limiting the children from reaching their full potentials in childhood and adulthood (Pulgarón, 2014). Childhood obesity has remained a communal health issue that continues to affect children in their right to relish a long healthy life free of avertible diseases. According to the American Heart Association (2017), childhood obesity is the number one trepidation for every parent, having surpassed the issue of drug abuse and smoking as top public health problem for children (See Roya & Soleiman, 2014; Pulgarón, 2014; Ogden et al., 2014; Martin et al., 2018; Mendes et al., 2016; Damaso et al., 2013; &Mameli et al., 2017 and more).

Obesity among children and adolescents is described as a body condition in which the BMI figure exceeds 30. The most causes of the condition are identified as physical inactivity and unhealthy diets with high calorie content with the weight effects moderated by society and environment factors. Given that obesity is a health risk factor, there is a need to address its incidence with the focus on achieving and maintaining a healthy body weight. This is particularly true for children and adolescents since obesity first presents in this age group with the best management results achieved. Cochrane et al. (2017) notes that obesity management is important, but it is not only concerned with weight management with input from different professionals required to achieve the desire outcome in terms of healthy weight loss. It further adds that a multidisciplinary approach is necessary to achieve the best outcomes. Foster et al. (2017) similarly notes that the best outcomes are achieved by combining input from different stakeholders since the conditions has implications that exceed weight and could extend to dieting, family support, and exercising. Based on this awareness, the study recommends that family-centered approaches should be applied when addressing weight management needs of children and adolescents since they are easily influenced by their families.

Fonvig et al. (2015) also mentions that a multidisciplinary approach reduced BMI. The article further added that the approach reduced liver fat, muscle fat and visceral adipose tissue volumes although these results were only noted after running the program for 1 year. The implication is that it presents positive metabolic effects (Fonvig et al., 2015). The same sentiments are expressed by Martin et al. (2018), mentioning that although obesity management is about weight control, it also has cognitive implications for children and adolescents since a healthy weight will typically be associated with good performance in school. This means that in addition to the weight, other professionals would be required to address the cognitive aspects of care.

Torti et al. (2017) make similar when calling for a multidisciplinary approach by indicating that obesity management is all about lifestyle intervention and should be matched with support from the school and community.

Carayol et al. (2017) presents a novel perspective by indicating that although the weight management strategies have achieved some success in obesity control, the success is limited and could be improved by including proteomic factors since the condition has molecular mechanisms. The implication is that molecular biologists should also be included in obesity care provision since they can evaluate and interpret proteomic results. Swift et al. (2014) mention that effective weight management to address obesity must include exercise programs along with calorific programs. The implication is that the medical personnel who manage the exercise program must work in concert with the personnel who work the calorific program since the two are different medical disciplines. Ogden et al. (2014) faults the current obesity intervention measures by noting that they have been largely ineffective since surveillance data shows that obesity prevalence remains high. The article adds that there is a need to for a multidisciplinary approach with input from different stakeholders to reverse the high prevalence noted.

Bocca et al. (2012) validates the recommendations for a multidisciplinary approach in obesity management by reporting that multidisciplinary care produces better outcomes when compared to usual-care programs and if used for at least one year. Mameli et al. (2017) expresses some reservations in using multidisciplinary weight management in children. The article notes that although a multidisciplinary approach is more effective when the whole program is followed, it is similarly accompanied by high dropout rates even before discernible results could be produced. The implication is that the approach might have positive effects, but it is demanding thereby causing high dropout rates (Mameli et al., 2017). The reviewed journal articles show that obesity among children and adolescents is best managed through a multidisciplinary approach although there could be a need to address dropouts to improve outcomes and effectiveness (See Kisavi-Atatah et al., 2020, Kisavi-Atatah et al, 2020, pp. 1-2 & Atatah et al. 2020, pp 90-91 for more).

PICOT

The picot question has been presented as: “Among parents of obese or overweight children or adolescent from 6 to 18-year-old in a primary care pediatric setting (P), how does the implementation of a multidisciplinary pediatric obesity educational program (I) versus no pediatric obesity educational program (C) impact the dietary habits (O) over a period 4 weeks in 6 months (T)?”

P- Population/ Patient = how does the implementation of a multidisciplinary pediatric obesity educational program
I - Intervention/ Indicator = versus no pediatric obesity educational program
C - Comparator/control = no pediatric obesity educational program
O - Outcome = impact the dietary habits

T- Time = over a period of 4 weeks measurements for 6 months from January 5, 2020, to June 30, 2020. (Kisavi-Atatah et al., 2020; Kisavi-Atatah et al., 2020; Atatah et al., p. 91 for more).

CONCEPTUAL/ THEORETICAL FRAMEWORK

This follow-up quasi-experiment research used the same theoretical framework because the initial theory in the research one, two, three, and four remain the same. According to Kisavi-Atatah et al. (2020), Kisavi-Atatah et al. 2020, Atatah et al. (2020) and Atatah et al. (2021);

> The prevalence of obesity has risen dramatically in the USA, with the rate increasing more than threefold during the past three decades. The most alarming is that childhood obesity most often will continue into adulthood and the consequences of obesity include coronary artery disease, diabetes, adverse psychological problems, large societal costs and premature morbidly and mortality (Grigorakis et al., 2016). About one in every three American kids and youths is either obese or overweight. Berge et al. (2016) presents the result of a quantitative research study into the effects of community-based childhood obesity prevention programs. The study acknowledged that obesity intervention programs have had limited success, particularly those targeting children. This failure is postulated to be the result of an inability to engage parents in the program. As such, there is a need to understand how community engagement affects the results of intervention programs. This problem is important to medical personnel since it addresses an ongoing concern in the form of identifying effective obesity prevention programs. Identifying the more effective programs and their approaches can facilitate effective resource allocation so that emphasis remains on programs that are likely to produce positive results. In this respect, medical personnel could use the research results to recommend greater community engagement in childhood-obesity intervention programs as a more effective strategy.

Many studies have proven that obesity intervention programs targeted at children have largely failed. The failure has been attributed to an inability to engage the whole community that would have a positive additive effect on outcomes. Majority of children aged 5 to 12 years watch, on average, almost two-and-a-half hours of television daily and most of this is commercially sponsored. In addition, around half of them now eat their evening meal in front of the television which has been recognized as an effective medium for the sale of food products with most foods advertised to children being high in fat, salt and/or sugar and low in fiber. Changing social attitudes to childhood may influence the development of children's food preferences. Empirical evidence suggests that food availability and accessibility, parental role modeling, television viewing and child-parent interactions around food are all likely to be important.

Environmental factors like lack of physical activity are major contributors to the obesity epidemic and children who are obese or overweight are more likely to have functional limitations. Physical activity has been proven to lower the risk of obesity, but future studies are needed to determine barriers to participation among these children in recreation and sporting activities. By exploring the role of social networks and obesity it shows that the obesity epidemic is affected by the complex interaction between the environment, genetic factors, and human behavior (Hong, Coker-Bolt, Anderson, Lee, & Velozo, 2016).The knowledge gap justifies the research by determining whether there is any justification for multidisciplinary obesity program and community engagement in obesity

intervention programs targeted at children (See Kisavi-Atatah et al., 2020 & Kisavi-Atatah et al, 2020, 3-4, Atatah et al., 2020 p. 92; Atatah et al., 2021 for more).

DESIGN OF THE STUDY

The recruitment procedure entailed the identification of the potential participants based on the inclusion and exclusion criteria. Recruitment fliers with the Principal Investigator (PI) contact information was placed at the prospective clinic site. The convenient samples of patients were voluntarily enrolled after receipt of signed consent from their parents or guardians. Families responded with qualified children were invited for assessment where weight and height and BMI, and their blood sugar A1C were measured Computer-generated random numbers was used to allocate parent-child pairs to the multidisciplinary pediatric obesity program. Parents and guardians were provided an informed consent while children and adolescents completed an assent (see Bonnie et al., 2016; Kisavi-Atatah et al., 2020 & Kisavi-Atatah et al., 2020, p. 3 Atatah et al., for more).

