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EFFECTS CLASS OBESE I, II, III HOUSEWIFES ON THE SYSTEM CARDIO-RESPIRATORY CAPACITY

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Abstract:

The goals of this study are to find ways to determine the risks cardiovascular and respiratory capacity in class obese I, II, III housewife based on them adaptation to effort. Since obesity has reached epidemic as levels in cholesterol fractions, and triglyceride as risk factors of metabolic health track into adulthood which confirmed that the body physical fitness has a significant modifying effect on other risk factors as cardiovascular disease. Our role is to expose the impact of the class obesity on the level fitness to health. In order to achieve this objective, in one hand we have chosen the Ruffier-Dickson index and Maximum Heart Rate which are safe bet in the sports medical baseline budget. On the other hand, our sample was selected by intentional method represented by 30 women; their homogeneity was calculate based on age ≤ 27, BMI≥ 35,77 and Questionnaire Physical Activity Rating (PA-R) from Non-Exercise Data and Non-Exercise Fitness Test. Our entire sample selected that prefer staying at home. In order to classify our sample, we have selected the BMI classification system for adults Programs and Health Survey for England which classed our sample in three categories obesity I, II and III. For the statistical processing, we based on Mean, SD, Correlation Paired Samples, Anova and LSD to determine the effect of overweight on the both cardio-respiratory capacity failure between the three classes in active exercise as our safe test.

Based on the analyses statistics we confirm:

- is a strong positive relationship between the increase BMI and the level of the variables selected in this study;
- Class Body Composition reveals the weaker skeletal muscle function, decreases cardiorespiratory capacity and the low fitness aerobics ability;

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- Class Body Composition predict the weaken cardio respiratory capacity related to the combination of "respiratory rate and airway narrowing" which lead to fatigue of the muscles of ventilation.

Keywords: body composition, cardio respiratory capacity, class obese housewife

1. Introduction

Obesity has important functional implications because it related decline in physical function, which can lead to frailty and complications. In fact, obesity may be the single greatest cause of health deterioration according to (Davison, K. K., Ford, E. S., Cogswell, M. E., Dietz, W. H, 2002) and one of the most important risk factor nowadays that has become the main public health problem in 21st century according to (Dennis T. Villareal, Marian Banks, Catherine Siener, David R. Sinacore, Samuel Klein, 2004 online 2012) and (Meridith R. Blakely, Sarah M. Timmons, 2008).

While the meaning of obesity is as abnormal or excessive accumulations of fat that may impair health, the World Health Organization (WHO), indicate that, any individual with a body mass index (BMI) greater than or equal to 30 kg/m 2 is obese. (Sanjay Agrawal, 2015) Whereas (Alexandra Kazaks, Judith S. Stern, 2012) explain that overweight and obesity ranges are determined by using an individual's weight and height in an equation to calculate BMI. An adult who has a BMI between 25 and 29.9 is considered overweight based on the study (Norman Edward Robinson,Kim A. Sprayberry, 2009) which confirm that this syndrome is characterized by a high fat mass (greater than 30%). We agreed that these women have a higher risk to developing type 2 diabetes mellitus in later life thing confirmed by (Matthew W. Gillman, Lucilla Poston, 2012). From the proofs where the Health professionals confirm that overweight have serious health risks for adults (Christina Paxon, 2010). We referee to the data from the Nurses' Health Study, that obese women have 2.7 times risk of infertility compared to women with normal weight thing confirmed by (Brigham Young University Utah Ray M Merrill, Ray M. Merrill, 2010) and (Payal Gidwani Tiwari, 2015) confirm that housewives must understand their bodies and learn to balance their lifestyle with exercise according to (Nick Cavill, Sonja Kahlmeier, Francesca Racioppi, 2006).

