# المجلد (12) العدد (1) <br> لسنة 2020 <br> المجلة العراقية <br> لبـحوث السوزٌ وحماية المستتملك <br> DOI: http://dx.doi.org/10.28936/jmracpc12.1.2020.(13) <br> EVALUATION OF SPORTS AWARENESS AMONG WOMEN AT THE UNIVERSITY OF BAGHDAD FOR THE PERIOD 2011-2016 AND STUDY THE FACTORS AFFECTING THEIR PARTICIPATION IN SPORTS ACTIVITIES 

Hamdia, M. S. Al-Hamdani ${ }^{1}$, Zuhad Fawzi Naji ${ }^{2}$, Fatma Algeribawi ${ }^{3}$<br>${ }^{1}$ Assistant Professor Ph.D., Department of Research and Studies, Market Research and Consumer Protection Centre, University of Baghdad, Baghdad, Iraqcioffi16@yahoo.com<br>${ }^{2}$ Assistant Lecture, Physical Activity Hall, University of Baghdad, Baghdad, Iraq xxxxx@yahoo.com<br>${ }^{3}$ Assistant Professor Ph.D., Physical Activity Hall, University of Baghdad, Baghdad, Iraq xxxxxx@yahoo.com

$$
\text { Received 15/ 1/ 2019, Accepted 23/ 4/ 2019, Published 30/ 6/ } 2020
$$

This work is licensed under a CCBY 4.0 https://creativecommons.org/licenses/by/4.0



#### Abstract

The exercise of activities and sports are of great importance to public health and to maintain the ideal health weight as well as the psychological and mental comfort of humans. The aim of this study is to determine the contribution and participation of educated females in physical activities at the University of Baghdad hall for the years 2011-2016, and to show the factors that influence women's contribution to physical activities at the university by selecting 100 students of males and 100 females' students randomly. During the questioning questions and statistical analysis of the questioning to find out the reasons for the discouraging contribution of the women to the various physical activities and try to find solutions and recommendations to encourage women to participate more with physical activities. The results of the study showed that the percentage of female university students in physical activities participation was 1.2 in 2011, while it was raised to $5.03 \%$ in 2016 . This percentage is very low compared to the number of female students, which is $2.9 \%$ higher than that of males in the university. More than half of the women participating in the sports were overweight and obese, and the proportion of obese women was 59.4 in 2011 and the proportion decreased statistically to 53.3 in 2016. There is a high statistical difference between natural and high weight for the years 2011-2016. It was also found that there is a significant difference of females who suffer from chronic diseases and for all ages of 2011-2016 years. The statistical analysis of the questionnaire questions shows that most respondents did not participate or exercise physical activities, and the high proportion of them prefer to participate to a high degree of sports activities when they have opportunities to participate. It was also found that the large percentage of respondents attributed the reason for not exercising to sports due to lack of time and discouragement by others as well as the lack of places and halls for the exercise of sports activities. The study showed that the high percentage of respondents explained the possibility of increasing the contribution to sports activities for females by increasing the number of places and gymnasiums in all Iraqi cities as well as increasing the awareness of sports and propaganda through the media, through the television screen and the importance of health and clarification through video, The high percentage of respondents encouraged them to their families and friends to engage in various sports activities, and fortunately the economic factor and income is of little importance to those respondents. All of this shows that there is great concern and enthusiasm for physical activities participation's,


## المجلة العراقية

لبحوث السوق وحماية المستهلك
which are understandable for their health importance and for maintaining the ideal health weight, but for the difficult conditions that Iraq is going through and the lack of infrastructure.

Keywords: Female participation, physical activities, overweight and obesity.

DOI: http://dx.doi.org/10.28936/imracpe12.1.2020.(13)
تقييم الوعي الرياضي لاى السيدات في جامعة بغداد للفترة من • Y Y Y Y Y ودراسة العوامل المؤثرة في مشـاركتهن للانشطة الرياضية
3xxxxx@yahoo.com 3اسنتاذ مساعد دكتوره، قسم النشاطات الطلابية، القاعة الرياضية، جامعة بغداد، بغداد، العراق،