METHODOLOGY

The study applied a quantitative approach that entailed by collecting data using one-group pre-test/post-test quasi-experimental design. A sample size of 20 participants was recruited from among patients of Family Clinic in Southeast Houston, Texas. Just to protect the interests of the clinic and the participants, the specifications were not needed in this study. The inclusion criteria were obesity diagnosis for more than one year, and parental/ guardian consent. The exclusion criteria were mental incompetence, deafness, blindness, terminal illness with an inability for self-care, and an inability to actively participate in provider-led education programs. The participant's blood pressure, weight, waist circumference, BMI and height were measured. Participants/parents were assessed on obesity knowledge, nutritional lifestyle, and physical activity with Child Feeding Questionnaire (CFQ) developed by Birch et al. (2007). The Child Feeding Questionnaire (CFQ) is a self-report measure to assess parental beliefs, attitudes, and practices regarding child feeding, with a focus on obesity proneness in children. The Nurse Practitioner who is also the principal investigator and physician will coordinate the multidisciplinary team (Reichert-Anderson et al., 2015; See Kisavi-Atatah et al., 2020; Kisavi-Atatah et al., 2020, p. 3; Atatah et al., 2021 for more).

The principal investigator/s met with the participants and their parents/guardians obtain a signed consent and complete a socio-demographic survey and administer the pre-test obesity knowledge Questionnaire. The participants/parents/guardians attended one-time individual obesity education session based on the teaching outline for 1 hr. There was a break every 15 minutes during the session to alleviate the emotional stress because of the sensitivity of the topic. There was a re-evaluation in four weeks after the education classes where the participants/parents/guardians were asked to complete a posttest CFQ Questionnaire. Participants and parent/guardian were assessed on dietary patterns to promote healthy dietary habits and lifestyle behavioral changes according to the American Academy of Pediatrics' guidelines. The lifestyle modification counseling included promoting nutritious diet and physical activities (Reichert-Anderson et al, 2015). Personalized nutritional counseling was provided to overweight participants while a low-calorie balanced personalized diet was provided to the obese participants that seeks to achieve the target of (decrease in Body Mass Index (BMI) and reduction in

childhood obesity (Roya & Soleiman, 2014; See Kisavi-Atatah et al., 2020 & Kisavi-Atatah et al., 2020, p. 4;&pp. 70-74; Atatah et al., 2021 fore more)

This follow-up Quasi-experimental quantitative project's research study investigated children's eating habits when in schools and the roles their parents play to or not to support their poor eating habits through their proactive or lack of proactive involvements. Additionally, the methodology for Underlying Health Conditions remained the same such as in studies one and two (See Atatah et al., 2020, p. 93; Kisavi-Atatah et al., 2020; Atatah et al., 2021; Kisavi-Atatah et al., 2020; Atatah et al., 2021 for more).

HYPOTHESES

It should be noted that due to the volumes of data statistics generated by this 15 points' primary research questions, the initial hypotheses remained the same with a twist with a different 2 points research questions (RQs) which addressed RQs 1 and 2, RQs 3 and 4 and RQs 5 RQ 6, RQ 7,(See Atatah et al. 2020, pp. 93-94; Kisavi-Atatah et al., 2020& Kisavi-Atatah et al, 2020, p. 5; Atatah et al., 2021 for more). This study addressed and dealt with only RQ 8 and alternative overall RQ that dealt with Body Mass Index (BMI) blood sugar A1C due to the overwhelming data statistics it generated.

This study hypothesized two major research alternative hypotheses as shown below;

Alternative Hypothesis 1

There is a relationship between children overeating, in-activities, and the overall outcomes of their weight gains and Body Mass Index (BMI) blood sugar A1C levels (See Atatah et al. 2020, p. 93; Kisavi-Atatah et al., 2020& Kisavi-Atatah et al., 2020, p. 5; Atatah at al., 2021 for more).

Alternative Hypothesis 2

There is a relationship between lack of parental supports, and inactivates their children overeating, in-activities, and the overall outcomes of their weight gains and Body Mass Index (BMI) blood sugar A1C levels (See Atatah et al., 2020, p. 93; Kisavi-Atatah et al., 2020; Kisavi-Atatah et al., 2020; & Atatah et al., 2021 for more).

Beside the items previously addressed in research underlying conditions one, two, three, and four, this study singularly concentrated on the below research question due to the overwhelming data statistics this project generated;

The critical central question as to why children overeat was;

Do you let your child decide how much TV he/she wants to watch?

This singular research question systematically provided answers for the two pinpointed hypotheses as above in this research study.

Intervention and Data Collection

Data Collection Methods

The data collection methodology applicable for this study was through a quantitative approach with a pre-test/post-test quasi-experimental design. Fliers were placed at the prospective clinic for voluntary sign up of participants with parental/guardian consent. They can also be referred by a confidential doctor in a private clinic in Southwest Houston, Texas based on their BMI percentiles at or exceeding the 95th percentile according to the CDC normative scale. Data was collected by measuring weight, height, and BMI. The obesity knowledge Questionnaire with socio-demographic survey Questionnaire was used as multiple and open-ended style questions to fully elicit the nutritional tendencies and lifestyle living of the participants (See Atatah et al., 2020; p. 94; Kisavi-Atatah et al., 2020& Kisavi-Atatah et al., 2020, pp. 5-6; Atatah et al., 2021 for more).

DATA ANALYSIS PLAN

The PICOT statement seeks to determine if a multidisciplinary pediatric obesity educational program compared to a non-multidisciplinary pediatric obesity educational program will impact the dietary habits changes in participants over a period 4 weeks repeatedly for six months (See Atatah et al., p. 94; Kisavi-Atatah et al., 2020& Kisavi-Atatah et al., 2020, pp. 6-7; Atatah et al., 2021 for more).

PICOT STATEMENT INTERPRETATION

Population: The population is obese children/ adolescents between the ages of 6 years and 18 years. Most of these patients attend a primary care clinic where their interventions are varied depending on their medical condition and the pediatrician's approach.

Intervention: Most of the current pediatric obesity management regimes are centered on nutrition. However, there is a need to develop patient-centered pediatric obesity educational program that involves a multidisciplinary team in order to benefit from the combination of several proven strategies.

Control: A multidisciplinary pediatric obesity educational program approach will be compared to no pediatric obesity educational program.

Outcome: The desired outcome will be a desired impact on dietary habits in the participants in a period of 4 weekly for six months

Time: The time for this research is 4 weekly for six months (See Atatah et al., 2020; pp. 90-92; Kisavi-Atatah et al., 2020, Kisavi-Atatah et al., 2020, pp. 6-7; Atatah et al., 2021 for more).

PROJECT ANALYSES STATISTICAL ANALYSES

This project will use quantitative data analyses as outlined below.

DATA ANALYSES PLAN

The data analyses plan used in Kisavi-Atatah et al. (2020) was also used in this study (see pp. 76-78 for more). First tests of treatment differences in demographic characteristics were performed using χ^2 tests for definite variables and *t* tests for incessant variables. After collection of the data from both groups, a simple linear regression analysis was used to establish if the multidisciplinary pediatric obesity educational program will impact the dietary habits over a period 4 weeks (See Atatah et al., 2020, pp. 90-94; Kisavi-Atatah et al., 2020& Kisavi-Atatah et al., 2020; Atatah et al., 2021 for more).