Our background confirm that obesity diseases is related to lifestyle in particularly cardiovascular disorders according to (Hugh Barton, Susan Thompson, Sarah Burgess, Marcus Grant 2015). Our aims in this modest study come to determine the impact of lifestyle on relationship physical activity and diet (Kelli McCormack

Brown, David Q. Thomas, Jerome Edward Koteck 2002) where (Shah, Sanjiv Shah, Donna K. Arnett, 2014) confirm that it has long been recognized that certain lifestyle factors can significantly influence health status since obesity has reached epidemic in the Algerian population according to (Saker M, Merzouk H, Merzouk SA, Ahmed SB, Narce M., 2011). Similar studies confirmed that obese subjects may have a higher cardiac output, oxygen consumption and minute ventilation at a given work rate by heat intolerance, dyspnoea/hyperpnea, movement restrictions, joint pain, muscle weakness or balance problems according to (John Gormley, Juliette Hussey, 2009).

Similar studies on physical activity and health are confirming the benefits of exercise in prevention and treatment of health conditions (Majed A Alabbad, Qassim I Muaidi, 2016). (Adrianne E. Hardman, David J. Stensel 2009) emphasize the women active as steps to maintain good health according to (Claire Etaugh, Judith S. Bridges, 2015). (James C. Grotta, Gregory W. Albers, Joseph P. Broderick, 2015) confirm that a regular aerobic exercise is recognized as an important factor in the prevention and control of obesity (Ronald Ross Watson, 2014).

Our interventions in this search come to expose in one hand the accurately of the field test approved by the tests laboratory (Frank D. Rosato, 1995) (Gregory J. Welk, William R. Corbin, Ruth Lindsey, 2003) (T. Reilly, 2013) and the similar studies (Luke Edwardes-Evans, 2013) , (Zerf Mohammed, Mokkedes Moulay Idris, Biengoua Ali, Bendahmane Med Nasreddin, 2015) which confirm that these procedures are very costly for Algerian families. Our interstate are to use simple equipment of the field tests, which estimate level Health Fitness and Wellness (Frank D. Rosato, 2000) (Ali Narvani, Panos Thomas, Bruce Lynn , 2014) to predict the outcome of the ability of body work regarding an obese housewife.

2. Material and Methods

Our sample was selected by intentional method represented in 30 women their homogeneity was calculate based on age ≤27 and Questionnaire Physical Activity Rating (PA-R) and level of the index average BMI≤35,77.

For the assessments, we used:

A. The Physical Activity Rating (PA-R) Jackson et al. (1990).

(Jackson, A. S., Blair, S. N., Mahar, M. T., Wier, L. T., Rossand, R. M., & Stuteville, J. E., 1990). This questionnaire tool is for categorizing a person's level of physical activity. It is used in the equations for the Non-Exercise Fitness Test. Your PAR score is between 0 and 7.

Select the number that best describes your overall level of physical activity for the previous 6 MONTHS:

- 0 points: the subject avoids walking or exercise (for example, always uses elevators, drives whenever possible instead of walking);
- 2 points: the subject walks and/or exercises 10–60 minutes per week;
- 3 points: the subject walks and/or exercises over 1 hour per week;
- 4 points: runs less than 1 mile per week or spends less than 30 minutes per week in comparable physical activity;
- 5 points: runs 1–5 miles per week or spends 30–60 minutes per week in comparable physical activity;
- 6 points: runs 5–10 miles per week or spends 1–3 hours per week in comparable physical activity;
- 7 points: runs more than 10 miles per week or spends more than 3 hours per week in comparable physical activity.

B. The BMI classification system for adults (Public Health England, 2016)

It represents the most common method of measuring obesity is the Body Mass Index (BMI). BMI is calculated by dividing body weight (kilograms) by height (meters) squared. An adult BMI of between 25 and 29.9 is classified as overweight and a BMI of 30 or over is classified as obese (Table 1).

Table 1: World Health Organization BMI classification system for adults

Classification	Under weight	Heath weight	Overweight	Obesity I	Obesity II	Obesity III
BM range	<18.5	18.5-24.9	25-29.9	30_34.9	35-39.9	=40

To calculate BMI = weight (kg) height (m) or weight (Ib) height (in)1 x 704.5. Body mass index (BMI) Body weight (in kilograms) divided by the square of height (in meters), expressed in units of kg/m.