يكون لممارسة الانثشطة والالعاب الرياضية الاهمية العظمى للصحة العامة وللحفاض على الوزن الصحي المثالي فضلا عن الراحة اللفسية والعقلية للانسان، وقد شمل البحث معرفة مدى مساهمـة ومشاركة اللبيدات المتعلمات للاللعاب البدنية والرياضية في جامعة بغذاد للسنين من 2011-2016 فضلا عن بيان العوامل المؤثرة والمحفزة في مساهمة الاليدات في الالعاب والالنشطة الرياضية المختلفة في الجامعة وذلك باختيار 100 طالب و100 طالبة عشوائيا ومن خلال طرح الاسئلّة الاستبيانية والتحليل الاحصائي للاستجواب لمعرفة الاسباب الغير مشجعة لمساهمة المر آة للالعاب والانشططة الرياضية المختلفة ومحاولة ايجاد الحلول والتوصيات لغرض حث وتثثجيع النساء للمثاركة الفعلية للالعاب الرياضية،
 وارتفعت الى 5.03\% في عام 2016 وتعتبر هذة النسبة قليلة جدا بمقارنتها مع عدد الطالبات، إذ يزداد بمقارار 2.9 عن نسب الأكور في الجامعة، وتبين ايضا اكثر من نصف اللبيدات المشاركات في الالعاب الرياضية هن من ذلوات الوزا ون العالي واللسمنة المفرطة، ونسبة النساء اللسمينات هي 59.4\% لعام 2016 وانخفضت النسبة انخفاضا إحصائيا الى 53.3 في عام 2016، و هناك فرق إحصائي عالي للوزن الطبيعي والعالي للاعوام 2011-2016، كذلك تبين بان هناك فرق إحصائي معنوي للاناث السمينات يعانين من الامراض المزمنّة ولكل الاععمار المختلفة للاعوام من 2011-2016، ومن التحليل الاحصائي للاسئلة الاستبيانية تبين بأن اغلب المستجوبين لم يشاركوا او يمارسوا الانشطة الرياضية،

 الاخرين وكذلك من عدم توفر الاماكن والقاعات الخاصة بمز اولة الانشطة الرياضية، وبينت الار اسة ان النـة النسبة العالية من
 جميع المدن العراقية وكنلك بزيادة نشر الوعي الرياضي والاعاية عن طريق وسائل الاعلام من خلال شاشة التلفزيون وبيان أهميتها الصحية وتوضيحها عن طريق الفيديوات، وكنلك تبين بان النسبة العالية من المستجوبين بتشثجيعهم لعوائلهم واصدقائهم بمزاولة الانشطة الرياضية المختلفة، ولحسن الحظ ليس للعامل الاقتصادي والاخل أي أهمية تذكر لاى المسلتوجبين.

> الكلمات المفتاحية: مشاركة الإناث، الرياضة والأنشطة البدنية، الوزن الزائُ و السمنة.

## INTRODUCTION

Physical activity popped up everywhere due to awareness of the advantages of sport and physical activities for mental health and especially in preventing mental disorders. Studies in the second half of the last century found that lack of physical activity increases the risk of cardiovascular disease and type 2-diabetes. So, physical activity is a key factor in reducing hyper-insulinemia, insulin secretion and insulin resistance (Rychlewski et al., 1997;

Szcześniak et al., 1997). Overweight and obesity are complex health problems that affect all human around the whole world if not treated. Also, it was found many health conditions associated with overweight and obesity such as hypertension, coronary heart disease, and type 2 diabetes (Ogden et al., 2006). Therefore, the most important and necessary recommendations for people who are overweight or obese with physical inactivity is to change [Therapeutic Lifestyle Changes (TLC)] directly by starting a gradual physical activity with a healthy diet to overcome the diseases associated with obesity. Lifestyle interventions are effective therapies in promoting weight loss and improving coronary heart disease and diabetes risk factors.31, 6165. Fortunately, lifestyle changes including healthy eating patterns, increased physical activity, and weight management often improve the risk factors associated with obesity (Research to Practice Series, No. 7). Also, it was recommended that consuming a diet high in fruits and vegetables is associated with lower risks for numerous chronic diseases, including cancer and cardiovascular disease. Physical activity also increases the utilization of lipid energy sources and hence may induce body mass loss (Renata et al., 2004; Zbigniew et al., 2010).

Women are part of society in this universe, and now occupy more than half of Iraqi society. But their contribution to physical activity is still very low and is restricted by many complexes factors. Now days, the change in daily movement pattern and consequently decrease in motor activities, especially in women, have seriously affected their bodies and muscles by inactivity and physical weakness (Eftekhary et al., 2000). Researchers investigated the main problems hindering the development of women physical activities and different sports are resulted from lack of especial sport space for women, lack of proper culture about this from authorities and public media, and lack of encouraging by their families for training of different physical activities, because of the increasing ignorance and lack of keeping pace with the global developments of sports for the critical reasons that Iraq has experienced wars and siege and religious extremism and abhorrent during the last thirty years (Eftekhary, 2000; Hamdia et al., 2013). For preventing this, creation of facilities and attraction are of effective tools for publicity of sport and at least physical activities among women are very important. So that, this study conducted to evaluate the physical activities levels at women in Baghdad Univ. through 2010-2016. Also, for investigating the affecting factors for increasing female student's participation in physical activities of university compared to men's participation, different indexed are selected such as age, major, housing condition, and anthropometric information. One of other applicable aim of this study is also presentation of solutions for increasing the rate of students' participation in physical activities of the university.