Analyses will be performed using the available data. All statistical analysis was performed using IBM Statistical Package for Social Sciences (SPSS) Version 25. In addition, follow-up visits were used as likely predictors. Every predictor was analyzed using the linear regression model where predictors with significant correlation with impact on the dietary habits were included in linear regression model. Quantitative survey data was analyzed using SPSS version 25, SPSS Inc, Chicago, IL, USA for cross-tabulation analysis to assess respondents' ability to make changes with goals of healthier eating (see Atatah et al., 2020, pp. 95-96; Collins, Warren, Neve & Stokes, 2016; Kisavi-Atatah et al., 2020& Kisavi-Atatah et al., 2020; Atatah et al., 2021 for more).

PROJECT FINDINGS/RESULTS OF THE STUDY

Pending the conclusion and the findings/results of the project

Classification of Collected Raw Data from the Survey Instrument

Races of Participants

Whites 2
Blacks /African Americans 4
Hispanic/Black Hispanic Americans 12
Asians 1
Pacific Americans 1
N=20

Genders of Participants

Female=18
Male=2
N=20

Demographics

To protect the interests and the privacies of the participants, personal demographic information such ages, names, date of birth (DOB), drivers' licenses (DL), addresses, and residential zip codes were not needed or obtained in this project (See Atatah et al., 2020, pp. 95-96; Kisavi-Atatah et al., 2020& Kisavi-Atatah et al., 2020 for more).

Pretests/Posttests Results/Findings of the Study

The following questions are about eating and physical activity. Please mark the box that corresponds to the frequency in which each situation takes place.

Scorecard 1: Reasons for children eating excessively when at home pretests this scorecard was answered two times by all participants to the same question.

	Always	never	occasionally	frequently	usually
Do you let your child decide how much TV he/she wants to watch?	**12**	**4**	**8**	**10**	**6**	**40**

Scorecard 1: The reasons for eating excessively based on the two pinpointed items (see scorecard above and more).

Scorecard 2: Implementation of health care interventions

For each activity that you, your spouse, or your child do 15 minutes or more, write down the number of times each of you perform the activity during an average week.

	YOU	YOUR SPOUSE	OTHER	CHILD
Walking	**10**	**5**	**3**	**2**
Running/Jogging	**7**	**6**	**5**	**2**
Playing tag	**9**	**4**	**3**	**4**
Dancing/Aerobic dance	**8**	**6**	**5**	**1**
Hiking/climbing	**0**	**0**	**0**	**0**
Baseball/softball/Football	**7**	**4**	**4**	**5**
Basketball/Volleyball	**0**	**0**	**0**	**0**
Jumping rope	**8**	**6**	**4**	**2**
Soccer	**5**	**7**	**5**	**3**
Skateboarding/skating	**5**	**7**	**4**	**4**

Swimming laps	**5**	**8**	**2**	**5**
Bicycling	**7**	**7**	**3**	**3**
Tennis/badminton	**2**	**8**	**6**	**4**
Other				

Scorecard 2: Showed that the participants were followed monthly by collecting the weights as well as their BMI as to see if there were any improvements health improvements after implementing the above interventions (see scorecard 2 above and more).

Scorecard 3: Reasons for children eating excessively when at home posttest

	Always	**never**	**occasionally**	**frequently**	**usually**	
"Do you let your child decide how much TV he/she wants to watch?"	**4**	**2**	**18**	**8**	**8**	**40**

Scorecard 3: The reasons for eating excessively based on the two pinpointed items (see scorecard3 above and more).

QUASI-EXPERIMENTAL STUDY PROJECT'S FINDINGS/RESULTS

Results and Findings of the Study

Table 1: Pre-Tests and Post-Tests Results

Statistics

		Pre-Tests: Do you let your child decide how much TV he/she wants to watch?	**Post-Tests: Do you let your child decide how much TV he/she wants to watch?**
N	Valid	40	40
	Missing	0	0
Mean		1.2250	1.6250
Std. Error of Mean		.06687	.07752
Median		1.0000	2.0000
Mode		1.00	2.00
Std. Deviation		.42290	.49029

Variance	.179	.240
Skewness	1.369	-.537
Std. Error of Skewness	.374	.374
Kurtosis	-.135	-1.805
Std. Error of Kurtosis	.733	.733
Range	1.00	1.00
Minimum	1.00	1.00
Maximum	2.00	2.00
Sum	49.00	65.00

Table 1 showed both the pre-tests and post-tests results and the means were 1.23 versus 1.63; the variances were .18 versus .24 while the standard deviations were .42 versus .49 with no missing numbers (see table 1 above for more).

Table 2: Pre-Tests: Do you let your child decide how much TV he/she wants to watch?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	31	77.5	77.5	77.5
	No	9	22.5	22.5	100.0
	Total	40	100.0	100.0	

Table 2 showed 100% cumulative percentage with no missing number (see table 2 above for more).

Table 3: Post-Tests: Do you let your child decide how much TV he/she wants to watch?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	37.5	37.5	37.5
	No	25	62.5	62.5	100.0
	Total	40	100.0	100.0	

Table 3 showed 100% cumulative percentage with no missing number (see table 2 above for more).

Figure 1: Pre-Tests Frequencies' Distributions

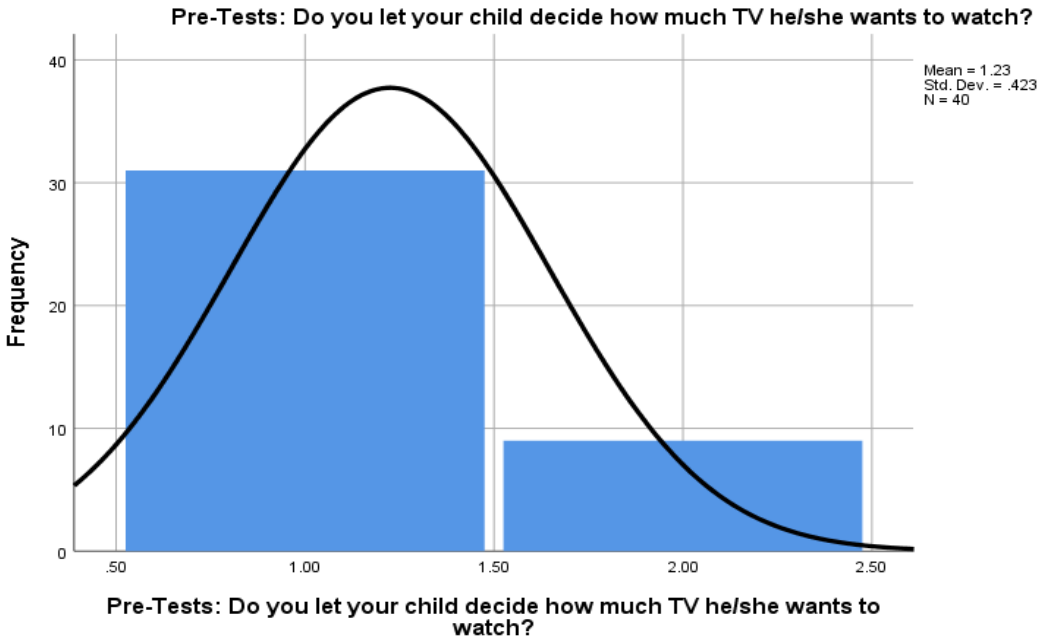

Figure 1 showed Pre-Tests frequencies' distributions with a mean of 1.23 and std. dev of .42 (see figure 1 above for more).