It is also called Quetelet index**.** (Paul M. Insel, R. Elaine Turner, Don Ross , 2004) whereas Robert K. Creasy & all confirm our classification in Table 10-1 Obesity Class, Body Mass Index (BMI) (Robert K. Creasy, Robert Resnik, Jay D. Iams, 2013) while Sana Loue Body Mass Index is still valued as much as she was prior to the physical loss (Sana Loue, Martha Sajatovic, 2004) (Judith Worell, 2002). Some medical research on men, and later on women as well, found that individuals with a high percentage of body fat (reflected in a high waist-to-hip ratio) were more likely to have high levels of low-density cholesterol associated with heart disease.

C. The Maximum Heart Rate

"Estimation of VO2max from the ratio between HRmax and HRrest-the Heart Rate Ratio Method" (Larry Hoover, 2013) the Research was conducted by Uth et al. (2004) (UTH, N. et al, 2004) found that VO2 max can be estimated indirectly from an individual's maximum heart rate (HRmax) and resting heart rate (HRrest) with an accuracy that compares favorably with other common VO2 max tests. It is given by:

VO2max estimate

VO2 max = 15 x (HRmax ÷ HRrest)

VO2max from Non-Exercise Data (George, J.D et al, 1997) (Jennifer G. Plebani, 2015). The following equation can be used to obtain an estimate of the athletes VO2max based on:

VO2max = 44.895 + (7.042 x Sex) – (0.823 x BMI) + (0.688 x PAR) + (0.738 x PFA1) + PFA3

where: 4 Weight in kilograms 4 Height in meters 4 BMI = Weight / (Height x Height) 4 Sex = Male = 1 and Female = 0 4 PAR = Physical Activity Rating 4 PFA1 = Perceived Functional Ability – 1 mile 4 PFA3 = Perceived Functional Ability – 3 miles. In our case, we calculate Physical Activity Rating (PA-R) and compared it with Jackson et al.
The standard error of estimate for predicting VO2max = ± 3.44 ml/kg/min

D. The Ruffier functional Dickson index test (Roy J. Shephard, 2014)

The efficiency of cardiovascular system is possible to evaluate optimally (beside a detection and assessment of the heart rate zones) by making use of the functional tests. One of them is The Ruffier test, which in simple way and with sufficient rate of reliability sets the functional state of the cardiovascular system and readiness of organism for load. The Ruffier functional test consists of three parts.

In the first part, after the 5 minutes relax, we conduct the measuring of the heart rate in the sitting position (we measure for 10 sec and multiply by 6, or for 15 sec and multiply by 4).

In the second part, we do 30 squats in 45 sec and immediately measure the HR, similarly as in part one.

The last part of the test is again calming down in the sitting position for 1 minute and consecutive measuring of HR.

The index value is calculated from formula: RI = [(S1 + S2 + S3) - 200]/10 (H. Matthys, 2013). The evaluation of the Ruffier functional test:

- till 3,0 - Excellent functional condition;
- 3,1 - 7,0 - Good functional condition;

- 7,1 – 12 - Average functional condition;
- 12,1 - 15,0 - Pour functional condition;
- Over 15,1 - Very poor functional condition (Ramdane Almansba, Stanislaw Sterkowicz, R. Belkacem Katarzyna Sterkowicz-Przybycien, D. Mahdad, 2010)

For the conditions, we a focus on:

- The same marital lifestyle education social status;
- Does not participate regularly in programed recreation, sport, or physical activity
- Their BMI are sub-classifications obese class I, II and II;
- In good health based on diagnostic of them doctors;
- The same level Physical Activity Rating (PA-R).

4. Subjects

Our Samples are housewives Selected by intentional method Represented BY 30 women with their age ≤27 and BMI greater than 35,77 classified as Obese Class I, II, III and selected they avoids walking or physical activity at home listed in Table 2.