## MATERIALS AND METHODS

This study was conducted at the physical activities hall at university of Baghdad for providing the complete principle records of the women participation's in the sport facilities for all years for two common reasons 1: to see the development of the women that sharing physical activities through the years from 2010 to 2016. 2: to determine the overweight and the obesity in the women of the faculty of the university of Baghdad who attended to the physical activity halls for above years. Also, this study was conducted at student affairs and approvals section/ division of studies, planning and follow-up/ university of Baghdad to determine the affecting factors on the rate of female participation in sport activities of university, different economic, physical, social, and residential indexes are used by random sampling method. Therefore, through questionnaires and via interviews to 200 students ( 100 male and 100 female) randomly distributed then, the statistical analysis system- SAS (2012) program was used to determine the
effect of difference factors on the women's participations at physical activities, Chi-square test was used to significant compare between percentages in this study.

## Measures

## Body mass index determination

Body Mass Index (BMI) is used to show the relative weight for height, is significantly correlated with total body fat content. So, BMI should be used to assess overweight and obesity and to monitor changes in body weight. Height and weight of each participant should be measured in normal clothing, without shoes and socks. Also, standing height was measured to the nearest 0.1 cm by a wall-mounted stadiometer (Holtain Ltd., Crymych, Dyfed, UK). Weight was measured to the nearest 0.1 kilogram (kg) using an Indiana Scale Company model GSE 450 digital scale. Body mass index (BMI) was calculated by dividing the participant's weight in kilograms by the square of their height in meters $\left(\mathrm{kg} / \mathrm{m}^{2}\right)$. Weight classification by BMI, selected for use in this study, are shown in the (Table 1) (WHO, 1997).
Table 1: Classification of overweight and Obesity by BMI (kg/m2Obesity Class).

| Obesity Class |  | BMI (kg/m2) |
| :--- | :--- | :--- |
| Underweight < 18.5 |  | $<18.5$ |
| Normal 18.5-24.9 |  | $18.5-24.9$ |
| Overweight 25.0-29.9 | I | $\mathbf{2 5 . 0 - 2 9 . 9}$ |
| Obesity I (30.0-34.9) | II | $\mathbf{3 0 . 0 - 3 4 . 9}$ |
| Obesity II (35.0-39.9) | III | $\mathbf{3 5 . 0 - 3 9 . 9}$ |
| Extreme Obesity III(40) | 40 |  |

Source adapted from): Preventing and Managing the Global Epidemic of Obesity. Report of the world Health Organization Consultation of Obesity. WHO, Geneva. June 1997.

## Statistical Analysis

The statistical analysis system SAS (2012) program was used to effect of difference factors in study parameters. Chi-square test was used to significant compare between percentages in this study.

## RESULTS AND DISCUSSION

Education level is one of the important indexes of social-cultural which is in close relation with other dimensions of social lives of people. Women with higher education have more complete information about exercising and physical activities provided that facilities and effective areas of participation are provided. In this part, we state the findings show that the percent of ladies attendance to the physical activity gymnasium in the Univ. is very low 1.2 for the year 2011 compared with the total numbers of ladies attendance in the Univ. Hall as shown in (Table 2). The percent increased insignificantly to 5.03 in year 2016. Also it was found almost more than half of them are obese women, which are meaning their attendance due to deal their obesity with physical activity. Also, with coming years obese women attendance increased as shown clearly in (Table 2). Ladies with underweight attendance showed insignificant differences with years coming also. But, there were highly significant differences ( $\mathrm{P}<0.01$ ) of all kinds of obesity with update years. In addition of that, there were a high correlation ( $\mathrm{P}<0.01$ ) between obesity\% and update years. The Chi-square showed statistical significant differences in the results of the variables for the years 2011-2016, where the highest statistical differences for the years 2013-2014 were $31.8 \%$ for female participants of normal weight and the lowest statistical differences for the years 2012-2013 was 18.1 as in (Table 3). As for women with overweight, the Chi-square showed the highest statistical difference for the years 2015-2016, where it was $25.5 \%$ and the lowest statistical difference for the years 2014-

2015, where it was $17.9 \%$. As for women with obesity, the Chi-square showed the highest statistical difference for the years 2012-2013, where it was $60.6 \%$ and the lowest statistical difference for the years 2013-2014, where it was $49.4 \%$. This finding can be attributed that ladies participation of body fitness for just obesity treatment. It was stated that a widespread promotion of regular physical activity is essential not only for weight loss and maintenance, but for many aspects of health (NNSC, 2009).