Figure 2: Post-Tests Frequencies Distributions

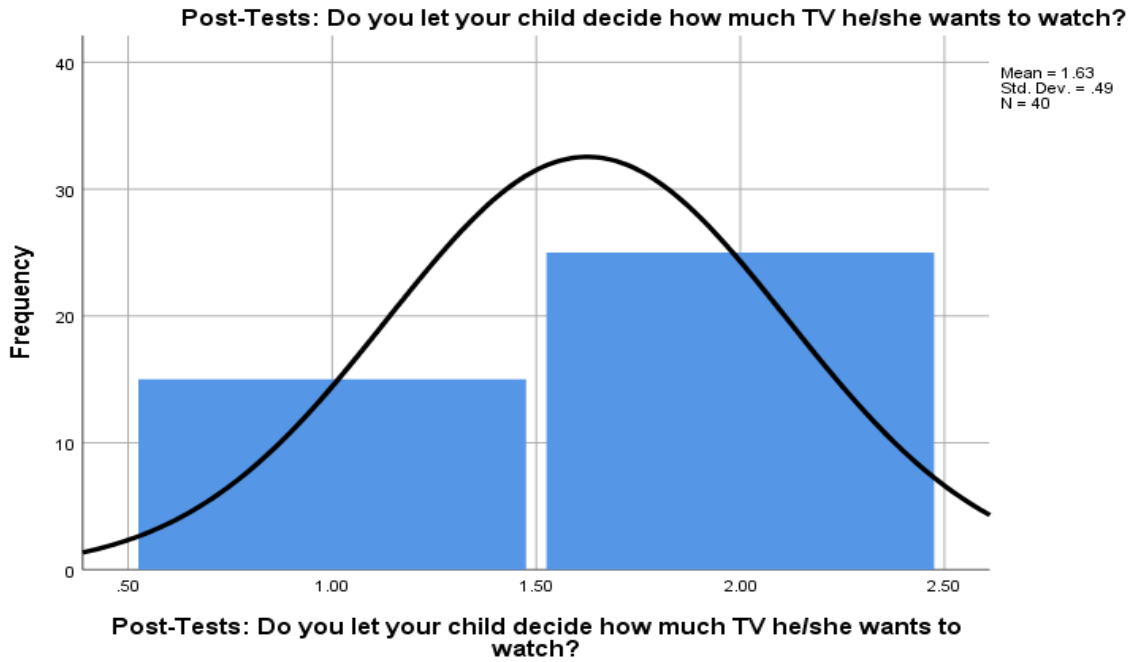

Figure 2 showed Post-Tests frequencies' distributions with a mean of 1.63 and std. dev of .49 (see figure 2 above for more).

Figure 3: Pre-Tests Frequencies Distributions Color-Coded

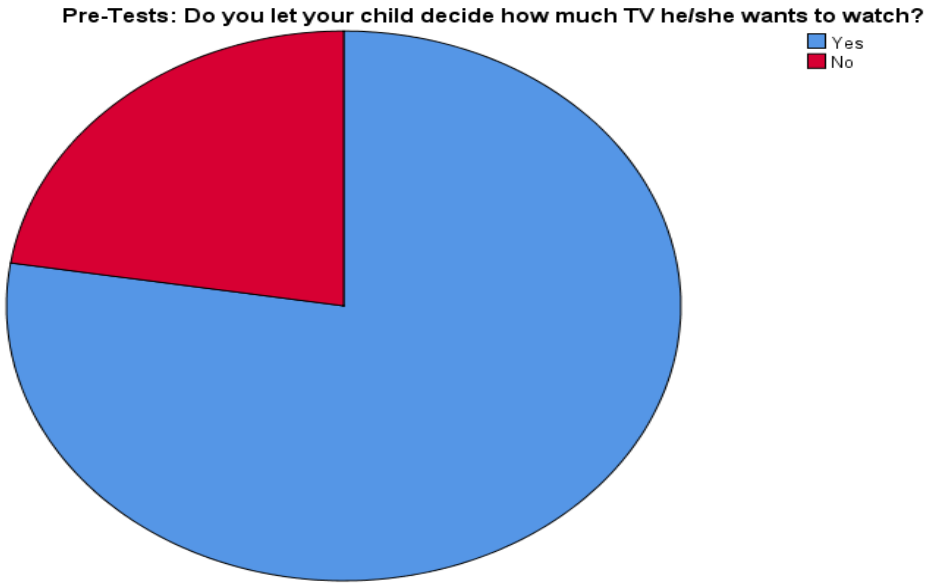

Figure 3 showed Pre-Tests Frequencies Distributions Color-Coded in yes or no with no missing numbers (see figure 3 above for more).

Figure 4: Post-Tests Frequencies Distributions Color-Coded

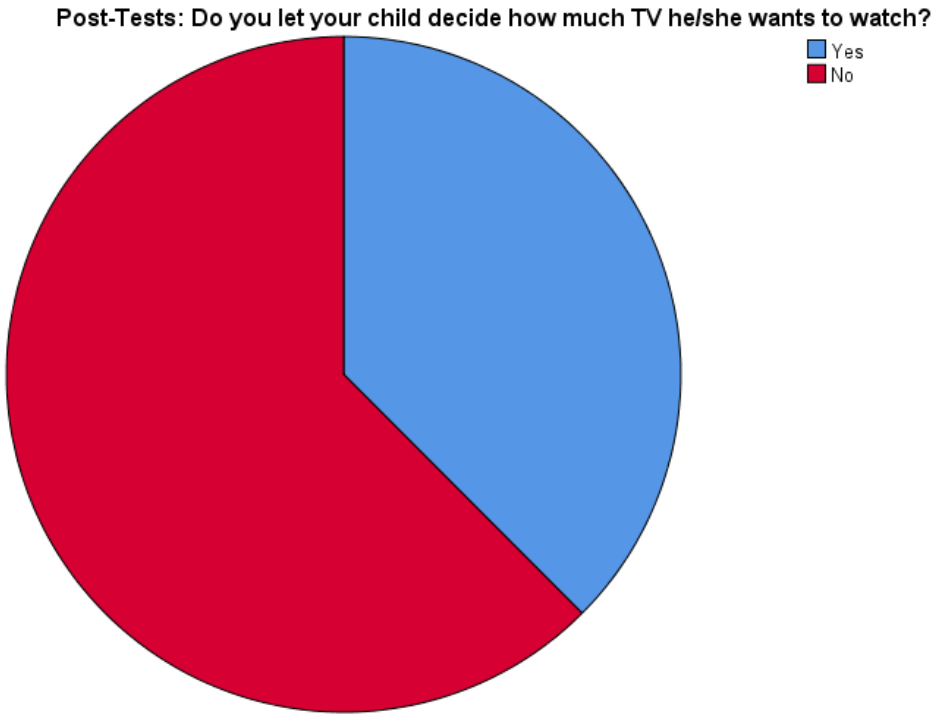

Figure 4 showed Post-Tests Frequencies Distributions Color-Coded in yes or no with no missing numbers (see figure 4 above for more).