Table 2: Expose the Descriptive Statistics

Variables		BMI	HR1	HR2	HR3	Ruffier-Dickson index	Maximum Herat Rate
Class 1	Mean	31,32	139,82	73,82	113,82	12,75	28,41
	N	11	11	11	11	11	11
	SD	1,45	4,51	1,66	4,51	1,06	,35674
Class 2	Mean	35,80	149,77	77,77	123,77	15,13	28,88
	N	9	9	9	9	9	9
	SD	,479	2,11	1,20	2,12	,52	,29
Class 3	Mean	40,64	154,00	78,80	128,00	16,08	29,32
	N	10	10	10	10	10	10
	SD	1,99	2,49	1,03	2,49	,57	,34
Total	Mean	35,77	147,533	76,66	121,53	14,57	28,85
	N	30	30	30	30	30	30
	SD	4,21	6,98	2,59	6,98	1,64	,50

5. Data Analysis

Based on the data retests and the data analysis procedures used in this study consisted of the computation of the means, standard deviations, the Regression, Anova & LSD and Correlation Paired Samples. We have chosen the Descriptive statistics where we have calculated the conditions chosen for this experience. With a Significance level was set at 0.05. Statistical procedures were done using SPSS 21.0.

6. Results

From the Table 2 in general our sample are Overweight or "obese" Class I, II and III based on their BMI thing confirmed by Carolyn Coker Ross (Carolyn Coker Ross, 2009)and Liane Summerfield (Liane Summerfield, 2015). For values VO2max estimate all ours sample are in 50 max hearth rates% based on relates max hearth rates to vo2max listed in table 6.3 according to (John Shepherd, 2013) based on (Corey H. Evans, Russell D. White 2009) it is found that our sample is classified in category poor according to the values standards described by American College of Sports Medicine Standards for man and woman. Whereas the index Ruffier-Dickson is in the benefit of class I which is insufficient adapted to stress in the opposite of class II&III which are poor adapted to effort (Patrick Ledrappier, 2006) from that we calculate the Pearson Correlations to determine the base scientist of these differences.

Table 3: Expose Pearson Correlations of the variables chosen to study

Variables	BMI	HR1	HR2	HR3	Ruffier-Dickson	Maximum Herat
BMI	1	,850**	,913**	,913**	,908**	,840**
HR1	,850**	1	,963**	,963**	,974**	,695**
HR2	,913**	,963**	1	1,000**	,999**	,862**
HR3	,913**	,963**	1,000**	1	,999**	,862**
Ruffier-Dickson index	,908**	,974**	,999**	,999**	1	,840**
Maximum Herat Rate	,840**	,695**	,862**	,862**	,840**	1
**. Correlation is significant at the 0.01 level (2-tailed).						

From the table 3 where we have calculated the Pearson correlation our find confirms:

1. There is a strong positive relationship between the BMI, level index Ruffier-Dickson and vo2max esteemed by Maximum Heart Rate.
2. Based on the level of Ruffier-Dickson and Maximum Heart Rate our sample are poor due to the higher cardiac output, oxygen consumption and minute ventilation at a given work rate (John Porcari, Cedric Bryant, Fabio Comana, 2015) attributable to the ratio of alveolar ventilation (VA) over cardiac output (Q) or ventilation/perfusion ratio (VA/Q) is increased. When dead space/tidal volume ratio is increased, minute ventilation is typically inordinately high for the work rate (Michael S. Sagiv, 2012)
3. Our finding reflects the willingness and ability cardio respiratory capacity (Paul Gamble, 2013) where our field tests revealed the low physical fitness of our obese women due to low levels of habitual physical activity. (Brigham Young

University Alton L Thygerson, Steven M Thygerson, 2015) (Mikael Forglolm, 2001)

4. all variables chosen to study have strong positive correlation. Our results confirm that obese subjects have a higher cardiac output, oxygen consumption and minute ventilation at a given work rate. Our find is correlated to the subjection of Caroline J & all (Caroline J. Hollins Martin, Ronald Ross Watson, Victor R. Preedy, 2013) to classify the the obese person accordingly to Body Mass Index (kg/m2) can score a decrease in maximal oxygen uptake capacity (VO2max).

Based on testes applied in this experience through Table 2 we referee to Vincent Antonetti, PhD (Vincent Antonetti, PhD, 2013) that the field tests are not a laboratory tests. (Vincent Antonetti, PhD, 2013) (Peter B. Bennett, Frans Cronjé, Ernest S. Campbell, 2006) can under predict the aerobic capacity (Susan M. Schembre, PhD, RD and Deborah A. Riebe, PhD, 2011). We confirm that the values obtained from the formulas do not lose them quite accurately due to level fitness of our sample which is poor [36].