Table 2: Shows the total percent of the different overweight and obesity women's samples with update years.

| Years | No. of ladies attended the hall | Total no. of female student/ye ars \# | (\%) of ladies attend the Hall | No. of obese ladies | (\%) of under wt. | (\%) of normal wt. | (\%) of over wt. | (\%) of obesity |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011-2012 | 96 | 8304.9 | 1.20 | 57 | 5.2 | 21.9 | 22.9 | 59.4 |
| 2012-2013 | 475 | 10659.3 | 4.50 | 288 | 2.7 | 18.1 | 18.5 | 60.6 |
| 2013-2014 | 409 | 11364.6 | 3.60 | 202 | 2.2 | 31.8 | 19.1 | 49.4 |
| 2014-2015 | 520 | 11054.7 | 4.70 | 297 | 2.1 | 22.9 | 17.9 | 57.1 |
| 2015-2016 | 525 | 10439.5 | 5.03 | 280 | 2.1 | 22.9 | 25.5 | 53.3 |
| Chi-Square | --- | --- | 2.035 NS | --- | $\begin{aligned} & 2.19 \\ & \text { NS } \end{aligned}$ | 8.64** | $8.912$ | 7.62 ** |

** ( $\mathbf{P}<0.01$ ), NS: Non-Significant. \# = Student Affairs and Approvals Section / Division of Studies, Planning and Follow-up/Baghdad Univ.

Obesity is a disease of the modern age, spread throughout the world, especially developed countries and began to spread to replace malnutrition and infectious diseases because it is a key factors in contributing to many common diseases and ill health (Perri et al., 1992). Particularly, obesity known associated with diseases including diabetes mellitus, coronary heart disease, certain forms of cancer, and sleep-breathing disorders (Gutin et al., 1999; Peter, 2000). Therefore, many health concerns have been created for obesity and its impact on public health, so there are a number of studies to reduce obesity and its health effects by increasing the various sports activities with different health food systems (TNF, 2005). Results of this study presented that there was significant correlation ( $\mathrm{P}<0.01$ ) between obese ladies and their having different chronic diseases.

Table (3): Numbers of ladies attended the physical activity hall with age and having chronic diseases in the Baghdad University Hall.

| Years | No. of ladies attended the hall | Age (years) | ladies having chronic disease |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | No. of ladies having chronic disease | (\%) of ladies having chronic disease |
| 2011-2012 | 96 | 16-53 | 15 | 15.6 |
| 2012-2013 | 475 | 18-58 | 100 | 21.0 |
| 2013-2014 | 409 | 18-57 | 100 | 24.4 |
| 2014-2015 | 520 | 18-58 | 120 | 23.1 |
| 2015-2016 | 525 | 18-60 | 150 | 28.6 |
| Chi-Square | --- | --- | --- | 7.718 ** |

** ( $\mathbf{P}<\mathbf{0} .01$ )

## Overweight and obesity determination of the sample:

It was found that body- mass index BMI, the best indicator used frequently in epidemiological studies. Also, it was stated a graded classification of overweight and obesity by using BMI values gives a valuable information about increasing body fatness. Many studies

المجلد (12) العدد (1)
لسنة 2020

المجلة العراقية
لبحوث السوق وحماية المستهسك
have been shown that BMI is significantly correlated with total body fat for most of people (WHO, 2000). Result of this study was shown the high correlation ( $\mathrm{P}<0.01$ ) between the overweight, obesity and all range of the female olds as shown in (Table 4). Also, it was found that correlation is high for 2011 to 2016, that's mean most of female understood the benefit of the exercise for losing weight.

Table (4): The proportion of BMI with age range by update years.