Figure 5: Pre-Tests Percentage of Responses

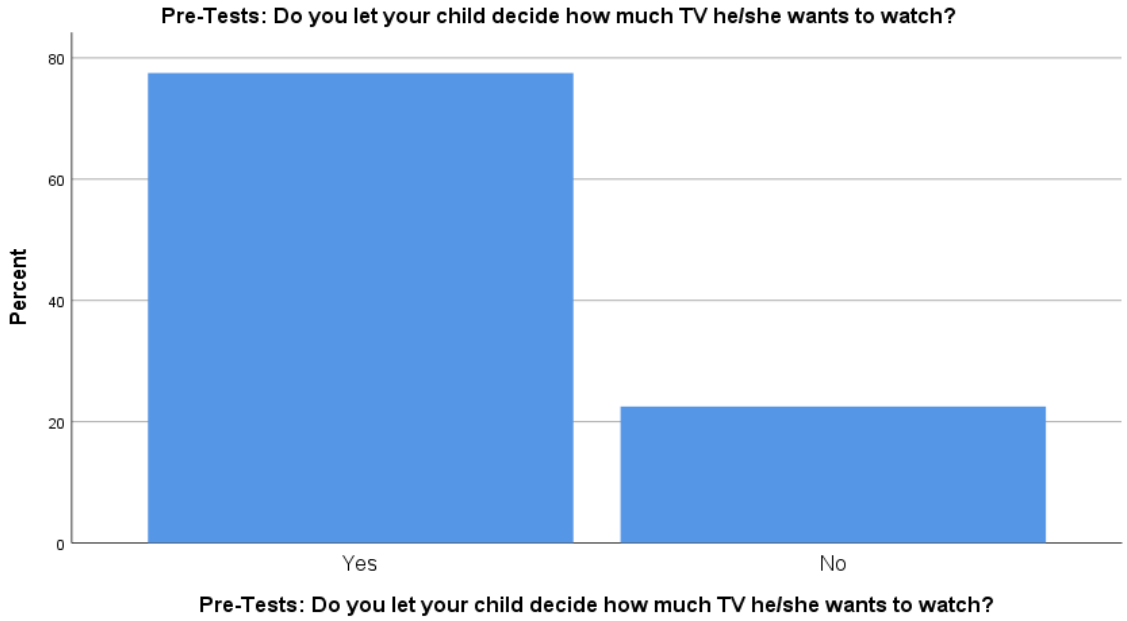

Figure 5 showed the Pre-Tests Percentage of Responses 78% of participants responded Yes; while about 22% responded No (see figure 5 above for more).

Figure 6: Post-Tests Percentage of Responses

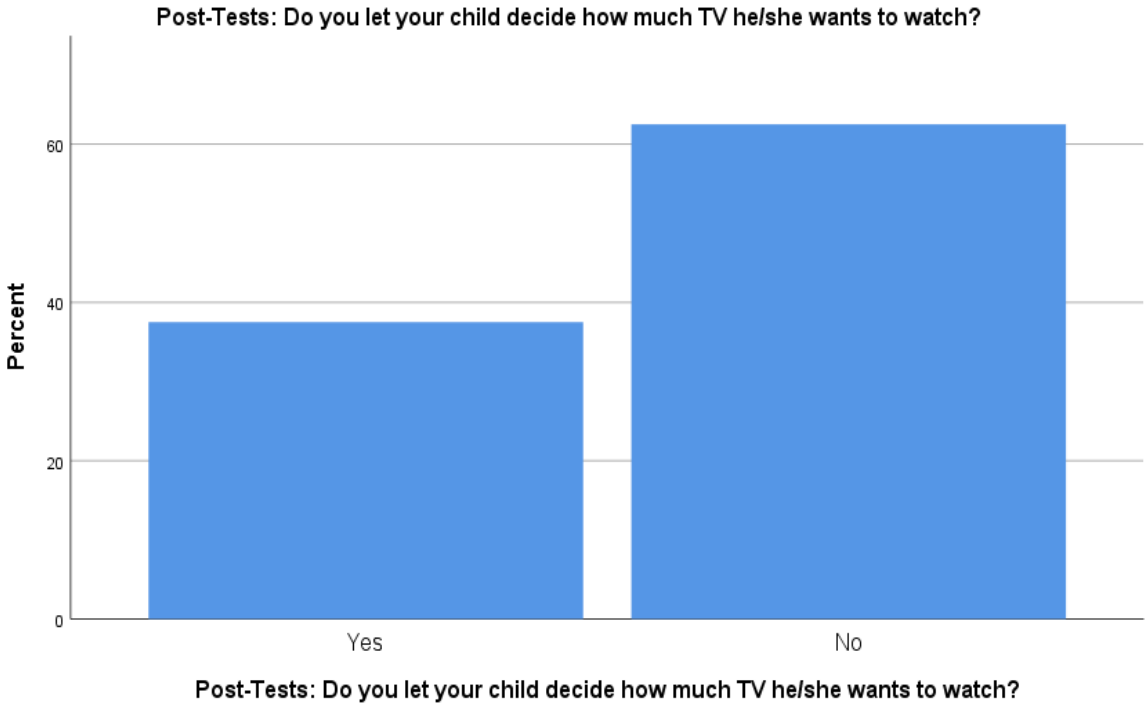

Figure 6 showed the Pre-Tests Percentage of Responses 38% of participants responded Yes; while about 62% responded No (see figure 6 above for more).

Table 4: One-Sample Statistics

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Pre-Tests: Do you let your child decide how much TV he/she wants to watch?	40	1.2250	.42290	.06687
Post-Tests: Do you let your child decide how much TV he/she wants to watch?	40	1.6250	.49029	.07752

Table 4 showed a One-Sample Statistics of the same means, Std. Dev, while the Std. Error Mean were .067 versus .078 (see Table 4 above for more).

Table 5: One-Sample Test

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference Lower	Upper
Pre-Tests: Do you let your child decide how much TV he/she wants to watch?	18.320	39	.000	1.22500	1.0897	1.3603
Post-Tests: Do you let your child decide how much TV he/she wants to watch?	20.962	39	.000	1.62500	1.4682	1.7818

Table 5 showed a One-Sample Tests for both the Pre-Tests and the Post-Tests' at 95% Confidence Interval of the Differences; Pre-Tests and Post-Tests had .000 and .000 across the board. This indicated 100% statistical significance differences between the groups (see table 5 above for more).

INTERPRETATIONS OF FINDINGS/RESULTS FROM 15 MINUTES OR MORE PHYSICAL ACTIVITIES SCORECARDS

As stipulated by Kisavi-Atatah et al. (2020), Kisavi-Atatah et al. (2020), and Atatah et al. (2020), Atatah et al., (2021) in previous research studies one, two, and three the participants completed 15 minutes or physical activities scorecards as followed;

After completing the project's intervention, the participants submitted their scorecards in their individual, family, and other's collective 15 minutes or more physical activities that they participated in the past 4 weeks in six months as indicated in Appendices 1 below. The data statistics from the scorecards based on the pre-tests showed that 1 out of 20 or 5% claimed that **meals were always served at your house include both vegetables and fruits**, 1 out of 20 or 5% said **meals were never served at your house include both vegetables and fruits, 8** out of 20 or 40 claimed that **meals were occasional served at your house include both vegetables and fruits**, 6 out of 20 or 30% claimed that **meals were frequently served at your house include both vegetables and fruits, and 4 out of 20 or 20% claimed that meals were usually served at your house include both vegetables and fruits (see tables 1 to 4 & figure 1 above for more).**

Furthermore, 1 out of 20 or 5% claimed that their parents never serve their **meals at your house include both vegetables and fruits**, 9 out of 20 or 45% claimed that their parents served their **meals at your house include both vegetables and fruits occasionally**. Attentionally, 4 out of 20 or 20% cross the board claimed that their parents **served at your house include both vegetables and fruits frequently or usually; and 2 out of 20 or 10% claimed always (see tables 5 to 8 & figure 2 above for more).** These improvements remain consistent in swimming laps at 25% with their children and so in bicycling (see Appendices 2 below). The above data statistics indicate that there was a significant improvement in parents and children's eating habits and the supports of their parent's types of food consumptions applications are fundamental to the children's abilities to control their obesities, blood sugar level BMI, or A1C levels by serving better and more healthy types of food at home (see pretests tables 1 to 4, figure 1 & posttests tables 5 to 8 & figure 2 for more). For example, serving meals **at your house include both vegetables and fruits are always healthier than buying food from fast food restaurants on a regular basis.** However, **it should be noted that the ending BMI was not measured due to the short-term of the intervention process.** In fact, the visible changes of BMI take time to materialize; and 4 weeks for six months was not enough. Conclusively, it should also be noted that these overrides and concerns were strongly suggested in the suggestion and recommendations' section of this project as to get a more comprehensive applicable outcomes about BMI implications due to relationships between inactivity and food intakes among children's weight issues. In fact, it should be noted that there were significant relationships at .000 and .000 or 100% between the dependent and independent variables in this study. (See Atatah et al., 2020, pp 102-106; Kisavi-Atatah et al., 2020 & 2020, pp. 89-90 & pp. 14-15 for more)

These improvements remain consistent in swimming laps at 85% to 90% of the participants claimed that their parents **served at your house include both vegetables and fruits frequently, occasionally, or usually;** (see Appendices 1 & 2 above; 1 below for more). The above data statistics indicate that there was a significant improvement in parents and children's physical activities along with their eating habits.