In other hand, we confirm based on the similar studies that Field Tests can give a fairly good estimate level of Fitness and health (Vincent Antonetti, PhD, 2013), which is widely used because it requires less effort from the subject (Tommy Boone, 2013). We conclude that cardio respiratory capacity leads to better health and a higher quality of life according to (Wener Hoeger, Sharon Hoeger, 2015) whereas (Frank Rosato, 2011) confirms that Field tests as running and walking tests, have been reported to be highly correlated to VO2max (David P. Johns, Koenraad J. Lindner, 2006). From the approved we recommend our housewives to use the Field tests to predict their Aerobic Fitness and Wellness a test based on cardio respiratory capacity because their level ability of consumption to VO2max do not fit with the intensity of test practiced (Henrik Loe, Sigurd Steinshamn, Ulrik Wisløff, 2014). In order to verify the effects of obese class on cardio respiratory capacity ability we used Anova by LSD to predict reasons for the poor level in a family activity (U. Frey, P.J.F.M. Merkus, 2010) (Karen Mazzeo, Lauren Mangili, 2012) .

Table 4: Effects of body composition by class obese on cardio respiratory capacity

	F	sig	LSD	class I	class II	class III
BMI	105,15	, 00	class I	----	-4,48*	-9,32*
			class II	4,48*	-------	-4,84*
			class III	9,32*	4,84*	----
HR1	40,36		class I	----	-3,95*	-4,98*
			class II	3,95*	----	-1,02
			class III	4,98*	1,02	----
HR2	51,14		class I	----	-9,95*	-14,18*
			class II	9,95*	----	-4,22*
			class III	14,18*	4,22*	----
HR3	51,14		class I	----	-9,96*	-14,18*
			class II	9,96*	----	-4,22*
			class III	14,18*	4,22*	----
IDEX	51,19		class I	----	-2,38*	-3,33*
			class II	2,38*	----	-,95*
			class III	3,33*	,95*	----
vo2Max	19,39		class I	----	-,48*	-,91*
			class II	,48*	----	-,43*
			class III	,91*	,43*	----

Across the Table 4 we confirm the credibility of our data by Baumgartner (Brigham Young University Alton L Thygerson, Steven M Thygerson, 2015) (Q. Ashton Acton, PhD, 2013) which confirm that the effort test must would probably be more suitable for less fit participants. From that we agreed the judgment of Melinda S. Sothern [48] that potential roles of cardiovascular fitness is lies on the highest rate of oxygen use by the body during a progressive exercise test (VO2 max) where VO2max is a physiological predict the healthy level girls, thing which correspond with Rowland et al. found a direct correlation between body mass index and absolute maximal cardiac output thing confirmed by Peter J. Maud (Peter J. Maud, Carl Foster, 2006). An estimation of VO2max can be determined using the distance and time achieved in these events or duration of the event or activity [50]. Whereas (Ted A. Baumgartner, Matthew T. Mahar, Andrew S. Jackson, 2015) confirm that an interaction term that improves prediction accuracy of aerobic fitness, but an important question concerns the validity estimates to predict health risk in our case we select the level BMI where our data confirms deficits caused by this resistance (Zerf Mohammed, 2015). From that we agreed that Aerobic capacity (VO2 max) in obesity in adults, a high fat oxidation rate has been suggested as protecting against subsequent weight gain as well as against body weight gain following slimming (Ted A. Baumgartner, Matthew T. Mahar, Andrew S. Jackson, 2015) In other obese individuals tend to have lower VO2