| 2012 / 96 ladies Attended to Hall |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Old range (years) | No. of ladies | BMI |  |  | Obesity |  |  | ChiSquare |
|  |  |  |  |  | BM |  |  |  |
|  |  | $\begin{aligned} & \text { Under wt. } \\ & <18.5 \\ & \text { No. (\%) } \end{aligned}$ | $\begin{aligned} & \text { Normal } \\ & \text { 18.5-24.9 } \\ & \text { No. } \quad(\%) \end{aligned}$ | $\begin{aligned} & \text { Over wt. } \\ & 25-29 \\ & \text { No. (\%) } \end{aligned}$ | $\begin{aligned} & \text { 30-34 } \\ & \text { I } \\ & \text { No. } \quad(\%) \end{aligned}$ | $\begin{aligned} & \text { 35-39 } \\ & \text { II } \\ & \text { No. (\%) } \end{aligned}$ | $\begin{aligned} & 40.0 \geq \\ & \text { III } \\ & \text { No. }(\%) \end{aligned}$ |  |
| 16-26 | 39 | $3 \quad 7.7$ | $7 \quad 17.9$ | 923.1 | $8 \quad 20.5$ | $7 \quad 17.9$ | 512.8 | 5.17* |
| 27-37 | 37 | $2 \mathrm{5.4}$ | $4 \quad 10.8$ | 821.6 | $10 \quad 27.0$ | 924.3 | $4 \quad 10.8$ | 7.53 ** |
| 38-48 | 12 | 0 0 | $21 \quad 175$ | 3 ll | 433.3 | 216.6 | 216.6 | 8.02 ** |
| 49-59 | 8 | 0 0 | 0 0 | 25 | $3 \mathrm{37.5}$ | 3 37.5 | 0 | 10.22 ** |
| 2013 years/475 Attended ladies |  |  |  |  |  |  |  | --- |
| 16-26 | 185 | 73.8 | 2714.6 | 3217.3 | $45 \quad 24.3$ | $55 \quad 29.7$ | 1910.3 | 7.92 ** |
| 27-37 | 120 | 3 2.5 | $30 \quad 25.0$ | $20 \quad 16.7$ | $25 \quad 20.8$ | $32 \quad 26.7$ | $\begin{array}{ll}10 & 8.3\end{array}$ | 7.53 ** |
| 38-48 | 150 | 3 2.0 | $25 \quad 16.7$ | $30 \quad 20.0$ | $32 \quad 21.3$ | 45 30.0 | $15 \quad 10.0$ | 7.80 ** |
| 49-59 | 20 | 0 0 | $4 \quad 20.0$ | $6 \quad 30.0$ | 315.0 | 210.0 | $5 \quad 25.0$ | 7.05 ** |
| 2014 years /409 Attended ladies |  |  |  |  |  |  |  | --- |
| 16-26 | 100 | 44.0 | $30 \quad 30.0$ | $21 \quad 21.0$ | $30 \quad 30.0$ | $22 \quad 22.0$ | 3 3 .0 | 10.48 ** |
| 27-37 | 150 | $2 \quad 1.3$ | $49 \quad 32.7$ | $25 \quad 16.7$ | $30 \quad 20.0$ | $41 \quad 27.3$ | 3 l | 8.96 ** |
| 38-48 | 150 | 3 ll | $50 \quad 33.3$ | $29 \quad 19.3$ | 25 16.7 | $34 \quad 22.7$ | 9 6.0 | 8.41 ** |
| 49-59 | 9 | 0 0 | 111.1 | 333.3 | 333.3 | 222.2 | 0 0 | 9.37 ** |
| 2015 years /520 Attended ladies |  |  |  |  |  |  |  | --- |
| 16-26 | 140 | $3 \quad 2.1$ | 3323.6 | $25 \quad 17.9$ | 4028.6 | $36 \quad 25.7$ | 3 ll | 9.40 ** |
| 27-37 | 160 | 63.8 | 3521.9 | 3018.8 | 3924.4 | $45 \quad 28.1$ | 53.1 | 8.74** |
| 38-48 | 200 | $2 \quad 1.0$ | 4623.0 | 3316.5 | 4924.5 | 50 | $20 \quad 10.0$ | 8.61 ** |
| 49-59 | 20 | 0 0 | $5 \quad 25.0$ | $5 \quad 25.0$ | $5 \quad 25.0$ | 0 0 | $5 \quad 25.0$ | 9.03 ** |
| 2016 years /550 Attended ladies |  |  |  |  |  |  |  | --- |
| 16-26 | 105 | 54.8 | $30 \quad 28.6$ | 3028.6 | $20 \quad 19.0$ | 1918.1 | 10.9 | 9.75 ** |
| 27-37 | 200 | 6 | $40 \quad 20.0$ | $40 \quad 20.0$ | 56 | $54 \quad 27.0$ | $4 \quad 2.0$ | 9.06 ** |
| 38-48 | 220 | 0 0 | $45 \quad 20.5$ | 595 | $60 \quad 27.3$ | $46 \quad 20.9$ | 104 | 8.42 ** |
| 49-59 | 25 | 0 0 | $5 \quad 20.0$ | 5 20.0 | 28.0 | 28.0 | $6 \quad 24.0$ | 8.71** |

* $(\mathbf{P}<0.05)=$ Significant, ${ }^{* *}(\mathbf{P}<0.01)=$ high Significant.

Rate of female and male' Familiarity with physical Activities in Baghdad Universities:
Physical activity is an important factor that effects directly on physical health and also has positive effects on spiritual and mental health. Results of this study showed a low level of participation in sports activities by women and males alike ( $\mathrm{P}<0.01$ ) in Baghdad University.

Table (5): Have you ever participated in physical activities of universities.

| Replay | Yes |  |  | No |  | Maybe |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| Sex | No. | $\mathbf{( \% )}$ | No. | $\mathbf{( \% )}$ | No. | $\mathbf{( \% )}$ | Total |
| Female | $\mathbf{1 0}$ | $\mathbf{1 0}$ | $\mathbf{6 0}$ | $\mathbf{6 0}$ | $\mathbf{2 0}$ | $\mathbf{2 0}$ | $\mathbf{1 0 0}$ |
| Male | $\mathbf{3 0}$ | $\mathbf{3 0}$ | $\mathbf{5 0}$ | $\mathbf{5 0}$ | $\mathbf{2 0}$ | $\mathbf{2 0}$ | $\mathbf{1 0 0}$ |
| Study Area | $\mathbf{4 0}$ | $\mathbf{2 1 . 1}$ | $\mathbf{1 1 0}$ | $\mathbf{5 7 . 9}$ | $\mathbf{4 0}$ | $\mathbf{2 1 . 1}$ | $\mathbf{1 9 0}$ |
| Chi-Square | --- | $\mathbf{7 . 2 5} * *$ | -- | $\mathbf{4 . 3 3} *$ | -- | $\mathbf{0 . 0 0}$ NS | -- |

$*(P<0.05),{ }^{* *}(\mathbf{P}<0.01)=$ Significant, NS: Non-Significant.