However, **it should be noted that the ending BMI was not measured due to the short-term of the intervention process.** In fact, the visible changes of BMI take time to materialize; and 4 weeks for six months was not enough. Conclusively, it should also be noted that these overrides and concerns were strongly suggested in the suggestion and recommendations' section of this project as to get a more comprehensive applicable outcomes about BMI implications due to relationships between inactivity and food intakes among children's weight issues. In fact, it should be noted that there were significant relationships at .000 and .000 or 100% between the dependent and independent variables in this study. (See Atatah et al. 2021; Atatah et al., 2020, pp 102-106; Kisavi-Atatah et al., 2020 & 2020, pp. 89-90; pp. 14-15, tables 1 to 8 & figures 1 & 2 above for more)

ANSWERS TO PICOT PROJECT STUDY'S RESEARCH QUESTIONS

As stipulated by Atatah et al. (2020), Kisavi-Atatah et al. (2020) and Kisavi-Atatah et al. (2020)as to provide PICOT Project Study's Research Questions Answers as followed:

The picot question has been presented as: "Among parents of obese or overweight children or adolescent from 6 to 18-year-old in a primary care pediatric setting (P), how does the implementation of a multidisciplinary pediatric obesity educational program (I) versus no pediatric obesity educational program (C) impact the dietary habits (O) over a period 4 weeks in six months (T)?"

As to answer the PICOT project study's question as pinpointed above and below.

P - Population/ Patient = how does the implementation of a multidisciplinary pediatric obesity educational program
I - Intervention/ Indicator = versus no pediatric obesity educational program
C - Comparator/control = no pediatric obesity educational program

- O - Outcome = impact the dietary habits
- T – Time = over a period of 4 weeks in six months.

The conclusion and discussion and the interpretations of the project study's findings/results shed some fundamental lights and provided the investigative answers about the project's study investigations (please, see interpretations of findings/results of pretests and posttests, scorecards' findings/results, and conclusion and discussion (see Atatah et al., 2020, pp. 102-106; Kisavi-Atatah et al., 2020 pp. 89-90 & Kisavi-Atatah et al., 2020, p. 15 for more)

The study found the effectiveness, efficiencies, and the proficiencies of the applied intervention from a statistical standpoint. For example, pretests results should that PICOT was effective across the board. For example, this study found that parents who allow their children **"decide how much TV he/she wants to watch" posed higher marginal propensities that lead to overweight as well as the negative implications associated with being overweight such as BMI, High Blood Pressure, Blood Sugar Levels such as Diabetics, among others just to mention a few.**

The study found the effectiveness, efficiencies, and the proficiencies of the applied intervention from a statistical standpoint. For example, pretests results should that 31 out of 40 or 77.5% of the participants in the doubled faced allowed their children to decide how much TV he/she wants to watch. While 9 out of 40 or 22.5% disagreed with the idea that children should decide how much TV he/she wants to watch in the houses.

Conversely, the posts tests results found that that 15 out of 40 or 37.5% of the participants in the doubled faced allowed their children to decide how much TV he/she wants to watch. While 25 out of 40 or 62.5% disagreed with the idea that children should decide how much TV he/she wants to watch in the houses. This showed a profound statistical significance difference between pre-tests and posttests effectiveness with the PICOT application oof interventions and education of participants in this study (see tables 1 to 5, scorecard 1, & figures 1 to 6 above for more).

IMPLICATIONS OF THE STUDY

The implications of the study remained the same as stipulated by Kisavi-Atatah et al. (2020) and Kisavi-Atatah et al. (2020) that;

This project showed several significance and implications to participants, researcher/s, healthcare practitioners and others in several ways.

- First, the findings/results of this project should assist multidiscipline health care practitioners about the proper and possibly the most effective ways to manage children's weight and BMI generally.
- Secondly, this project's findings/results should shed some lights to the parents about the importance of their (parents') involvements in their children's overall healthcare activities outcomes.
- Third, the parents should know that their involvements should be holistic and not sometimes or occasionally.
- Fourth, the parents should be able to identify the important items in the activities' intervention survey instrument/s that could lead to better, progressive, continuous, and possibly the most positive outcomes.
- Significantly, the parents should know that their involvements do not start and end at home alone; but, in schools, food intakes, physical activities, mental activities, psychological activities, other related activities, and overwhelming parental involvements in their children's healthcare wellbeing.
- Finally, these findings/results of this project should assist health care practitioners about how to effectively, efficiently, and even proficiently positively manage issues associated with children's weight and BMI in general.

This project's findings/results summed that if the above pinpointed significance/implications are carefully implemented, the issues associated with children's weight and BMI implications and complications should be systematically or even symmetrically eliminated with time. (See Atatah et al., pp 102-106; Kisavi-Atatah et al., pp. 90-92, & Kisavi-Atatah et al., 2020, p. 16 for more)

LIMITATION OF THE PROJECT'S STUDY

This project showed several limitations which are pinpointed below.

- First, this project was conducted and concluded as a quasi-experimental quantitative research study which lacks randomization of participants' selections and activities.
- Quasi-experimental quantitative research studies operate on limited randomization which leads to the inability for findings/results generalization.
- This project was conducted as a singular case study based on the location of the project, as well as the originalities of the collections of the participants data statistics of the study.
- Case study poses yet another limitation due to its inability to be generalized outside the case study's location.
- This study was conducted by primary researcher who worked in the location, knew the multidiscipline team/s, and may know the participants personally, interpersonally, and professionally. These relationships may pose biases on the part of the research team/s in general.
- Furthermore, the scorecards results were self-reported which posed some issues of research validities and reliabilities for the results and findings.
- Finally, the scope of this study is limited due to the size of the participants, which yet poses another limitation for overwhelming generalization outside the scope. (See Atatah et al., pp. 102-106; Kisavi-Atatah et al., 2020 & Atatah et al., 2020, pp. 16-17 for more)

SIGNIFICANCE OR IMPLICATIONS

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CONCLUSION AND DISCUSSION

As concluded by Atatah et al. (2020), Kisavi-Atatah et al. (2020), and Kisavi-Atatah et al. (2020), as to understand the conclusion and discussion of this project, it is fair to note the primary purpose of the study.The project was to investigate if the adaptation of multidisciplinary approach would improve obesity and overweight management outcomes when compared to care provided solely by a primary care provider. This approach was based on a need to present a more efficient management approach that would guarantee the best outcomes. This need was galvanized by the fact that obesity and overweight conditions as a source of concern within the healthcare industry affecting emotional, social, and physical health wellbeing. This project found that involvements of multidisciplinary was more effective in the improvements of obesity and overweight management outcomes when compared to care provided solely by a primary care provider.

The study noted and summed that the involvements of the parents of their children's activities and food intakes showed a more significant outcomes in the management of weight and BMI levels. The study also concludes that there were overwhelming significant statistical differences in all areas especially in the visual pinpointed tables and figures in the importance and the effects of intervention in children's weight and BMI controllable management. As such, the study concludes that involving parents in their children's activities such as physical activities, discussions about the importance of food intakes at home, stress issues, isolations at home and schools, and other places, are fundamentally significant across the board. The data statistics children's/parents' physical activities indicate that there was a significant improvement in parents and children's physical activities in the past 4 weeks. However, it should be noted that the ending BMI was not measured due to the short-term of the intervention implementation as sown in Appendix 1.