max per kilogram body weight than non-obese individuals (C Dorathea Andrews, East Carolina University Matthew Mahar, Ted Baumgartner, Dr David Rowe, Andrew S Jackson, 2015), Where the VO2 max is a measure of work capacity. If the obesity is severe, the VO2max may be lower than predicted, indicating impairment (Asbestos Medicine on Trial-A Medical/Legal Outline, 1995) (Frank Hu Associate Professor of Nutrition and Epidemiology Harvard School of Public Health , 2008). Whereas Ronald B. George (Ronald B. George, 2005) confirm the leveling off of Vo2 provides objective evidence that the subject has attained maximal aerobic power. Which explain the decrease VO2 max HRmax and HRrest due to % of BMI form that we agreed the results of James S. Skinner (James S. Skinner, 2005) that aerobic power (VO2max) is reduced in obesity appears to depend on how VO2max is expressed, when it's expressed relative to body. From that we agreed the judgment (Debasis Bagchi, 2010) of Debasis Bagchi that maximum oxygen update (VO2max) is the most common marker of cardiovascular fitness; however, there has commonly been confusion regarding the most appropriate way of expressing VO2max in the obese (Ronald J. Maughan, 2009). Where these finds we confirmed the found of (Melinda S. Sothern, Stewart T. Gordon, T. Kristian von Almen, 2006) that VO2 max is inversely related to body fat — obesity depresses mass-relative aerobic fitness. From the proof, we confirm the credibility of our data based on the Regression of Hawley & Noakes (1992) (HEYWOOD, V, 2006)

On the bottom of our references through table 2, 3 and 4 we confirm that our data statistical analysis line with confirmation of (V.Courtney Broaddus, Robert C Mason, Joel D Ernst, 2015) V. Courtney Broaddus the obese individuals lacking underlying cardiac or pulmonary disease display VO2max lower than predicted whereas Kathleen Keller (Kathleen Keller, 2008) said oxygen uptake (VO2Max), which is an assessment of the greatest rate at which oxygen can be taken in, distributed, and Other components of health-related fitness that are less often correlated with obesity. For that reasons, the risk for multiple diseases, including coronary heart disease, hypertension, osteoporosis, obesity, depression, and Maximum oxygen composition (Vo2 max) is lower in women, largely because of differences in body composition in our case the class of obesity.

7. Discussion

From the approve we confirm that the class obese is important predict of the weakens in the obese individuals where the Obese individuals in general have higher lung volumes (Klaus F. Rabe, Jadwiga A. Wedzicha, Emiel F.M. Wouters 2013) and increased minute ventilation (Forrest O. Moore, Peter M. Rhee, Samuel A. Tisherman, 2012) (Ali

El Solh, 2012) due to lower respiratory rate which we confirms the found of (Joel A. DeLisa, Bruce M. Gans, Nicholas E. Walsh, 2005) in the concept cardiovascular disease due to overweight class and the Physical inactivity as lifestyle where (Kazuyuki Kanosue, Satomi Oshima, Zhen-Bo Cao, 2015) confirm that aerobic exercise is recommended for the prevention of obesity and lifestyle-related diseases. Whereas our results confirm that, the overweight relative to oxygen consumption (VO2max) in obese persons is significantly (David X. Cifu, 2015). For that reason, our data analyses line with confirmation (Undurti N. Das, 2010) that a phenotypic variation is due to energy expenditure and energy intake.

In other hand, we agreed by (T. Douglas Bradley, John S. Floras, 2009) that, the respiratory function in the obese, leptin-resistant zucker rat is characterized by a derangement in structural, neural, and metabolic function. Which we confirm that the effect of obesity on ventilatory response and anaerobic threshold during exercise. while (Claudio Donner, Roger Goldstein, Nicolino Ambrosino, 2005) confirm that growing of the body indicates that, women experience improved health-related physical fitness through exercise physical as well that, Exercise also promotes decreases in body weight and fat stores. From that we line with (Sana Loue, Martha Sajatovic, Keith B. Armitage, 2004) that physical activity is a key factor for improving physical fitness related to health, and has been indicated as a major determinant of bone mass throughout life according to (Kohrt WM, Bloomfield SA, Little KD, Nelson MEYV, 2004) and (Anderson Marques de Moraes,Ezequiel Moreira Gonçalves,Vinicius Justino de Oliveira Barbeta,Gil Guerra, 2013).