Female and Male participation at university
It was found that there were a significantly ( $\mathrm{P}<0.05$ ) willing for the high degree of physical activity participations for both male and female as shown clearly in (Table 6). Also, there were a high significantly ( $\mathrm{P}<0.01$ ) difference willing for medium physical activity degree, and, there were no significant differences for low and very high degree of physical activity for both male and female as shown in following table.

Table (6): If you have the opportunity to participate in physical activities, to what extent Would you like to do the activities.

| Responds | Low |  | Medium |  | High |  | Very high |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Sex | No. | $(\%)$ | No. | $(\%)$ | No. | $\mathbf{( \% )}$ | No. | $(\%)$ | Total |
| Female | $\mathbf{4}$ | $\mathbf{4}$ | $\mathbf{3 0}$ | $\mathbf{3 0}$ | $\mathbf{4 0}$ | $\mathbf{4 0}$ | $\mathbf{2 6}$ | $\mathbf{2 6}$ | $\mathbf{1 0 0}$ |
| Male | $\mathbf{1}$ | $\mathbf{1}$ | $\mathbf{1 5}$ | $\mathbf{1 5}$ | $\mathbf{5 0}$ | $\mathbf{5 0}$ | $\mathbf{3 4}$ | $\mathbf{3 4}$ | $\mathbf{1 0 0}$ |
| Study Area | $\mathbf{5}$ | $\mathbf{2 . 5}$ | $\mathbf{4 5}$ | $\mathbf{2 2 . 5}$ | $\mathbf{9 0}$ | $\mathbf{4 5}$ | $\mathbf{6 0}$ | $\mathbf{3 0}$ | $\mathbf{2 0 0}$ |
| Chi-Square | --- | $\mathbf{2 . 1 6}$ NS | --- | $\mathbf{6 . 7 4} * *$ | --- | $\mathbf{4 . 3 3} *$ | --- | $\mathbf{1 . 6 4}$ NS | --- |

( $\mathbf{P}<0.05$ ), ** $(P<0.01)=$ Significant, NS: Non-Significant.

## Lack of women participation

Today most of people, especially women, are aware of the role and impact of physical activities on human health, but still the rate of participation of physical activity in Iraq is very low compared with developing country. Results of this study demonstrate that women sport and physical activities have been still under the influence of defined gender roles. It was found that the high percent of both female and male attributed the lack of time and encouragement is the big factor that affects the participation of the physical activity attendance. Then, lack of suitable places and physical activities facilities in the capital of Iraq due to the restricted old opinions, religion and frequent ignorance the second factor which affect the physical activities participations. There were no significant differences in other factors such economic, effective believing and stimulant that did not affect the physical activities participations as shown in (Table 7).
Table (7): what are the reasons of the lack of participation in physical activities.

| Responds | lack of time \& encouragement |  | lack of <br> physical <br> facilities$\quad$suitable <br> activity |  | low income |  | believing it not effective |  | lack of stimulant |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sex | No. | (\%) | No. | (\%) | No. | (\%) | No. | (\%) | No. | (\%) |  |
| Female | 60 | 60 | 20 | 20 | 2 | 2 | 10 | 10 | 8 | 8 | 100 |
| Male | 70 | 70 | 10 | 10 | 3 | 3 | 7 | 7 | 10 | 10 | 100 |
| Study Area | 130 | 65 | 30 | 15 | 5 | 2.5 | 17 | 8.5 | 18 | 9.0 | 200 |
| Chi-Square | --- |  | --- | 4.33 * | --- | $\begin{gathered} \hline 0.06 \\ \text { NS } \\ \hline \end{gathered}$ | --- | $\begin{gathered} 0.84 \\ \text { NS } \\ \hline \end{gathered}$ | --- | $\begin{gathered} 0.37 \\ \text { NS } \\ \hline \end{gathered}$ | --- |

* $(\mathbf{P}<0.05)=$ Significant, NS: Non-Significant.


## How to Increase the participation in physical activities

Women are the portion of our society and comprise more than half of the population in Iraq. The present attitude about the participation of women with sport and physical activities has changed compared to that of the past decay. So that creation of facilities and attraction are important and effective tools for publicity of sport and physical activities among women. (Table 8) showed that respondents believed significantly ( $\mathrm{P}<0.05$ ) with increasing the facilities halls in the towns is very important factor for the physical activity participation's. Then, time management is also affective factor significantly ( $\mathrm{P}<0.05$ ). This study is close finding by Zahra \& Hojat (2014).