In general children in the US are accustomed to what types of food they eat and considered nutritious; but that is not the overall cases. For example, overwhelming studies have shown that majority of the restaurants in the US know how to use nutritional expects as well as psychologists to systematically social engineer the children in the US about what is nutritional and what is not. In fact, the most dying setback in this approach is children can easily tell what is sweet or bitter before birth or even at birth. This means if you drop "bitter leaf" which is common in West Africans' vegetable food, you can tell the way the newborn baby squeezes his or her face. This tells you as a parent that the child can identify that the liquid is better. However, on a contrary hand, if you drop some sugar into the child's mouth, you can easily see how excited the child is and crave for more drops. Above all, children as young as one or two days old knows how to systematically separate the vegetables known as "bitter leaf" from the others, only to eat the others instead of eating the vegetables in a plate. Generally, children see all types of vegetables as nasty food; as such, they may systematically stay away from eating any types of food that comes with vegetables. This is a good example of a "systematic social conditioning" from parents to children which can be detrimental with time to come.

Above all, parents were advised that by demonstrating the effective, efficient, and proficient ways to achieve these pinpointed outcomes, due to parental holistic involvements in their children's activities is holistically more fundamental in achieving some positive social changes in managing children's weight and BMI physically, socially, mentally, physiologically, and psychologically wellbeing in the final analyses. In conclusion, from a public health care policy standpoint, and even from a public policy standpoint, this project should unequivocally assist health care multidiscipline, the most accurate, effective, efficient, and proficient ways in addressing managing weight and IBM issues among children in general. Since the recent pandemic we currently faced in the US, evidence upon evidence have shown the underlying health conditions such as overweight, BMI, high blood sugar level A1C, in activities are corresponding critical factors in killing minorities whenever they are infested with **CORONAVIRUS also known as COVID-19.** This study shed some lights about how to control these underlying poor health conditions effectively, efficiently, and proficiently as to make majority of minorities who participated in this study healthier than ever; in the future to come.

This study sums that knowing exactly how the underlying health conditions among minorities such as A1C, obesity, overweight, high blood pressure, BMI, among many others' relationship with COVID-19 cannot be determined. However, it should be noted that issues such as disinformation, misinformation, lack of affordable healthcare accessibilities, lack of leaderships, coupled with the systemic historic generational lack of effectively, efficiently, or even proficiently management of underlying health conditions among minorities in general are common dominators complex factors that make already mind bugging factors even more complicated; when dealing with COVID-19's effects among minorities Southwest Houston, Texas in general. It fair to note that these complicated issues are somehow common in the US in general, when dealing with minorities healthcare efficacies, especially when dealing with COVID-19's effects on minorities. Hopefully, this study will possibly make some pinpointed participants new acquired eating and exercises' habits engagements as a part of their new **Healthy 2020 lifestyle.** (See Atatah et al. 2021; Atatah et al., 2020; pp. 105-106; Kisavi-Atatah et al., 2020, & 2020, pp. 17-18 for more)

RECOMMENDATIONS (MAINTAINING/SUSTAINING THE CHANGE)

This project recommends the followings as to be able to maintain and sustain the noted changes based on its findings/results.

- An experimental research study needs to be conducted instead of quasi-experimental research study which poses limitations due its inability to apply its findings/results in other settings.
- Multiple case studies need to be conducted instead of singular case study based on its limited data originalities.
- Collective collaborations between physicians and multidiscipline healthcare practitioners need to be united on how to proactively address some of the resolvable issues associated with children's weight and BMI management applications.
- The study recommends that a longer time study should be conducted as to identify how long and how sustainable the parents and the children are committed the process.

- This study recommends that future studies should limit their items of analysis to not more than 3 to 5 items per a project as to reduce data outputs' overruns. And finally,
- The researcher and possibly other researchers should make some of the data available to other health care practitioners for findings/results implementations.

In summary, the project concludes that the above itemized recommendations should be able to maintain and possibly sustain some positive social changes for some long time to come; for all majorities of minorities' children in Southwest Houston, Texas and possibly beyond (see Atatah et al., 2021; Atatah et al., 2020, p. 106; Kisavi-Atatah et al., 2020 & Kisavi-Atatah et al., 2020, pp. 92-94 & pp. 17-18 for more)

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This study wants to thank the **PVAMU Division of Research & Innovation (R&I)**, the **College of Education, the Department of Health & Kinesiology** for their assistances with this study process; we could not have done it, without your overwhelming involvement with the research process.

This study thanks **Adesuwa Oiyemhonlan** research student who contributed and participated to the success of this study.

Once again, as previously stipulated in Atatah et al. (2020), Kisavi-Atatah et al. (2020), and Kisavi-Atatah et al. (2020), Atatah et al. (2021) we want to use this opportunity to thank all the scholars for their contributions in completing this complex and complicated social scientific research study which underscored underlying health conditions in the US which are detrimental to minorities in general when dealing with CORONAVIRUS or COVID-19. We want to specifically thank the "**Confidential Clinic**" in Southwest Houston, Texas for allowing us to use their facility in completing this critical children/parents' related project's research study (See Atatah et al., 2021; Atatah et al., 2020 p. 106; Kisavi-Atatah et al., 2020 & kisavi-Atatah et al., 2020, p. 18; Atatah et al., 2021 for more)

CONFLICT OF INTERESTS

We share no conflict of interests in this study

REFERENCES

[1] American Heart Association. (2017). *Overweight in children*. Retrieved from http://www.heart.org/HEARTORG/HealthyLiving/HealthyKids/ChildhoodObesity/OverweinChildren_UCM_304054_Article.jsp

[2] Atatah et al. (2020). "Underlying Health Conditions Four" Analyses of Underlying Health Conditions Among Minorities' Children in Southwest Houston, Texas and The Roles Parents Play to Complicate the Inabilities to Control Them. Available at https://www.nairjc.com/assets/img/issue/pk31sc_vtV7bm_2HlMuR_PLMn1b_466179.pdf

[3] Atatah et al. (2020). "Underlying Health Conditions Three" Analyses of Underlying Health Conditions Among Minorities' Children in Southwest Houston, Texas and The Roles Parents Play to Complicate the Inabilities to Control Them. Availablhttp://www.ijahss.com/vol5-issue9.html

[4] Atatah et al. (2021). "Coronavirus COVID-19 Pandemic One" Globalization 4 Analyses of the Races Relationship Implications and Review of Vaccines" Confidences Levels Implications Among Blacks/African Americans in the US. Available at https://www.nairjc.com/assets/img/issue/IBYMFS_3uBcb8_wsEh22_XMKYV9_225095.pdf

[5] Birch, L., Fisher, J., Grimm-Thomas, K., Markey, C., Sawyer, R. and Johnson, S. (2018). *Confirmatory factor analysis of the Child Feeding Questionnaire: a measure of parental attitudes, beliefs and practices about child feeding and obesity proneness*.

[6] Bonnie J, Ronsen R, Roth S, Luke C, Nida S, Coombs L et al. (2016). The Fit Family Challenge: A Primary Care Childhood Obesity Pilot Intervention. *Journal of the American Board of Family Medicine*. 29(4), 434-443.