8. Conclusion

Our concluded lead us to obese levels which confirmed the finding of Robert W (Robert W. Wilmott, Thomas F. Boat, Andrew Bush, 2012) obesity is responsible for stiffening of the respiratory system, due to decreased lung compliance, which lead to disease conditions, increasing the depth of each breath and increases respiratory rate. whereas Melinda S. Sothern (Melinda S. Sothern, 2014) said that regular physical activity as walking (Shaji John Kachanathu, Sami S Alabdulwahab, Nidhi Negi, Pooja Anand, Ashraf R Hafeez, 2016) is shown to lessen the burden of obesity-related comorbidities, including reductions in blood.

The achievement of cardiorespiratory (aerobic) fitness in particular may provide protection against developing obesity. While overweight and obese individuals are more likely to be sedentary and have lower aerobic fitness levels than non-overweight

persons in both sedentary lifestyle and low aerobic fitness (which can be altered independently of weight loss). (Glenn Gaesser, 2013)

However, an increase in overweight and obesity (Walter Burniat,Tim J. Cole,Inge, 2006) was associated with the decrease in aerobic fitness (P.R. Huotari, 2012). For our experience on this topic, we agreed the recommendation (John Pucher, Ralph Buehler, 2012) John Pucher, Ralph Buehler that the energy cycling requires is provided directly by the traveler, contributing to daily physical activity, aerobic fitness, and cardiovascular health while helping protect against obesity, diabetes, and various other diseases. In other, the lack of physical activity is cardiovascular disease where the Aerobic training involves regular aerobic exercise sessions that are frequent enough to improve cardiorespiratory fitness. Because the "VO2 max" is the maximum amount of oxygen, (mL) consumed per minute per kg body weight, and is a measure of cardiovascular fitness. (Jeffrey I. Mechanick, Elise M. Brett, 2006)

9. Recommendations

Our results are consistent with Neil Armstrong (2008), (Neil Armstrong, Willem van Mechelen 2008) that, the effectiveness of body mass ratio to produce a size-free performance variable can be judged by the relationship between consummation V02 and representation anaerobic power. In other words, the relationship between work output, oxygen consumption, heart rate, and cardiac output during exercise is linear (James T Willerson, Jay N. Cohn, Hein J. J. Wellens 2007). Whereas we expressing this relationship to body weight and studies consistently show a reduced of VO2max in obese person (James S. Skinner, 2005). Through the above that exercise and physical activity have long been associated with a healthy lifestyle, (Irfan Rahman, Debasis Bagchi, 2013) where an active lifestyle can help eliminate health risk factors, (Luke E. Kelly, Vincent J. Melograno, 2014) our finding agreed that the advice of Vincent Antoinette (Vincent Antonetti, PhD, 2013) that women must should have a medical assessment and physical fitness program. From the proofs, we suggest:

- The level Aerobic fitness reflects the overall body physiological capacity. (Marcela González-Gross, y otros , 2014)
- The Physical inactivity contributes to increase oxygen consumption rate due to weight gain who becomes a resistance Furthermore (Zerf Mohammed, 2015)in the repetitive motion work which increases the requirements higher cardiac output, oxygen consumption and minute ventilation at a given work rate.

- VO2max reflects both physiological function (cardiorespiratory power) their level Predict the level of the individual economy in performance Ruffier-Dickson index
- The level Ruffier-Dickson reflects the problems maximal rate of oxygen consumption between inspiration and expiration in exercising where the level of aerobic functioning component provides a better reflection about quality of tasks life. (Winnick, Joseph P., Short, Francis, 2014)
- The level cardiorespiratory fitness reflects the integrative ability of the components of the cardiopulmonary system (i.e., heart, lungs, and blood system) to deliver oxygen to the metabolically active skeletal muscles which (Milenda L lrwin, 2011) provides a better reflection about the status healthy lifestyle housewife
- The ability of the body to do work is Anaerobic system performance which can be reflected in measurements of anaerobic power and anaerobic capacity to predict a healthy lifestyle (Haywood, Kathleen, Getchell, Nancy -, 2014)

10. Our results and aims

- Monitoring the degree of obesity
- Using aerobics sport or aerobics daily active physical tasks More than 50≥ Vo2Max
- integrated physical testing in Medical clinics and health centers
- study the problem posed in other similar studies
- Take advantage of this study in the assessment health fitness and wellness housewives

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