Table (8): How do you believe to increase participation in physical activities.

| Responds | By increasing |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Facilities halls and equipment |  | Spreading sports awareness |  | Time management |  | Instructors specialized |  |  |
| Sex | No. | (\%) | No. | (\%) | No. | (\%) | No. | (\%) |  |
| Female | 70 | 70 | 10 | 10 | 10 | 10 | 10 | 10 | 100 |
| Male | 80 | 80 | 15 | 15 | 1 | 1 | 4 | 4 | 100 |
| Study Area | 150 | 75 | 25 | 12.5 | 11 | 5.5 | 14 | 7 | 200 |
| Chi-Square | --- | 4.33* | --- | 1.94 NS | --- | 4.51 * | --- | 2.71 NS | --- |

* ( $\mathbf{P}<0.05$ )=Significant, NS: Non-Significant.


## Sex's role in culture on sport and physical activities of women

It was found that there were high significant differences $(\mathrm{P}<0.01)$ between female and males who emphasize physical activity for women participation as shown in (Table 9). Therefore, there is great hope and desire for the participation of girls in sporting activities in the event of the availability of good sports facilities in different cities.

Table (9): Do You Emphasize physical activities for Your Friends and Family women's.

| Replay | Yes |  |  | No | Maybe |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Sex | No. | $(\%)$ | No. | $(\%)$ | No. | $(\%)$ | Total |
| Female | $\mathbf{8 0}$ | $\mathbf{8 0}$ | $\mathbf{1 0}$ | $\mathbf{1 0}$ | $\mathbf{1 0}$ | $\mathbf{1 0}$ | $\mathbf{1 0 0}$ |
| Male | $\mathbf{6 5}$ | $\mathbf{6 5}$ | $\mathbf{3 0}$ | $\mathbf{3 0}$ | $\mathbf{5}$ | $\mathbf{5}$ | $\mathbf{1 0 0}$ |
| Study Area | $\mathbf{1 4 5}$ | $\mathbf{7 2 . 5}$ | $\mathbf{4 0}$ | $\mathbf{2 0}$ | $\mathbf{1 5}$ | $\mathbf{7 . 5}$ | $\mathbf{2 0 0}$ |
| Chi-Square | --- | $\mathbf{6 . 1 8} * *$ | -- | $\mathbf{7 . 2 5} * *$ | --- | $\mathbf{2 . 7 1}$ NS | --- |

** (P<0.01)=Significant, NS: Non-Significant.

How to increase the participation of female students in sports activities at the university
(Table 10) showed that about 30 and $15 \%$ of male and female respectively know creation of opportunities with regard to Spreading sports awareness from $1^{\text {st }}$ year in Univ. to be very important and fundamental with high significant differences ( $\mathrm{P}<0.01$ ). And $20 \%$ and $5 \%$ of male and female respectively believe the important of the Consideration of status of the student by Univ. effect highly and significant differences ( $\mathrm{P}<0.01$ ) the student participations in physical activities. In contrast, there were no significant differences effect between male and female presented encouraged by rewards or by support by the university to be very effective and important factors.

Table (10): What is the best method for participations in physical activities of university.

| Responds | Creation of |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Spreading sports wariness from $1^{\text {st }}$ year in Univ. |  | Encouraged by rewards |  | Support by the university |  | Consider the status of the student by Univ. |  | others |  |  |
| Sex | No. | \% | No. | \% | No. | \% | No. | \% | No. | \% |  |
| Female | 15 | 15 | 40 | 10 | 20 | 20 | 20 | 20 | 5 | 5 | 100 |
| Male | 30 | 30 | 50 | 15 | 15 | 15 | 5 | 5 | 0 | 0 | 100 |
| Study Area | 45 | 22.5 | 90 | 45 | 45 | 22.5 | 15 | 7.5 | 5 | 2.5 | 200 |
| Chi-Square | --- | 6.18 ** | --- | 2.71 NS | --- | 2.71 NS | --- | 6.18 ** | --- | 2.71 NS | --- |

## CONCLUSION

The results of the study showed a still low percentage of females participating in sports activities for the years 2011-2016. It was also found that the most participating women, due to their suffering from overweight and obesity. There was also a strong correlation between women who were obese and chronically disease. Furthermore, other results obtained from statistical analysis of the statistical analysis of questionnaires and respondents show that most of the respondents said that they did not participate in the games before and have a strong desire to exercise when circumstances allow. The findings of this study show that there was a positive and significant relation between spreading sports awareness and consider the status of the student by Univ. with participation rate of students. It seems also that one of the controlling factors for participation in sport activities of female students is the lack of sport facilities, equipment and proper time.