[7] Bocca, G., Corpeleijin, E., Stolk, R. & Sauer, P. (2012). Results of a multidisciplinary treatment program in 3 year-old to 5-year-old overweight or obese children: a randomized controlled clinical trial. *Arch Pediatr Adolesc Med*., 166(12), 1109-1115. doi:10.1001/archpediatrics.2012.1638

[8] Berge, J. M., Jin, S., Hanson-Bradley, C., Doty, J., Jagaraj, K., Braaten, K. & Doherty, W. J. (2016). Play it Forward! A Community-Based Participatory Research Approach to Childhood Obesity Prevention. *Fam Syst Health*, 34(1), 15-30. doi: 10.1037/fsh0000116

[9] Carayol. J., Chabert, C., Di Cara, A., Armensie, C., Vlasesia, A. & Haper. J. (2017). Protein quantitative trait locus study in obesity during weight-loss identifies a leptin regulator. *Nature Communications 8*, 2084 (2017). Retrieved from https://www.nature.com/articles/s41467-017-02182-z#Abs1

[10] Cochrane, A., Dick, B., King, N., Hills, A. & Kavanagh, D. (2017). Developing dimensions for a multi component multidisciplinary approach to obesity management. *BMC Public Health*, 17, 814. Retrieved from https://doi.org/10.1186/s12889-017-4834-2

[11] Collins, C. E., Warren, J., Neve. M., & Stokes, B. J. (2016). Measuring Effectiveness of Dietetic Interventions in Child Obesity. *Article Review*. Available at file:///C:/Users/owner/AppData/Local/Temp/pra60002_906_922.pdf

[12] Damaso, A., de Piano, A., Campos, R., Corgosinho, F., Siegfried, W. … & Tock, L. (2013). Multidisciplinary approach to the treatment of obese adolescents: effects on cardiovascular risk factors, inflammatory profile, and neuroendocrine regulation of energy balance. *International Journal of Endocrinology*, Volume 2013, Article ID 541032. doi: 10.1155/2013/541032. Retrieved from https://www.hindawi.com/journals/ije/2013/541032/

[13] Fidelix, Y., de Farias, J., Lofrano-Prado, M., Guerra, R., Cardel, M. & do Prado, W. (2015). Multidisciplinary intervention in obese adolescents. *Einstein (Sao Paulo)*, 13(3). doi: 10.1590/S1679-45082015AO3339. Retrieved from http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1679-45082015000300388

[14] Fonvig, C., Chabanova, E., Ohrt, J., Nielsen, L., Pedersen, O. … & Holm, J. (2015). Multidisciplinary care of obese children and adolescents for one year reduces ectopic fat content in liver and skeletal muscle. *BMC Pediatrics*, 15, 196. doi: 10.1186/s12887-015-0513-6

[15] Foster, C., Moore, J., Singletary, C. & Skelton, J. (2017). Clinicalobesity: physical activity and family-based obesity treatment. *Wiley Online Library*, 8(1), 68-79. Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/cob.12230/full#publication-history

[16] Grigorakis, D., Georgoulis, M., Psarra, G., Tambalis, K., Panagiotakos, D., & Sidossis, L. (2016). Prevalence and lifestyle determinants of central obesity in children. *European Journal of Nutrition*, *55*(5), 1923-1931. doi:10.1007/s00394-015-1008-9

[17] Hong, I., Coker-Bolt, P., Anderson, K. R., Lee, D., & Velozo, C. A. (2016). Relationship Between Physical Activity and Overweight and Obesity in Children: Findings From the 2012

[18] Karnik, S., & Kanekar, A. (2014). Childhood obesity: a global public health crisis. *International Journal of Preventive Medicine*, *3*(1), 1.

[19] Kisavi-Atatah et al. (2020). "Underlying Health Conditions One" Analyses of Underlying Health Conditions Among Minorities' Children in Southwest Houston, Texas and The Roles Parents Play to Complicate the Inabilities to Control Them. Available at http://www.nairjc.com/setup/social-science-humanities/ssh826.pdf

[20] Kisavi-Atatah et al. (2020). "Underlying Health Conditions Two" Analyses of Underlying Health Conditions Among Minorities' Children in Southwest Houston, Texas and The Roles Parents Play to Complicate the Inabilities to Control Them. Available at http://www.ijahss.com/vol5-issue9.html

[21] Mameli, C., Krakauer, J., Krakauer, N., Bosetti, A., Ferrari, C. … & Zuccotti, G. (2017). Efects of a multidisciplinary weight loss intervention on overweight and obese children and adolescents: 11 years of experience. *PLoS One*, 12(7), e0181095. doi: 10.1371/journal.pone.0181095

[22] Mendes, A., Ieker, A., De Castro, T., Avelar, A. & Nardor, N. (2016). Multidisciplinary programs for obesity treatment in Brazil: A systematic review. *Revista de Nutricao*, 29(6). doi: 10.1590/1678-98652016000600011. Retrieved from http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1415-52732016000600867

[23] Martin, A., Booth, J., Laird, Y., Sproule, J., Reilly, J. & Saunders, D. (2018). Physical activity, diet, and other behavioural interventions for improving cognition and school achievement in children and adolescents with obesity or overweight. 1-185. *Cochrane Databaseof Systematic Reviews*. Retrieved from

[24] Ogden, C., Carroll, M., Kit, B. & Flegal, K. (2014). Prevalence of childhood and adult obesity in the United States. *Jama Network Journals*, 311(8), 806-814. Retrieved from https://jamanetwork.com/journals/jama/fullarticle/1832542

[25] Pulgarón, E. R. (2014). Childhood obesity: A review of increased risk for physical andpsychological co-morbidities. *Clinical Therapeutics*, *35*(1), A18-A32.

[26] Roya K & Soleiman F. (2014). Controlling childhood obesity: A systematic review on strategies and challenges. *J Res Med Sci*. 19(10): 993–1008.

[26] Reichert-Anderson P, Yang P, Yang C, Jacobson M & Bernstein H. (2015). A Multidisciplinary Approach to Childhood Obesity Prevention in Pediatric Primary Care. *Journal of the Academy of Nutritionists and Dieticians*. 115(9). http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD009728.pub3/full
[27] Swift, D., Johannsen, N., Lavie, C., Earnest, C. & Church, T. (2014). The role of exercise and physical activity in weight loss and maintenance. *ELSEVIER Publication*, 56(4), 441-447. Retrieved from: http://www.onlinepcd.com/article/S0033-0620(13)00165-5/fulltext
[28] Torti, J., Liug, T., Borowitz, M., Johnson, J. A., Sharma, A. & Cambell-Shere, D. (2017). The 5As team patient study: patient perspectives on the role of primary care in obesity management. *BMC Family Practice*, 18(19). Retrieved from https://link.springer.com/article/10.1186/s12875-017-0596-2
[29] Zolotarjova, J., ten Velde, G. & Vreugdenhil, A. (2018). Effects of multidisciplinary interventions on weight loss and health outcomes in children and adolescents with morbid obesity. *Obesity Reviews*, 19(7), 931-946. doi: 10.1111/obr.12

APPENDICES

Appendix 1. 15 Minutes or More Physical Activities with/between Parents/Children

For each activity that you, your spouse, or your child do 15 minutes or more, write down the number of times each of you perform the activity during an average week.

	YOU	YOUR SPOUSE	OTHER	CHILD
Walking	**11**	**4**	**0**	**5**
Running/Jogging	**6**	**5**	**3**	**6**
Playing tag	**7**	**2**	**0**	**6**
Dancing/Aerobic dance	**8**	**2**	**4**	**6**
Hiking/climbing	**0**	**0**	**0**	**0**
Baseball/softball/Football	**7**	**2**	**2**	**9**
Basketball/Volleyball	**0**	**0**	**0**	**6**
Jumping rope	**6**	**2**	**4**	**6**
Soccer	**5**	**3**	**5**	**7**
Skateboarding/skating	**2**	**3**	**2**	**4**
Swimming laps	**3**	**3**	**4**	**5**
Bicycling	**7**	**3**	**2**	**5**
Tennis/badminton	**2**	**2**	**7**	**4**
Other				