## RECOMMENDAION

The results of the study showed that the percentage of obesity and weight gain in women was high and reached $40 \%$ in Baghdad, where it is high relative to the progress currently made in terms of the culture of deliberation sports daily exercise as well as the importance of public health compared to developed countries, so our recommendation are:

1. The Ministry of Education, Ministry of Higher Education and the Ministry of Education have the responsibility to raise awareness of the importance of sports activities in schools, universities and hospitals through the media and its importance to public health or slimming since childhood.
2. To the previous stakeholders also have to open sports halls and franchise in different places in most of Baghdad's cities and small shops to enable women to participate, especially since most women suffer from the economic problems.
3. Men play an important role in encouraging and supporting women to exercise daily.
4. The Ministry of Sports and Youth has the primary role of continuous awareness of women's daily sport and its health impact through the development of specialized channels for women's sports on television and in various programs that attract attention and purpose.
5. Thus, the specialists in public health science, nutrition science and sports sciences urged the intensification to carry out appropriate research on the attraction, increase and participation of females in various sports activities to promote community health.

## ACKNOWLEDGMENTS

The author's wishes to thank all staff of the Student Affairs and Approvals Section / Division of Studies, Planning and Follow-up/Baghdad Univ., and the Physical activities Hall/ Baghdad Univ. for their providing all the necessary figures and information in this research.

## REFERENCES

I. Eftekhary, A. (2000). Comparison of Different on a Monthly Fitness Schoolgirl. MA Dissertation of Physical Education Sports Science. Azad University of Khorasgan Persian.
II. Gutin B., Owens S., Okuyama T., Riggs S., Ferguson N. \& Litaker M. (1999). Effect of physical training and its cessation upon percent fat and bone density of obese children. Obes. Res., 7, 208-214.
III.Hamdia, M. S. (2013). The effect of maintaining physical fitness (exercising) and weight loss program (regimen) at women's sample. Journal of modern and heritage sciences, 1(3), 327-315.
IV. National Task Force on Obesity. (2005). Obesity: The Policy Challenges. The Report of the National Taskforce on Obesity, Dublin.
V. National Nutrition Surveillance Centre, NNSC. (2009). The Interrelationship Between Obesity, Physical Activity, Nutrition and Other Determinates. Eight in a Series of Position Papers.
VI. Ogden, C. L., Carroll, M. D., Curtin, L. R., McDowell, M. A., Tabak, C. J. \& Flegal, K. M. (2006). Prevalence of overweight and obesity in the united states, 1999-2004. JAMA, 295(13), 1549-1555.
VII. Perri, M. G., Nezu, A. M. \& Viegener, B. J. (1992). Obesity: Definition, Prevalence and Consequences In: Improving the Long Term Management of Obesity: Theory, Research, and Clinical Guidelines. John Wiley \& Sons, p. 3-24.
VIII. Peter, G. K. (2000). Obesity as a medical problem. Nature, 404, 635-643.
IX. Renata, V. S., José, E. \& Rosane, P. P. R. (2004). Effect of physical activity associated with nutritional orientation for obese adolescents: comparison between aerobic and anaerobic exercise. Rev Bras Med Esporte, 10(5), 22-35.
X. Research to Practice Series, No. 7. (2000). Can Lifestyle Modifications Using Therapeutic Lifestyle Changes (TLC) Reduce Weight and the Risk for Chronic Disease.
XI. Rychlewski, T., Szczêœniak, E., Dylewicz, P., Deskur, E., Przywarska, I., Kasprzak, Z., Karolkiewicz, J. \& Konys, L. (1997). The influence of oral glucose intake on binding and degradation of ${ }^{125}$ I-insulin by receptors on erythrocytes as well as on insulin and Cpeptide -insulin by receptors on erythrocytes as well as on insulin and C-peptide serum levels in patients after myocardial infarction and healthy individuals. J. Physiol. Pharmacol., 48,4, 28-39.
XII. SAS, Statistical Analysis System. (2012). User's Guide. Statistical. Version $9.1^{\text {th }}$ ed. SAS. Inst. Inc. Cary. N.C. USA.
XIII. Szcześniak, L., Rychlewski, T., Kasprzak, Z. \& Banaszak, F. (1997). Insulinemia and insulin resistance in obesity-the influence of systematic physical effort. Ann. Diagn. Pediatr. Pathol., 1(3), 22-30.
XIV. World Health Organization, WHO. (1995). Adolescents. In: Physical Status: The Use and Interpretation of Anthropometry. Geneva, 263-311(1995).
XV. World Health Organization, WHO. (1997). Obesity: Preventing and Managing the Global Epidemic. Geneva.
XVI. World Health Organisation, WHO. (2000). Obesity, Preventing and Managing the Gglobal Epidemic. Report of the WHO Consultation of Obesity, Geneva.
XVII.Zahra, S. \& Hojat, A. (2014). Factors affecting females participation in sports activities of Iranian universities with emphasis on feminist attitudes (study case: university of Tehran and Urmia university). Indian, J. Sci. Res., 1(1), 31-37.
XVIII. Zbigniew, K. \& Łucja, P. S. (2010). Effect of diet and physical activity on physiological and biochemical parameters of obese adolescents. Acta Sci. Pol., Technol. Aliment., 9(1), 95-104.

